
 2000-2001 Catalog

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## Student Record Form

## (Application Form)

Providing your Social Security number is voluntary. If you provide it, the college will use your Social Security number for keeping records, doing research, aggregate reporting, extending credit, and collecting debts. Your Social Security number will not be given to the general public. If you choose not to provide your Social Security number, you will not be denied any rights as a student. Please read the statement on page 13 which describes how your number will be used. Providing your Social Security number means that you consent to use of the number in the manner described. Contact the Student Records (Admissions) Office for additional information.


Name: $\qquad$

## Mailing address:

$\qquad$


Telephone: $\frac{\text { County }}{}$| Day |
| :--- |
| ( $)$ |

Have you lived in Oregon 90 days prior to the term you intend to begin? $\square$ Yes $\square$ No
Are you a citizen of the United States? $\square$ Yes $\square$ No
If not, are you a permanent resident of the United States? $\square$ Yes $\square$ No
If you are not a citizen or permanent resident of the United States, of what country are you a citizen or permanent resident? $\qquad$
Name of Country
Resident Alien number: (documentation may be required) $\qquad$

Age: $\qquad$
Veteran? $\square$ Yes $\square$ No

- High school information:

School name:
City:_ State:
$\square$ Received high school diploma or GED
Year received:
Name of last Oregon college attended other than
Chemeketa:
School name:
City:

Did you attend college outside Oregon? $\square$ Yes $\square$ No
If yes, what state?

- Select the three-digit program code from page iv of this catalog that best describes your area of study or area of interest and enter below.


Program title:

- Term I plan to enroll at Chemeketa:
$\square$ Fall (September)
$\square$ Winter (January)
$\square$ Spring (April)
$\square$ Summer (June)
I plan to register for:
$\square$ Non-credit classes only $^{\mathrm{N}}$
$\square 1-5$ credits $^{\mathrm{A}}$
$\square 6-11$ credits $^{\mathrm{B}}$
$\square 12$ or more credits $^{\mathrm{C}}$
$\square$ Evenings only $^{\mathrm{E}}$
Please check one: (voluntary)
$\square$ White ${ }^{1}$
$\square$ African American ${ }^{2}$
$\square$ Hispanic ${ }^{3}$
$\square$ American Indian or Alaskan Native ${ }^{4}$
$\square$ Asian or Pacific Islander ${ }^{5}$
$\square$ Asian or Pacific Islander ${ }^{5}$

Chemeketa Community College releases only very limited information regarding students, including enrollment status, dates of enrollment, degree or certificate earned, program of study, athletic statistics, and honors awarded. If you do not want any person outside the college, including prospective employers, to obtain this information, you must file a Request for Non-Disclosure of Student Information Form with the Student Records (Admissions) Office.

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. No submitted materials will be returned or duplicated.


Return this form to
Student Records (Admissions) Office
Building 2, Room 200
Chemeketa Community College
PO Box 14007
Salem, OR 97309-7070

## For more information

Phone: (503) 399-5006
Fax: (503) 399-3918
www.chemeketa.edu

## PROGRAM CHOICES Select one of the following programs of study:

PERSONAL ENRICHMENT (Classes taken for personal or professional development. You are not seeking a degree.)
(900) Non-credit - Use this code only if all courses are non-credit. (180) Credit

## PROFESSIONAL-TECHNICAL PROGRAMS

## Some programs listed below may have special admission requirements, prerequisites and/or require assessment before admission. Contact the Advising and Counseling Center at 399-5120 for assessment.

(42B) Accounting
(45B) Automotive Technician or Auto Body Repair
(48X) Building Construction Training
(63A) Building Inspection - One-year Option
(63B) Building Inspection - Two-year Option
(43B) Business Technology - Administrative Assistant Option
(43B) Business Technology - Business Assistant Option
(43B) Business Technology - Information Processing Option
(43B) Business Technology - Medical Option
(43B) Business Technology - Office Accounting Option
(43B) Business Technology - One-year Option
(52T) Business Technology - Clerical Basics
(068) Child Development Certificate
(45Q) Civil Engineering Technology
(45H) Computer-Aided Design/Computer-Aided Manufacturing
(12C) Computer Electronics Technology
(42K) Computer Programming
(42T) Computer Programming - Microcomputer Support Specialist
(44K) Criminal Justice (One year Juvenile Corrections Certificate \&
Two year Associates Degree)
(09N) Dental Assisting
(45H) Drafting Technology - CAD
(44M) Early Childhood Education (One- and Two-year)
(16C) Education Certificate
(12C) Electronic Engineering
(48H) Electronic Engineering - Advanced Technology Certificate One-year
(60U) Emergency Medical Technology-Paramedic
(42H) Financial Services (One- and Two-year)
(57P) Fire Prevention
(05F) Fire Suppression
(45Y) Forest Resources Technology
(09Q) Health Services Management - Health Information Technician
(09Q) Health Services Management - Health Services Management
(09Q) Health Services Management - Medical Transcriptionist
(06B) High School Completion
(42P) Hospitality and Tourism Management
(41K) Human Services - Addiction Studies and Social Services
(49H) Human Services - Addiction Counseling Certificate
(160) Industrial Technology
(12C) Integrated Circuit Mask Design
(42D) Management
(45M) Manufacturing Operations
(45M) Manufacturing Technology
(45H) Mechanical Design
(09R) Medical Office Assisting
(12C) Microelectronics/Industrial Electronics
(12J) Network Technology
(08N) Nursing
(191) Pre-Nursing
(705) Occupational Skills Training
(190) Pre-Professional-Technical
(16P) Professional-Technical Teacher Preparation (One- and Two-year)
(42R) Real Estate
(45Q) Survey Technology
(706) Travel Agency Operations
(62A) Vineyard Management
(62D) Vineyard Operations
(45W) Visual Communications
(137) Welding
(136) Welding Fabrication
(62F) Winemaking (Two-year)
$(62 \mathrm{H})$ Winemaking Certificate

LOWER DIVISION COURSES OF STUDY WHICH MAY BE TRANSFERRED TO OREGON'S FOUR-YEAR COLLEGES AND UNIVERSITIES
(210) LDC-Business

Accounting
*** Business Administration
(320) LDC-Computer Sciences
*** Computer Science
(220) LDC-Education
*** Elementary
*** Secondary
(330) LDC-Engineering
*** Engineering
(340) LDC-Forestry
*** Forestry
(280) LDC-General Studies
*** Exploratory
General Studies
Undecided Majors
(275) LDC-Health

Community Health
*** Health Education
*** Nursing
(240) LDC-Home Economics

Child Development
*** Home Economics
(350) LDC-Hotel, Restaurant, and Resort Management
*** Hotel, Restaurant, and Resort Management
(230) LDC-Humanities

Architecture
*** Art
*** English
*** Foreign Languages
*** Journalism
Literature
*** Music
*** Philosophy
*** Speech
*** Theater
(310) LDC-Mathematics
*** Mathematics
(270) LDC-Physical Education/Human Movement Studies
*** Physical Education
(300) LDC-Science
*** Agriculture
*** Biology
*** Chemistry
*** Chiropractic
*** Dental Hygiene
Entomology
*** Geology
Horticulture
*** Oceanography
Physical Science
***Physics
*** Pre-Professional Study (Medicine, Dentistry, and Veterinary Medicine)
*** Zoology
(260) LDC-Social Sciences
*** Anthropology
***Economics
Ethnic Studies
*** Geography
*** History
Law Enforcement-Corrections
*** Political Science Pre-Law
*** Psychology
*** Sociology
Three stars $\left({ }^{* * *}\right)$ indicate which transfer courses of study are included in the college catalog.


## Chemeketa Community College District



## InTRODUCING CHEMEKETA



## Welcome to Chemeketa Community College

## www.chemeketa.edu

Chemeketa is your community college. Our goal is to serve all of our students in every way we can.
You can finish your first two years at Chemeketa, take the professional-technical training you need to qualify for a job, or finish your high school education. You can explore career ideas, retrain or add to your job skills, or get professional help on how to run a business. You can pursue a special interest or broaden your education.
You can fit as much of this as you want into your life. You may go to school full time to finish a one- or two-year program. You may go part time to take a class or workshop or two. You may attend classes and special events on the Salem Campus or at the college's Dallas, McMinnville, Santiam, or Woodburn campuses. We also offer classes in schools and other locations in communities throughout the college district. You can even stay home and take a class by television or computer.

Whatever your goals and interests, we are willing (and usually able) to meet your needs. We want to help you add to the quality of your life.

## What kinds of education does Chemeketa offer?

Basically, Chemeketa has four areas of study:

- Professional-technical education trains students who want to qualify for work in specific fields. We offer more than 40 professional-technical training programs. In some of these, you may earn a Certificate of Completion in one year. In most programs, you may earn an Associate of Applied Science degree. It usually takes two years to meet the requirements; it may take longer if you attend part time or don't have the prerequisite skills.

In addition to vocational classes, our professional-technical programs include general education courses. The aim of these courses is to help you become more competent in writing and mathematics and gain knowledge of humanities, communications, sciences, and social sciences.

- College transfer courses are for students who wish to continue their education at a four-year college or university. If you successfully complete Chemeketa's two-year college transfer program, you may also earn an Oregon Associate of Arts transfer degree. See page 31 for requirements.
Some of our professional and technical programs also include courses which may be transferred for college credit. For more specific information, consult with a Chemeketa counselor or advisor, or with the four-year institution you wish to attend. Generally, transfer courses are numbered 100 or above.
- Lifelong learning is important at Chemeketa. We encourage you to continue to learn throughout your life. We offer many credit and non-credit classes, workshops, and short courses. Chemeketa classes can help you to improve your technical, vocational, avocational, and academic knowledge and skills; to retrain for new positions; and to continue your personal development.
- Developmental skill building classes are offered for people who want to learn basic reading, writing, mathematics, and study skills; finish high school; or learn English as a second language.
Chemeketa schedules classes during the day, evenings, and on weekends.


## Chemeketa's faculty

Chemeketa has over 245 full-time faculty members. In general, faculty who teach college transfer courses have at least a master's degree; some have doctorates. Faculty in professional-technical programs generally have a rich background which combines education with practical, on-the-job experience. In addition, we hire an average of 600 adjunct faculty each year. Many of them teach evening classes on subjects directly related to their full-time jobs in the community.

## AcADEMIC CALENDAR

|  | $\begin{gathered} \text { Fall } \\ 2000 \end{gathered}$ | $\begin{gathered} \text { Winter } \\ 2001 \end{gathered}$ | Spring 2001 | $\begin{aligned} & \text { Summer } \\ & 2001 \\ & \text { (tentative) } \end{aligned}$ | $\begin{gathered} \text { Fall } \\ 2001 \\ \text { (tentative) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Registration Begins | Please chec | each term's Sc | edule of Classes | for registration | formation. |
| Day and evening classes begin | September 25 | January 8 | April 2 | June 25 | September 24 |
| Last day to withdraw and receive a refund | October 6 | January 19 | April 13 | July 6 | October 5 |
| Last day to register or add classes | October 13 | January 26 | April 20 | July 13 | October 12 |
| Audit requests due | October 20 | February 2 | April 27 | July 20 | October 19 |
| Graduation applications for next term due | October 20 | February 2 | April 27 | July 20 | October 19 |
| Holidays | November 10 <br> Nov. 23, 24 | January 15 | May 28 | July 4 | November 12 <br> Nov. 22, 23 |
| Last day to withdraw from classes without responsibility for grades | November 17 | March 2 | May 25 | July 27 | November 16 |
| Review and final exams | December 11-14 | March 19-22 | June 11-14 | August 13-16 | $\begin{aligned} & \text { December } \\ & 10-13 \end{aligned}$ |
| End of term | December 15 | March 23 | June 15 | August 17 | December 14 |
| Graduation <br> GED and High School Completion One- and two-year programs |  |  | June 16 ( 3 p.m.) <br> June 16 (7 p.m.) |  |  |

## How are we supported?

As a public institution, most of the college's financial support comes from local property taxes, state school support funds, tuition, and fees.

## What is our history?

Chemeketa's roots began in 1955 when the local school district established Salem Technical Vocational School. The community college district was formed in September 1969.

## Our credentials

The Northwest Association of Schools and Colleges granted full accreditation to Chemeketa in December 1972. In addition, the Oregon Department of Education has approved all of our pro-fessional-technical programs and college transfer courses. Professional associations have also accredited those pro-fessional-technical programs which require approval.
For more information on accreditation and approvals, contact the office of the Vice President of Academic Services in Building 5 on the Salem Campus at (503) 399-5144.

## Where is Chemeketa?

The Chemeketa Community College district covers more than 2,600 square miles in Oregon's Mid-Willamette Valley. It includes Marion, Polk, most of Yamhill, and part of Linn counties. We consider the entire college district as our campus. Our 194-acre main campus is located at 4000 Lancaster Drive N.E., Salem. We have campuses in Dallas, McMinnville, Sublimity, and Woodburn. We also schedule credit and non-credit classes, workshops, seminars, and special programs in about 25
communities throughout the college district. These classes meet during the day, evening, and on weekends in schools, businesses, churches, and homes.
Our Training and Economic
Development Center is located in Liberty Square, at 365 Ferry Street S.E., in downtown Salem.

## What kind of facilities does Chemeketa have?

Chemeketa's Salem Campus has 10 major buildings and a number of smaller buildings. Building 2 houses Counseling Services, Tutoring Services Center, Study Skills Center, and the Planetarium.
The Learning Resource Center is located in Building 9. It includes Media Services, where you may access videos and other audio-visual materials, and the Library, where you may access books, journals and magazines. The Learning Resource Center also includes a television studio, teleconferencing capability, and facilities for audio, graphics and multimedia production. The Technology Classroom Building has up-to-date computer labs and an auditorium. A variety of lectures and performances are scheduled throughout the year in the auditorium.
Our science and health building has modern, well-equipped laboratories for science and health-related programs. In the physical education building are workout and weight rooms, racquetball courts, and a gymnasium. Other buildings provide modern classrooms, and welding and manufacturing shops. There is a fire-training building that also serves as a fire station.

For more information about facilities on the Salem Campus, contact the Facilities Scheduling Office in Building 2 or call (503) 399-5008. Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses have classrooms, up-to-date laboratories, and offices.

## Who are Chemeketa's STUDENTS?

You will not find a "typical" student at Chemeketa. Our students are all ages and they have many different goals. Some people come to Chemeketa to train or retrain for new careers or to update their professional-technical skills; others return to school to increase their knowledge, learn new skills, or to get to know more about themselves and their relationships with other people.
Some of our students attend full time, others, part time. Many combine work and school.
About 50,000 people enroll in Chemeketa classes and workshops every year. Each term, about 5,000 students are enrolled full time.

## The Chemeketa Creed

The Chemeketa Creed is part of the Student Rights and Responsibilities Document which can be found on pages 182 and 183 of this catalog. The creed lists standards of behavior expected of students as they become members of our educational community.
1.0 Preamble

Chemeketa Community College
provides an environment that celebrates the freedom to learn and the freedom to teach. In that celebration of teaching and learning it is appropriate that individu-

## CHEMEKETA COMMUNITY COLLEGE

## VISION

We are a dynamic community of learners and innovators, working together to create opportunities for people to reach their potential through learning.

## MISSION

We inspire people to achieve intellectual growth, personal fulfillment and career success through a lifetime of learning.

## VALUES

Creativity Through reflection, analysis, and imagination, we design our programs and services to meet changing needs.
Caring Each individual contributes to our learning environment. We care for and respect each other.
Collaboration We invent resourceful and innovative solutions in partnership with others. We respond with optimism and enthusiasm to opportunities for positive change.

Integrity We provide current, effective educational services of the highest quality. We are responsible guardians of the public trust.
Diversity We are enriched by the diversity of our students, staff, and community. We welcome diverse perspectives and encourage the free exchange of ideas.
Approved by the Board of Education September 15, 1999
als and groups be viewed with regard to their potential to contribute within the learning environment. Each has dignity and value.

### 2.0 Code of Behavior

As a community of people seeking education, Chemeketa students are dedicated to improving personally and academically. Choosing to join the college community obligates each member to a code of behavior.

Chemeketa students will:
2.1 Practice personal and educational integrity.
2.2 Maintain standards of academic performance and contribute to the safe, cooperative and respectful learning environment throughout the college.
2.3 Discourage bigotry and respect the diversity and dignity of all persons.

### 2.4 Respect the rights and

 property of all persons.2.5 Bear the ultimate responsibility for the effects of their decisions and behavior.

### 3.0 Student Rights

Each student in the college community has certain rights that accompany his/her responsibilities. Those rights are to be protected by both students and staff regardless of an individual's race, sex, religion, color, creed, disability, sexual orientation, political affiliation, national origin, ancestry, or age.
The college will:
3.1 Provide access to education and campus facilities.
3.2 Assure the protection of confidential student records and information.
3.3 Provide opportunities for association and preserve freedom of expression.


Who may enroll at Chemeketa?

Student Records (Admissions) Office, (503) 399-5006; FAX, (503) 399-3918 e-mail: admissions@chemeketa.edu
Chemeketa has an "open door" policy. In general, you may enroll in Chemeketa classes if you are 18 years of age or older and can benefit from the instruction.
Students younger than 18 who do not have a high school diploma or GED certificate should contact the Students Records (Admissions) Office in Building 2 on the Salem Campus.
The table on page 5 lists the enrollment steps. Updated information is published each term in the Schedule of Classes.
You will find a Student Record Form on page iii in the front of this catalog. Before you submit this form, contact Counseling Services in Building 2 on the Salem Campus at (503) 399-5120. Talk with a counselor about your academic and occupational plans and the requirements for the program which interests you. You may also meet with a counselor at Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses.

## Placement tests (503) 399-6556

If you are a new student and taking six or more credits, Chemeketa requires you to take a free placement test in order to be accepted for admission. Test results more than five years old are not valid. The purpose of the test is to determine your skill levels in reading, writing, and mathematics. Under certain conditions, you may be granted a test waiver.
Information about tests and test waivers may be obtained from Counseling Services in Building 2 on the Salem Campus or from Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses.

## Registration orientation

(503) 399-5120

Students admitted fall term will be invited to an orientation session before the term begins. The orientation will introduce you to Chemeketa's Salem Campus and registration services, provide an opportunity for you to obtain your parking permit and student identification card, and enable you to buy books and to meet other students.

## TOURS OF CAMPUS

(503) 399-3995

Tours of campus are available through the Chemeketa Internship Program (ChIPs) in the Student Life Office, Building 3, Room 101. You may stop by or call to schedule a student-guided tour.

## Registration

(503) 399-5001

For information, see How to Enroll at Chemeketa on page 5. Each term the Schedule of Classes gives the specific registration dates and step-by-step procedure for registering for classes.

You will receive college credit only if you officially register for the class during the term in which it is offered.

You may not register if you owe the college any money from previous terms unless you make satisfactory arrangements with the Business Office in Building 2.


## How to Enroll at Chemeketa

| Student Classification | 1. Academic and career decision making | 2. Placement testing | 3. Applying for admission | 4. Registration for classes |
| :---: | :---: | :---: | :---: | :---: |
| Enrolling for MOST Salem Campus classes *** | Contact Counseling Services, Building 2, Salem Campus (optional). | Contact Counseling Services, Building 2, Salem Campus. | File Student Record Form with Enrollment Services, Building 2, Salem Campus. | New Students—Register following directions sent by Enrollment Services Continuing StudentsRegister by touch-tone telephone following directions published in the quarterly Schedule of Classes. |
| Enrolling for classes held outside of Salem | Call the college's Dallas, McMinnville, Santiam or Woodburn campuses or contact Counseling Services, Building 2, Salem Campus. | Contact nearest Chemeketa campus. | File Student Record Form at the nearest Chemeketa campus or with Enrollment Services, Building 2, Salem Campus. | New Students-Follow procedure above for enrolling on Salem Campus. <br> Continuing StudentsFollow procedure above for enrolling on Salem Campus. |
| Enrolling for Salem evening, weekend, or non-credit classes | Contact Counseling Services, Building 2, Salem Campus, (optional). | Contact Counseling Services, Building 2, Salem Campus, (optional). | File Student Record Form with Enrollment Services, Building 2, Salem Campus. | Follow procedure above for enrolling on Salem Campus or <br> Register by touch-tone telephone following directions published in the quarterly Schedule of Classes. |
| Interested in GED or English as a Second Language (non-credit). | Contact Developmental Education Office, Building 22, Salem Campus; or the college's Dallas, McMinnville, Santiam or Woodburn campuses. During summer, contact the Developmental Education Office, Building 22. | GED: Contact Developmental Education Office, Building 22. <br> ESL: Contact ESL Office, Building 22, Salem Campus. | File Student Record Form with Enrollment Services, Building 2, Salem Campus. Students 16 to 18 must have an Underage Consent Form. | Consult quarterly Schedule of Classes. Open entry during term. |
| Interested in earning a high school diploma | Contact the Winema School Office, Building 50, Salem Campus; or the college's Dallas, McMinnville, Santiam or Woodburn campuses (optional). During summer, contact the Developmental Education Office, Building 22. | Contact Counseling Services, Building 2, Salem Campus. | File high school transcript with Winema School Office, Building 50, Salem Campus. <br> File Student Record Form with Enrollment Services, Building 2, Salem Campus. Students 16 to 18 must have an Underage Consent Form and be referred by the Downtown Learning Center if living in the Salem-Keizer School District. | Follow directions sent by Enrollment Services before registration. |
| * These programs have prerequisites and require assessment before admission. Contact Counseling Services at (503) 399-5120 for assessment. |  |  |  |  |
| Accounting <br> Automotive Technology <br> Business Technology <br> Civil Engineering <br> Technology <br> Computer Programming | Criminal Justice <br> Dental Assisting <br> Drafting Technology- <br> CAD <br> Early Childhood Education <br> Education Certificate | Electronics Technologies <br> Financial Services <br> Forest Resources <br> Technology <br> Health Services <br> Management | Medical Transcription <br> Hospitality and Tourism <br> Management <br> Human Services <br> Management <br> Manufacturing Engineering | Technologies <br> Medical Office Assisting <br> Real Estate <br> Visual Communications <br> Vineyard Management <br> Winemaking |
| ** These programs have special admission requirements or enrollment limits. Contact Enrollment Services at (503) 399-5006 for details. |  |  |  |  |
| Building Inspection <br> Emergency Medical Technology Fire Suppression | Network Technology <br> Nursing (RN, LPN, <br> Nursing Assisting, re-entry course) |  |  |  |

## Class loads <br> (503) 399-5001

If you enroll in 12 or more credit hours, you are considered full time for academic purposes.

## Class changes

(503) 399-5001

You may make changes in your class schedule before the deadline listed in the Academic Calendar on page 2. To make changes, please call the touchtone registration system or complete a Student Schedule Change (add-drop) Form. Forms are available in the Enrollment Center, staff offices, and Counseling Services. We recommend the changes be approved by your academic advisor. Turn in the form at the Enrollment Center in Building 2. A fee may be charged for adding or dropping classes.

## Enrollment limitations

Even though Chemeketa has an open door policy, we cannot guarantee that you will be admitted to a particular program. The college may restrict enrollment in a class or program because of limited staff, space, or equipment. Enrollment is also limited for some programs because of special admission requirements.
We urge you to apply early for all programs, especially for the following pro-fessional-technical programs which limit enrollment or have special admission requirements:

Accounting
Automotive Technology
Building Inspection
Business Technology
Civil-Structural Engineering
Computer Programming

Criminal Justice
Dental Assisting
Drafting Technology-CAD
Early Childhood Education
Education Certificate
Electronics Technologies
Emergency Medical TechnologyParamedic
Financial Services
Fire Protection Technology
Forest Resources Technology
Health Services Management
Hospitality and Tourism
Management
Human Services
Management
Manufacturing Engineering Technologies
Medical Office Assisting
Medical Transcription
Network Technology
Nursing (Nursing Assisting, Practical Nursing, Associate Degree
Nursing, and re-entry courses)
Professional-Technical Teacher Preparation
Real Estate
Visual Communications
You may still be admitted to the college even though you are not accepted in one of these programs. You may apply to enroll in a related pre-vocational program or some other program.
Many of Chemeketa's professionaltechnical programs have established entry requirements. If you wish to take six or more credit hours in these programs, you will need to be assessed and may need to take preparatory courses before being admitted. For details about these requirements, check with
Counseling Services.

## Immunizations

The Oregon Department of Health requires community college students born on or after January 1, 1957 to have two doses of measles vaccine before
participating in clinical experiences in allied health and nursing programs, practicum experiences in education and child care programs, and intercollegiate sports. Students in nursing programs and in some allied health programs may also be required to be vaccinated for hepatitis B prior to entering any clinical experiences. For details about these requirements, contact the office of the department director who oversees the program in which you plan to participate.

## Transfer credits from OTHER COLLEGES, CLEP, Advanced Placement, and THE MILITARY <br> (503) 399-5006

You may transfer credits from other colleges you have attended by requesting each of them to send an official copy of your transcript to our Student Records (Admissions) Office. (Official copies must include a signature from the issuing institution and its authorized seal and be delivered to Chemeketa in a sealed envelope.) You may then contact the Student Records Office and request, in writing, an evaluation of your transcripts.
If you need a copy of your transcript for your records or for advising, please order additional copies sent to your home address.
In general, Chemeketa accepts collegelevel credits earned at a regionally accredited college or university. Work from unaccredited schools is evaluated in accordance with the institutions and policies listed in Transfer Credit Practices, published by the American Association of Collegiate Registrars and Admissions Officers. Credit given for a particular course will not exceed credit

## Affirmative action and non-harassment policy

## It is the policy of

 Chemeketa Community College that discrimination on the grounds of race, color, religion, sex, national origin, marital status, age, disability, or family relationships will not exist in any area, activity, or operation of the college as required byTitle IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973; Title VI and VII of the Civil Rights Act of 1964; the Age
Discrimination Act; the Americans with Disabilities Act of 1990; Oregon Civil Rights Law
(ORS659); and their implementing regulations.
College policy also prohibits harassment on the basis of any of the factors listed above. Harassment is any unwelcome behavior or display either verbal, physical, or visual in nature, which meets any of
these criteria: 1) submission to such condition is either an implicit or explicit condition of employment or academic performance; 2) submission to or rejection of the condition by an employee or student is used as the basis for decisions affecting that person's employ-
ment or academic performance; 3) the condition has the purpose or effect of unreasonably interfering with an individual's work performance or academic performance or of creating an intimidating, hostile, or offensive work environment or academic environment.

Questions or complaints may be directed to Mariann Hyland, Affirmative Action Officer, P.O. Box 14007, Salem, Oregon 97309, (503) 399-8677.
given for the equivalent corresponding Chemeketa course.
If you have taken the College Level Examination Program (CLEP) or the Advanced Placement (AP) Test, request that your scores be forwarded to the Student Records (Admissions) Office. Then contact the Student Records Office and request, in writing, an evaluation of your transcripts and scores. For more CLEP and Advanced Placement information, see page 15 .
Chemeketa also accepts some credits from the military and the Community College of the Air Force. Contact the Students Records Office for details.

Your accepted transfer credits and scores will become part of your permanent record at Chemeketa. Only the course grades you earn at Chemeketa are used to compute your grade point average.

## International students

(503) 399-5141; FAX: (503) 399-2519 e-mail: international@chemeketa.edu
Currently at Chemeketa there are about 200 international students representing a variety of cultures and ethnicities. They come from more than 20 different countries. Students may enroll in any of our professionaltechnical programs or college transfer programs or attend intensive English language training.
Chemeketa offers an outstanding range of international student services and activities to help students get started and to succeed through the Student Life Office, Building 3, Room 101. Some of these services include: an orientation program; conversation partners; drop-in advising; volunteer opportunities; housing
assistance; writing center; academic tutoring; and clubs.
If you are a citizen of another country, you may enter the college any term, four times a year. You must meet certain federal immigration and college requirements before being admitted to Chemeketa. Once you are admitted you are expected to maintain levels of academic achievement acceptable to the United States Immigration Service and to the college. Chemeketa has special application materials and deadlines for international students. Chemeketa has established enrollment limits for international students. We suggest you apply as early as possible. For current information on admissions requirements and the schedule for orientation and enrollment, contact Teter Kapan, International Student Services.

## Readmission

(503) 399-5006

If you are a former Chemeketa student who was not enrolled in the college within the past year, and you wish to return to the college, follow the enrollment steps for new students given in the How to Enroll at Chemeketa table on page 5.


## Tution

## (503) 399-5011

Tuition and fees are due when you register. If your credit is in good standing, you may pay tuition in installments,
with one-third of the amount due plus a non-refundable $\$ 20$ contract fee to be paid at registration.

## Credit courses

Use the chart on the next page to calculate the cost of your credit tuition. Some classes charge fees in addition to tuition. Fees are noted in the course descriptions which begin on page 115 .

## Non-CREDIT COURSES

The cost of most non-credit courses is $\$ 2.50$ per class hour with a $\$ 10$ minimum charge, or as stated in the term Schedule of Classes.
There is no charge for adult basic education, General Educational Development (GED), and most noncredit English as a second language classes. There is a $\$ 55$ fee to take the GED test.
Certain courses, particularly some training classes, may require separate registration and tuition. For some classes, there are additional charges to cover the costs of required materials.

## Older adult tuition

(503) 399-5140

If you are 62 years of age or older, you pay only 35 percent of tuition (minimum \$10) plus fees for most classes offered by the college. Some scholarships are available for those who may need tuition assistance.

## Oregon residency

You are considered an Oregon student if you have established a permanent residence within the state at least three months before you register for the first time. The college may ask you to provide information proving you meet the residence requirement.

## Política de acción afirmativa y Contra el acosamiento

Es la política de Chemeketa Community College que no existirá ninguna discriminación o acosamiento a base de raza, color de piel, religión, sexo, origen nacional, estado civil, edad, incapacitación o estado familiar, en ninguna área, actividad u operación del colegio, así
como requiere el Título IX de las Enmiendas Educativas de 1972; la Sección 504 del Acto de Rehabilitación de 1973; los títulos VI y VII del Acto de Derechos Civiles de 1964; el Acto contra la Discriminación a Base de la Edad; el Acto a Favor de los Americanos con Deshabilidades de 1990;
la Ley de Oregon de Derechos Civiles (OR5659); y sus regulaciones correspondientes.
La política del colegio también prohíbe el acosamiento a base de todos los factores arriba mencionados. El acosamiento se define por cualquier comportamiento
o demostración inoportuno, sea verbal, físico o visual, el cual se conforma con cualquiera de la siguiente criteria: 1) la sumisión a tal condición se entiende como una condición implícita o explícita del empleo o del cumplimiento académico; 2) la sumisión a o el rechazo de la condición por un
empleado o estudiante es usado como la base de decisiones que afectan el empleo o el cumplimiento académico de esa persona; 3) la condición tiene el propósito o el efecto de interferir inmoderadamente con el cumplimiento laboral o académico del individuo, o de crear un ambiente laboral o
académico intimidante, hostil u ofensivo.
Preguntas o quejas deben ser dirigidas a la oficial de acción afirmativa Mariann Hyland, P.O. Box 14007, Salem, Oregon 97309-7070,
(503) 399-8677.

| Credit Class Tuition | No. of <br> Credit Hours |  |  |  | Oregon <br> Students | Out-of-State <br> Students | International <br> Students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\$ 38$ | $\$ 132$ | $\$ 152$ |  |  |  |  |
| 2 | $\$ 76$ | $\$ 264$ | $\$ 304$ |  |  |  |  |
| 3 | $\$ 114$ | $\$ 396$ | $\$ 456$ |  |  |  |  |
| 4 | $\$ 152$ | $\$ 528$ | $\$ 608$ |  |  |  |  |
| 5 | $\$ 190$ | $\$ 660$ | $\$ 760$ |  |  |  |  |
| 6 | $\$ 228$ | $\$ 792$ | $\$ 912$ |  |  |  |  |
| 7 | $\$ 266$ | $\$ 924$ | $\$ 1064$ |  |  |  |  |
| 8 | $\$ 304$ | $\$ 1056$ | $\$ 1216$ |  |  |  |  |
| 9 | $\$ 342$ | $\$ 1188$ | $\$ 1368$ |  |  |  |  |
| 10 | $\$ 380$ | $\$ 1320$ | $\$ 1520$ |  |  |  |  |
| 11 | $\$ 418$ | $\$ 1452$ | $\$ 1672$ |  |  |  |  |
| 12 | $\$ 456$ | $\$ 1584$ | $\$ 1824$ |  |  |  |  |
| 13 | $\$ 494$ | $\$ 1716$ | $\$ 1976$ |  |  |  |  |
| 14 | $\$ 532$ | $\$ 1848$ | $\$ 2128$ |  |  |  |  |
| 15 | $\$ 570$ | $\$ 1980$ | $\$ 2280$ |  |  |  |  |
| 16 | $\$ 608$ | $\$ 2112$ | $\$ 2432$ |  |  |  |  |
| 17 | $\$ 646$ | $\$ 2244$ | $\$ 2584$ |  |  |  |  |
| 18 | $\$ 684$ | $\$ 2376$ | $\$ 2736$ |  |  |  |  |
| Over 18 hours: Multiply the number of credit hours by the cost given for one credit hour. |  |  |  |  |  |  |  |

You are considered an out-of-state student if your permanent address is outside of Oregon. If you are an international student who is required to have an I-20 immigration document, you are considered an international student as long as you are required to have that document.

## Auditing courses

## (503) 399-5001

If you enroll in credit courses but do not wish to receive grades or credits, you may register as an auditor. However, you must pay full tuition and fees. Pick up and turn in an Audit Request Form at the Enrollment Center in Building 2 before the end of the fourth week of the term.

## Tuition refund policy

If the college cancels a class, we will refund your tuition. Some financial aid students may be subject to a separate refund policy. You will not receive a refund if you are suspended from the college.

If you decide to withdraw from Chemeketa during the first two weeks of a term, you may receive a tuition refund. See detailed information under Withdrawal from College, page 15.

## OTHER COSTS AND FEES

(503) 399-5011

The cost of books and supplies for fulltime students is about $\$ 200$ per term. However, in some of our programs you will also have to provide your own tools, equipment, and uniforms. These costs are included in the descriptions of professional-technical programs on pages 44 to 114 .
Fees vary by the course. They are included in the course descriptions in this catalog.
You may rent a hall locker for $\$ 5$ a term. Our physical education locker and towel fee is $\$ 15$ if you are not enrolled in a PE class.
Contact the Cashier's Office in Building 2 on the Salem Campus for more information on fees and program costs.

## STUDENT HEALTH AND ACCIDENT INSURANCE (503) 399-5011

Student insurance may be purchased directly from the insurance company. If you are enrolled for six or more credit hours, you may pick up insurance information at the Cashier's Office in Building 2. If you enroll in Chemeketa fall, winter, or spring terms, you may purchase coverage to include summer term.
Chemeketa encourages you to buy insurance coverage if you are enrolled in classes involving risk and/or much physical activity. In some classes and activities where good safety practices are required, students will be asked to sign a Risk Waiver Form.
Chemeketa requires all F-1 international students to obtain health and accident insurance. You must purchase insurance at the time of registration. International students should contact the Student Records (Admissions) Office at (503) 399-5006 for further information.

## VETERANS' SERVICES

(503) 399-5004
e-mail: veterans@chemeketa.edu
The Veteran Services Office in Building 2 provides information and assistance to veteran students and eligible dependents on applying for and using all types of veteran educational benefits.
Chemeketa processes a veteran's application for certification as well as the necessary supporting documents (DD214, etc.) according to VA regulations. We forward certification information to the VA regional office. Usually this completes the application process for VA educational benefits. You must submit a Student Record Form to the Enrollment Center in Building 2.
If you have attended other colleges, arrange to have transcripts of your credits sent to the Student Records Office and request an evaluation.
Policy of satisfactory progress: In accordance with a Veterans Administration directive, if you receive veterans' educational benefits and are enrolled halftime (six credit hours) to full-time (at
least 12 credit hours), you must comply with the following regulations:

- Receive no more than 44 deficiency course units over a two-year period.
- Accumulate a minimum grade point average (GPA) of 2.0 in your program. GPA is based on $A=4, B=3$, $\mathrm{C}=2, \mathrm{D}=1, \mathrm{~F}=0$.
- Make any changes which affect your certification status by the end of the fourth week of a term.
- Complete all certified credit hours in which you are enrolled.
Any term your GPA falls below 2.0 or you do not satisfactorily complete the required hours listed above, the veterans' specialist will advise you that you are on probation. If you do not maintain the GPA and/or credit hour requirements for two consecutive terms, a notice of unsatisfactory progress will be forwarded to the VA regional office.
Once you are placed on unsatisfactory progress, you must enroll in, and complete, one term before the Veterans' Clerk will submit your records to the VA for recertification. During this term, you must maintain the same credit-hour level as you did when you were certified. You must earn a minimum 2.0 GPA for the term.


## Financial aid

## (503) 399-5018

At Chemeketa, we believe that you, as a student, along with your family, are responsible for paying for your education. However, if you do not have enough money to attend Chemeketa, please contact our Financial Aid Office in Building 2 on the Salem Campus. We are ready to help you apply for grants, loans, and part-time jobs.

## Are you eligible?

To qualify for financial aid, you must:

- Be at least 18 years of age or have a U.S. high school diploma or a General Educational Development (GED) high school equivalency certificate, or have the ability to benefit from a college education.
- Be a United States citizen or able to provide I-94 or other documents showing you are an eligible noncitizen.
- Be registered with Selective Service if you are a male born after December 31, 1960. (If you are now on active duty in the United States Armed Forces-not the reserves-you do not have to be registered.)
- Show need for financial help.
- Enroll in a degree program or a certificate program at Chemeketa.
- Enroll in six or more credit hours at Chemeketa with these restrictions:

1) If you wish to receive aid as a full-time student, you must register for 12 or more credit hours.
2) You may not include audited and non-credit courses in these totals.
3) You may not count a repeated course. An exception may be made if an instructor recommends, in writing, that you repeat a course in which you earned lower than a C grade.
4) You may count up to 45 credit hours of developmental courses which were recommended by your advisor.

- If you do not have a U.S. high school diploma or GED, you must score at or above 34 in the reading and writing sections and at or above 33 in the numerical skills section of the college's placement test. If you score below 34 or 33 , you may not be eligible for financial aid. However, you may be eligible to retake the placement test. Contact the Advising and Counseling Center.


## What kinds of financial aid are available?

There are three kinds of financial aid available for students enrolled at Chemeketa:

- Grants and scholarships which you do not repay.
- Loans which you must repay.
- Part-time jobs.

For detailed information, read the chart on pages 10 and 11.

## How to apply

Follow these steps to apply for financial aid:

- Pick up (or ask us to mail you) a Free Application for Federal Student Aid (FAFSA) at the Financial Aid Office on the Salem Campus or at the college's Dallas, McMinnville, Santiam, or Woodburn campuses.
- Fill out and mail your FAFSA, following directions on the form. Be sure to list Chemeketa as the college you are or will be attending. Chemeketa's college code is 003218.
- Take Chemeketa's placement test. Contact Counseling Services on the Salem Campus or Chemeketa's Dallas, McMinnville, Santiam, or Woodburn campuses for details.
- Apply for admission to Chemeketa.


## The Meaning of Chemeketa

The name Chemeketa is a Native American word meaning "place of peace." Long before settlers came to this area, Willamette Valley Native Americans would gather at a place they called Chemeketa, today known as Salem. There they conducted their councils, renewed friendships, and shared old
ideas and cultivated new ones. It is hoped that many who come to Chemeketa today will do just that.
The meaning of Chemeketa is illustrated on the sculptured wall panels (pictured here) which appear on Building 3 on our Salem Campus. Designed by graphic artist

Arvid Orbeck, the panels symbolize the territorial divisions of the tribes and the movement of the tribes toward the established meeting place.
As the tribes move through the territorial divisions, the carved designs become less aggressive and less linear. Softer curves start
to enter into the forms, showing more peaceful attitudes. The final points of the arrow shapes become completely calm upon reaching the center, where the individual chiefs, each indicated with his own form of dress, decoration, and behavior, sit down in a formal circle for peaceful work.


## Kinds of financial aid available at Chemeketa

## Except as listed below, all financial aid programs have the following requirements:

- You must file a Free Application for Federal Student Aid (FAFSA) to apply.
- You must be a United States citizen or an eligible non-citizen.
- If you are a male over 18 years of age and born after December 31, 1960, you must be registered with the United States Selective Service, unless you are currently on active duty with the armed forces. (Membership in the reserves or national guard does not count.)
- You must not be in default or owe a refund to any Title IV financial aid program.
- You must use the money you receive to meet the costs of attending

Chemeketa.

- You must be in a degree or certificate program.
- You must enroll for at least six credit hours each term.
- You must maintain satisfactory academic progress.

| Program and source <br> of funding | Eligibility requirements | Available amounts | Special information |
| :--- | :--- | :--- | :--- |

## Loans

Federal Perkins Student Loan
Program (FPSL)

- You may borrow up to $\$ 2,250$ in an academic year.
- The highest award at Chemeketa for 2000-2001 will be $\$ 2,250$.
- Priority will be given to second-year students.
- You do not have to pay any interest or principle while in school
- You must begin payment six to nine months after you drop your enrollment to less than six credit hours.
- The current interest rate is five percent.
- You must repay Chemeketa.
- You must view an orientation video before
funds are disbursed.
- Interest is paid by the federal government while you are enrolled in an approved program.
- You must attend an entrance and exit interview.
- Contact the Financial Aid Office for information on repayment and deferments.
- Priority will be given to second-year students.
- First time borrowers must attend class for 30 days before the first check is issued.

| Programs and source <br> of funding | Eligibility requirements | Available amounts | Special information |
| :--- | :--- | :--- | :--- |

After your Financial Aid Form has been processed, we will send you the forms you need to complete your file.

## When to apply

We suggest strongly that you apply for financial aid at least three months before you plan to enroll at Chemeketa. Applications are processed in the order we receive them. Since many students start fall term, it may take longer to process your application during the summer. File your Financial Aid Form by April 3 if you plan to begin fall term.
It takes at least eight to 10 weeks from the time you file your FAFSA before money can be available to you. If you apply near the beginning of a term, you will need to be prepared to begin paying for tuition, fees, and books with your own money while your financial aid file is being processed.
Recommended application dates are posted in the Financial Aid Office and included with your FAFSA. If you apply after these dates, you may be eligible only for a Pell Grant and a Stafford Student Loan for the following term. We accept financial aid applications throughout the academic year, which begins with fall term. If you do not apply before you start school and later find you need help, you may apply at any time. However, some financial aid programs have limited funds available. If you apply after these funds have been used up, the types and amounts of financial aid you can receive will be limited.
You must apply again for financial aid each school year. The forms for the next academic year are available in the Financial Aid Office each January.

## How students are selected

Federal Pell Grant and Federal Stafford Loan funds are available throughout the year for qualified students who complete the required processes and enroll for the required credit hours.
The Oregon State Need Grant is awarded to qualifying full-time students on an application-date basis determined by the state. Students eligible for the Federal Perkins Student Loan, Federal Supplemental Educational Opportunity Grant, and Federal Work-Study are awarded these funds on the basis of the date of completion of the student's file. Since these funds are limited, the earliest dates are given the highest priority. Not all eligible students will receive these funds.
The amount of the student's award will be determined each year by the Federal Pell Grant and State Need Grant programs and by Chemeketa for the cam-pus-based programs.
Most funds are disbursed at the beginning of each term. College Work-Study funds are paid on the last business day of the month.

## How to stay eligible

To continue to receive financial aid, Chemeketa requires you to register for, complete, and maintain a 2.0 grade point average (GPA) for the following number of credit hours:

- Full-time students: 12 credit hours.
- Three-quarter-time students: nine to 11 credit hours.
- Half-time students: six to eight credit hours.
These requirements apply to each term you are on financial aid as well as all terms in attendance at Chemeketa.


## Academic progress

If you do not meet the minimum term and cumulative credit-hour and 2.0 GPA requirements, the Financial Aid Office reviews your progress and may either stop your aid or place you on probation and allow you one more term to meet the requirements. If, at the end of two terms, you still do not meet the requirements, your aid stops. To regain aid eligibility, students who are terminated must file an appeal. If reinstated, you will be placed on probation.
Your aid stops if you completely withdraw, officially or unofficially, from Chemeketa. You may be required to repay all, or a portion of, financial aid received.

## How long are you eligible?

In general, you may receive financial aid at Chemeketa for 108 credit hours applied to an associate's degree or 54 credits applied to a certificate. All credits taken at Chemeketa are included in this limit.

## Refunds

During the first two weeks of each term, the college policy for tuition refunds applies to all students. (See page 7 for details.) Refunds are credited to the financial aid programs in the following sequence: 1) unsubsidized Stafford Loan, 2) subsidized Stafford Loan, 3) Perkins Loan, 4) "PLUS" Loan, 5) Pell Grant, 6) Supplemental Educational Opportunity Grant, and 7) other Title IV aid, and 8) student.

## Repayments

When a student who has received financial aid completely withdraws, officially or unofficially, the Financial Aid Office will determine whether the student was

## AbOUT THIS CATALOG

Chemeketa publishes this catalog to give you, our students and public, current information about the college.

We make every effort to be sure that this information is accurate at the time of publication. However, sometimes the college finds it neces-
sary to make changes before the next catalog is printed. These changes may affect the costs, college policies and procedures,
the calendar, and some curricula and courses.

Therefore, we do not consider the catalog as a hard and fast contract
between you and the college; rather, we are trying to give as much relevant information as possible to all of you who may use our services.

entitled to all of the financial aid received. If not, the Financial Aid Office will determine what portion of the financial aid the student owes, and will notify the student. Repayments are based on the last withdrawal date. Students owing a repayment are not eligible for further financial aid funds and cannot receive any services from the college until the repayment is made. All financial aid students will receive a copy of this repayment policy. Repayments are credited to the financial aid programs in the following sequence:

1) Pell Grant, and 2) Supplemental Educational Opportunity Grant. Students have 30 days from the date of the bill to repay the funds. Students who do not repay in full will have their debts turned over to the U.S. Department of Education for collection.

## ApPEALS

You may appeal any action taken by the Financial Aid Office. Appeal forms are available in the Financial Aid Office.

## Help IS here

The Financial Aid Office will give you information on applying for aid, your rights and responsibilities in receiving aid, loan repayment schedules, general conditions of employment, and methods used to determine or re-establish your eligibility. The Financial Aid Office will also help you with your concerns about funds and budgeting.

# $A^{\text {camanc }}$ Information 

STUDENT RECORDS
AND TRANSCRIPTS
(503) 399-5001
e-mail: regist@chemeketa.edu
Student academic records are maintained in the Registrar's Office for 10 years. These records may include transfer credit evaluations, correspondence, curriculum deviations, and evaluation of progress toward graduation.

Chemeketa transcripts are kept permanently. You may obtain an official transcript from the Enrollment Center in Building 2 by submitting a written request with the appropriate fee. If you have financial obligations to the college, we may deny issuing your transcript until the Enrollment Center clears your obligation.

We recommend you keep the Enrollment Center informed of any change of address while you are a student at Chemeketa.

OAR 581-41-460 authorizes Chemeketa Community College to ask you to provide your Social Security number. The number will be used by the college for reporting, research, and record keeping. Your number will also be provided by the college to the Oregon Community College Unified Reporting System (OCCURS), which is a group made up of all community colleges in Oregon, the state Office of Community College Services, and the Oregon Community College Association. OCCURS gathers information about students and programs to meet state and federal reporting requirements. It also helps colleges plan, research, and develop programs. This information helps the colleges support the progress of students and their success in the workplace and other education programs.
OCCURS or the college may provide your Social Security number to the following agencies or match it with records from the following systems:

- State and private universities, colleges, and vocational schools, to find out how many community college students go on with their education and to find out whether community college courses are a good basis for further education.
- The Shared Information System, which gathers information to help state and local agencies plan education and training services to help Oregon citizens get the best jobs available.
- The Office of Professional-Technical Education Management Information System, to provide reports to the state and federal governments. The information is used to learn about education, training, and job market trends for planning, research, and program improvement. Funding for community colleges is based on this information.
- The Oregon Department of Revenue and collection agencies only for purposes of processing debts, and only if credit is extended to you by the college.
- The American College Testing Services, if you take the ASSET placement test, for educational research purposes.

Your number will be used only for the purposes listed above. State and federal law protects the privacy of your records.

## STUDENT RECORDS POLICY

(503) 399-5001

Chemeketa's policy is to protect your personal and academic records with the greatest privacy and security possible. This policy is based on concern for the welfare of the student and for the integrity of the college. Most records may not be released without your permission. However, you may request no information be released by completing a Non-Disclosure Form at the Student Records (Admissions) Office.

## Family Educational Rights and Privacy Act (FERPA)

FERPA affords students the following rights with respect to their education records:
1.The right to inspect and review the student's education records within 45 days of the student's written request.
2.The right to request the amendment of the student's education records to ensure that they are not inaccurate, misleading, or otherwise in violation of the student's privacy or other rights.
3.The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests.
4.The right to file with the U.S. Department of Education a complaint concerning alleged failures by the college to comply with the requirements of FERPA.
5.The right to obtain a copy of the college's student records policy.

## Directory Information

Directory information is available to anyone upon request unless the student completes a Non-Disclosure Form.
Chemeketa Community College considers the following to be directory information:

- dates and terms of enrollment
- degree or certificate earned and dates earned
- athletic statistics and honors


## Grading system

Final grades are issued at the end of each term. Letter grades are assigned points according to the following system:
$\begin{array}{ll}\text { A } & \text { Excellent. ..................... } 4 \\ \text { B } \\ \text { Above average.............. } 3\end{array}$

C Average.......................... 2
D Below average . . . . . . . . . . . . . . . . 1
F Failed........................... 0
I Incomplete . . . . . . . . . . . . . . . . . 0
P Pass.............................. 0
$\mathrm{N} \quad$ No grade assigned . . . . . . . . . . . . 0
R Course repeated ................. 0
T Transfer ......................... 0
X Audit............................. 0
Z Course in progress . . . . . . . . . . . . . 0
Your grade point average is computed by dividing the total credit hours (except I, N, P, R, T, X, and Z) into the total points earned.
The N grade is used when student participation in class does not warrant a grade. It is to be used when the student's name is still on the final grade report and no other grade is possible.
An instructor may give you an "Incomplete" when, in his or her judgment, you have not finished a minor portion of the required class work although you have attended the class regularly.
You may remove an "Incomplete" from your record by completing some makeup work. Your instructor will provide you with a Notice of Incomplete Status in a Course Form, which states what you must do and sets a date for you to complete the assignments. The deadline may be any time up to one year from the end of the term in which you received the "Incomplete" grade. When you have met the requirements, your instructor will change the "Incomplete" to a new grade and inform the Registrar. The Registrar's Office will officially notify you of the change.

## Continuing Education Classes

A continuing education unit (CEU) course is one that provides general or
technical information which is applicable to the professional or technical field and will be of value wherever the individual is employed. CEUs are not equivalent to credit hours and therefore cannot be used toward Chemeketa certificates or degrees. Some programs offering CEU classes offer CEU certificates. One CEU is awarded for each 10 hours or their equivalent. Chemeketa transcript records are available for CEU hours.
Tuition for CEU courses is charged regardless of the number of credit hours for which the student enrolls. CEU classes do not meet the federal requirements for financial aid or veterans' benefits.

## Academic Progress/ <br> Review Program <br> (503) 399-5120

Chemeketa wants to help students reach their academic goals. To accomplish this, the college has initiated an Academic Progress/Review Program which provides for intervention with students at certain points throughout their enrollment at Chemeketa. These intervention points are determined by either grade point average and/or course completion rate. Listed below are the criteria used for determining intervention by the Academic Progress/ Review Program:

## Academic Warning Status

- A first term student taking six or more credit hours who falls below a 2.0 GPA, or
- A continuing student who falls below a 2.0 cumulative GPA with more than 36 credit hours of coursework.


## Academic Probation Status

- A student who is below a 2.0 GPA for a second consecutive term, or


## Questions? Call for infornation

| Campus Information <br> Center, (503) 399-5155 | advisor assignments, and <br> instructional staff office | • McMinnville Campus | (503 472-9482 or |
| :--- | :--- | :--- | :--- | | •Training and Economic |
| :--- |
| Development Center |

- A student who falls below a 2.0 cumulative GPA, with 36 credit hours or more, for a second consecutive term.


## Academic Suspension Status

- A student who was, during the preceding enrolled term, on academic probation and during the current term earns below a 2.0 GPA . The student will be suspended from further enrollment at Chemeketa until reinstated. The student may appeal the suspension through the Dean of Student Development and Learning Resources.


## Academic Reinstatement

- Once suspended, a student will not be allowed to register for credit classes for a period of one academic year. After the one-year period, a student may file an appeal with the Academic Review Committee for reinstatement.


## Repeating a course

(503) 399-5001

We suggest you confer with your academic advisor before you repeat a course. If you do repeat a course and receive a higher grade, and want your original grade changed in your record, ask the Enrollment Center in Building 2 to change your grade to an $R$ (Repeated). Please note that both the original course and the repeated course must have been taken at a Chemeketa Community College campus to request the original grade be changed to an R. If you repeat a course more than once, only your original grade can be changed to an R. If you repeat a course and receive a lower grade, both grades will remain on the transcript. An original grade of N or I may not be changed by repeating a course. The Registrar does not include an $R$ in computing your grade-point average and does not count courses with an R grade in determining the total number of credit hours you have earned.

If you are receiving veterans' educational benefits, you should be aware that this could create an overpayment for the term for which you requested an $R$. Contact the Veterans' Clerk in Building 22 before making such a request.

## Course prerequisites

Prerequisites are specified in the course descriptions. These are conditions you must meet before enrolling in a course. It is your responsibility as a student to fulfill the prerequisite.
Some prerequisites indicate that you must complete certain preparatory courses or must have the consent of the course instructor. To gain consent, meet with the instructor before you register. Consent is based upon the instructor's assessment of your readiness to enroll in the course.

## Auditing courses

(503) 399-5001

If you enroll in credit courses but do not wish to receive grades or credits, you may register as an auditor. See Auditing courses under Money Matters on page 7.

## Withdrahal from college

(503) 399-5001

If you decide to withdraw from Chemeketa, you may do so using the touch-tone registration system or you may obtain a Student Schedule Change (add-drop) Form from the Enrollment Center, Counseling Services, or Chemeketa's Dallas, McMinnville, Santiam, or Woodburn campuses. Submit the completed form to the Enrollment Center or one of our outreach campuses as soon as possible. The last day to withdraw from classes without responsibility for grades is listed in the Academic Calendar on page 2. If you leave Chemeketa without following the withdrawal procedures mentioned above, you are responsible for the final grades you receive; they will appear on your transcript of Chemeketa credits.
If you withdraw using the touch-tone registration system or a Student Change Form within the first two weeks of the term, you will receive a refund of the tuition and fees you paid. (Some exceptions apply for night and late-starting classes.) Amounts owed to any departments of the college will be deducted from your refund. There may also be a nominal deduction from the refund for processing the withdrawal. No refunds less than $\$ 5$ are made. The college cannot refund the cost of student insurance.

If you paid tuition with funds issued through Chemeketa's Financial Aid Office, your refund will be credited to your financial aid account. Any debts you owe the college will be deducted from those credits.

## Advanced Placement COURSES

## (503) 399-6556

If you enrolled in an Advanced Placement course in high school and earned an acceptable score on the Advanced Placement Test, you may receive credit from Chemeketa for the course. Inquire at Counseling Services about what courses and scores are accepted at Chemeketa.

## College Level Examination Program (CLEP)

## (503) 399-6556

You may earn credit for some college courses through the College Level Examination Program (CLEP). Inquire at Counseling Services to determine which examinations and scores Chemeketa accepts. If you wish to take a CLEP examination, schedule a testing time through Counseling Services.

## Credit by examination (503) 399-6556

Another way to earn credit for some courses is to demonstrate your collegelevel ability by successfully passing challenge examinations, which are available for a limited number of courses. These examinations are prepared by the college department directly responsible for the instruction of the courses. There is a non-refundable fee of $\$ 25$ for each exam. Grades are recorded on the student's transcript for successfullycompleted exams once the student registers and pays for the course.
Contact Counseling Services for more information about earning college credits by challenge examinations.

## Credit for prior learning (503) 399-5120

In certain professional-technical programs, Chemeketa may award you up to 24 credit hours for documented knowledge and skills that apply to the program in which you enroll. These may be skills you acquired through working,
on-the-job training, volunteer service, non-credit courses or workshops, individual study, homemaking, and travel. (There is a fee for each course assessed.)
To learn how to gain such credits, enroll in CPL120 Prior Learning Resume, a three-credit-hour course.

## INDEPENDENT STUDY

(503) 399-5120

You may receive credit for an independent study of topics not included in the college's curriculum. If you are ready to learn on your own and are interested in studying a topic, contact your academic advisor or an instructor who teaches that subject. With that person, you can explore the possibility of an independent study project.
When you have agreed upon a subject, you and the appropriate instructor can develop a learning contract for your proposed project.
This contract may include:

- A study of a topic which is not covered in an existing course.
- An in-depth study of a topic introduced in a course.
- Field studies.
- A study combined with tutoring sessions, regular meetings with your instructors, or seminars.
- Service activities.

After the instructor and the program coordinator approve the contract, you may register for independent study credit. When you complete your project, your grade will appear on your transcript. Your copy of the contract becomes the documentation of the content of the course. For more information, contact your academic advisor or Counseling Services.

## Distance education

(503) 399-5191

You may earn college credit hours and fulfill the requirements for an Oregon Associate of Arts Transfer degree or an Associate of General Studies degree by enrolling in courses offered by television, mail, and online. Students may be required to attend some class meetings on the Salem Campus.
Telecourses allow you to earn college credits at home. Assignments are based
on televised lectures. You may view the broadcasts on your own set on local cable stations or watch videotapes of these classes at the Salem Public
Library, the Salem Campus Library, the Grand Ronde Education Center, Oregon Coast Community College in Newport, or at Chemeketa's Dallas, McMinnville, Santiam, or Woodburn campuses. Videos for most courses are available by rental. Chemeketa charges a fee of $\$ 20$ per telecourse in addition to tuition.

Chemeketa television (CTV) broadcasts live Salem Campus classes to the Dallas, McMinnville, Santiam, and Woodburn campuses, to the Grand Ronde Education Center, and to correctional institutions located in Salem. Two-way audio communication allows students at the campuses to participate in the classes.

Courses by mail allow you to mail your completed assignments to the instructor, who checks them and mails comments back to you.

Online courses allow you to take classes at your convenience from your home or workplace. You'll need access to a computer with Internet browser and Internet Service Provider account to access course material, to send your coursework to campus and to communicate with your instructor and classmates. Chemeketa charges a fee of $\$ 35$ per course in addition to tuition.

CTV cable classes can be taken in your home as they are being taught simultaneously on campus. Use your telephone to interact with the class and instructor. Classes can always be recorded to watch later at your own convenience.

Online Telecourses See information listed above for telecourses. You will need access to a computer, modem, and active Internet account and web browser to send coursework to campus and to communicate with your instructor and classmates.

Listings, registration procedures, and information about distance education courses are available on the college web site (http://bbs.chemeketa.edu) and are published each term in the Schedule of Classes.

## (Tudent DEvELOPMENT Services <br> STUDENT-INSTRUCTOR CONFERENCES

You may confer with your instructors regarding class assignments and methods of study. Office hours are posted in each faculty office area.

## TUTORING SERVICES

(503) 399-5190

Free tutoring is available to all students. You may visit the Tutoring Center in Building 2 on the Salem Campus or ask questions by subject area via e-mail or WebBoard; addresses can be found on our web site:
www.chemeketa.edu/resources/tutoring A current student ID card is required to use these services. Tutoring is not available the first week of the term or during finals week.

## LITERACY VOLUNTEER PROGRAM

(503) 399-2557

Volunteers offer basic-skills tutoring on a one-to-one basis in Salem and throughout the Chemeketa district. Contact the literacy volunteer program coordinator in Building 16.

## Study Skills Program (503) 399-5162

Learning assistance services and skillbuilding classes are available to improve the academic skills you'll need for success in college. Individual, lecture, and online classes are offered in reading, study skills, critical thinking, vocabulary building and spelling. For more information on these classes and services, contact the Study Skills Center in Building 2, Room 212 on the Salem Campus or look under the Academics heading on the Chemeketa web site.

## English as a SECOND LANGUAGE <br> (503) 399-6298

If English is not your native language and you want to increase your English language skills, contact the ESL Office

in Building 16 on the Salem Campus. Staff members will help you learn to speak, read, and write English.
Services on the Salem Campus include:
Counseling Services-Building 2, (503) 399-5120, for admission and career-planning assistance.
English as a Second Language program-Building 22, (503) 399-6298.
Literacy Volunteer ProgramBuilding 16, (503) 399-2557.
Counseling, tutoring, and English as a Second Language classes are also available at Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses.

## Chemeketa Language and Culture Institute

(503) 399-5141

The Language Institute provides English instruction to meet the needs of international students planning to enter American colleges and universities. It also serves students who want to experience American culture and improve their English for personal or professional reasons. The Institute offers six levels of instruction from beginning through advanced. Advanced classes may be taken for college credit.

## Adult Basic Education, General Educational Development (GED), High School Completion

For students who have not completed high school, Chemeketa offers Adult

Basic Education, General Educational Development (GED), and High School Completion classes.

## SERVICES FOR STUDENTS WITH DISABILITIES

(503) 399-5192 voice/TTY and

The office of Services for Students with Disabilities (SSD) in Building 2 on the Salem Campus has information about services and accommodations for students with disabilities.
Chemeketa's major buildings on the Salem Campus and at the Dallas, McMinnville, Santiam, and Woodburn campuses are designed to provide access for students with physical disabilities. Parking spaces are reserved for persons with DMV placards for people with disabilities.
If you have a disability, including learning, psychiatric, sensory, orthopedic or otherwise, you are encouraged to use campus support services. The SSD office is available to help you assess your needs, coordinate access to facilities and processes, and plan academic adjustments that will make classes accessible.
If you need special accommodations for classes or college events, contact the SSD office at least five working days in advance. If you need an alternative format for this publication, call the SSD office at (503) 399-5192 (voice/TTY).

## SERVICES FOR STUDENTS WHO ARE DEAF AND HARD OF HEARING

(503) 399-5122 voice or 399-5049 TTY

Chemeketa offers services if you are deaf or hard of hearing. These include counseling, interpreting, and tutoring.

## Trio Project

(503) 315-4293

Chemeketa currently operates three TRIO programs to assist you if you are from a low-income background, the first in your family to attend college, or if you are a student with a disability. TRIO programs are funded by the U.S. Department of Education.
Student Support Services offers academic support, advising, transfer information, and college visits to students planning to transfer to a four-year col-
lege or university. Talent Search offers college students a chance to mentor middle school students by helping to share goals and plan for the academic future. Talent Search is also an opportunity for students from 6th to 12th grade to explore the benefits of a college education. High school students may also benefit from the Upward Bound project, whose students receive year round support and come to Chemeketa in the summer to study literature, writing, science, and math with college instructors. For information about these programs contact the TRIO office at (503) 315-4293.

## Migrant Education Programs

Chemeketa currently operates two migrant education programs to help migrant and seasonal farm workers and their children attend classes. These programs are funded by the U.S.
Department of Education.

## College Assistance Migrant Program

 (CAMP) based in Salem offers firstyear scholarships and academic and personal support for students planning to transfer to a four-year college or university. For information about CAMP call (503) 399-5147.
## High school Equivalency Program

 (HEP), located in Woodburn, assists students each year to complete instruction and take the General Educational Development (GED) test. HEP offers classes in the afternoon and evenings and provides funds for transportation and child care. For information about HEP, call (503) 981-6253.
## Writing Center

(503) 399-7179

If you need writing assistance, help is available in the college Writing Center. You may consult with writing instructors or make use of computers programmed with writing-assistance software. Watch the quarterly Schedule of Classes for a listing of classes offered by the center. For more information or to make an appointment, call or stop by the Writing Center in Building 35, Room 101.

The library is located on the second floor of Building 9, the Learning Resource Center (LRC). The collection of books, magazines, journals, newspapers, pamphlets, audio cassettes, video cassettes, laser discs and slides focus on the courses taught at Chemeketa. Our online catalog connects you to other libraries in the area and allows you to place holds on materials to be delivered here. An interlibrary loan service can locate other materials throughout Oregon and the world and have them sent to Chemeketa.
Computers are available which allow you to access library materials, electronic information resources, the Internet and word processing programs. Within the library are group study rooms and group media viewing rooms that can be scheduled in advance, and an open media view area for use at any time. Other equipment available includes typewriters, calculators, and photocopiers Staff can assist you in making transparencies and duplicating audio cassettes. The LRC houses an art collection, a small collection of materials in Spanish, children's books, "easy readers" and periodical stacks that you can browse through.
The library is open to the community. Chemeketa students, faculty and staff may check out most materials. As a
member of the Chemeketa Cooperative Regional Library Service (CCRLS-see page 23), the library also allows people with a valid CCRLS card to borrow materials.

## Bookstore

## (503) 399-5131

## http://bookstore.chemeketa.edu

You may purchase books and supplies at the college Bookstore in Building 1 on the Salem Campus and at the McMinnville Campus. Textbooks also are available at the beginning of each term at our Dallas, Santiam, and Woodburn campuses. The cost of books is included in the description of each professional-technical program. Costs range from $\$ 450$ to $\$ 600$ a year or about $\$ 150$ to $\$ 200$ a term.

Refunds—You may receive full refunds for books the first two weeks of each term for which they were purchased. All books must be returned in their original condition. You must have the sales receipt for the books and personal identification to receive a refund.

Used book buy-back-Each term during finals week, the Salem Campus Bookstore pays cash (up to 50 percent of the purchase price) for used textbooks that are needed for the next term. At any time, the Bookstore buys used books at prices established by used book wholesalers.
Computers and software-Chemeketa students are eligible to purchase computer software at special prices. Some restrictions may apply. Contact the Salem Campus Bookstore for details.

## Book Exchange

(503) 399-5117

The Book Exchange is a non-profit service, run by student government, which provides an opportunity for Chemeketa students to buy or sell books at a reduced cost. The books sold in the exchange must be books currently in use at the college.
Books are sold from the Student Government Office in Building 3, Room 101, during the first week of fall, winter, and spring terms.

## Student identification CARDS

(503) 399-5116

A student photo identification card is recommended for all students. This card is necessary for access to computer labs; tutoring services; check-out and use of materials and equipment from the library/media services and the gym; and the sale of used books back to the college Bookstore. The card also admits you to all college sporting events at no cost and entitles you to discounts for various activities.
You may obtain your student ID card at no cost in the Student Life Office in Building 3, Room 101, Mondays through Thursdays from 8 a.m. to 7 p.m., and Fridays from 8 a.m. to 4 p.m. ID cards will not be issued during final exam weeks or between terms. Lost or stolen cards may be replaced for $\$ 2$.

## First aid

(503) 399-5023

For first aid services on the Salem Campus, call Public Safety at (503) 399-5023. There are also emergency red phones located throughout campus

## Student’s Check List

1. If you are a new student, have you:

I taken mathematics, reading, and writing placement tests? Contact the Advising and Counseling Center, Salem Campus, Building 2, (503) 399-5120.

- filed a Student Record Form? Contact the Student Records
(Admissions) Office, Salem Campus, Building 22, (503) 399-5006. A Student Record Form is on page iii.
$\square$ checked to find out if there are special requirements for the program you want to enter? Contact the Enrollment Center, Salem Campus, Building 2, (503) 399-5006.

| 2. Do you know the costs | 3. Have you arranged for: |
| :--- | :--- |
| of: | transportation? |
| tuition and fees? | child care? |
| menecial tools, equip- | 4. Have you asked about |
| ment, uniforms, etc. | financial aid? Contact the |
| required by your pro- | Financial Aid Office, |
| gram? | Salem Campus, Building |
| These costs are listed in | 2, (503) 399-5018, or |
| this catalog in the descrip- | Chemeketa's Dallas, |
| tion of your professional- | McMinnville, Santiam, or |
| technical program. | Woodburn campuses. |

5. Have you checked on your eligibility for Veterans Administration educational benefits? Contact the Registrar's Office, Salem Campus, Building 2, (503) 399-5004.
6. Have you read the term Schedule of Classes for registration information and class listings? A copy
of the schedule should be delivered to you by mail before each term begins if you live in the college district. Schedules are also available at the Advising and Counseling Center, Salem Campus, Building 2, at the Chemeketa campus in your community, or by calling (503) 399-5006.
which will connect you directly with the college's Public Safety Office. As the college has no physician or campus health facilities, you must rely upon your personal physician, dentist, or clinic to meet other medical needs.

## Parking on the Salem Campus

(503) 399-5023

If you are a Chemeketa student who parks a motor vehicle on the Salem Campus during the day, the college requires you to have a parking permit. Pick up your permit at the Student Life Office in Building 3, the Enrollment Center in Building 2, or the Information and Public Safety Booth outside the main entrance to Building 2. There is no charge for the parking permit, which is valid for the academic year. (Parking permits are not required during summer term.) Visitors may pick up parking permits at the Information and Public Safety Booth.
Along with your permit you will receive a copy of Chemeketa's traffic code. The college expects you to know and follow the rules for operating a motor vehicle on campus. These rules apply to any car you own, regardless of who is driving it.
The college suggests that you lock your car at all times when on campus. More information about campus safety is contained in an annual report available from the Information and Public Safety Booth.

## Smoking on the Salem CAMPUS

(503) 399-5023

College policy prohibits the use of tobacco products inside all college buildings, or within 20 feet of any building entrance. In addition, there are certain areas outside of buildings that have been designated as Non-Smoking areas. Non-smoking areas are: the covered area near the entrance to Building 2 facing the old quad; the curved brick area adjacent to the south side of Building 2 facing the new quad; the Art Gallery entrance to building; and all exterior stairwells leading to upper floors of buildings, e.g., buildings 6 and 8 .
Non-smoking areas outside of buildings are clearly identified with appropriate
signs. Smokers are asked to be considerate of non-smokers and refrain from smoking or using tobacco products in non-smoking areas, and also to use appropriate ash cans and refuse containers.

## Where to eat

The Food Central, Building 2,
(503) 399-5180-hot meals, subs and other hot and cold sandwiches, pizza, soups, salads and a wide variety of fresh desserts and baked items.
Blue Moon Cafe, MaPS Building, (503) 399-8005-50s dining including burgers, salads, blue plate specials, and fountain items.
Espresso Cart, Building 2-espresso, gourmet coffees, and pastries.
Crossroads Cafe, Building 4-espresso, gourmet coffees, pastries, soup, sandwiches and salads.
Hot Dog Cart-weather permitting, look for a great hot dog, chips and a drink somewhere on the quad.
There are also a number of snack and beverage vending machines located in many buildings on campus.

## Student living ACCOMMODATIONS

(503) 399-5116

Chemeketa does not provide living accommodations. However, the Student Life Office in Building 3, Room 101 on the Salem Campus maintains a bulletin board listing available housing, including apartments for rent, rooms for rent in homes, homes for rent, and roommates wanted. You may post a notice and also check this bulletin board for housing. The office also distributes the Apartment Guide, which lists apartments in the Salem area. Also, read the classified section of local newspapers for housing vacancies.

## Child care

Chemeketa offers two child care programs on the Salem Campus. Both programs are accredited by the National Academy of Early Childhood Programs. Child Development Center, Building 39, (503) 399-5107-As a training center for students enrolled in the Early Childhood Education program, the center offers full- or part-time care for approximately 35 children ages two-
and-a-half to six years. Applications are accepted at any time, but we advise you to apply early. Contact the center for applications and fee information.

## Chemeketa Community Child Care

Center, Building 50, (503) 399-5174This facility provides year-round care for approximately 90 children, ages six weeks to six years. Full-time care is available for infants and toddlers (ages six weeks to 30 months), and full- and part-time care for pre-schoolers (ages 31 months to six years). A discount is given to parents who volunteer at the center. Applications are accepted at any time for the current year; early application is encouraged. Contact the center for applications, fee information, and parent tours.

The Financial Aid Office, Building 2, has a list of other child-care centers in the Salem area, or you may call Salem's Child Care Information Service, (503) 585-2491. Local child care providers advertise their services on the bulletin board located outside the Student Life Office in Building 3, Room 101.

## LOST AND FOUND

## (503) 399-5116

Lost and found items are kept in the Student Life Office, Building 3, Room 101. If you have lost or found an item, please check with this office.

## BUS PASSES

## (503) 399-5131

Cherriot bus passes are available for purchase at the Bookstore in Building 1. Cherriot bus schedules are available in the lobby of Building 2.

## Alcohol and drug SUPPORT GROUPS

(503) 399-5116

Support groups for substance dependency are coordinated through the Alcohol and Other Drugs Committee and staffed by volunteers. Times and locations of meetings vary each term. Contact the Student Life Office in Building 3, Room 101 for more information.

## Counseling Services

(503) 399-5120

If you are interested in educational, vocational, or personal counseling, contact our Counseling Services Center in Building 2 on the Salem Campus, or make an appointment to see a counselor at Chemeketa's Dallas, McMinnville, Santiam, or Woodburn campuses. Counseling services are available to both current and prospective students.

Counseling Services offers the following:

## Individual assistance

Counselors offer individual help for academic course and program planning, including transfer to four-year colleges and universities; career decision making; and personal issues. For assistance, drop in during open hours. Call Counseling Services for current hours of operation.

## Career planning workshops

Career planning workshops are conducted by counseling staff to assist persons in choosing or changing careers. In these workshops you may:

- gain a better understanding of your interests, values, and skills.
- relate those characteristics to a wide variety of careers.
- find accurate information about occupations and the labor market trends.
- develop a personal plan of action.

Contact Counseling Services for a current schedule of career planning workshops.

## Career Resource Center

Counseling Services maintains a comprehensive career resource center. You may use materials there to assist you in choosing a career. The center has information on career and job requirements, schooling and training opportunities, and the employment outlook. The center also has a library of current catalogs of Northwest colleges.

## Career Information System

A computerized Career Information System (CIS) is available for current and prospective students to use in career decision making. In using this statewide database, you respond to questions concerning your interests, abilities, and preferences. The computer analyzes your responses and prints a list of occupations which may suit you.
In addition, you may:

- obtain descriptions of occupations.
- learn how to prepare and train for specific careers, and find out which schools offer such training.
- gather information about the availability of jobs.
- obtain salary information for occupations in Oregon.
For more information, contact
Counseling Services.


## Micro-SKILLS program

Micro-SKILLS is a computerized program which allows you to compare skills you prefer to use with those required in certain occupations.

## Discover

Another computerized career information resource is DISCOVER. This nationwide database complements CIS and provides a more in-depth assessment of your interests, abilities, and values. This system can search through 400 job titles, give information about occupations, and suggest appropriate educational and training institutions.

## Academic advising

Chemeketa offers academic advising to all students. If you are enrolling in a professional-technical program of study, you are assigned a faculty advisor in your program. If you are a full-time "undecided" student who has not chosen a specific program of study or if you plan to transfer to a four-year school, your assigned advisor will be one of your instructors. Assignments are made through the automated computer system and notification mailed to the student. If a change is desired, Counseling Services will assist in changing advisor assignments.
If you attend only evening classes or are a part-time student, we encourage you to visit Counseling Services periodically
for academic advising. You may also consult with a counselor at our Dallas, McMinnville, Santiam, or Woodburn campuses.

## New Workforce Program (503) 399-3920

The New Workforce program assists single parents, displaced homemakers, and other adults to remove barriers and develop goals, skills and support systems that promote success in education and employment. The program offers seminars focused on the development of personal skills, career planning, and job search techniques. Students are assisted in the development of a career/life plan identifying long and short term goals and action steps. Support groups and individual counseling are also offered. Some financial assistance is available for childcare, transportation, tuition, and supplies.

## New Workforce/Life Skills Resource Center

(503) 399-5236

The New Workforce/Life Skills Resource Center is located in Building 20 on the Salem Campus. People are welcome to drop in, talk, and browse through books and materials.

## MPLOYMENT AND WORK-BASED LEARNING SERVICES

If you are interested in finding a job, learning job search techniques or finding out how you can combine classroom learning with work-based learning experiences, contact the Employment and Work-Based Learning Services
Department in Building 2 on the Salem Campus.

## Career and Employment Resource Center <br> (503) 399-5026

Chemeketa's Career and Employment Resource Center, also in Building 2, offers the following free services for students looking for part-time jobs
while going to school or for employment after they graduate:

## Individual Job Search assistance

For individual assistance, make an appointment with the resource center. If you are nearing graduation, we encourage you to visit the center at least one term before you will graduate. The resource center helps students and graduates write resumes and cover letters, prepare for interviews, and develop techniques for contacting employers.

## Job referral Service

Part-time and full-time job opportunities are advertised in the resource center. Referrals are issued to qualified students and graduates who are registered with Employment and Work-Based Learning Services.

## On-CAMPUS RECRUITING

The resource center works with employers who wish to come to the Salem Campus to recruit and interview graduating students. These visits are announced through special recruitment mailings, job postings at the center, announcements in class, or advertisements in the The Chemeketa Courier, the student newspaper.

## Job search inforvation and resources

Chemeketa students and graduates may use computers, printers, typewriters, a FAX machine, and resource materials including employer contact and job search information at the resource center.
Videotapes on job search techniques are available in the Learning Resource Center in Building 9 and at Counseling Services in Building 2 on the Salem Campus. They are also available at

Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses, and the Salem Public Library.

## Job Search Techniques classes

These one-credit-hour courses include information on how to prepare yourself to look for a job and how to find and apply for a job. The classes cover preparing and writing resumes, identifying the requirements of a job, determining what an employer looks for in a new employee, and practicing interview techniques. These classes are listed under Job Search in each term's Schedule of Classes.

## Cooperative Work EXPERIENCE <br> (503) 399-5026

As a full-time or part-time Chemeketa student, you may participate in work-based learning in your career field through our Cooperative Work Experience (CWE) program. This program allows you to combine your classroom studies with workrelated experiences.
In this program, you work with a CWE coordinator to find a qualified training site, or your current job may qualify if it relates to your studies. The college must approve your training site and the learning objectives you and your supervisor develop. You may enroll for a variable number of credits depending on the number of hours you work per week. You will participate in weekly seminars or meet with a faculty member on a regular basis to discuss your progress.
CWE training can help you establish references for future employment and expand your knowledge of and experience in a particular kind of work while
you are earning college credit. CWE may also improve your ability to make the transition from school to work when you complete your program.
Most of Chemeketa's professional-technical programs include CWE either as an elective or as a graduation requirement. Transfer students may also participate in CWE for elective credit. The CWE office is in Building 2 on the Salem Campus.

## ERVICES TO THE Community

Training \& Economic Development Center (503) 399-5181
www.chemeketa.edu/programs/ tedcenter/
Chemeketa's Training \& Economic Development Center is a resource for businesses and organizations and for anyone who is starting a business. The center is located in Liberty Square at 365 Ferry Street S.E. in Salem.
The center assists in regional economic development by providing business assistance counseling as well as management and workforce development assessments and workshops. You can choose from regularly scheduled workshops or arrange for customized, on-site training. Resources at the center include videotapes, books, periodicals, and computers for small business management use.
The following services are available through the TED Center:

## Definitions

Class - See course.
Course - A course is a subject or an instructional subdivision of a subject, usually offered during a single term.
Credit Hour - The number of credit hours granted for each course varies. In general, a student earns one credit for a lecture
class that meets one hour per week per term, or three credits for a lecture class that meets three hours per week.
Courses with labs and some other courses may vary from this pattern.

The Course Description section of this catalog lists the value of each course in credit hours.

Curriculum - An organized program of study arranged to provide integrated cultural or professional education leading to a certificate or degree.

Elective - A required, nonspecific course.
Sequence - Closely related courses extending through three terms.

Term - Approximately one
quarter of the academic
year. Fall, winter, and spring terms range in length from 11 to 12 weeks. Summer term runs for eight weeks.

## Small Business Development-

Workshops, one-on-one counseling and a resource center are offered for current and prospective business owners. Workshops cover a variety of topics ranging from start-up information to advanced business management. One-on-one counseling is available to help businesses develop growth strategies, pursue international trade, and increase profitability and productivity.
Customized Training-Training is customized for business, industry, and government agencies. Services include organizational needs assessment, employee skills assessment, management consultation, job related training, and on-site tutoring.

Small Business Management—This 10 -month program is for business owners and operators. It includes counseling at the business site and evening classes on business topics once a month.

## American Management Association Extension Institute-Courses are

 offered to meet the needs of working professionals who want to update their business and management skills.Courses meet evenings, once a week, for five or six weeks.

Partnerships for Quality (P4Q)—This program is designed to increase the productivity and effectiveness of Oregon's businesses and organizations by delivering continuous quality improvement training and education services. The program is customized to meet your worksite needs.
Computer Training-The TED Center offers a full program of e-mail, Internet based computer classes. Contact the TED Center for more information.
Core Workplace Skills-Chemeketa provides employee and organizational assessment and customized skill development classes in math, reading, writing, communications, problem solving, English as a second language, and Spanish for the workplace.
Work Keys Service Center—These services can help you to identify your skills and the skill requirements and competency levels of a job using the Work Keys occupational assessments and job profiling system. Customized
training and organizational development services for employers are also available.

## Computer Technology Training Center

(503) 315-4590

The new Computer Technology Training Center helps individuals and organizations seeking information on computer skills training at a variety of Chemeketa locations. Among the topics covered are business application software, computer-aided design/drafting (CAD), geographical information systems (GIS), computer-aided manufacturing (CAM), graphics, and Internet/Web. The center also offers industry-recognized certification preparation training, contracted computer training, and lab rentals. Call for more information on the center, offerings, and new developments.

## Occupational Skills Training

(503) 399-5026

The Occupational Skills Training program offers agency-sponsored students the opportunity to earn college credit for work-site-based training at an approved community training site. A suitable training site and curriculum are determined jointly by your sponsoring agency and Chemeketa's skills training coordinator. For more information on this program, see page 101.
The following services are also available through the Occupational Skills Training program:
On-the-Job Evaluation—The OJE process provides evaluation service and workers' compensation coverage for clients who need a work-based site evaluation to clarify vocational goals and assess capabilities and potential for a designated job or training area.
Vocational Courses-Chemeketa contracts with private rehabilitation counselors to provide vocational courses, including occupational readiness and research, employment strategies, and work assessment to agency-sponsored clients.
Contact the skills training coordinator for rate information on the above services and courses.

## Oregon Advanced Technology Consortium (OATC)

## (503) 657-6958 ext. 4603

Fifteen Oregon community colleges, including Chemeketa, comprise the Oregon Advanced Technology Consortium (OATC) and concentrate their individual expertise in advanced technological applications for small and medium sized manufacturers.
The mission of OATC is to enhance the success of Oregon's current and emerging manufacturers. This is accomplished through a network of manufacturing and business resources using the expertise located at each community college. The consortium's primary focus is on service to manufacturing companies and value-added processors, either through consulting, technical support, training, or referral.
Examples of the services provided by the OATC include identifying potential new technologies for specific industries, demonstrating and testing those technologies, and training managers who implement those technologies. The services of a technical project coordinator are available to assist local manufacturers in determining needs, finding solutions and locating resources to enhance their success.

## Short-term training

(503) 316-3230

Chemeketa has a variety of short-term training options which may lead to employment opportunities for you.
Currently Chemeketa's short-term training consists of more than 15 offerings including advanced technology endorsement, associate degree nurse, automotive body repair, building inspection technology, dental assisting, occupational skills training, and welding. Offerings include credit and non-credit classes which range in length from one week to four terms.
Some short-term training opportunities start at the beginning of the term and run for the length of a term, usually 11 to 12 weeks. Others are offered on an open entry/open exit basis in which students may begin at any time during the term and leave when they have com-
pleted the requirements of the program. Nearly all of the short-term training options include practical experience at a local job site.
Some of the credit short-term training options may apply to the Associate of Applied Science, the Associate of General Studies, and the Oregon Associate of Arts transfer degrees. Check with Counseling Services to determine if your coursework will apply.
Financial aid may be available to students who enroll in programs which offer 24 or more credits over approximately six months (or more). For more information, call the Financial Aid Office at (503) 399-5018.
New short-term training is designed as employment information indicates that it would be useful. Check with Counseling Services in Building 2 on the Salem Campus (503) 399-5120 for the most current list of short-term training options.

## Campus Gallery

(503) 399-2533

Chemeketa's art gallery is in Building 3, Room 122 on the Salem Campus. It presents juried exhibits of professional artists from around the country. Several shows a year, featuring a wide variety of media, are open for viewing by students, staff, and the public.

## Chemeketa Cooperative Regional Library Service

 (503) 399-5039The college library is part of the Chemeketa Cooperative Regional Library Service (CCRLS), along with 16 public libraries in the college district.
This cooperative, tax-supported effort provides library service to district resi-


## SPECIAL PROGRAMS AND ACTIVITIES

(503) 399-5116

At Chemeketa Community College, we believe that activities outside the classroom involve students more fully in their education. Our student activities program is designed to respond to your recreational, service, and social interests and needs.
Students assume most of the responsibilities for Salem Campus activities, with guidance and advice from the Student Life Office staff. Students develop and admin-
ister most programs, including clubs and campus social and recreational programs.
Activities vary throughout the year, depending upon student interests. These activities and opportunities are planned for you. For more information, contact the Student Life Office in Building 3, Room 101 on the Salem Campus. There are numerous opportunities for students to participate in student government.

## Student leadership OPPORTUNITIES

## Associated Students of Chemeketa Communty College <br> (503) 399-5117

Associated Students of Chemeketa Community College (ASCCC) is the official organization for students. Membership is open to all registered Chemeketa students.
There are two representative bodies of ASCCC: the Student Senate and the Executive Council. The Student Senate consists of nine appointed student representatives. The Executive Council consists of five elected and appointed officers: executive for college representation, executive for senate, executive for finance, executive for clubs and organizations, and executive for student relations.
ASCCC coordinates numerous service projects for students and the Chemeketa community. These projects include the Red Cross blood drive, recycling efforts, blood and cholesterol screenings, food drives, and a student-to-student book exchange.

## Programming Board

(503) 399-5167

The Programming Board is a diverse student team that works together to plan campus activities including special events and noontime programs as well as sports, recreational, multi-cultural, and educational activities.
As members of the Programming Board, students can learn leadership and event-planning skills while promoting a variety of activities for the enjoyment of students, staff, and the community. Students are selected through an application and interview process and are paid a stipend at the end of each term.

## The Chemeketa Courier (STUDENT NEWSPAPER) <br> (503) 399-5134

The Chemeketa Courier, Chemeketa's student newspaper, is published weekly during fall, winter, and spring terms. Written and prepared by journalism students using electronic desktop publishing equipment, the newspaper has won several awards from the Oregon Newspaper Publishers Association.
If you are interested in joining The Chemeketa Courier staff as a reporter or photographer, apply for a staff position by contacting the newspaper advisor.
Literary publication-A humanities faculty group solicits student literary contributions throughout the year. Works are reviewed and selected entries are published in Visions, a literary supplement to The Chemeketa Courier.

## Cultural Forum

(503) 315-4263

The Cultural Forum's goal is to increase the college community's cultural awareness, to support the many cultures on campus, and to increase the development of intercultural communication skills. The forum is staffed by a diverse student team. This team researches and plans projects and events with the help of Chemeketa staff and students.
Chemeketa Internship Program (ChIPS)

## (503) 399-3995

This program gives you the opportunity to work as an intern in a variety of college settings. Students are selected on the basis of their interests, abilities, and experiences working with people. ChIPs students conduct campus tours and provide assistance to prospective students through personal telephone contacts and correspondence. They are also involved in recruitment, promotional and special events, high school visitations, and working with international and multicultural students.

## Mentor Program

(503) 315-4293

The TRIO Talent Search Mentor Program gives Chemeketa students an opportunity to take part in a community service/learning project. Student men-

tors are trained to assist middle and high school students, one-on-one, in developing positive self-esteem and encouraging them to continue their education. Mentors attend a seminar course for academic credit which combines large-group study/training with smallgroup consultations. Each mentor meets weekly at the middle or high school to assist in-class assignments and other group or one-to-one situations.

## Peer Assistants

(503) 399-5120

Peer Assistants are experienced Chemeketa students who are trained to help others. They know about campus and community resources and assist fellow students with personal, social, and academic concerns.
Students are selected for this program through an application and interview process conducted by Counseling Services. Peer Assistants attend a threecredit training course and are then available to assist others while earning Cooperative Work Experience credit.

## Student clubs and organizations (503) 399-5117

The Associated Students of Chemeketa Community College (ASCCC) recognize a number of organizations which provide a variety of activities for students. Among them are:

[^0]Arts Alliance
Asian-American Club
Campus Crusade
Chess Club
Christian Fellowship Club
Collectors Club
Data Processing Management Association (DPMA)
Deaf and Hearing Impaired Club
Emergency Medical Technicians Club
Fire Protection Club
Forestry Club
Gay and Lesbian Alliance
Geography Club
Health Occupation Students of America (HOSA)
Horse Club
Institute of Management Accountants (IMA)
Instrument Society of America (ISA)
International Conference of Building Officials (ICBO)
International Students Club
Juntos Club
Latter-day Saints Club
MEChA
Native American Club
Pacific Islanders Club
Phi Theta Kappa
Philosophy Club
Salem Area Anime Society
Shredder's Anonymous
Ski Club
Soccer Club
Society of Manufacturing Engineers (SME)
Student Nurses Organization (SNO)
Soccer Club
Table Tennis Club
Unique Club
For more information about clubs and organizations on the Salem Campus, contact ASCCC or the Student Life Office in Building 3.

## College Committees

(503) 399-5117

Student representatives serve on cam-pus-wide committees with Chemeketa staff. The ASCCC executive for college representation appoints student representatives to the following committees:

Academic Standards
Alcohol and Other Drugs
Curriculum
Multicultural
Risk Management
Student Success

## Community Colleges of Oregon

Student Association and Commissions (CCOSAC)
(503) 399-5117

ASCCC has a representative on the board of the Community Colleges of Oregon Student Association and Commissions (CCOSAC), a state-wide, student-run organization representing more than 300,000 community college students in Oregon.

## Intercollegiate athletics

(503) 399-5081

Chemeketa is a member of the Northwest Athletic Association of Community Colleges (NWAACC). The association includes all community colleges in western Oregon and western Washington. A highly organized program affords quality competitive opportunities for students. In keeping with the standards of the program, emphasis is put on academic progress as well as athletic opportunity.
Chemeketa fields teams in men's baseball, men's and women's basketball, men's and women's track, women's volleyball, men's and women's cross country, and women's softball.
If you participate in interscholastic sports, a physical examination and documentation of immunization for measles are required. Team travel, uniforms, and health insurance are provided. Contact the Physical Education Office in Building 7 for more information.

## DUCATION FOR THE COMMUNITY

## Off-CAMPUS CLASSES

We hold classes not only on the Salem Campus but also at a number of offcampus Salem locations; at our Dallas, McMinnville, Santiam, and Woodburn campuses; and at other convenient sites in the district.
Committed to lifelong learning, the college schedules a wide variety of credit and non-credit classes, workshops, seminars, and special programs which meet during the day, evening, and on week-
ends. These include college transfer courses; professional-technical and job skill-upgrading classes; and personal enrichment classes in languages, art, first aid, health, and other areas. In response to your requests, we are willing to develop and schedule other classes.
Chemeketa's campuses also provide Adult Basic Education, General Educational Development (GED) test preparation, English as a Second Language, and High School Completion programs. Each campus has a mathematics lab for individualized, self-paced instruction and a business skills program which includes training on computers and word processors.

## Outreach campus services

In addition to classes, Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses provide these services:

- academic advising, program planning, and course selection guidance.
- career counseling.
- information on financial aid and on veterans' benefits.
- GED, placement, and interest testing.

College for Older Adults
(503) 399-5140

Chemeketa offers a variety of classes, workshops, and other activities which may especially interest older adults. We hold these classes and activities at a number of Salem locations and in various communities throughout the college district. These offerings cover a wide range of topics, including computers, health and fitness, history, writing, art, guided trips and tours, and special programs of interest to recreational vehicle enthusiasts.

## Agriculture classes

(503) 399-5139

Chemeketa offers non-credit classes to meet continuing educational and selfimprovement needs of persons involved in agriculture. A variety of classes are offered in each of the following areas:

Landscape and nursery/greenhouse Pesticide application license examination preparation and recertification
Agricultural Leadership Development in English and Spanish
Floriculture

Classes are also offered on Christmas tree and woodland management and pasture management; small gas engine repair; and beginning dog obedience.
The program strives to be relevant and responsive to the agricultural community by adjusting course offerings regularly. Suggestions are welcome.

## Farm Business Management

(503) 399-5089 or (503) 399-5066

Chemeketa's three-year Farm Business Management program trains farmers in basic recordkeeping and financial management. For more information, see page 76.

## Family Resource Center and Program <br> (503) 399-3915

The Family Resource Center is located in Building 50, Room 125 on the Salem Campus. The center's programs and services include:

Information and referral to family support services
Childbirth education
Chemeketa Community Child Care Center
Parenting and relationship classes and workshops

#  

# Degrees, Diplomas, Certificates and Transfer Information 


#### Abstract

As you begin classes at Chemeketa Community College, you may already have an educational goal in mind. If not, you have several options from which to choose. Chemeketa's academic programs allow you to earn an Associate of Arts Oregon Transfer degree, an Associate of Applied Science degree, an Associate of General Studies degree, or a Certificate of Completion. Or you may wish to complete the first two years of college at Chemeketa and then transfer credits to a four-year college or university.


Graduates of Chemeketa's two-year programs are awarded an Associate of Arts Oregon Transfer degree, an Associate of Applied Science degree, or an Associate of General Studies degree. All are nationally-recognized degrees.

## Oregon Associate of Arts TRANSFER DEGREE

The Associate of Arts Oregon Transfer degree program encompasses the core curriculum of
a liberal arts education. This core includes coursework in the areas of communications, humanities, social sciences, mathematics, sciences, computer science, and physical education or health. In addition, students are encouraged to explore a broad range of subjects through elective course work.

You may wish to pursue the Associate of Arts degree while earning college transfer credits. It is easy to earn the A.A. degree while at the same time preparing to transfer to a four-year school or university. If you enroll full time, it usually takes two years to meet the A.A. degree requirements.

See the Program Guide on pages 42 and 43 for a complete list of our transfer programs. Information and curriculum outlines of these programs begin on page 44.

Students who earn an Associate of Arts Oregon Transfer degree from Chemeketa will have fulfilled the lower division general education requirements at any of the schools in the Oregon University System.

To qualify for an Associate of Arts Oregon Transfer degree, you must meet the requirements listed on page 31.


## Associate of Applied Science degree

Chemeketa, with its emphasis on professionaltechnical education, offers training in more than 40 occupations.

In most of these programs, you may earn an Associate of Applied Science degree. If you enroll full time, it usually takes two years to meet the A.A.S. degree requirements. In some programs of study, there are prerequisites to enter the program. See the Program Guide on pages 42 and 43 for a complete list of A.A.S. degree programs. Information and curriculum outlines of these programs begin on page 44 along with college transfer curricula.

To qualify for an Associate of Applied Science degree, you must meet the requirements listed on page 32.

## Associate of General STUDIES DEGREE

The Associate of General Studies degree addresses the needs of students who are not seeking an Associate of Arts Oregon Transfer degree or the specific program requirements of an Associate of Applied Science degree. This degree allows you to combine a broad core of basic courses with a program of study that may be tailored to your academic or professional goals.

You may wish to use this degree to enhance your employment, to fulfill the requirements of a specific four-year college program, or to meet the special expectations of agency-sponsored students.

To qualify for the Associate of General Studies degree, you must meet the requirements listed on page 33 .

## Second degree

To earn a second associate degree, you must complete at least 12 credits in addition to those you have completed for the first degree. You must also meet all the requirements for the second degree.


## Graduation

e-mail: graduation@chemeketa.edu
As a student, you are responsible for fulfilling the requirements for graduation. You should work with your advisor in completing these requirements.
As a candidate for graduation, fill out an Application for a Degree or Certificate form. Return the form to the Enrollment Center by the fourth week of the academic term before the term in which you will complete the program requirements. Dates when applications for graduation are due are listed on page 2 and in the calendar published each term in the Schedule of Classes.
Degrees and certificates become official when graduation information is recorded on your transcript.
If you plan to complete the requirements for your degree during summer term, you may request to participate in graduation exercises held the preceding June. To do this, contact the Student Life Office in Building 3, Room 101.
If your studies are interrupted by two years or more, you may find upon your return to Chemeketa that some of the requirements for graduation have been changed. You may have to complete the new requirements in order to earn your certificate or degree.
You may be allowed to make substitutions in the curriculum and still meet graduation requirements by following these steps:
-Discuss the substitutions with your program director or academic advisor.
-Gain approval of the program director to make the substitution.
-Submit a Curriculum Deviation form, signed by your program director, to the Enrollment Center. This form shows that the substitution will benefit you without changing the quality of your program. The Registrar may then grant the substitution.
Chemeketa awards adult high school diplomas through its High School Completion program. The Oregon Department of Education issues General Educational Development (GED) certificates. Students receive these diplomas and certificates at a graduation ceremony in June. For details on the High School Completion and GED programs, see this page.
Classes required to complete the programs outlined in this catalog are offered on the Salem Campus. Some of the classes are also offered at Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses.

You will receive a Certificate of Completion if you meet the requirements of certain one-year professional-technical programs.
See the Program Guide on pages 42 and 43 for a complete list of Certificate of Completion programs. Information and curriculum outlines of these programs begin on page 42 along with college transfer curricula. You may earn a Certificate of Completion by meeting these requirements:
-Satisfactorily complete the required courses or credit hours listed for each program.
-Earn a cumulative grade point average of 2.0 or above for all course work which applies to the certificate.
-Complete a minimum of 15 credit hours at Chemeketa.
-All courses to be applied toward a certificate must be numbered 050 or higher.

## TTigh School Completion, GED \& ABE

Chemeketa has several programs to help you earn the credits you need to receive a high
school diploma or its equivalent. The college also offers special classes to help you improve the basic skills which are important when you enroll in college-level courses.

## Adult high school diploma PROGRAM

(503) 399-5115

In Chemeketa's adult high school diploma program, you may earn the credits you need to receive a high school diploma.
To enroll in the adult high school diploma program, take copies of your high school and college transcripts to the Winema School Office in Building 50 on the Salem Campus or to Chemeketa's Dallas, McMinnville, Santiam, or Woodburn campuses. Chemeketa staff members will evaluate your transcripts.
At Chemeketa, you may earn credits toward a high school diploma in three ways:
-Enroll in high school completion classes offered on the Salem Campus and at Chemeketa's Dallas, McMinnville, Santiam, or Woodburn campuses.
-Earn high school credit for most Chemeketa classes. All Chemeketa courses must be completed with a grade of C or higher for high school credit to be awarded.
-Receive credit for some of your life experiences. These may be skills and knowledge you learned on a job, doing volunteer work, managing a home, or serving in a branch of the military. Chemeketa staff members will evaluate your experiences to award you credit.
Twenty-two credits, ASSET scores of 33 for reading, 32 for writing, and 37 for math, and 13 competencies are required to complete the high school diploma program. (At least two of these credits must have been earned at Chemeketa Community College.) To be in the program, you must be 16 years or older. Students who have met state minimum required courses/credits must complete residency as well as aforementioned requirements. You must have a release from your high school if you are under 18 years old.

## General Educational DEVELOPMENT (GED) <br> (503) 399-5224

You may earn a high school equivalency certificate by passing General Educational Development (GED) tests. These are five tests covering writing skills, social studies, the sciences, literature and the arts, and mathematics.


Chemeketa offers classes throughout the college district to help you prepare for these tests. You may enroll any week during the term and progress at your own pace. Classes are held at our Dallas, McMinnville, Santiam, and Woodburn campuses, and the Salem Campus. Generally, you must be 18 years or older, but if you are 16 or 17 years old, you may enroll if you have a release from your high school. Special tuition rates may apply.
GED tests are given in Salem, McMinnville, and Woodburn. The fee is $\$ 70$.

## Addlt Basic Education (503) 399-5224

If you do not have a high school diploma or if you need to upgrade your basic skills, you may sign up for non-credit classes in basic English, mathematics, and reading. These classes and General Educational Development (GED) classes meet together. Classes are held on the Salem Campus and at our Dallas, McMinnville, Santiam, and Woodburn campuses.

## OLLEGE Transfer Procedures

## General information

Chemeketa offers courses for students who wish to continue a four-year degree at a public or private college or university. You can usually complete all or most of the general education requirements of the four-year institution and begin work on the requirements for a spe-
cific major. (General education requirements are the courses required of all students, regardless of major or type of degree, in order to graduate from a college or university.)
It is the responsibility of students to learn the program requirements of the school to which they plan to transfer. Students should periodically contact the Advising and Counseling Center or their advisor for academic advising and to learn of any possible changes in a program.
If you plan to transfer credits toward a bachelor's degree, follow these steps:
-Contact the four-year college you plan to attend to check entrance requirements and the suggested freshman and sophomore classes required in your chosen field.
-Confer with a Chemeketa counselor or an academic advisor before you register.
-Check with the four-year college a term or two before completing your work at Chemeketa to make sure you are meeting all requirements.

- Apply for admission and transfer your credits to the four-year institution.
If you are interested in a field not listed in this catalog, you may be able to arrange a satisfactory program of study by consulting with one of our counselors and with the institution to which you plan to transfer.


## Collaborative bachelor's DEGREES

Chemeketa has entered into collaborative agreements with Linfield College and Portland State University. Junior and senior level classes leading to a bachelor's degree at
these institutions are offered on Chemeketa's Salem Campus. Most classes are held during the evening and on weekends. Listed below are the majors offered:
Linfield College (503) 399-5121
Management, Accounting, Business Information Systems, Arts and Humanities, and Social and Behavior Sciences
Portland State University (503) 399-5262
Child and Family Studies, General Studies
For more information on these two programs, contact the advisors at the numbers listed above.

## Curriculum requirements

Chemeketa's college transfer programs are adapted from curriculum requirements listed in the most recent catalogs of Oregon's public four-year universities. The Advising and Counseling Center in Building 2 on the Salem Campus and academic advisors have the catalogs. You may also meet with a counselor to review the requirements at Chemeketa's Dallas, McMinnville, Santiam, and Woodburn campuses.
General education requirements for Oregon's four-year colleges and universities are listed on pages 34-40. The Advising and Counseling Center also has advising sheets specific to these institutions, which include Eastern Oregon University, Oregon Institute of Technology, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. Additionally, the center has advising sheets for programs offered at Bassist College, Concordia College, George Fox University, Lewis and Clark College, Linfield College, Marylhurst College, Oregon Health Sciences University, Pacific Northwest College of Art, Pacific University, University of Portland, Western Baptist College, Western States Chiropractic College, and Willamette University.

## Associate of Arts Oregon Transfer Degree Requirements

| Requirements | Credit hours | Courses which satisfy requirements |
| :--- | :--- | :--- |
| $\begin{array}{l}\text { Complete a minimum of 90 credit hours. } \\ \text { These must include the following: }\end{array}$ |  |  |
| $\begin{array}{l}\text { General Education Requirements } \\ \text { Writing (with grade "C" or better) }\end{array}$ |  |  |
| $\begin{array}{l}\text { Math (with grade "C" or better) }\end{array}$ | 9 | WR121, WR122, and WR123 or WR227 |$]$

## Associate of Applied Science Degree Requirements

| Requirements | Courses which satisfy requirements |
| :---: | :---: |
| Satisfactorily complete the required courses and credit hours listed for each professional-technical program in the Programs of Study section of this catalog. |  |
| General Education Requirements <br> You will meet the general education requirements if you follow the curriculum outline listed for your program. In some cases the program specifies exactly which of the courses you should take. The courses listed below meet the college's general education requirements. |  |
| Writing | One class of WR115, WR121, BA214, BT084 or COM051 or any higher numbered writing class. |
| Math | One class of MTH052 or any higher numbered math course. |
| Computer Literacy | Approved program-related instruction on computers or three credit hours of computer studies. |
| Three credit hours from each of three of the four following areas: <br> Social Science | Anthropology, Chicano/Latino Studies, Economics, Geography, History, Human Development and Family Studies, Political Science, Psychology, Social Science, Sociology, Women's Studies. |
| Humanities/Fine Arts | American Sign Language, Art, English, Film Arts, Foreign Language, Humanities, Music, Music Performance, Philosophy, Religion, Theater Arts |
| Science/Applied Science | Approved program-related instruction may satisfy this requirement, or courses in Biology, Botany, Chemistry, Foods and Nutrition, General Science, Geology, Oceanography, Physics, Physical Science, Zoology |
| Communications* | Communication Skills, English as a Non-Native Language, Journalism, Speech, Writing, Reading, plus these specific classes: BA214, BT120, HD112, RD115, RD116, RD117A, B, C and RD120. |
| Three additional credits from any of these areas: <br> Communications <br> Health Education <br> Humanities/Fine Arts <br> Math <br> Physical Education <br> Science <br> Social Science |  |
| Complete a minimum of 30 credit hours at Chemeketa. |  |
| Earn a cumulative grade point average (GPA) of 2.0 or above for all course cred its which apply toward the degree. Only courses numbered 050 or higher, unless otherwise indicated, apply toward the degree. |  |

## Notes:

1. We recommend that you see an advisor for guidance before you enroll.
2. At the end of a program or course of study, any student receiving a three-term Certificate of Completion or two-year Associate of Applied Science degree will meet exit proficiencies in communications, computation and human relations. See your advisor.
3. Some of Oregon's four-year institutions accept certain courses in professional-technical programs as college transfer courses. If you are interested in continuing your education after completing a Chemeketa program, check with the institution you plan to attend.
4. For information on the Industrial Technology and Apprenticeship degree, see page 91.

* Courses taken to meet the Writing requirement may not also be used to meet the Communications requirement.


## Associate of General Studies Degree Requirements

| Requirements | Credit Hours | Courses which satisfy requirements |
| :---: | :---: | :---: |
| Complete a minimum of 90 credit hours. These must include the following: |  | A maximum of 36 credit hours in professional-technical courses may be applied toward the 90 credit hours required for the degree. See page 117 for how courses are numbered. All collegiate courses must be numbered 100 or above. |
| Writing (with a grade "C" or better) | 6 | WR121 and one additional course from WR121, 123, 227, 241, 242, 243 or BA214 |
| Math (with a grade "C" or better) | 4 | MTH095 or above |
| Speech | 3 | SP100 or above |
| Computer Studies | 3 | CIS120, CS101 or other computer science courses or CA201; DRF072; ELT121; GE102; VC121, 122, 221, 222 |
| *Physical Education or Health | 3 | Any three-credit health course with an HE prefix; HPE295 (three credits); or three terms of PE180, PE185 or PE190 classes (one credit each). |
| Arts and Letters/Humanities | 9 | Choose courses from Art, American Sign Language, English, Film Arts, French, German, Humanities, Journalism, Japanese, Music Performance, Music, Philosophy, Religion, Speech, Spanish, Theater Arts, Writing. |
| Social Science <br> (Courses must be chosen from at least two disciplines.) | 12 | Choose courses from Anthropology, Chicano/Latino Studies, Economics, Geography, History, Political Science, Psychology, Sociology, Social Science, Women's Studies. |
| Science <br> (Courses must include a laboratory.) | 8 | Choose courses from Biology, Botany, Chemistry, Geology, General Science, Physics, Zoology. |
| Electives: <br> Additional courses to bring the total number of credits to 90 . |  |  |
| Earn a cumulative grade point average (GPA) of 2.0 or above in all work to be applied toward the degree. |  |  |
| Complete a minimum of 30 credit hours at Chemeketa. |  |  |
| Notes: <br> *1. A Maximum of 12 credit hours of physical education may be applied toward the degree. <br> 2. A maximum of 12 credit hours of cooperative work experience may be applied toward the degree. |  |  |


| Requirements | Credit hours | Chemeketa courses which satisfy requirements |
| :---: | :---: | :---: |
| Humanities <br> (Choose courses from at least two different prefixes other than your major.) | Minimum 15 hours | ART101, 204, 205, 206; ENG104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 214, 222, 250, 253, 254, 255, 256, 261, 260, 262, 263, 299; FA255, 256, 257; HUM251, 252, 253; J224; MUS105, 161, 201, 202, 203, 205; PHL201, 202, 203, 205; SP115; TA110 |
| Natural Science <br> (Choose courses from at least two different prefixes other than your major.) | Minimum 15 hours | ANTH101, 153, 180; BI100, 101, 102, 103, 131, 132, 133, 143, 200, 251; BOT201, 202, 203; CH104, 105, 106, 110, 111, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223; G142, 143, 144, 201, 202, 203; GEOG105; GS104, 105, 106, 107, 120, 141, 142, 143; OC133; PH111, 201, 202, 203, 207, 208, 209, 211, 212, 213; ZOO210, 202, 203 |
| Social Science <br> (Choose courses from at least two different prefixes other than your major.) | Minimum 15 hours | ANTH102, 103, 207, 208, 209; EC200, 201, 202, 203; GEOG106, 107, 201, 202, 206, 207, 299; HST110, 111, 112, 157, 158, 159, 201, 202, 203, 257, 258, 259; PS201, 202, 203, 205; PSY201, 202, 203, 237; SOC204, 205, 206; SSC206 |
| Art, Languages and Logic (Choose courses outside of your major.) | Minimum 15 hours |  |
| Artistic Creation <br> (Sub-Area 1) | 3 to 12 <br> hours | ART115, 116, 117, 131, 132, 133, 154, 155, 156, 221, 222, 223, 234, 235, 236, 238, 239, 244, 254, 261, 270, 271, 281, 284, 291, 292, 293; MUP100, 174; MUS197; TA121, 122, 123; WR241, 242, 243 |
| Languages and Logic (Sub-Area 2) | 3 to 12 hours | ASL101, 102, 103; CIS120, 121, 122; CS140B; FR101, 102, 103, 150, 151, 201, 202, 203; GER101, 102, 103, 201, 202, 203; JPN101, 102, 103; MTH105, 211, 212, 213, 243, 244, 251, 252, 253; PHL204; RUS101, 102, 103, 201, 202, 203; SP100, 111, 112, 113, 115, 118, 130, 218; SPAN101, 102, 103, 150, 151, 201, 202, 203 |

## Notes:

1. A maximum of 126 credit hours of lower division coursework may be applied toward a baccalaureate degree.
2. The Writing Proficiency Exam (WPE) must be attempted prior to admission to a major degree program and must be passed prior to graduation from Eastern. Students are required to complete writing courses through WR121 or, upon entering, demonstrate a Test of Standard Written English (TSWE) score of 45 or better before attempting the WPE given at Eastern.
3. Students who have earned an Associate of Arts (A.A.) transfer degree from Chemeketa Community College will be considered as having met the lower division General Education Distribution Requirements at Eastern.
4. General Education Distribution Requirements: In the absence of an A.A. degree from an Oregon community college, students must complete a minimum of 15 credits in each of the following four areas: Humanities, Natural Science, Social Science and Arts, Languages and Logic. Within each of the four areas a student must have completed courses with at least two different prefixes other than the prefix or prefixes of the student's major. No more than 12 hours in a discipline may be applied in an area.
5. Students must demonstrate "functional computer literacy" in the major field.
6. For the Bachelor of Science (B.S.) degree: In addition to completing the General Education Distribution Requirements, students are required to demonstrate the application of mathematics at the college level. Means for satisfying this requirement are described in each major at Eastern.
7. For the Bachelor of Arts (B.A.) degree: In addition to completing the General Education Distribution Requirements, students are required to demonstrate proficiency in a single foreign language (two years or completion of a second-year foreign language course sequence or equivalency).
8. Courses in which "D" grades have been earned will transfer to Eastern.
9. This guide is subject to change without notice and should not be regarded as a contract between Eastern and students attending Chemeketa Community College.

| Requirements | Credit hours | Chemeketa courses which satisfy requirements |
| :---: | :---: | :---: |
| Communication <br> Speech <br> English Composition <br> Nine additional credits from speech/writing courses having WR122 or SP111 as a prerequisite; specified by the major department from the following: WR123, 214, 227, 321, 322, 323, 327, 328. | $\begin{aligned} & 3 \\ & 6 \\ & 9 \end{aligned}$ | SP111 <br> WR121 and 122 <br> WR123, 227; BA214; SP113; no equivalent courses for WR321, 322, 323, 327, 328 |
| Business <br> Nine credits selected from upper-division business and industrial management courses. | 9 | No equivalent course. |
| Humanities <br> Nine credits selected by student or specified by a major department | 9 | ART101, 115, 116, 117, 131, 132, 133, 154, 155, 156, 198, 199, 204, 205, 206, 210, 221, 222, 223, 230, 231, 233, 234, 235, 236, 239, 244, 245, 246, 254, 256, 261, 262, 263, 264, 270, 271, 272, 273, 274, 275, 281, 284, 285, 286, 291, 292, 293, 299; ENG104, 105, 106, $107,108,109,201,202,203,204,205,206,214,222,250,253,254,255,260,261,262$, 263; FA255, 256, 257; FR202, 203; GER201, 202, 203; HUM251, 252, 253; JPN201, 202, 203; MUP100, 105, 174; MUS105, 197, 199, 201, 202, 203; PHL201, 202, 203, 204, 205; R201, 202, 203; RUS201, 202, 203; SPAN201, 202, 203; TA110, 121, 122, 123, 285A, B, C |
| Social Sciences <br> Twelve credits selected by student or specified by a major department. | 12 | ANTH101, 102, 103, 207, 208, 209; CJ101, 110, 131, 200, 206, 220, 226; EC200, 201, 202, 203; GEOG105, 106, 107, 201, 202, 206; HST110, 111, 112, 157, 158, 159, 199A, 201, 202, 203, 257, 258, 259; PS151, 201, 202, 203, 205; PSY100, 201, 202, 203, 206, 237, 239, 246; SOC204, 205, 206, 210, 221, 227, 235; SSC150, 151, 206; WS101, 102, 103 |
| Technology <br> Twelve credits selected by student or specified by a major department. At least one computer course is required. | 12 | ENGR211, 212, 213; select computer course from: CIS120, 121, 122; CS101, 125A1, 125A2, 125A3, 125FX, 125P, 125Q, 131, 133A, 133B, 133C, 133E, 133F, 133U, 133VB, 140A, 140B, 140C, 140M, 140U, 160, 171, 178I, 199, 233U, 234C, 234L, 240, 244, 246, 260, 285 |
| Science/Mathematics <br> College Algebra <br> Twelve additional credits selected by student or specified by a major department from biological sciences, mathematics, or physical science. | $\begin{gathered} 4 \\ 12 \end{gathered}$ | MTH111 <br> BI101, 102, 103, 131, 132, 133, 200, 231, 232, 233, 234; BOT201, 202, 203; CH104, 105, 106, 110, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223, 241, 242, 243; G142, 143, 144, 160A, 201, 202, 203; GS104, 105, 106, 107; MTH105, 112, 231, 243, 251, 252, 253, 254, 255, 256; OC133; PH201, 202, 203, 207, 208, 209, 211, 212, 213; ZOO201, 202, 203 |

## Notes:

1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree.
2. Courses in which "D" grades have been earned will transfer to OIT. Some sequence courses require a "C" grade or better in a prerequisite course in order to continue in the sequence.
3. Students with an Oregon Associate of Arts (A.A.) transfer degree from Chemeketa Community College will be considered as having met the lower division General Education Requirements at OIT.
4. This guide is subject to change without notice and should not be regarded as a contract between OIT and students attending Chemeketa Community College.

| Requirements | Credit hours | Chemeketa courses which satisfy requirements |
| :---: | :---: | :---: |
| Writing I | 3 | WR121 (must be completed with a "C" grade or better before transferring) |
| Writing II | 3 | BA214; J216; WR122, 123, 227, 241, 242, 243 (pass with a "C" grade or better) |
| Writing III/Speech | 3 | Any courses listed to meet Writing II requirements not taken to meet the Writing II requirements or SP111, 112, 218 |
| Mathematics | 4 or 5 | MTH105, 111 or higher math (must be completed before transferring) |
| Fitness | 3 | HPE295 |
| Writing Intensive Course |  | (Must be taken at OSU as part of major) |
| Physical Science Including Lab | 4 to 5 | CH104, 105, 106, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223; G142, 143, 144, 201, 202, 203; GS104, 105, 106, 107; PH201, 202, 203, 207, 208, 209, 211, 212, 213 |
| Biological Science Including Lab | 4 | BI101, 102, 103, 143, 200, 234; BOT201, 202, 203; ZOO201, 202, 203 |
| One additional Physical Science or Biological Science course | 4 to 5 | Any courses listed for Physical or Biological Science above. |
| Western Culture | 3 | ART101, 204, 205, 206; ENG107, 108, 109, 201, 202, 203, 204, 205, 206, 253, 254, 255; FA255; GEOG106; HST110, 111, 112, 201, 202, 203, 228; PHL201, 202, 203; R201, 202, |
| Cultural Diversity | 3 | ANTH212, 214; CHLA203; GEOG202; HST157, 158, 159, 257, 258, 259; R201, 202 |
| Literature and the Arts | 3 | ART101, 204, 205, 206; ENG104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 250, 253, 254, 255, 256, 257, 258, 260, 299; MUS161, 201, 202, 203; TA110 |
| Social Processes and Institutions | 3 | ANTH103, 207, 208, 209; EC201, 202; H101; HE209; PS201, 202; PSY201, 202, 203; SOC204. 205, 235 |
| Difference, Power and Discrimination | 3 | HST201, 202, 203; SOC206; SSC206 |
| Global Issues | 3 | (Upper division course; must be taken at OSU.) |
| Science, Technology and Society | 3 | (Upper division course; must be taken at OSU.) |
| Notes: <br> 1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree. <br> 2. No more than two courses from the same department may be used to fulfill the Baccalaureate Core Curriculum requirements other than writing. <br> 3. In general, only courses with letter prefixes and numbers above 100 are accepted at OSU. (Courses with CA, BT, DRF, VC, and most courses with H, HFM, and MT prefixes are not accepted.) <br> 4. Up to 12 professional-technical credits (courses numbered 50-99) may be accepted as "unrestricted" electives. Students with professional-technical credits similar to those available in their major should contact the head of the department to determine transferability. <br> 5. OSU will accept "D" grades. Some departments, schools or colleges may not accept "Ds" in required courses. <br> 6. Students with an Oregon Associate of Arts (A.A.) transfer degree from Chemeketa Community College will be considered as having met OSU's lower division Baccalaureate Core Curriculum requirements. <br> 7. This guide is subject to change without notice and should not be regarded as a contract between OSU and students attending Chemeketa Community College. |  |  |


| Requirements | Credit hours | Chemeketa courses which satisfy requirements |
| :---: | :---: | :---: |
| Freshman Inquiry <br> (Three five-credit courses) <br> This sequence is required of all transfer students who have earned less than 30 quarter hours at the time of transfer. <br> Electives or Major Requirements | 15 30 | Complete 45 credit hours from courses listed for Oregon Associate of Arts transfer degree. Courses should include writing, speech and computer science. It is also important to learn appropriate information technology resources of the library. |
| Sophomore Level <br> (Three four-credit courses selected from different interdisciplinary programs or general education clusters.) <br> Students who have earned 30 to 89 quarter hours at the time of transfer must complete sophomore inquiry at PSU. <br> Electives or Major Requirements | 12 33 | Complete 45 credit hours from courses listed for Oregon Associate of Arts transfer degree and courses required for major. Students planning to attend Chemeketa two years should complete the Oregon Associate of Arts transfer degree. |
| Notes: <br> 1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree. <br> 2. In general, only courses with letter prefixes and numbers 100 or higher are accepted at PSU. <br> 3. Students must have achieved a 2.00 cumulative GPA with 30 transferable credit hours to be considered as a transfer student; non-residents must have a 2.25 cumulative GPA. <br> 4. PSU does not accept courses in which "D" grades have been earned. <br> 5. PSU does not award credit for the following courses: CPL120, CS125FX, CS125P, NUR111, NUR215, CA121, 122, 123 (and some other business technology classes), as well as Drafting, Electronic Technology and Visual Communications courses. <br> 6. Students who have earned an Oregon Associate of Arts (A.A.) transfer degree from Chemeketa Community College will be considered as having met PSU's lower division general education requirements. <br> 7. This guide is subject to change without notice and should not be regarded as a contract between PSU and students attending Chemeketa Community College. |  |  |



| Requirements | Credit hours | Chemeketa courses which satisfy requirements |
| :---: | :---: | :---: |
| Written English | 6 credit hours | WR121 and WR122 or WR123 (with a "C" grade or better) |
| Arts and Letters* <br> These courses must be completed in at least two subjects (prefixes), and a minimum of two courses must be completed in one subject. | 16 credit hours | Choose from the following: ART204, 205, 206; ENG104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 222, 250, 253, 254, 255, 256, 257, 258, 260; FA255, 256, 257; FR201, 202, 203; GER201, 202, 203; HUM251, 252, 253; JPN201, 202, 203; MUS201, 202, 203, 205; PHL201, 202, 203, 204; RUS201, 202, 203; SPAN201, 202, 203; TA110 |
| Social Science* <br> These courses must be completed in at least two subjects (prefixes), and a minimum of two courses must be completed in one subject. | 16 credit hours | Choose from the following: ANTH102, 103, 180, 207, 208, 209, 212, 214; BA101; CHLA201, 202; EC201, 202, 203; GEOG106, 107, 201, 202, 206, 207; HST110, 111, 112, 157, 158, 159, 201, 202, 203, 257, 258, 259; J224; PS201, 202, 203, 205; PSY202, 203, 206, 237, 239; R201, 202, 203; SOC204, 205, 206, 210, 221; SSC150, 206; WS101, 102, 103 |
| Science* <br> These courses must be completed in at least two subjects (prefixes), and a minimum of two courses must be completed in one subject. (MTH105 or MTH111 must be completed before transferring.) | 16 credit <br> hours | ANTH101; B100, 101, 102, 103, 131, 132, 133, 143, 200, 231, 232, 233, 234; BOT201, 202, 203; CH104, 105, 106, 110, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223; CIS120, 121, 122; CS133F, 161, 162, 244, 246; G142, 143, 144, 201, 202, 203; GEOG105; GS104, 105, 106, 107, 120, 141, 142, 143; MTH105, 211, 212, 213, 231, 232, 241, 243, 244, 251, 252, 253;OC133; PH201, 202, 203, 207, 208, 209, 211, 212, 213; PSY201; ZOO201, 202, 203 |
| Multicultural Studies <br> You must complete two courses chosen from two of the following three areas: <br> Area 1—American Culture <br> Area 2-Identity, Pluralism and Tolerance <br> Area 3-International Cultures <br> (Some courses may be chosen to meet this requirement and one of the requirements listed above.) | 2 courses | CHLA201, 202, 203; ENG256, 257; HST257, 258, 259; MUS105, 205; SSC150, <br> ED258; ENG222, 260; SP115; SSC206; WS101, 102, 103 <br> ANTH103, 207, 208, 209, 212, 214; ENG258; GEOG202; HST110, 111, 112, 157, 158, 159, 293;R201, 202 |
| 1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree. <br> 2. Courses with letter prefixes and numbers above 100 are accepted at the University of Oregon (with the exception of the following: RD115, 116, 117). <br> 3. A maximum of 12 credit hours of vocational/technical courses are accepted. <br> 4. B.A. degree requires equivalent of two years of college foreign language. <br> 5. B.S. degree requires MTH111, 211, 212 and 213; or MTH105, 111 and 243; or MTH112or 116 and 231, 241 or 243; or CS161 and 162; or any one of MTH251, 252, 253, 254, 255 or 256 . All courses must be completed with a "C" grade or better. <br> 6. Courses in which "D" grades have been earned will transfer to UO, but will not satisfy degree requirements in writing, mathematics or foreign language and may not be acceptable for major requirements. <br> 7. Students not meeting freshman admissions criteria must complete WR121 and MTH105 or 111 before transferring. <br> 8. Students who have earned an Oregon Associate of Arts (A.A.) transfer degree from Chemeketa Community College will be considered as having met the Core Curriculum requirements at UO. The Multicultural Studies requirement is not satisfied by completing the A.A. degree unless acceptable courses are taken as part of the A.A. degree.. <br> 9. This guide is subject to change without notice and should not be regarded as a contract between UO and students attending Chemeketa Community College. <br> * No more than three courses from any one department may be used to satisfy the total 48 credit group requirement. Courses in the major may be used to satisfy the group requirement. |  |  |


| Requirements | Credit <br> hours | Chemeketa courses which satisfy requirements |
| :--- | :---: | :--- |
| English Composition | 3 | WR121 and WR122 or WR123 |
| Speech | 4 | SP111, 112, 126, 218, 219 or 229. SP111 preferred. |
| Physical Education | 9 | All activity courses selected from PE180, 185, 190, 194, 294 and HPE295. (HPE295 and <br> one hour of activity class preferred. Classes should include different activities.) |
| Creative Arts <br> (Art, Dance, Music, Theater Arts) | Any course with prefix of ART, MUP*, MUS, TA and numbered 100 or above. In addi- <br> tion, dance courses at WOU meet requirement. Nine hours in combination of three different <br> areas preferred. <br> *A maximum of three hours of music performance courses is allowed. |  |
| Humanities <br> (Literature, Philosophy and Religion) | 12 | A sequence of at least nine hours in literature is required: ENG104, 105, 106, 107, 108, <br> 109, 201, 202, 203, 204, 205, 206, 253, 254, 255, 260, 261, 262, 263 and one philosophy or <br> religion course: PHL201, 202, 203 or 204, or R201, 202 or 203. |
| Laboratory Science | 12 | A sequence of at least eight hours in the same discipline is required. All courses numbered <br> 100 or higher and with a prefix of BI, BOT, CH, G, GS, PH or Z00. (Elementary educa- <br> tion majors should take BI101, GS104 and GS106.) |
| Social Science | 42 | A sequence of at least nine hours in the same discipline is required. All courses numbered <br> 100 or higher with a prefix of ANTH, EC, GEOG, HST, PS or SOC. The remaining three <br> hours may be in any social science area, including psychology and criminal justice. (World <br> history and geography are recommended for elementary education majors.) |
| Special Graduation Requirements |  |  |
| Bachelor of Arts (B.A.) |  |  |

## Notes:

1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree.
2. In general, only courses with letter prefixes and numbers above 100 are accepted at Western.
3. Up to 24 hours of professional-technical credits can be transferred as free electives.
4. Courses in which "D" grades have been earned are accepted at Western.
5. Students who have not completed all of the Liberal Arts Core Curriculum (LACC) requirements listed above at the time they transfer will be expected to complete them with courses among those specifically required of freshmen beginning their work at Western.
6. Courses numbered 199 and 299 and Cooperative Work Experience (CWE) credits transfer to Western as general elective credits and are not applied to the major or LACC requirements. Up to 12 hours of CWE can be accepted.
7. Students with an Oregon Associate of Arts (A.A.) transfer degree from Chemeketa Community College will be considered as having met the LACC requirements at Western, but not the special graduation requirements.
8. For the Bachelor of Science (B.S.) degree: In addition to completing the LACC requirements, students are required to earn 12 credits in mathematics, computer science and statistics, including a minimum of one mathematics course and one computer course. (MTH105 and CS101 do not meet these requirements.)
9. For the Bachelor of Arts (B.A.) degree: In addition to completing the LACC requirements, students are required to take two years of a college-level foreign language. The language must be French, German, Japanese or Spanish.
10. Courses required in the major may not be used to fulfill the LACC requirements.
11. This guide is subject to change without notice and should not be regarded as a contract between Western and students attending Chemeketa Community College.


## Program Guide

$\mathbf{C}=$ Certificate of Completion
A = Associate of Applied Science Degree
T = Transfer Program and/or Associate of Arts Degree
$\mathbf{O}=$ Other (classes for personal or professional skill development)

| Program Name | C | A | T | 0 | Program Name | C | A | T | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accounting |  | $\checkmark$ |  |  | Chemistry |  |  | $\checkmark$ |  |
| Adult Basic Education |  |  |  | $\checkmark$ | Chiropractic |  |  | $\checkmark$ |  |
| Adult High School Diploma |  |  |  | $\checkmark$ | Civil Engineering Technology |  | $\checkmark$ |  |  |
| Agriculture |  |  | $\checkmark$ |  | - Survey Technology | $\checkmark$ |  |  |  |
| Anthropology |  |  | $\checkmark$ |  | Computer Programming |  |  |  |  |
| Art |  |  | $\checkmark$ |  | - Computer Programming |  | $\checkmark$ |  |  |
| Automotive Technology |  | $\checkmark$ |  |  | - Microcomputer Support Specialist |  | $\checkmark$ |  |  |
| - Automotive Body Repair | $\checkmark$ |  |  |  | Computer Science |  |  | $\checkmark$ |  |
| Biology |  |  | $\checkmark$ |  | Criminal Justice |  | $\checkmark$ |  |  |
| Botany |  |  | $\checkmark$ |  | Dental Assisting | $\checkmark$ |  |  |  |
| Building Construction Training | $\checkmark$ |  |  |  | Dental Hygiene |  |  | $\checkmark$ |  |
| Building Inspection Technology | $\checkmark$ | $\checkmark$ |  |  | Drafting Technology-CAD |  |  |  |  |
| - One- and Two-Family Plans | $\checkmark$ |  |  |  | - CAD |  | $\checkmark$ |  |  |
| Mechanical Inspector |  |  |  |  | - CAD/CAM |  | $\checkmark$ |  |  |
| - One-Year Structural Inspector | $\checkmark$ |  |  |  | - Mechanical Design |  | $\checkmark$ |  |  |
| - One-Year Structural Plans Examiner | $\checkmark$ |  |  |  | Early Childhood Education |  |  |  |  |
| - One-Year Mechanical Inspection | $\checkmark$ |  |  |  | - Child Development Certificate | $\checkmark$ |  |  |  |
| Business Administration |  |  | $\checkmark$ |  | - One-Year Program | $\checkmark$ |  |  |  |
| Business Technology |  |  |  |  | - Two-Year Program |  | $\checkmark$ |  |  |
| - Business Software Certificate | $\checkmark$ |  |  |  | Economics |  |  | $\checkmark$ |  |
| - General Clerical Certificate | $\checkmark$ |  |  |  | Education |  |  |  |  |
| - Administrative Assistant |  | $\checkmark$ |  |  | - Education Certificate | $\checkmark$ |  |  |  |
| - Office Support Certificate | $\checkmark$ |  |  |  | - Elementary |  |  | $\checkmark$ |  |
| - Business Assistant |  | $\checkmark$ |  |  | - Secondary |  |  | $\checkmark$ |  |
| - Clerical Basics | $\checkmark$ |  |  |  | Electronics Technologies |  |  |  |  |
| - Word Processing Certificate | $\checkmark$ |  |  |  | - Computer Electronics |  | $\checkmark$ |  |  |
| - Information Processing |  | $\checkmark$ |  |  | - Electronic Engineering Technician |  | $\checkmark$ |  |  |
| - Medical |  | $\checkmark$ |  |  | - Microelectronics/Industrial Electronics |  | $\checkmark$ |  |  |
| - Bookkeeping Certificate | $\checkmark$ |  |  |  | Emergency Medical Technology-Paramedic |  | $\checkmark$ |  |  |
| - Office Accounting |  | $\checkmark$ |  |  | Engineering |  |  | $\checkmark$ |  |


| Program Name | C | A | T | 0 | Program Name | C | A | T | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| English |  |  | $\checkmark$ |  | Journalism |  |  | $\checkmark$ |  |
| English as a Non-Native Language |  |  |  | $\checkmark$ | Juvenile Corrections Certificate | $\checkmark$ |  |  |  |
| English as a Second Language |  |  |  | $\checkmark$ | Management |  | $\checkmark$ |  |  |
| Entomology |  |  | $\checkmark$ |  | Manufacturing Engineering Technologies |  |  |  |  |
| Farm Business Management |  |  |  | $\checkmark$ | - Manufacturing Operations | $\checkmark$ |  |  |  |
| Financial Services | $\checkmark$ | $\checkmark$ |  |  | - Manufacturing Technologies |  | $\checkmark$ |  |  |
| Fire Protection Technology |  |  |  |  | Manufacturing Engineering Technologies |  |  | $\checkmark$ |  |
| - Advanced Fire Officer Certificate | $\checkmark$ |  |  |  | Mathematics |  |  | $\checkmark$ |  |
| - Fire Prevention |  | $\checkmark$ |  |  | Medical Office Assisting | $\checkmark$ |  |  |  |
| - Fire Suppression |  | $\checkmark$ |  |  | Network Technology |  | $\checkmark$ |  |  |
| Foreign Languages |  |  | $\checkmark$ |  | Nursing |  |  | $\checkmark$ |  |
| Forest Resources Technology |  | $\checkmark$ |  |  | - Practical Nursing | $\checkmark$ |  |  |  |
| Forestry |  |  | $\checkmark$ |  | - Associate Degree Nursing |  | $\checkmark$ |  |  |
| General Educational Development |  |  |  | $\checkmark$ | Occupational Skills Training |  | $\checkmark$ |  |  |
| General Science |  |  | $\checkmark$ |  | Philosophy |  |  | $\checkmark$ |  |
| General Studies |  |  | $\checkmark$ |  | Physical Education/Human Movement Studies |  |  | $\checkmark$ |  |
| Geography |  |  | $\checkmark$ |  | Physics |  |  | $\checkmark$ |  |
| Geology |  |  | $\checkmark$ |  | Political Science |  |  | $\checkmark$ |  |
| Health, Health Education |  |  | $\checkmark$ |  | Pre-Law |  |  | $\checkmark$ |  |
| Health Services Management |  |  |  |  | Pre-Profe |  |  |  |  |
| - Health Information Technology | $\checkmark$ |  |  |  | dentistry, veterinary medicine) |  |  | $\checkmark$ |  |
| - Health Services Management |  | $\checkmark$ |  |  | Professional-Technical Teacher Preparation | $\checkmark$ | $\checkmark$ |  |  |
| - Medical Transcription |  | $\checkmark$ |  |  | Psychology |  |  | $\checkmark$ |  |
| History |  |  | $\checkmark$ |  | Real Estate |  | $\checkmark$ |  |  |
| Home Economics |  |  | $\checkmark$ |  | Small Business Management |  |  |  | $\checkmark$ |
| Hospitality and Tourism Management |  | $\checkmark$ |  |  | Sociology |  |  | $\checkmark$ |  |
| - Travel Agency Operations | $\checkmark$ |  |  |  | Speech |  |  | $\checkmark$ |  |
| Hotel, Restaurant and Resort Management |  |  | $\checkmark$ |  | Vineyard Management |  | $\checkmark$ |  |  |
| Human Services |  |  |  |  | - Vineyard Operations | $\checkmark$ |  |  |  |
| - Addiction Studies |  | $\checkmark$ |  |  | Visual Communications |  | $\checkmark$ |  |  |
| - Addiction Counselor Certification | $\checkmark$ |  |  |  | Welding |  |  |  |  |
| Preparation |  |  |  |  | - Welding Fabrication |  | $\checkmark$ |  |  |
| - Social Services |  | $\checkmark$ |  |  | - Welding Technology | $\checkmark$ |  |  |  |
| Industrial Technology and Apprenticeship |  | $\checkmark$ |  |  | Winemaking | $\checkmark$ | $\checkmark$ |  |  |
| Integrated Circuit Mask Design |  | $\checkmark$ |  |  | Zoology |  |  | $\checkmark$ |  |

# Professional-Technical and College Transfer Curricula 

## A CCOUNTING

## see also Business Administration

Are you interested in becoming a bookkeeper, accounting clerk, or junior accountant? The Accounting program offers you the training to qualify for entry-level positions requiring accounting in business, industry, and government agencies.
The program includes a core of accounting, business, and general education courses and emphasizes acquiring specialized business knowledge. You may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree. You may take some or most of your classes at night.
We strongly suggest that you consult with your assigned advisor to plan your course of study before you begin the first term. The college requires you to take English and mathematics placement tests before you apply for admission. If the tests show that your skills are above the levels of the required first term courses, you may request to substitute general education courses.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses.
Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| BA066 | Introduction to Business Studies |
| :---: | :---: |
| BT061A | Electronic Calculators A(if less than 80 strikes/minute) |
| BT085 | Business English 2 |
| CA121A | Keyboarding A (if less than 25 wpm ) |
| CS101 | Introduction to Microcomputer Applications |
| MTH060 | Introductory Algebra |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114. Failure to be assessed may delay your entry into program classes.
You may be interested in our Cooperative Work Experience program which allows you to earn college credit for work you do relating to your program. With the approval of the CWE instructor, you may enroll in BA280 Cooperative


#### Abstract

Work Experience and earn up to six credit hours as a business elective. For more information, look under Cooperative Work Experience in the catalog index. The Accounting program provides you with an opportunity to participate in a number of accounting-related extracurricular activities. Several professional accounting organizations, such as the National Association of Accountants and the American Society of Women Accountants, encourage you to become active in Salem area chapters.


## In addition to tuition, estimated costs for students who complete

 the entire program listed below are books, \$1,569; class fees, \$36; equipment and supplies, \$104. Contact the Financial Aid Office to find out if you qualify for help with these costs.You may earn an Associate of Applied Science degree by successfully completing these required 98 credit hours:
Course Title Credit Hours

## Term 1

BA202 Personal Effectiveness ..................................... 3
BA211 Financial Accounting I ${ }^{*}$. ................................... 4
BA214 Business Communications ................................. 3
or
$\begin{array}{ll}\text { WR123 } & \text { English Composition-Research Writing ...................... } 3 \\ \text { CS125E } \\ \text { Excel-Workbooks .............................. } 4\end{array}$

CS125Q Quattro-Workbooks ....................................... 4
MTH062 Business Applications Using Mathematics (or higher) ........ 4
Term 2
BA101 Business Environment ..................................... 4
BA203 Interpersonal Relations in Business ........................... 3
BA212 Financial Accounting II ..................................... 4
MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . 4
Computer Science elective**. ............................. 3
Term 3
BA213
BA228
BA256
EC200
WR227
Term 4
BA056
BA226
BA240
BA257
BA271
FE205C
Managerial Accounting .................................. 4
Computer Accounting Applications . . . . . . . . . . . . . . . . . . . . 3
Income Tax Accounting I ................................... . 4
Introduction to Economics (or higher) ...................... 3
Technical Writing ........................................ 3
Intermediate Financial Accounting I . . . . . . . . . . . . . . . . . . . . 4
Business Law I ............................................. . 3
Governmental/Nonprofit Accounting I*** .................. 3
or
Income Tax Accounting II ................................. . 4
Information Technology in Business ....................... 4
Interviewing for Success ................................... 1
Term 5
BA057 Intermediate Financial Accounting II ........................ . 4
BA206 Business Management Principles .......................... 3
BA222 Financial Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BA280C Cooperative Work Experience .............................. 3
or
Business elective**** .................................... 3
Term 6
BA058
Intermediate Financial Accounting III . . . . . . . . . . . . . . . . . . . 4
Payroll
$\qquad$ 3

BA280C Cooperative Work Experience . .................................. . 3
Humanities/Fine Arts elective 3
*You must have completed the requirements for, or be concurrently enrolled in MTH062 or MTH070.
**Choose from CS135SS, CA201D, or a programming class; CS125A recommended.
***If you are interested in working for a government agency, you are strongly encouraged to consider BA240.
****Business elective: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084, BT085, BA051, BA052, BA053 and CS101.

(college transfer)
Oregon State University offers Bachelor of Science degrees in Agricultural and Resource Economics, Agricultural Business Management, General Agriculture, Animal Science, Crop and Soil Science, Fisheries, Food Science and Technology, and Wildlife Science.
The two-year program outlined below is designed to meet some requirements at OSU. It is important to check the OSU catalog for the requirements of specific majors. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at OSU to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## First Year

BI101, 102, 103 General Biology or ZOO201,
202, 203 Zoology or CH121, 122, 123 General Chemistry (depending upon major and option;
CH221, 222, 223 required for Food Science)
HPE295 Health and Fitness for Life
CS101 Introduction to Microcomputer Applications (or other computer class needed)
Arts and Letters or Social Science* (EC201, 202 Introduction to Microeconomics and Macroeconomics required in some options)

## Electives*

## Second Year

BA211, 212 Financial Accounting (required for some majors)
BI101, 102, 103 or CH121, 122, 123 (both sequences recommended but may not be required; some options require ZOO201, 202 General Zoology and BOT201, 202 General Botany or G201, 202 Geology or PH201, 202 General Physics)
Arts and Letters or Social Science electives*
Electives* (BA226 Business Law or FN225
Nutrition required in some majors; check OSU for additional courses required in specific options)
*To meet OSU general education requirements.


## (college transfer)

Oregon State University, Portland State University, and University of Oregon offer Bachelor of Arts and/or Bachelor of Science degrees in Anthropology. Eastern Oregon University and Southern Oregon University both offer a combined major in anthropology and sociology. The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :--- | :---: | :---: | :---: |
| First Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| WR121, 122 and/or 123 English Composition-Exposition* | 3 | 3 | (3) |
| HPE295 Health and Fitness for Life* or elective |  |  | 3 |

ANTH101, 102, 103 Human Evolution, Archeology and Introduction to Cultural Anthropology (OSU requires ANTH103 only; UO requires any three from ANTH101, 102, 103 or $180 * * *$ )
Arts and Letters/Humanities courses*
Electives or Foreign Language* (two years of college-level Foreign Language required at PSU and recommended at UO and may be required for graduate work)
Math or Science electives*(EOU requires a statistical class at EOU; SOU requires math through MTH243 Probability and Statistics I) 4

## Second Year

Social Science electives* (SOC204, 205, 206 General Sociology for EOU and SOC204, 205 for SOU)
Arts and Letters/Humanities electives*
Second-year Foreign Language (for PSU and for graduate studies) or electives*
Math or Science electives**
Electives* (CS101 Introduction to Microcomputer Applications for SOU; UO recommends Computer Science and Statistics courses)
*To meet four-year college general education requirements; OSU students must meet liberal arts core and OSU general education requirements.
**MTH243 Probability and Statistics I and CS101 Introduction to Microcomputer Applications recommended for students planning to do graduate studies.
***A maximum of 12 credit hours of Anthropology at the 100 or 200 level can apply at UO.


## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Art are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. OSU has majors in Art History, Fine Arts, Graphic Design, and Photography, and UO has majors in Art History, and Fine and Applied Arts.
A five-year program in Art leading to the Bachelor of Fine Arts (B.F.A.) degree is offered at OSU, SOU, and UO.
The program outlined below is designed so that you may meet requirements of these institutions in two years, if you attend full time. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.

Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122 and/or 123 English Composition-Exposition* | 3 | 3 | (3) |
| ART115, 116, 117 Basic Design (not required for Art History majors at UO) | 3 | 3 | 3 |
| ART131 Introduction to Drawing, ART234 Figure Drawing 1 for OSU, SOU, and WOU (PSU requires ART131, 132, 133) | 3 | 3 | (3) |
| Science or Mathematics courses* | 4 | 4 | 4 |
| Social Science courses* (recommend HST110, 111, 112 World History for OSU and UO) |  |  | 3-6 |
| Arts and Letters/Humanities* (non-art: UO requires two years of Foreign Language, preferably French, German, Italian, Chinese or Japanese for Art History majors) | 3-4 | 3-4 | 3-4 |
| Second Year | 4 | 5 | 6 |
| ART204, 205, 206 Art History | 3 | 3 | 3 |
| Social Science courses* | 3 | 3 | 3 |
| Arts and Letters/Humanities electives* (Second-year Foreign Language for UO |  |  |  |
| Art History <br> majors; recommend French, German or Japanese) | 3-4 | 3-4 | 3-4 |
| Science or Mathematics* (MTH111 College Algebra or 211 Foundations of Elementary Math for EOU) | 4 | (4) | (4) |
| HPE295 Health and Fitness for Life* or elective |  | ) |  |
| Studio Art courses (EOU choose from ART154 Pottery I, |  |  |  |
| ART271 Introduction to Printmaking, ART281 Painting |  |  |  |
| ART291 Beginning Sculpture; OSU ART291 Sculpture ART221 Graphic Design and ART281 Painting, and |  |  |  |
| ART262 Technical Photography and ART264 Digital |  |  |  |
| Photography for some options; PSU choose nine-eighte credits from study concentration and six-twelve additio |  |  |  |
| Art credits outside of concentration; SOU choose 12-18 credits from two groups listed in SOU catalog; UO Art |  |  |  |
| History majors take six hours of studio courses in Draw |  |  |  |
| Painting, Sculpture, or Design; WOU nine hours from |  |  |  |
| ART155 Pottery II, ART274 Printmaking, ART281, ART291) | 3 | 3 | 3 |
| Electives (CS course required at EOU and SOU; ART221, 222 Graphic Design 1 and 2 recommended for EOU) |  |  | 0-3 |

*To meet four-year college general education requirements; OSU students must meet liberal arts core as well as general education requirements.


Do you want to become an automotive maintenance and repair technician? The Automotive Technology program emphasizes technical training and development of skills through the study of the various systems of the automobile. You may select individual courses to meet your needs, or you may work toward a degree as an automotive technician. The one-year program offers training for auto body repair technicians including courses in auto heating and air conditioning, welding, general education courses, and Cooperative Work Experience.

To help you 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.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

MTH020 Basic Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SKD051 Studying for College . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR040 Writing Skills . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-6519. Failure to be assessed may delay your entry into program classes.

You may be interested in our Cooperative Work Experience program which allows you to earn college credit for work you do relating to your program. With the approval of the program chair, you may enroll in AUM280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## Automotive Body Repair

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$233; class fees, \$52; equipment and supplies, $\$ 500$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these required 53 credit hours:
General education requirements ( 12 credit hours):
Course Title Credit Hours
PSY100 Introduction to Psychology . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MTH052 Introduction to Algebra and Geometry . . . . . . . . . . . . . . . . . . . . . 3
COM051 Communications Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 or
WR121 English Composition-Exposition . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . 3 (or higher)
Automotive Body core requirements ( $\mathbf{3 1}$ credit hours):
AUM156 Automotive Shop Safety ....................................... . . 1
AUM168 Automotive Electrical Systems I . . . . . . . . . . . . . . . . . . . . . . . . . 4
WLD097 Welding ............................................................. . . 2
WLD061 Basic Gas Metal Arc Welding (MIG) ........................... . 3
AUM280L Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 24
Automotive Body Repair electives (Select 10 credit hours):
AUM157 Automotive Brake Systems ..................................... . . 5
AUM151 Basic Automotive Engines ...................................... . . 5
AUM286 Automotive Heating and Air Conditioning .................... . 5
AUM158 Auto Steering and Suspension .................................. . 5


## Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$542; class fees, \$226; equipment and supplies, \$500. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these 103 required credit hours:

Course Title

Credit Hours

Term 1
AUM151
Basic Automotive Engines . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
AUM156 Automotive Shop Safety ........................................... . 1
AUM157 Automotive Brake Systems .................................... . . 5
C0M051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR121 English Composition-Exposition (or higher) .................. . 3
PH060 Applied Physical Science (or higher) ........................... . . 3
Term 2
AUM152 Automotive Machine Shop ..................................... 4
AUM158 Automotive Steering and Suspension .............................. . . . 5
COM052 Communication Skills II .......................................... 3
En English Composition-Logic and Style . . . . . . . . . . . . . . . . . . . . 3
$\begin{array}{ll}\text { WR122 } & \text { English Composition-Logic and Style . . . . . . . . . ............. } 3 \\ \text { CS101 } & \text { Introduction to Microcomputer Applications (or higher) . . . . } 3\end{array}$
MTH052 Introduction to Algebra and Geometry (or higher) ............ . 3
Term 3
AUM161 Manual Drive-trains and Axles I ............................... . . 5
AUM168 Automotive Electrical Systems I . . . . . . . . . . . . . . . . . . . . . . . . . 4
AUM192 Automotive Diesel Engines . .................................... . 3
PSY100 Introduction to Psychology (or higher) ........................ . . 3
Term 4
AUM262 Manual Drive Trains and Axles II . . . . . . . . . . . . . . . . . . . . . . . 3
AUM263 Automatic Transmissions and Transaxles I . . . . . . . . . . . . . . . . . 5
AUM266 Basic Fuel Systems . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
AUM276 Automotive Electrical Systems II .............................. . . 4
Term 5
AUM267
AUM277
AUM282
AUM286
Advanced Carburetion and Fuel Systems
. 5
Automotive Electrical Systems III . . . . . . . . . . . . . . . . . . . . . . . . . 5
Electronic Vehicle Controls ............................. 5
Automotive Heating and Air Conditioning ................... 5
Term 6
AUM253
Automotive Engines II . 2
or
AUM280 Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 2
AUM273 Automatic Transmissions and Transaxles II ................... . 2 or
AUM280 Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
AUM281 Tune-up and Driveability . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
AUM283 Advanced Electronic Vehicle Controls ........................ . . 4
WLD097 Welding . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2

# IOLOGY, BOTANY, General Science, Entomology, Zoology 

## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Biology are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University.

The two-year program outlined below is designed to meet requirements for a degree in Biology at these institutions, as well as for a major in General Science at OSU or UO, and the Botany, Zoology, Physiology and Microbiology options for Biology at PSU. See college catalogs for other class options and additional requirements. It may be advisable to transfer after one year of community college course work. With minor adjustments as noted below, this outline of classes may also be followed for majors in Botany, Entomology, Microbiology, or Zoology at Oregon State University.

However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.

Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :--- | :--- | :---: | :---: | :---: |
| First Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| WR121, 122 and/or 123 English Composition-Exposition* | 3 | 3 | (3) |
| HPE295 Health and Fitness for Life* or elective |  |  | 3 |
| CH221, 222, 223 General Chemistry (CH121, 122, |  |  |  |

Mathematics sequence (consult an advisor or four-year college catalog to determine appropriate math; most require some calculus. MTH111 College Algebra and MTH112 Trigonometry for EOU. EOU requires 12 hours of math or a combination of math and computer science. MTH111, 112, and 243 Probability and Statistics required for SOU; MTH251, 252 Integral Calculus for OSU and UO; MTH251 and 252 or MTH241 Elementary Calculus and 243 for Botany, Entomology, and General Science at OSU; PSU requires MTH243 and MTH244 Probability and Statistics I and II or MTH251 and MTH252; WOU requires MTH251 and MTH252 or MTH243 and CS131 Introduction to Data Processing)
Arts and Letters/Humanities courses*
(SP111 Fundamentals of Public Speaking for SOU)
Second Year

| $4-5$ | $4-5$ | 4 |
| :---: | :---: | :---: |
| 3 | 3 | 3 |
| 4 | $\mathbf{5}$ | $\mathbf{6}$ |

PH201, 202, 203 General Physics or PH211, 212, 213
Physics for Engineers and Scientists (not required at WOU and only one term required at EOU; only PH201,
202 required for OSU Entomology and Zoology majors; OSU Botany majors take BOT201, 202, 203 Botany; in addition to PH201, 202, 203, General Science majors at OSU may take twelve credits of physical science or physics;**EOU choose between PH211 and MTH251 Differential Calculus; SOU also accepts G201, 202, 203 Geology)
CH241, CH241L, 242, 242L, 243, 243L Organic Chemistry and labs (may replace 300-level Organic Chemistry, with acceptable score on ACS national exam, at Oregon universities; not required at WOU or for General Science at OSU and UO; CH243 not required at EOU and PSU.
Zoology majors take ZOO201, 202, 203); UO
General Science majors may take
G201, 202, 203 Geology) 4-5 4-5 4-5
Social Science courses* (ANTH101 Human Evolution and GEOG105 Physical Geography may be taken for General Science at UO)
$3-3-3$
Arts and Letters/Humanities electives* 3 3 3
Social Science electives or other electives* (EOU requires CS101 Introduction to Microcomputers or computer studies courses at or above the 200 level; UO General Science majors take CS133F Fortran)

333
*To meet four-year college general education requirements.
**Botany majors should take ZOO201, 202 General Zoology and BOT201, 202 General Botany Entomology and Zoology majors should take ZOO201, 202 and BOT201 or 202; in addition to PH201, 202, OSU General Science allows BI101, 102, 103. PSU General Science degree allows other science choices.

UO General Science needs three-course sequence from BI101, 102, 103; CH121, 122, 123 or 221, 222, 223; G201, 202, 203; PH201, 202, 203 or 211, 212, 213.

NOTE: Chemeketa's BI101, 102, 103 does not meet biology requirement for Biology majors.

## UILDING CONSTRUCTION Training

Chemeketa offers Building Construction Training for those whose interests lie in working with their hands and in being outdoors. This three-term (33-week) program can prepare you for a career in the construction trades. Instruction will be given in basic safety, plan reading and
site layout, estimating, use of carpentry tools, and framing and finishing.
Estimated costs for students who complete the three-term program are tuition, $\$ 1,680$ and fees, $\$ 150$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these 48 required credit hours:
Course Title Credit Hours

Term 1
BC051 Construction Print Reading ................................... 5
BC053 Construction Tools and Materials Application ................ . 5
BC055 Concrete Forming . ................................................. . 5
MTH052 Basic Mathematics (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 2
BC061 Basic Construction Framing . ....................................... . 8
BC063 Construction Estimating .......................................... . . 3
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 3
BC071 Advanced Construction Framing ................................ . . 8
BC073 Basic Interior Finish . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PSY104 Psychology in the Workplace . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

## U UILDING Inspection Technology

The Building Inspection Technology program has two options. There are four four-term focused plans for students with experience in the building trades and a two-year (seven-term) option for those new to the field. As a graduate of either program, you may qualify for State of Oregon certification as a building inspector at the C level or higher, depending upon your experience.
There is a need for certified building inspectors working for public agencies. If you have some experience in the field, after you graduate you may qualify as a construction manager or clerk-of-the-works or perform similar functions in other jobs.
The curriculum covers technical and general education courses. Classes on various codes, plan review, inspection techniques, and construction materials are complemented by courses in mathematics, communication skills, and public relations. You may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree or a Certificate of Completion.
You may be interested in our Cooperative Work Experience program which allows you to earn college credit for work you do relating to your program. With the approval of the program chair, you may enroll in BLD280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.
The certificate programs have been designed to be completed in one year and the degree program in two years, if
you attend full time. However, there are entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, please meet with the program chair.
This program has special admission requirements and enrollment limits. For additional information, contact the Student Records (Admissions) Office at (503) 399-5006.

## Focused Plans

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$907; class fees, \$66; equipment and supplies, $\$ 264$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion for the One- and Two-Family Plans Examiner, Structural Inspector and Mechanical Inspector by successfully completing these 69 required credit hours:
Course Title Credit Hours

Term 1
BLD151 Building Codes I . .................................................. . . 3
BLD181 Mechanical Codes I ................................................. . 3
BLD193A Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
BLD263 Structural Inspection-Concrete . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BLD271 Plumbing Codes I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
WR121 English Composition-Exposition ............................... . . . 3
MTH052 Introduction to Algebra and Geometry (or higher) ............ . 3
Term 2
BLD152 Building Codes II ............................................... . 3
BLD161 Structural Inspection-Wood ...................................... . 3
BLD193B Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
BLD264 Structural Inspection-Steel ....................................... 3
BLD292A CABO One- and Two-Family Dwelling Code (Structural) .... 3
COM052 Communication Skills II ....................................... . . 3
WR122 English Composition-Logic and Style . . . . . . . . . . . . . . . . . . . 3
MTH053 Introduction to Trigonometry with Geometry (or higher) ..... 3
Term 3
BLD153 Building Codes III ............................................... . 3
BLD154 Dwelling Construction Under the UBC $\ldots \ldots . \ldots$............... 3
BLD155 Building Department Administration . . . . . . . . . . . . . . . . . . . . . . 3
BLD162 Structural Inspection-Masonry .................................. . 3
BLD193C Building Inspection-Lab ............................................ . . . 1
BLD292B CABO One- and Two-Family Dwelling Code (Mechanical) .. . 3
COM053 Technical Report Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR227 Technical Writing ................................................. . 3
Term
BLD280 Cooperative Work Experience
.12
You may earn a Certificate of Completion for the One-Year Structural Inspector by successfully completing these 66 required credit hours:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BLD151 | Building Codes I . | . 3 |
| BLD193A | Building Inspection-Lab . | 1 |
| BLD263 | Structural Inspection-Concrete | 3 |
| BLD268 | Foundations, Excavating and Grading | . 3 |
| C0M051 | Communication Skills I . | 3 |
|  | or |  |

Term 1
BLD151 Building Codes I................................................. 3
Building Inspection-La
BLD263 Structural Inspection-Concrete . . . .
C0M051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

| WR121 | English Composition-Exposition |
| :---: | :---: |
| MTH052 | Introduction to Algebra and Geometry (or higher) |
| Term 2 |  |
| BLD152 | Building Codes II |
| BLD161 | Structural Inspection-Wood |
| BLD193B | Building Inspection-Lab |
| BLD264 | Structural Inspection-Steel |
| BLD292A | CABO One- and Two-Family Dwelling Code (Structural) |
| COM052 | Communication Skills II |
|  | Or |
| WR122 | English Composition-Logic and Style |
| MTH053 | Introduction to Trigonometry with Geometry (or higher) |
| Term 3 |  |
| BLD153 | Building Codes III |
| BLD154 | Dwelling Construction Under the UBC |
| BLD155 | Building Department Administration |
| BLD162 | Structural Inspection-Masonry |
| BLD193C | Building Inspection-Lab |
| BLD292B | CABO One- and Two-Family Dwelling Code (Mechanical) |
| COM053 | Technical Report Writing |
| WR227 | $\begin{aligned} & \text { or } \\ & \text { Technical Writing } \end{aligned}$ |
| Term 4 |  |
| BLD280 | Cooperative Work Experience |

You may earn a Certificate of Completion for the One-Year Structural Plans Examiner by successfully completing these 72 required credit hours:

| Course | Title Credit Hours |
| :---: | :---: |
| Term 1 |  |
| BLD151 | Building Codes I |
| BLD193A | Building Inspection-Lab |
| BLD263 | Structural Inspection-Concrete |
| BLD268 | Foundations, Excavating and Grading |
| C0M051 | Communication Skills I |
|  | or |
| WR121 | English Composition-Exposition |
| MTH052 | Introduction to Algebra and Geometry (or higher) . . . . . . . . . 3 |
| Term 2 |  |
| BLD152 | Building Codes II |
| BLD161 | Structural Inspection-Wood |
| BLD193B | Building Inspection-Lab |
| BLD264 | Structural Inspection-Steel |
| BLD266 | Structural Plan Review |
| BLD292A | CABO One- and Two-Family Dwelling Code (Structural) |
| C0M052 | Communication Skills II |
|  | or |
| WR122 | English Composition-Logic and Style |
| MTH053 | Introduction to Trigonometry with Geometry (or higher) ..... 3 |
| Term 3 |  |
| BLD153 | Building Codes III |
| BLD154 | Dwelling Construction Under the UBC |
| BLD155 | Building Department Administration |
| BLD162 | Structural Inspection-Masonry |
| BLD193C | Building Inspection-Lab . |
| BLD267 | Non-Structural Plan Review |
| BLD292B | CABO One- and Two-Family Dwelling Code (Mechanical) |
| COM053 | Technical Report Writing ............................... 3 |
| WR227 | Technical Writing |
| Term 4 |  |
| BLD280 | Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . 12 |

You may earn a Certificate of Completion for the One-Year Mechanical Inspection by successfully completing these 70 required credit hours:

## Course Title <br> Credit Hours

Term 1
BLD151
Building Codes I

BLD181 Mechanical Codes I ............................................. . . . 3
BLD193A Building Inspection-Lab ............................................... . . . . 1
BLD271 Plumbing Codes I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR121 English Composition-Exposition .............................. . . 3
MTH052 Introduction to Algebra and Geometry (or higher) . . . . . . . . . . 3
Term 2
BLD152 Building Codes II .................................................. 3
BLD182 Mechanical Codes II .............................................. . . 3
BLD193B Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
BLD272 Plumbing Codes II ................................................ 3
BLD292A CABO One- and Two-Family Dwelling Code (Structural) .... 3
COM052 Communication Skills II ........................................ . 3
WR122 $\quad \stackrel{\text { Or }}{\text { English Composition-Logic and Style . . . . . . . . . . . . . . . . . . . } 3}$
DRF102 Print Reading .................................................. . 2
MTH053 Introduction to Trigonometry with Geometry (or higher) .... 3
Term 3
BLD153 Building Codes III ............................................... . . 3
BLD154 Dwelling Construction Under the UBC . . . . . . . . . . . . . . . . . . 3
BLD155 Building Department Administration . . . . . . . . . . . . . . . . . . . . . . 3
BLD183 Mechanical Codes III . ............................................. . . 3
BLD193C Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
BLD292B CABO One- and Two-Family Dwelling Code (Mechanical) ... 3
COM053 Technical Report Writing ....................................... . 3
WR227 Technical Writing ............................................... . . . . 3
DRF103 Advanced Print Reading ............................................. 2
Term 4
BLD280 Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . 12
*Cooperative Work Experience may not be used as a deviation in the one-year program.

## Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,477; class fees, \$153; equipment and supplies, $\$ 814$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these 118 required credit hours:

Course
Term 1
BLD150 Introduction to Building Inspection . . . . . . . . . . . . . . . . . . . . . . 3
BLD151 Building Codes I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BLD181 Mechanical Codes I ............................................... . . 3
BLD193A Building Inspection-Lab ........................................... . . 1
COM051 Communication Skills I .......................................... . . . 3
or
WR121 English Composition-Exposition (or higher) ................. 3
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . 3
MTH052 Introduction to Algebra and Geometry (or higher) ............ . 3
Term 2
BLD152 Building Codes II ................................................. . . 3
BLD159 Materials of Construction ......................................... . . . 2
BLD161 Structural Inspection-Wood ........................................ . . 3
BLD182 Mechanical Codes II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BLD193B Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
DRF102 Print Reading .................................................. 2
COM052 Communication Skills II ................................................ . . . . 3
WR122 $\quad \stackrel{\text { Or }}{\text { English Composition - Logic and Style (or higher) ........... } 3}$
MTH053 Introduction to Trigonometry with Geometry ................ . 3
(or higher)
Term 3
BLD153
BLD154 Dwelling Construction Under the UBC ....................... 3
BLD155 Building Department Administration . . . . . . . . . . . . . . . . . . . . . 3

| BLD162 | Structural Inspection-Masonry . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| :---: | :---: |
| BLD183 | Mechanical Codes III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| BLD193C | Building Inspection-Lab |
| DRF103 | Advanced Print Reading |
| C0M053 | Technical Report Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
|  |  |
| WR227 | Technical Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| FE205A | Job Search Preparation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
| BLD280 | Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . 12 |
| Term 4 |  |
| BLD263 | Structural Inspection-Concrete . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| BLD268 | Foundations, Excavation and Grading |
| BLD269 | Engineering for the Building Inspector |
| BLD271 | Plumbing Codes I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| BLD193D | Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
| Term 5 |  |
| BLD264 | Structural Inspection-Steel . ............................ 3 |
| BLD266 | Structural Plan Review |
| BLD272 | Plumbing Codes II |
| ART261 | General Photography .................................. . 4 |
|  |  |
|  | Social Science elective ............................... . 3 |
|  | or |
|  | Humanities/Fine Arts elective ............................ 3 |
| BLD292A | CABO One- and Two-Family Dwelling Code (Structural) |
| BLD193E | Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
| Term 6 |  |
| BLD260 | Fire Protection for Buildings . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| BLD267 | Non-Structural Plan Review . ............................ 3 |
| BLD291 | One- and Two-Family Electrical Code . .................. . 3 |
|  | or |
| FRP072 |  |
| BLD193F | Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
| PSY101 | Psychology of Human Relations (or higher) . . . . . . . . . . . . . . 3 |
| BLD292B | CABO One- and Two-Family Dwelling Code (Mechanical) . . . 3 |

BLD162 Structural Inspection-Masonry . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BLD193C Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
DRF103 Advanced Print Reading . ......................................... . 2
COM053 Technical Report Writing ........................................... . . 3
WR227 Technical Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Job Search Preparation
Cooperative Work Experience . ................................ 12
Term 4
BLD263 Structural Inspection-Concrete . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foundations, Excavation and Grading . . . . . . . . . . . . . . . . . . . . . . . . 3
Engineering for the Building Inspector . . . . . . . . . . . . . . . . . . . . 3
Plumbing Codes I ................................................. . . . 3
BLD193D Building Inspection-Lab ........................................... . . . 1
Term 5
BLD264 Structural Inspection-Steel ....................................... 3
BLD266 Structural Plan Review . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BLD272 Plumbing Codes II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART261 General Photography . ........................................... . . 4
Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Humanities/Fine Arts elective . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CABO One- and Two-Family Dwelling Code .................. 3 (Structural)
BLD193E Building Inspection-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Term 6
BLD260 Fire Protection for Buildings .................................... . 3
BLD267 Non-Structural Plan Review ..................................... 3
BLD291 One- and Two-Family Electrical Code ............................. . 3
FRP072 Fire Codes and Ordinances 1 ..................................... . 3
BLD193F Building Inspection-Lab ......................................... . . 1
BLD292B CABO One- and Two-Family Dwelling Code (Mechanical) . . .
(college transfer)

## (Includes Accounting, Finance, International Business, Marketing, and Management)

Oregon state colleges and universities offering a Bachelor of Arts and/or Bachelor of Science degrees in Business Administration are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. Eastern Oregon University offers a combined degree in Business and Economics.

The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
Many colleges have specific requirements for admission to their Business Administration programs. These include
specified GPA, completion of specific courses, and deadlines for admission. As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## First Year

WR121 English Composition-Exposition
WR122 and 123 English Composition for SOU;
WR122 or 123 English Composition for UO;
WR122 or 227 Technical Writing or BA214
Business Communication for OSU*;
BA214 required for PSU.

Mathematics per placement test (MTH111 College Algebra, MTH243 Probability and Statistics I,
MTH241 Elementary Calculus for OSU and
WOU; MTH241 for EOU; MTH111, 242, and 243 for PSU and UO;
MTH111 and 243 for SOU)
CS101 Introduction to Microcomputer Applications (also recommend CS178I Internet and CS125A Micro Database Software-Access for OSU)
Arts and Letters/Humanities courses* (PHL203
Ethics required for PSU accounting majors)
Social Science courses* (PSU Accounting majors need one course from ANTH, PSY or SOC)
HPE295 Health and Fitness for Life* or elective
Electives* (recommend CS178I for PSU; UO requires an additional 18 hours of general education)

## Second Year

BA211, 212 Financial Accounting
BA213 Managerial Accounting
EC201, 202, 203 Economics (EC203 not required at OSU, SOU, or UO but is recommended)
SP111 Fundamentals of Public Speaking for WOU; SP112 Fundamentals of Persuasion for OSU and PSU; choose one from SP111, 112, 113 Fundamentals of Small Group Communication or SP218 Interpersonal Communication for SOU;
SP218 for EOU
BA226 Business Law for EOU, OSU, and WOU; BA101 Business Environment for UO and PSU
Elective courses to meet general education requirements:
Arts and Letters/Humanities electives*
Science courses*
Social Science courses* (Accounting majors at PSU need PS201, 202 American Government)
*To meet four-year college general education requirements.
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3


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Chemeketa offers certificate and degree programs in business technology for those who wish to pursue a career as an office support specialist.
The Clerical Basics program is an open-entry, open-exit curriculum for people who want to develop or refresh their clerical skills in order to qualify for entry-level office work. You may select individual courses to meet your needs, or you may work toward a Certificate of Completion.
You may earn a Certificate of Completion by successfully completing the credit hours required in one of the five areas: bookkeeping, business software, general clerical, office support, or word processing skills.
The degree program is designed for people who want to become secretaries, administrative assistants, or other administrative support specialists. There are five options: administrative assistant, business assistant, information processing, medical, and office accounting. You may earn an Associate of Applied Science degree by successfully completing the credit hours required for each option.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do on approved job sites in the business community. With the approval of the program chair, you may enroll in BT280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## Clerical Basics Program

The Clerical Basics program allows you to concentrate on developing the basic skills required of receptionists, file clerks, bookkeepers, typists, and employees in other related positions. Independent study and individualized instruction can give you a comprehensive review of keyboarding, filing, business English, calculators, bookkeeping, proofreading, MS Works, MS Word, and WordPerfect. The average length of time to complete the full program is two terms ( 22 weeks) if you attend 30 hours per week. If you wish to refresh specific skills, you may enroll in other electives as your schedule allows.
The Clerical Basics program is offered on the Salem campus and at Chemeketa centers in Dallas, McMinnville, and Woodburn. For additional information, call (503) 399-5169 in Salem, 623-5567 in Dallas, 472-9482 in McMinnville, and 981-8820 in Woodburn.
In addition to tuition, estimated costs for students who complete the required courses listed below are books, \$668; class fees, \$62; equipment and supplies, $\$ 45$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 30 credit hours listed below. Successful completion requires that you earn a grade of C or higher in all courses.

## Required Courses:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| BT061A | Electronic Calculators A |  |
| BT084 | Business English 1 |  |
| BT085 | Business English 2 | 3 |
| BT090 | Bookkeeping | . 3 |
| BT099A | Proofreading/Editing A |  |
| BT116 | Office Procedures | . 3 |
| BT128A | Introduction to Records Management A |  |
| BT128B | Introduction to Records Management B |  |
| CA121A | Keyboarding A |  |
| CA121B | Keyboarding B |  |
| CA122A | Keyboard Skillbuilding A |  |
| CA122B | Keyboard Skillbuilding B |  |
| CA123A | Formatting A |  |
| CA201X | Word Processing Procedures 1 | . 3 |
| CA201D | $\stackrel{\text { Word Processing Procedures } 1}{ }$ | . 3 |
| CS101 | Introduction Microcomputer Applications | . |
|  | or |  |
| CA100 | Microcomputer Basics | . 3 |
|  | Business elective* | . 3 |

*Business elective: Choose courses with prefixes BA, BT, CA, CS, and FE205A, FE205B, FE205C.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

BA066 Introduction to Business Studies . . . . . . . . . . . . . . . . . . . . . . . . . . 4
BT084 Business English 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CA121A Keyboarding A (if less than 25 wpm) . . . . . . . . . . . . . . . . . . . . 1
MTH060 Introductory Algebra . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114.
Failure to be assessed may delay your entry into program classes.

## Business Software Certificate

This certificate offers students the opportunity to earn a one-year certificate in Business Technology through distance delivery methods.
In addition to tuition, estimated costs for students who complete the bookkeeping specialization required courses listed below are books, \$815; fees $\$ 840$ (on-line telecourse); equipment and sup-plies-access to a computer with a modem and appropriate software. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion in the one-year program by successfully completing 47 required credit hours. Successful completion requires that you earn a grade of $C$ or better in all courses.

## Business Software core requirements:

| Course | Title Cr | Credit Hours |
| :---: | :---: | :---: |
| CA115 | Introduction to Office 2000 |  |
| CA118A | Current Office Software-Operating |  |
|  | Systems/Utilities* |  |
| CA118D | Current Office Software-Internet | 1 |
| CA201D | Word Processing Procedures 1 |  |
| CA202D | Word Processing Procedures 2 |  |
| CS101 | Introduction to Microcomputer Applications* | 3 |
| MTH062 | Business Applications Using Mathematics (or higher) | her) ....... 4 |
| PSY100 | Introduction to Psychology (or higher) |  |
| SP100 | Introduction to Communication |  |
|  | or |  |
| WR121 | English Composition-Exposition (or higher) | . 3 |

## Business Software electives: (Select 22 credit hours):**

BT110ABC Business Grammar and Punctuation Review A,B,C . . . . . . .1-3
BT111ABC Business Letters and Memo Writing Review A,B,C . . . . . . .1-3
BT280B,C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . 2-3
CA118B Current Office Software-Worksheets . . . . . . . . . . . . . . . . . . . . . . 1
CA118C Current Office Software-Database ............................. 1
CA118F Current Office Software-Microsoft PowerPoint . ............... 1
CA204D Advanced Word Processing ...................................... . 3
CA205 Desktop Publishing 1-PageMaker .............................. 3
CA206 Desktop Publishing 2-PageMaker . . . . . . . . . . . . . . . . . . . . . . . . 3
CA210 Office Microcomputer Applications ............................ 3
CS105 Introduction to MS Windows . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS125A Micro Database Software-Access ............................... 3
CS125E Excel-Workbooks ................................................... . . 4
CS178I Introduction to the Internet/World Wide Web . . . . . . . . . . . . . . . 3
*In order to be most successful, take CA118A and CS101 prior to other CA and CS courses in your program.
**Other electives may be permitted. Before registering for a course not listed, contact your advisor for approval.

## General Clerical Certificate

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$920; class fees, \$112; equipment and supplies, $\$ 65$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these 47 required credit hours:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BT061 | Electronic Calculators | 2 |
| BT085 | Business English 2 | 3 |
| BT116 | Office Procedures |  |
| CA118A | Current Office Software-Operating Systems/U |  |
| CA122 | Keyboard Skillbuilding | 3 |
| CS101 | Introduction to Microcomputer Applications | 3 |
| Term 2 |  |  |
| BT099 | Proofreading/Editing | 3 |
| BT120 | Professional Communication Skills |  |
| CA119 | Exploring Office Desktop Publishing | . 3 |
| CA201D | Word Processing Procedures $1 . \ldots$. |  |
|  | Business elective* (BT280C Cooperative Wo recommended) | xperience |
| Term 3 |  |  |
| BA214 | Business Communications |  |
| BT086 | Personal and Professional Development | . 3 |
| BT128 | Introduction to Records Management | 3 |
| CA202D | Word Processing Procedures 2 | . 3 |

CA203 Advanced Formatting ........................................... . . . 1
CA210 Office Microcomputer Applications ........................... . 3
*Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084, CA121.

## Administrative Assistant Option

The Administrative Assistant option prepares you for a variety of positions as a secretary, administrative assistant, or other administrative support staff person. This work requires you to be able to organize a variety of tasks, accept responsibility, and work effectively as a team member. You should be skilled in areas such as keyboarding, document production, composition, machine transcription, computers, and operating business machines. You should have knowledge of records management, word processing, data processing, accounting, and office procedures.
If you satisfactorily complete the curriculum requirements, you are eligible to apply to sit for the Certified Professional Secretary examination in the spring of your second year during your final term.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,495$; class fees, \$105; equipment and supplies, \$85. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 93 credit hours.
Successful completion requires that you earn a grade of C or better in all courses.
Course Title Credit Hours

Term 1
BT061 Electronic Calculators ..................................... 2
BT085 Business English 2 ........................................ 3
CA118A Current Office Software-Operating Systems/Utilities .......... 1
CA122 Keyboard Skillbuilding ................................. 3
CA201D Word Processing Procedures 1 . . . . . . . . . . . . . . . . . . . . . . . 3
CS101 Introduction to Microcomputer Applications ................ 3
Term 2
BT099 Proofreading Editing ..................................... 3
BT116 Office Procedures ........................................... 3
BT120 Professional Communication Skills .......................... . 4
CA118B Current Office Software-Worksheets ......................... 1
CA118C Current Office Software-Database . . . . . . . . . . . . . . . . . . . . . . 1
CA202D Word Processing Procedures 2 . ............................... . 3
Term 3
BA214
BT086
CA119
CA203
CA204D
MTH062
Term 4
BA051
BA211 Financial Accounting I* .................................... 4
BT128 Introduction to Records Management ........................ 3
CA205 Desktop Publishing 1-PageMaker ........................... 3
CA210 Office Microcomputer Applications ......................... 3
SP111 Fundamentals of Public Speaking .......................... 3
or
Interpersonal Communication ............................. 3
or
Business and Professional Speaking ....................... 3

## Term 5

BA202 Personal Effectiveness ............................................. 3
BA251 Office Management ................................................ 3
CA230 Executive Office Simulation ..................................... . 3
Humanities/Fine Arts elective . .................................. . . 3 or
Science/Applied Science elective ................................ 3
Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
CA208 Computer Presentations for the Workplace-MS PowerPoint ... 3
CA225ABC Machine Transcription 1A,1B,1C ................................ 3
WR227 Technical Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Business elective** (BT280 Cooperative Work Experience recommended)
*If you select BA211 or BA212, you may not use BA051 or BA052 as a business elective.
**Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084, CA121.

## - Getting Started

Program requirements have changed. See "Getting Started" heading on page 52 for details.

## Office Support Certificate

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$795; class fees, \$112; equipment and supplies, $\$ 75$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 47 required credit hours:


## Business Assistant Option

The Business Assistant option prepares you for a career in numerous business environments where you use independent judgment. This program stresses principles of sales and persuasion, business management, and interpersonal relations. You will develop expanded computer skills in using operating systems, spreadsheets and the Internet and World

Wide Web. You will gain on-the-job work experience through the Cooperative Work Study program.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,598$; class fees, \$105; equipment and supplies, \$85. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 92 credit hours. Successful completion requires that you earn a grade of C or better in all courses.
Course Title Credit Hours
Term 1
BT061
Business English 2 ...................................................
BT116 Office Procedures ......................................................... . . . 3
CA118A Current Office Software-Operating Systems/Utilities . . . . . . . . . 1
CA122 Keyboard Skillbuilding .......................................... 3
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . 3
Term 2
BT099
CA118B
CA118C
CA119
CA201D
Proofreading/Editing
. 3
Current Office Software-Worksheets . . . . . . . . . . . . . . . . . . . . . . 1
Current Office Software-Database . . . . . . . . . . . . . . . . . . . . . . . 1
Exploring Office Desktop Publishing .......................... . 3
Word Processing Procedures 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
CA201X Word Processing Procedures 1 ................................. . . . 3
MTH062 Business Applications Using Math (or higher) . . . . . . . . . . . . . 4
Term 3
BA206
BT120
BT128
CA118D
CA118E
CA208
Business Management Principles
. 3
Professional Communication Skills . . . . . . . . . . . . . . . . . . . . . . 4
Introduction to Records Management . . . . . . . . . . . . . . . . . . . . 3
Current Office Software—Internet . . . . . . . . . . . . . . . . . . . . . . . 1
Current Office Software-Electronic Messaging Systems ....... 1
Computer Presentations for the Workplace-MS PowerPoint .. . 3
Term 4
BA051 Accounting Procedures I ....................................... . . 4
or
Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Personal Effectiveness . .............................................. . 3
Business Communications ..................................... . . 3
Desktop Publishing 1-PageMaker ............................... . 3
Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BA203 Interpersonal Relations in Business ............................. . . 3
BA251 Office Management ................................................ . 3
CS125E Excel-Workbooks ................................................. . 4
Business elective* .............................................. . 3
Humanities/Fine Arts elective .................................. 3
or
Science/Applied Science elective .............................. 3
Term 6
BA238 Sales and Persuasion ........................................... . 3
BA280C Cooperative Work Experience ................................... . 3
SP111 Fundamentals of Public Speaking ............................. . 3
or
Interpersonal Communication ................................. . 3
or
SP130 Business and Professional Speaking ............................. 3
Business elective* ................................................ . . 6
*Suggested Business Electives: WR227 Technical Writing, CA210 Office Microcomputer Applications, CA206 Desktop Publishing 2-PageMaker, CA202D Word Processing Procedures 2, BA052 Accounting Procedures II or BA212 Financial Accounting II, BA204 Teamwork Dynamics, CA204D Advanced Word Processing, CS125A Micro Database Software-Access, BA227 Business Ethics, CA091 Computerized Bookkeeping, BA223 Principles of Marketing, BT086 Personal and Professional Development, CS178I Internet.

## - Getting Started

Program requirements have changed. See "Getting Started" heading on page 52 for details.

## Word Processing Certificate

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$860; class fees, \$112; equipment and supplies, \$65. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 47 required credit hours:
Course Title Credit Hours

Term 1
BT085 Business English 2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BT116 Office Procedures . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BT128 Introduction to Records Management . . . . . . . . . . . . . . . . . . . 3
CA118A Current Office Software-Operating Systems/Utilities ......... 1
CA122 Keyboard Skillbuilding . ........................................ . . . . . 3
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . 3
Term 2
BT061 Electronic Calculators ................................................ . . . 2
BT099 Proofreading/Editing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BT120 Professional Communication Skills . . . . . . . . . . . . . . . . . . . . . . . . . 4
CA119 Exploring Office Desktop Publishing . . . . . . . . . . . . . . . . . . . . . . 3
CA201D Word Processing Procedures 1 . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 3
BA214 Business Communications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CA202D Word Processing Procedures 2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CA203 Advanced Formatting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
CA210 Office Microcomputer Applications . . . . . . . . . . . . . . . . . . . . . . . 3
CA225ABC Machine Transcription 1A, 1B, 1C ....................... . 1 each
Business elective* (BT280, CA204D, BT086 or
CA205 recommended)
. . 3
*Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084, CA121.

## Information Processing Option

The Information Processing option prepares you for a career in either a centralized word processing environment or an office emphasizing information processing. This program stresses training on microcomputers using popular office software applications.
In addition, you will develop skills in proofreading, transcription, and formatting, as well as other office skills needed to succeed in today's electronic office.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,545$; class fees, \$225; equipment and supplies, \$120. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 93 credit hours. Successful completion requires that you earn a grade of C or better in all courses.

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BT085 | Business English 2 | 3 |
| BT116 | Office Procedures | . 3 |
| CA122 | Keyboard Skillbuilding | 3 |
| CA201D | Word Processing Procedures 1 |  |
| CS101 | Introduction to Microcomputer Applications |  |

Term 2
BT061 Electronic Calculators ............................................ . 2
BT099 Proofreading/Editing . ............................................ 3
CA118A Current Office Software-Operating Systems/Utilities . . . . . . . . . 1
CA118B Current Office Software-Worksheets . . . . . . . . . . . . . . . . . . . . . . . 1
CA118C Current Office Software-Database ................................ . . . 1

MTH062 Business Applications Using Math (or higher) ................ . . 4
Term 3
BT086 Personal and Professional Development ....................... . . 3
BT120 Professional Communication Skills . . . . . . . . . . . . . . . . . . . . . . 4
CA119 Exploring Office Desktop Publishing ................................. 3
CA204D Advanced Word Processing ....................................... 3
CS125E Excel-Workbooks .................................................. . . . 4
Term 4
BA214
BT128
CA205
CA210
SP111
SP218
Business Communications .................................... 3
Introduction to Records Management . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Desktop Publishing 1-PageMaker .............................. 3
Office Microcomputer Applications ........................... 3
Fundamentals of Public Speaking . . . . . . . . . . . . . . . . . . . . . . . 3
or Interpersonal Communication ................................. . 3
Term 5
BA211 Financial Accounting I ${ }^{*}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or
BA051 Accounting Procedures I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
BA251 Office Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CA206 Desktop Publishing 2-PageMaker .............................. 3
CA230 Executive Office Simulation ................................... . 3
Execunne Hunities/Fine Arts elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
$\stackrel{\mathrm{Or}}{\mathrm{S}}$ Science/Applied Science elective . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
CA118D Current Office Software-Internet ................................ . 1
CA118E Current Office Software-Electronic Messaging Systems ....... 1
CA203 Advanced Formatting ........................................ 1
CA208 Computer Presentations for the Workplace-MS PowerPoint . . 3
CA225ABC Machine Transcription 1A, 1B, 1C ....................... 1 each
Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Business elective** (BT280 Cooperative Work Experience recommended)

* If you select BA211, you may not use BA051 as a business elective
**Business electives: ** Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084, CA121.


## Medical Option

The Medical Option prepares you to work in medicallyrelated offices where you may make appointments, manage patient records, meet patients, type correspondence, transcribe patient records, maintain financial records, and complete insurance forms.

## - Getting Started

Program requirements have changed. See "Getting Started" heading on page 52 for details.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,530$; class fees, \$210; equipment and supplies, $\$ 130$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 93 credit hours.
Successful completion requires that you earn a grade of C or better in all courses.
Course Title Credit Hours
Term 1
BT085
Business English 2

| CA122 | Keyboard Skillbuilding |
| :---: | :---: |
| CS101 | Introduction to Microcomputer Applications |
| H110 | Health Information Systems Procedures 1 . . . . . . . . . . . . . . . 4 |
| H120 | Medical Terminology/Systems 1 . . . . . . . . . . . . . . . . . . . . . 3 |
| Term 2 |  |
| BT116 | Office Procedures . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| CA201D | Word Processing Procedures 1 . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| H114 | CPTIV Coding/Reimbursement . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| H121 | Medical Terminology/Systems 2 . . . . . . . . . . . . . . . . . . . . . . 3 |
| MTH062 | Business Applications Using Mathematics (or higher) . . . . . . . 4 |
| Term 3 |  |
| BT099 | Proofreading/Editing .................................... 3 |
| BT120 | Professional Communication Skills . . . . . . . . . . . . . . . . . . . . 4 |
| CA202D | Word Processing Procedures 2 . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| H101 | Medical Law and Ethics . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| H115 | ICD-9-CM Coding/Reimbursement . .................... 3 |
| Term 4 |  |
| BA051 | Accounting Procedures 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 |
|  | or |
| BA211 | Financial Accounting 1* . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 |
| BA214 | Business Communications . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| BI071 | Body Structure and Function I ........................... 3 |
|  |  |
| BI231 | Human Anatomy and Physiology . . . . . . . . . . . . . . . . . . . . 4 |
| BT061 | Electronic Calculators . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 |
| BT128 | Introduction to Records Management . . . . . . . . . . . . . . . . . . . 3 |
| Term 5 |  |
| BA251 | Office Management . .................................... . 3 |
| BI072 | Body Structure and Function II . . . . . . . . . . . . . . . . . . . . . . . 3 |
|  | or |
| BI232 | Human Anatomy and Physiology . ....................... . 4 |
|  |  |
| BI233 | Human Anatomy and Physiology . ....................... . 4 |
| H140 | Medical Transcription ................................. . 3 |
| SP111 | Fundamentals of Public Speaking ....................... . 3 |
| SP218 |  |
|  | Interpersonal Communication ........................... 3 |
|  | Business elective** (CA280 Cooperative Work Experience recommended) |
| Term 6 |  |
| BT086 | Personal and Professional Development . . . . . . . . . . . . . . . . 3 |
| CA203 | Advanced Formatting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
| CA225A,B | Machine Transcription 1A, 1B . . . . . . . . . . . . . . . . . . . . . . . . . 2 |
| CA230 | Executive Office Simulation . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| MED128 | Introduction to Medical Science .......................... . . 3 |
|  | Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |

**Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except CA121.

## - Getting Started

Program requirements have changed. See "Getting Started" heading on page 52 for details.

## Bookkeeping Certificate

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$815; class fees, \$117; equipment and supplies, $\$ 45$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these 48 required credit hours:
Course
Title
Credit Hours

Term 1
BT061
Electronic Calculators .2

BT116 Office Procedures ................................................ . . 3
CA118A Current Office Software-Operating Systems/Utilities . . . . . . . . . . 1
BA051 Accounting Procedures I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

or

BA211 Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . 3
BT085 Business English 2 ............................................. . . 3
Term 2
BA052 Accounting Procedures II ....................................... . . 4
or ${ }_{\text {Financial Accounting II . ...................................... . . } 4} 4$
BA212 Financial Accounting II ....................................... . . 4
BT099 Proofreading/Editing ............................................ 3
CA118B Current Office SoftwareWorksheets ............................. 1
CA122 Keyboard Skillbuilding .......................................... 3

## or


MTH062 Business Applications Using Mathematics (or higher) . . . . . . . 4
Term 3
BA177
Professional Communication Skills . .......................... . . 4
BT128 Introduction to Records Management . . . . . . . . . . . . . . . . . . . . 3
CA210 Office Microcomputer Applications ......................... 3
${ }^{* *}$ Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084, CA121.

## Office Accounting Option

The Office Accounting Option prepares you for office positions where accounting tasks are heavily emphasized and for positions such as accounting clerk, payroll clerk, or full-cycle bookkeeper.
This option provides you with a broad range of training in accounting, both manual and computerized, in addition to training in office skills such as information processing, office procedures, records management, and office management.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,545$; class fees, $\$ 170$; equipment and supplies, $\$ 130$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 96 credit hours.
Successful completion requires that you earn a grade of C or better in all courses.

| Course | Title Cr | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BA051 | Accounting Procedures I | . 4 |
|  | or |  |
| BA211 | Financial Accounting I | . 4 |
| BT061 | Electronic Calculators |  |
| BT085 | Business English 2 |  |
| CS101 | Introduction to Microcomputer Applications | . 3 |
| MTH062 | Business Applications Using Mathematics (or higher) | er) . . . . . . . 4 |
| Term 2 |  |  |
| BA052 | Accounting Procedures II | . 4 |
|  | or |  |
| BA212 | Financial Accounting II* | . . 4 |
| BT116 | Office Procedures |  |
| BT120 | Professional Communication Skills . . . . . . . . . | . 4 |
| CA118A | Current Office Software-Operating Systems/Utilities | es . . . . . . . . 1 |
| CA122 | Keyboard Skillbuilding ..... | . 3 |
| Term 3 |  |  |
| BA053 | Accounting Procedures III | . 4 |

Term 1
BA051
BA211 Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
BT061 Electronic Calculators ............................................. 2
BT085 Business English 2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS101 Introduction to Microcomputer Applications .................. 3
NHO62 Busiess Applicaions Using Manemaics (or highe) ......... .
BA052 Accounting Procedures II ...................................... . . 4
or
Financial Accounting II . ...................................... . . 4
Professional Communication Skills . . . . . . . . . . . . . . . . . . . . . . 4
Current Office Software-Operating Systems/Utilities . . . . . . . . . 1
Keyboard Skillbuilding ........................................ . 3

Accounting Procedures III
. 4

|  | or |
| :---: | :---: |
| BA213 | Managerial Accounting . ............................... . 4 |
| BA214 | Business Communications .............................. . . 3 |
| BT099 | Proofreading/Editing .................................. . 3 |
| MTH070 | Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . 4 |
|  | Business elective ...................................... 3 |
| Term 4 |  |
| BT128 | Introduction to Records Management . . . . . . . . . . . . . . . . . . . 3 |
| CA201D | Word Processing Procedures I . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| CA210 | Office Microcomputer Applications . . . . . . . . . . . . . . . . . . . 3 |
| CS125E | Excel-Workbooks . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 |
|  | Humanities/Fine Arts elective .......................... 3 |
|  | or |
|  | Science/Applied Science elective . ........................ 3 |
| Term 5 |  |
| BA251 | Office Management .................................. 3 |
| CA119 | Exploring Office Desktop Publishing . . . . . . . . . . . . . . . . . . 3 |
| CA230 | Executive Office Simulation . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| SP111 | Fundamentals of Public Speaking . ...................... 3 |
|  | or |
| SP218 | Interpersonal Communication ............................ 3 |
|  | Business elective**................................. . 3 |
| Term 6 |  |
| BA226 | Business Law I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| BA228 | Computer Accounting Applications . . . . . . . . . . . . . . . . . . . . 3 |
| BA177 | Payroll ............................................. 4 |
| CA203 | Advanced Formatting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
|  | Business elective** (Cooperative Work Experience recommended) |
|  | Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |

*If you select BA212, you may not use BA052 as a business elective.
**Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except CA121.



## HEMISTRY

## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Chemistry are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. SOU also offers a Business-Chemistry co-major.

The one- or two-year program outlined below is designed to meet some of the requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## Term

First Year
123
WR121, 122, and/or 123 English Composition or WR227 Technical Writing*

33
CH221, 222, 223 General Chemistry (UO also accepts CH121, 122, 123)

555
Mathematics per placement test through MTH253 Series Calculus and Linear Algebra; EOU requires through MTH253 Series Calculus; SOU requires MTH251 Differential Calculus and MTH252 Integral Calculus; PSU requires MTH254 Vector Calculus I) $\quad 4-5 \quad 4-5 \quad 4-5$
Arts and Letters/Humanities electives* (PSU and UO recommend a Foreign Language, particularly for students planning on graduate studies)
Second Year
3-4 $\quad 3-4 \quad 3-4$

456
PH211, 212, 213 Physics for Engineers and Scientists (UO students may substitute PH201, 202, 203)
Social Science courses*
**CH241, 241L, 242, 242L, 243, and 243L Organic Chemistry

4-5 4-5 4-5
333
$5 \quad 5$

Mathematics/Computer Science (EOU requires
CS161 Computer Science I; UO recommends
CS133F FORTRAN; OSU requires BI101
General Biology; WOU requires MTH254 and three hours of approved electives in Natural Science or Math and CS162; OSU and UO require MTH254 Vector Calculus I and MTH256
Applied Differential
Equations)
HPE295 Health and Fitness for Life* or elective
Arts and Letters/Humanities electives or
Social Science electives*
*To meet four-year college general education requirements.
**Replaces 300 level requirement at state universities with acceptable score on ACS national exam.

(college transfer)
Western States Chiropractic College in Portland offers a degree in Chiropractic Medicine. Students must complete two years of pre-chiropractic credits ( 90 quarter credits) with at least a 2.25 grade point average as well as a 2.25 grade point average in chemistry, zoology and/or biology courses.

The two-year program outlined below is designed to meet the prerequisite requirements for Western States Chiropractic College. However, the program has entrylevel expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.


| PSY201 and 202 or 203 General Psychology (counts towards 15 credits of required Social Science) |  | 3 | 3 |
| :---: | :---: | :---: | :---: |
| Approved Humanities or Social Science electives* (music theory-based rather than studio courses) | 3-6 | 3 | 6 |
| Second Year | 4 | 5 | 6 |
| ZOO201, 202, 203 Zoology or BI231, 232 Human Anatomy and Physiology and one course in Zoology (BI231, 232 recommended) | 4 | 4 | 4 |
| PH201, 202, 203 General Physics | 4 | 4 | 4 |
| CH241, 241L, 242, 242L, 243, 243L Organic Chemistry | 5 | 5 | 5 |
| Approved Humanities or Social Science electives* (from Anthropology, Art History, Economics, Literature (ENG), Fine Arts, Geography, HD220, 221, Human Development and Family Studies, History, Humanities, Journalism, Music, Philosophy, Political Science, Religion, Sociology, Speech, Theater Arts, Writing, Women's Studies; Art, Music, and Theater Arts classes must be theory-based.) | 6 | 3 | 3 |

The Civil Engineering Technology program offers both a one-year Certificate of Completion and a two-year Associate of Applied Science Degree. The one-year certificate program prepares the student for entry-level surveying, drafting, and materials-testing positions. The two-year program prepares the student to provide preliminary designs of public works and subdivision design in addition to surveying projects. Both curricula include courses and field experiences in drafting, surveying, and materials testing. The two-year program also includes basic engineering science; communication skills; psychology; and environmental and sanitary engineering.

Job opportunities vary. As a graduate of the two-year program, you may assist in the planning, design, and construction. You may go into public safety and services dealing with water supply and wastewater treatment systems. As a technician on construction projects, you may assist in estimating costs, writing specifications, inspecting or testing materials, surveying, drafting, or designing.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:
CA121A Keyboarding A (if less than 25 wpm) ..... 1
CS101 Introduction to Microcomputer Applications .....  3
MTH070 Elementary Algebra .....  4
SKD051 Studying for College ..... 3
WR040 Writing Skills ..... 3

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5210.
Failure to be assessed may delay your entry into program classes.

## Survey Technology Certificate

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$481; class fees, \$79; equipment and supplies, \$355; optional certification exam, \$100. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 48 required credit hours:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BLD268 | Foundations, Excavation and Grading | . 3 |
| CVL143 | Introduction to Civil Survey | 3 |
| DRF072 | Introduction to AutoCAD | 3 |
| DRF110 | Introduction to Hewlett Packard Calculators | . 2 |
| DRF112 | Sketching | 1 |
| MTH081 | Technical Mathematics I | 4 |
|  | or |  |
| MTH111 | College Algebra (or higher) | . 5 |
| Term 2 |  |  |
| COM051 | Communication Skills I |  |
|  |  |  |
| WR121 | English Composition-Exposition (or higher) |  |
| CVL161A | Plane Surveying I-Lecture | . 2 |
| CVL161B | Plane Surveying I-Lab | . 2 |
| DRF102 | Print Reading | . 2 |
| DRF136 | Advanced AutoCAD | . 3 |
| MTH082 | Technical Mathematics II | 4 |
|  | or .............. |  |
| MTH112 | Trigonometry (or higher) | . 5 |
| Term 3 |  |  |
| COM053 | Technical Report Writing | . 3 |
|  | or |  |
| WR227 | Technical Writing | . 3 |
| CVL162A | Plane Surveying II-Lecture | . 2 |
| CVL162B | Plane Surveying II-Lab | 2 |
| DRF155 | Mapping and Platting | . 3 |
| DRF160 | Technical Software Applications | 3 |
| CS125E |  |  |
|  | Excel-Workbooks Humanities/Fine Arts elective |  |
|  | or |  |
|  | Social Science elective |  |

## Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,266; class fees, \$126; equipment and supplies, \$355; optional certification exam, \$100. Contact the Financial Aid Office to find out if you qualify for help with these costs.

Chemeketa also offers a pre-engineering transfer program for students who want to transfer to an accredited four-year college or university to earn a Bachelor of Science degree. For details, look under Engineering (college transfer).
An Associate of Applied Science degree is awarded upon the successful completion of these required 96 credit hours:

## Course Title

Credit Hours
Term 1
BLD268
CVL143
DRF072
Foundations, Excavation and Grading

DRF110
Introduction to Hewlett Packard Calculators
. 2

DRF112 Sketching ........................................................... . 1
MTH081 Technical Mathematics I ......................................... . . 4
or
MTH111 College Algebra (or higher) .................................... . 5
Term 2
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
WR121 English Composition-Exposition (or higher) .................. . 3
CVL161A Plane Surveying I-Lecture . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
CVL161B Plane Surveying I-Lab ............................................. . 2
DRF102 Print Reading ........................................................ . . 2
DRF136 Advanced AutoCAD ................................................ 3
MTH082 Technical Mathematics II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or
MTH112 Trigonometry (or higher) ...................................... . 5
Term 3
COM053 Technical Report Writing ........................................ . 3
or
WR227 Technical Writing (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CVL162A Plane Surveying II-Lecture .................................... . 2
CVL162B Plane Surveying II-Lab ............................................. 2
DRF155 Mapping and Platting ............................................ . 3
DRF160 Technical Software Applications ............................... 3
or
CS125E Excel-Workbooks ................................................... . . 4
Humanities/Fine Arts elective .................................. . 3
or
Social Science elective ........................................... . . 3

## Term 4

BLD263 Structural Inspection-Concrete ................................ . 3
CVL230 Applied Statics ................................................... . . 3
DRF241 Structural Drafting .................................................. 3
DRF245 Civil Drafting and Design ........................................ 3
PH081 Applied Physics (or higher) .................................... . . 4
Term 5
CVL231 Applied Strength of Materials ................................... . 4
CVL261 Environmental and Sanitary Engineering ..................... . . 4
CVL260 Survey Project Planning .......................................... . . 3
DRF220 GIS ArcView ........................................................... 2
DRF230 Introduction to MicroStation PC . . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
CVL263A Construction and Route Surveying-Lecture .................... 2
CVL263B Construction and Route Surveying-Lab ......................... 2
DRF165 CAD System Administration ................................... . . 3
DRF221 GIS ArcCAD ............................................................ 3
DRF231 Advanced MicroStation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF246 Project Development .............................................. 3

## see Electronics Technologies



Chemeketa's Computer Programming curriculum is for students who wish to become professional business-application programmers. As a graduate of this program, you will meet the minimum educational and experience requirements to qualify for the State of Oregon employment classification as a computer programmer trainee. After six months of experience, you may qualify as a computer programmer.
The Microcomputer Support Specialist option is for those who wish to become professionals in the microcomputer local area network (LAN) integrated application environment. The two-year program includes theory and technical information as well as experience in performing actual microcomputer systems maintenance tasks. The curriculum emphasizes problem solving and working effectively with people.
In either program you may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree.
You may be interested in our Cooperative Work Experience program which allows you to earn college credit for work you do relating to your program. With the approval of the program chair, you may enroll in CS280 Cooperative Work Experience and earn college credit hours. For more infor-
mation, look under Cooperative Work Experience in the catalog index.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114.
Failure to be assessed may delay your entry into program classes.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,246; class fees, \$168; equipment and supplies, \$140. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 99 credit hours:

## Course

Title
Credit Hours
Term 1
BA101
CIS120
CIS121
WR121
Term 2
BA211
CS133C
CS140B
FE205A
FE205B
Business Environment
.4
Computer Information Science I . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Computer Information Science II . .............................. . . 4
English Composition-Exposition (or higher) . . . . . . . . . . . . . . 3
Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
COBOLI ................................................. . . 4
Microcomputer Operating Systems . . . . . . . . . . . . . . . . . . . . . . . . . 3
Job Search Preparation .......................................... . 1
or
or
FE205C Interviewing for Success ....................................... . . 1
Computer Science elective .................................... . 3
Term 3
CIS122 Computer Information Science III . . . . . . . . . . . . . . . . . . . . . . . . 4
CS233C
CS244
SP111
WR227
COBOL II
. 4
Systems Analysis I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Fundamentals of Public Speaking (or higher) . . . . . . . . . . . . . . . 3
Technical Writing .............................................. . 3
Term 4
CS133VB
CS234L $\quad$ isual Basic-Event-Driven Programming . . . . . . . . . . . . . . . . . 4
CS234L On-Line Programming Techniques ............................. 4
CS246 Systems Analysis II ............................................... . . 3
CS280C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
Computer Science elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MTH105
Introduction to Contemporary Mathematics (or higher) .4
Term 5
CS171
CS275
Principles of Computer Organization . . . . . . . . . . . . . . . . . . . . 4
Database Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

or
Computer Science elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Humanities/Fine Arts elective ...................................... . 3
or
Science/Applied Science elective ................................ 3

Term 6
CS234C COBOL Programming Techniques .............................. 4
CS280C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PSY104 Psychology in the Workplace . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 Computer Science electives* . . . . . . . . . . . . . . . . . . . . . . . . . 6
*Computer Science elective: Choose courses with CS or CIS prefixes above CS101. (Additional spreadsheet or database classes will not apply as CS elective.)

## Microcomputer Support Specialist Option

This option emphasizes the horizontal integration of application packages and provides an introduction to microcomputer programming. It includes training in installing and integrating many of the software packages used by businesses.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,357; class fees, \$168; equipment and supplies, \$145. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 99 credit hours:

## Course Title Credit Hours

Term 1
BA101 Business Environment .................................... 4
CIS120 Computer Information Science I ............................ . 4
CIS121 Computer Information Science II ............................ 4
WR121 English Composition-Exposition (or higher) ............... 3
Term 2
BA211 Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CS125A Micro Database Sottware-Access ........................... 3
CS133C COBOLI ................................................ 4
CS133U C++ Language ............................................ 4
CS140B Microcomputer Operating Systems . . . . . . . . . . . . . . . . . . . . . . . . 3
FE205A Job Search Preparation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
FE205B Resumes and Job Search Correspondence ................... 1
FE205C Interviewing for Success .................................. 1
Term 3
CIS122 Computer Information Science III . . . . . . . . . . . . . . . . . . . . . . 4
CS125E Excel-Workbooks .................................................. 4
CS140U UNIX/LINUX............................................................. . . . . 3
CS244 Systems Analysis I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR227 Technical Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 4
CS133VB Visual Basic-Event-Driven Programming . . . . . . . . . . . . . . . . 4
CS179 Introduction to Windows NT ................................ . . 3
CS240 Advanced Operating Systems ................................. 3
MTH105 Introduction to Contemporary Mathematics (or higher) . . . . . . . 4
Humanities/Fine Arts elective . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
$\stackrel{\text { or }}{\text { Science/Applied Science elective .......................... } 3}$
Term 5
CS145
CS171
CS275
CS278
CS280C
Microcomputer Hardware ................................ 4
Principles of Computer Organization . . . . . . . . . . . . . . . . . . . . . . 4
Database Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Data Communications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
Computer Science elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
CS060
CS279
CS280C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

## or

Computer Science elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
$\begin{array}{ll}\text { SP111 } & \text { Fundamentals of Public Speaking (or higher) . . . . . . . . . . . . . . } 3 \\ \text { PSY104 } & \text { Psychology in the Workplace . . . . . . . . . . . . . . . . . . . . . . }\end{array}$
*Computer Science elective: Choose course with CS or CIS prefixes. (Additional spreadsheet or database classes will not apply as CS elective.)


## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Computer Science are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. Southern Oregon University also has a computer information science option which requires less math. (See SOU catalog for requirements)

The one- or two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| First Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |  |
| CS160 Introduction to Computer Science (required |  |  |  |  |
| co-requisite for Chemeketa's CS161), CS161, |  |  |  |  |
| 162, 260 Computer Science I, II and III (required |  |  |  |  |
| by all except OSU, UO and EOU; recommended |  |  |  |  |
| for UO; CS161, 162 for EOU and OSU) | 4 | 4 | 4 |  |
| Mathematics per placement test* (MTH111 |  |  |  |  |
| prerequisite for CS161; MTH231, 232 Discrete |  |  |  |  |
| Mathematics required at OSU and UO; MTH231 | 4 | 4 | 4 |  |
| or 252 for WOU) |  | 4 |  |  |
| Science courses to meet college and Computer |  |  |  |  |
| Science major requirement* (PH211, 212, 213 |  |  |  |  |
| Physics for Enginers and Scientists and four |  |  |  |  |
| hours Biological Science for OSU; PH211, 212, |  |  |  |  |
| 213 Physics for PSU; UO choose PH211, 212, |  |  |  |  |
| 213 or PH201, 202, 203 General Physics or |  |  |  |  |
| BI101, 102, 103 General Biology or CH121, |  |  |  |  |
| 122, 123 College Chemistry or CH221, 222, 223 |  | $4-5$ | $4-5$ | $4-5$ |

WR121, 122 and/or 123 English Composition and/or
WR227 Technical Writing* (WR121, 122, 227
for OSU and SOU; WR121 and WR227 for
PSU; WR121 and WR122 or 123 for UO;
WR121 and Speech elective for WOU)

It is recommended that students planning to attend PSU and UO transfer after completing one year.

## Second Year

Computer Science course to meet major requirements (Chemeketa recommends CS171 Principles of Computer Organization for all schools; CS133U C++ Language required for OSU and PSU; CS133F FORTRAN IV or CS133C COBOL for SOU; CS285 FourthGeneration Language-SQL and CS171 Computer Organization required at WOU)
Mathematics to meet major requirements MTH251 and 252 Calculus and MTH254 Vector Calculus I for OSU; MTH251, 252, 253 for UO; through MTH254 for PSU; MTH231 or MTH252 for WOU; MTH251 for SOU and MTH231 and MTH243 Probability and Statistics I
Social Science courses*
Arts and Letters/Humanities sequence* (SP111 or 112 Fundamentals of Persuasion for OSU)
HPE295 Health and Fitness for Life* or elective
Electives* (CH221, 222, 223 General Chemistry for PSU)
*To meet four-year college general education requirements.

Graduates of Chemeketa's Criminal Justice program may become law enforcement officers or adult or juvenile correctional officers, and they may develop a foundation for a career in parole and probation. Although there is much competition for such positions, they offer good benefits. Graduates may also find other jobs in intake and release work in correctional institutions and in private and public security work. Or, as a graduate, you may work as an insurance adjuster or a hearings officer or licensing inspector for the state department of motor vehicles.
Some employers may require employees to earn a bachelor's degree before entering or advancing in this field. Chemeketa's program is planned so that you may transfer to a four-year school where the courses also may meet social science requirements. Before you enroll at Chemeketa, consult with the Advising and Counseling Center and an advisor at the institution to which you plan to transfer.
With the approval of the program chair, you may enroll in CJ280 Cooperative Work Experience and earn college credit hours for work you do relating to your program. For more information, look under Cooperative Work Experience in the catalog index.

There are several topical seminars offered during the calendar year. Please consult program chair as to specific content coverage. Students should refer to schedule of classes for these seminars as well as for specific criminal justice courses that are offered on-line.
Chemeketa's Criminal Justice program also offers a one year ( 47 credit hour) certificate in Juvenile Corrections, for information refer to page 94.
Students with current or prior professional experience and training in the criminal justice career field should contact the program chair to see if they are eligible for Credit for Professional Certification college credits.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| CA121A | Keyboarding A (if less than 25 wpm ) |  |
| CJ050 | Criminal Justice Foundations . | 3 |
| MTH020 | Basic Mathematics | . 3 |
| RD090 | College Textbook Reading | 3 |
| WR115 | Introduction to Composition | . 3 |
|  | or |  |
| COM051 | Communications Skills I | . 3 |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5048.
Failure to be assessed may delay your entry into program classes.

## Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete
the entire program listed below are books, $\$ 1,200$. Contact the
Financial Aid Office to find out if you qualify for help with these costs.

An Associate of Applied Science degree is awarded upon successful completion of the 91 required credit hours listed below. These include the 58 credit hours listed under general education requirements, 18 credit hours of Criminal Justice core requirements, and 15 credit hours of Criminal Justice electives.

## General education requirements (58 credit hours):

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| CS101 | Introduction to Microcomputer Appli | igher) . .... . 3 |
| MTH060 | Introductory Algebra (or higher) |  |
|  | PE elective (three different activities) | 3 |
|  | or |  |
| HPE295 | Health and Fitness for Life | . 3 |
| SP218 | Interpersonal Communication | 3 |
|  | or |  |
|  | Speech elective | . 3 |
| WR121 | English Composition-Exposition |  |
| WR122 | English Composition-Logic and Style | 3 |
| WR227 | Technical Writing | . 3 |

General education electives .18
Humanities sequence* ......................................... . 9

Social Science sequence* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
Criminal Justice core requirements ( 18 credit hours):
CJ100 Survey of the Criminal Justice System ......................... . . 3
CJ101 Criminology .................................................... 3
CJ132 Introduction to Parole and Probation ........................... . . 3
CJ206 Crime and Delinquency . ...................................... . 3
CJ210 Introduction to Criminal Investigations I: Crimes vs. Persons . . 3
CJ226 Introduction to Constitutional Law ............................. . . 3
Criminal Justice electives (Select 15 credit hours):
CJ110 Introduction to Law Enforcement . .............................. . . 3
CJ112 Field Operations and Patrol Procedures ....................... 3
CJ123 Survival Spanish for Law Enforcement ......................... . 3
CJ130 Introduction to Corrections Process . . . . . . . . . . . . . . . . . . . . . . . 3
CJ150 Unarmed Private Security ........................................... . 3
CJ200 Police and Public Policy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ203 Crisis Intervention Seminar . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
CJ207 Seminar in Criminal Justice . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ211 Introduction to Criminal Justice
Investigations II: Crimes vs. Property . . . . . . . . . . . . . . . . . . . . . 3
CJ212 Police Report Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ215 Criminal Justice Administration ........................................ . 3
CJ220 Introduction to Substantive Law and Oregon Criminal Code . . 3
CJ230 Introduction to Juvenile Corrections3

CJ232 Introduction to Corrections Casework . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ235 Youth, Drugs, and Corrections . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ253 Introduction to Penology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ280 Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
*Suggestions for students: Due to current bilingual hiring preferences, students are urged to take SPAN111, 112, 113 for Humanities sequence. Law enforcement and adult corrections students are urged to take PSY201, 202, 203 for Social Science sequence.
Students are urged to select general education electives in the following courses:
CA121 Keyboarding . .......................................................... . 3
HDFS226 A Time To Grow . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HDFS260 Child Abuse and Neglect . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HE262 Cardiopulmonary Resuscitation Instruction ................... 2
PE185PA Personal Defense . ................................................. 1
PSY201 General Psychology-Biological ................................. . 3
PSY202 General Psychology-Cognitive ................................. 3
PSY203 General Psychology-Clinical/Social Emphasis ................. 3
PSY239 Introduction to Abnormal Behavior . . . . . . . . . . . . . . . . . . . . . . . 3
SOC204 General Sociology-Introduction . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SOC205 General Sociology-Institutions . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SOC206 General Sociology-Social Problems ............................... 3
SP115 Introduction to Intercultural Communication .................. . 3

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 Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, Illinois 60611-2678. The telephone number is (312) 440-2500. The internet address is

## www.ada.org.

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 include preparing patients for treatment, mixing dental materials, taking impressions, sterilization and infection
control, exposing and developing radiographs, and inventory control. Laboratory duties include pouring study models of teeth and fabrication of custom trays, temporary crowns, and small appliances. As office manager, a dental assistant acts as a receptionist, schedules appointments, keeps accounts and records, prepares statements, and is responsible for the general appearance of an office.
This program has special admission requirements and enrollment limits. To enroll, you must have a high school diploma or GED certificate. For additional information, contact the Student Records (Admissions) Office at (503) 399-5006.

## Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| BI060 | Basic Science for Dental Assistants |  |
| :---: | :---: | :---: |
| CA121A | Keyboarding A (if less than 25 wpm ) |  |
| CS101 I | introduction to Microcomputer Applications |  |
| HD112 | Study Skills |  |
| MTH060 | Introductory Algebra |  |
| RD090 | College Textbook Reading |  |
| SP100 | Introduction to Communication |  |
|  | or . . . . . . . . . . . . . . . . . . . . . . . . . |  |
| SP218 | Interpersonal Communication (preferred) |  |
| WR115 | Introduction to Composition |  |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5058.
Failure to be assessed may delay your entry into program classes.
For admission to the program, an application is required. This is a separate step from the testing and assessment steps. Applications are available in Advising and Counseling, Admissions, and program offices.
Students must possess a Health Care Provider CPR card prior to enrollment in winter term classes. You are required to earn a grade of C or better in all courses. As a graduate you are eligible to take the Dental Assisting National Board examinations, including radiology.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$367; class fees, $\$ 115$; equipment and supplies, $\$ 745$; test fees, $\$ 215$; physical examination/immunizations, \$200. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 46 required credit hours:
Course
Title
Credit Hours

Term 1
DEN050 Dental Sciences ................................................... . 3
DEN051 Introductory Concepts in Dental Assisting ...................... 3
DEN052 Dental Head and Neck Anatomy . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DEN053 Dental Materials I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DEN054 Preventive Dentistry . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1

DEN070
Dental Office Management .2

Term 2
DEN060 Dental Specialties .................................................... . 3
DEN061 Dental Assisting Practicum I ...................................... . 3
DEN062 Intermediate Clinical Skills .......................................... . 3
DEN063 Dental Materials II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DEN064 Dental Radiology I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 3
DEN071
DEN072
DEN074
DEN080
Dental Assisting Practicum II .................................. 9
Expanded Functions . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Dental Radiology II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Dental Assisting Seminar . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
(college transfer)
Oregon state colleges and universities offering a Bachelor of Science degree in Dental Hygiene are Oregon Health Sciences University and Oregon Institute of Technology.
Admission to the Dental Hygiene program is competitive; only a limited number of applicants is accepted each year.
It is important to check with the college of your choice for admission requirements and deadlines, and to obtain admission materials early, as requirements change.
The two-year program outlined below is designed to meet requirements at OHSU and OIT. Since OIT begins dental hygiene courses in the second year, it will be to the student's advantage to transfer after completing first-year classes at Chemeketa. Application must be made by April 1. This program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institute to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

First Year 1 | 1 | 2 | 3 |
| :--- | :--- | :--- |

ZOO201, 202, 203 General Zoology recommended for OHSU(4) (4) (4)
CH121, 122, 123 College Chemistry (CH104, 105, 106 Chemistry for Allied Health may be substituted**) 4-5 4-5 4-5
PSY201 General Psychology-Biological Emphasis
ANTH103 Cultural Anthropology for OHSU; Psychology elective for OIT

WR121, 122 English Composition and WR227
Technical Writing for OIT; WR121 and 122, or 123, or 227 for OHSU
SP111 Fundamentals of Public Speaking or SP112 Fundamentals of Persuasion
for OHSU; SP219 Fundamentals of Small Group Communication for OIT
CS101 Introduction to Microcomputer Applications or CS131 Introduction to Data Processing for OIT (strongly recommend for OHSU)
MTH111 College Algebra (MTH105 may be substituted for OIT)
FN225 Nutrition
Second Year
BI231, 232, 233 Anatomy and Physiology
Humanities electives* (six hours for OIT and SP115 Introduction to Intercultural Communication; six hours from Art (non-studio classes), Literature, Humanities, Music (not performance classes), Philosophy, Speech, Theater Arts, or second-year Foreign Language for OHSU)
BA214 Business Communications for OIT
BI234 Microbiology (not required but strongly recommended for OHSU)
SOC204 General Sociology-Introduction
Social Science electives* (3 hours from Anthropology, History, Economics, Geography, Psychology, Sociology, Political Science for OHSU and
SOC204 General Sociology-Introduction for OIT)
Electives (additional electives to bring total transferable credits to 91 for OHSU; BA224 Personnel Management recommended for OIT)
*To meet four-year college general education requirements.
**OHSU requires science courses be completed within the past 10 years.


Drafting Technology offers three paths of entry into careers in drafting and design: Computer-Assisted Drafting (CAD), Mechanical Design, and Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM). During the first year students in all three areas share many courses so that they may explore, gain insight, and consult with advisors to make knowledgeable decisions about their careers. Choose individual courses to meet your needs, or work toward an Associate of Applied Science degree. You should choose CAD, Mechanical Design, or CAD/CAM as soon as possible during your first year.
For short-term or non-credit workshops in this area, call the Training and Economic Development Center at (503) 3995181 or 1-888-234-4322.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do relating to your program. In your third term, as a full-time student, with the approval of the program chair you may enroll in DRF280 Cooperative Work Experience
and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.
After graduating, you may transfer to an institution such as Oregon Institute of Technology to complete the course work for a bachelor's degree in industrial management.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) . . . . . . . . . . . . . . . . . . . 1 |
| :--- | :--- | :--- |
| CS101 | Introduction to Microcomputer Applications . . . . . . . . . . . . 4 |
| MTH070 | Elementary Algebra . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| MKD051 | Studying for College . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5210.
Failure to be assessed may delay your entry into program classes.

## Computer-Assisted Drafting (CAD) Option

Upon graduating from the CAD option, you may become a technician in civil, mechanical, pipe, or architectural drafting. Additional career opportunities include Geographic Information Systems (GIS) mapping and technical illustration. Training includes computer-aided drafting projects in all of the fields listed and broader skills in communication, teamwork, and human relations which are necessary for career success.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,243; class fees, \$126; equipment and supplies, \$227. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 96 credit hours:
Course Title Credit Hours
Term 1
C0M051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR121 English Composition-Exposition (or higher) . . . . . . . . . . . . . . . 3
DRF072 Introduction to AutoCAD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF110 Introduction to Hewlett Packard Calculators . . . . . . . . . . . . . . . . 2
DRF112 Sketching . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
DRF114 Drafting Orientation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
MTH081 Technical Mathematics I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
MTH111 College Algebra (or higher) .............................. 5
Term 2
CVL161A Plane Surveying I-Lecture ......................................... . . . 2
CVL161B Plane Surveying I-Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
DRF136 Advanced AutoCAD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MTH082 Technical Mathematics II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or

MTH112 Trigonometry . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
PH081
Applied Physics (or higher)
. 4
Term 3
DRF137
DRF140
DRF150
DRF155
DRF160
CS125E
Term 4
CVL230
DRF210
DRF241
DRF242
DRF245
DRF256
Term 5
CVL261
DRF220
DRF230
DRF240
AutoCAD 3-D . . 3
Advanced Technical Graphics . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Architectural Drafting I . 3
Mapping and Platting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Technical Software Applications . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
Excel-Workbooks . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

Applied Statics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Parametric Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Structural Drafting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
3-D Studio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Civil Drafting and Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
AutoLISP Programming . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

Environmental and Sanitary Engineering . . . . . . . . . . . . . . . . . . . 4
GIS ArcView . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Introduction to MicroStation PC . . . . . . . . . . . . . . . . . . . . . . . . . 3
Architectural Drafting II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Humanities/Fine Arts elective . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
COM053 Technical Report Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR227 Technical Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF165 CAD System Administration . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF221 GIS ArcCAD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF231 Advanced MicroStation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF243 Architectural Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
DRF255 Technical Illustration . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

## Mechanical Design Option

Mechanical Design is a comprehensive drafting program with practical approaches to engineering and design concepts using Computer-Aided Design (CAD) methods.
You may train to become a technician in machine, control system, and tool-design drafting. The program emphasizes the use of the computer as a problem-solving tool in these job areas. Instruction in design also stresses the use of manufacturers' technical catalogs, technical handbooks, and practical applications of theoretical and mathematical concepts studied in courses taken concurrently.
With specific course substitutions, you may transfer credits to the Mechanical Engineering Technology Program at Oregon Institute of Technology. See your advisor for details.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,087; class fees, \$108; equipment and supplies, \$319. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 97 credit hours:
Course Title Credit Hours

## Term 1

DRF072 Introduction to AutoCAD ................................. . 3
DRF110 Introduction to Hewlett Packard Calculators ................. 2
DRF112 Sketching . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1

| DRF114 | Drafting Orientation or |  |
| :---: | :---: | :---: |
| GE101 | Engineering Orientation |  |
| MFG111 | Industrial Safety Seminar | 1 |
| MFG130 | CNC Machine Setup/Operation | 3 |
| MTH081 | Technical Mathematics I | 4 |
|  | or |  |
| MTH111 | College Algebra (or higher) |  |
| Term 2 |  |  |
| DRF136 | Advanced AutoCAD | . 3 |
| MFG145A | CMM/QA Applications | 2 |
| MFG145B | CMM/QA Applications-Lab | , |
| MTH082 | Technical Mathematics II . . | . 4 |
|  | or |  |
| MTH112 | Trigonometry (or higher) | . 5 |
| PH081 | Applied Physics | 4 |
|  | or |  |
| PH201 | General Physics (or higher) |  |
| Term 3 |  |  |
| C0M051 | Communication Skills I | . 3 |
|  | or |  |
| WR121 | English Composition-Exposition (or higher) |  |
| DRF137 | AutoCAD 3-D | . 3 |
| DRF140 | Advanced Technical Graphics | . 3 |
| DRF160 | Technical Software Applications | . 3 |
|  | or |  |
| GE103 | Engineering Computations | . 3 |
|  | Humanities/Fine Arts elective | 3 |
|  | or |  |
|  | Social Science elective |  |
| Term 4 |  |  |
| CVL230 | Applied Statics | . 3 |
|  | or |  |
| ENGR211 | Statics | . 4 |
| DRF210 | Parametric Design | . 3 |
| DRF241 | Structural Drafting* | . 3 |
| DRF242 | 3-D Studio | . 3 |
| DRF256 | AutoLISP Programming | . 3 |
| MT100 | Electronics Fundamentals for Non-Majors | . 4 |
| Term 5 |  |  |
| CVL231 | Applied Strength of Materials | . 4 |
|  | or |  |
| ENGR213 | Strength of Materials | . 4 |
| DRF230 | Introduction to MicroStation PC* | . 3 |
| DRF251 | Power Transmission Design . | . 3 |
| DRF260 | Tool Design | . 3 |
| ENGR248 | Graphics and 3-D Modeling | . 3 |
| MFG136 | Geometric Dimensioning/Tolerancing | . 2 |
| Term 6 |  |  |
| C0M053 | Technical Report Writing | . 3 |
|  | Or |  |
| WR227 | Technical Writing | . 3 |
| DRF165 | CAD System Administration* | . 3 |
| DRF255 | Technical Illustration | . 3 |
| DRF262 | Machine Design | . 3 |
| MT227A | Introduction to Hydraulics/Pneumatics | . 3 |
| ENGR212 | Dynamics | . 4 |

in math, physics, chemistry and engineering may be substituted.

## Computer-Aided Design/ Computer-Aided Manufacturing (CAD/CAM) Option

The Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM) option offers training in using
computers as tools in engineering, drafting, machine tool control, and industrial mechanical design.
You may gain knowledge and skills in operating computer design terminals, programming, and evaluating software problems. Then apply your knowledge and skills to solving increasingly complex design and machining problems. After you successfully complete this option, you may begin employment or upgrade your qualifications as an engineer and/or a design technician. This may be in the fields of engineering and manufacturing operations and in using computers in drafting and in designing and controlling machine tools.
For short-term or non-credit workshops in this area, call the Training and Economic Development Center at (503) 399-5181 or 1-888-234-4322.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,388; class fees, \$141; and equipment and supplies, \$287. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 97 credit hours:

## Course <br> Title <br> Credit Hours

## Term 1

DRF072
DRF110
DRF112
DRF114
MFG111
MFG130
MTH081
MTH111
Term 2
COM051
WR121
DRF136
MFG145A
MFG145B
MFG160
MTH082
MTH112
Term 3
DRF137
DRF140
DRF160
CS125E
MFG176
MFG190
Term 4
CVL230
DRF210
MFG230
PH081
PH201

## Term 5

CVL231
DRF251
DRF260
ENGR248
Introduction to AutoCAD .....  3
Introduction to Hewlett Packard Calculators .....  2
Sketching .....  . 1
Drafting Orientation .....
Industrial Safety Seminar .....  . 1
CNC Machine Setup/Operation .....  3
Technical Mathematics I ..... 4
College Algebra (or higher) ..... 5
Communication Skills I .....  3
or
English Composition-Exposition .....  3
Advanced AutoCAD ..... 3
CMM/QA Applications .....  2
CMM/QA Applications-Lab .....  1
Programming CNC Mills .....  3
Technical Mathematics II ..... 4
Trigonometry (or higher) .....  5
AutoCAD 3-D .....  3
Advanced Technical Graphics ..... 3
Technical Software Applications .....  3
Excel-Workbooks .....  4
Manufacturing Material and Cutting Tools .....  3
Programming CNC Lathes ..... 3
Applied Statics .....  3
Parametric Design ..... 3
CAM Applications/Mills .....  3
Applied Physics (or higher) ..... 4
or .....  4

Humanities/Fine Arts elective

Humanities/Fine Arts electiveor
Social Science elective ..... 3
Applied Strength of Materials ..... 4
Power Transmission Design .....  3
Tool Design Lab .....  3
Graphics and 3-D Modeling ..... 3

| MFG136 | Geometric Dimensioning/Tolerancing |
| :---: | :---: |
| MFG260 | CAM Applications/Lathes . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| Term 6 |  |
| C0M053 | Technical Report Writing . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
|  |  |
| WR227 | Technical Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| DRF165 | CAD Systems Administration . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| DRF262 | Machine Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| MFG290 | CAD/CAM Integrations . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 |
| MT227A | Introduction to Hydraulics/Pneumatics . . . . . . . . . . . . . . . . . 3 |

## arly Childhood Education

Early Childhood Education is a comprehensive program of both theory and practical experiences designed to prepare you 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 to be child-care aides, assistants, and teachers in preschools, day care centers, kindergartens, and Head Start programs.
You may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree or a Certificate of Completion. Students in the program must earn grades of C or better. In order to enroll in certain courses, students will be required to pass a criminal records check. A valid first-aid card is required for graduation in both the one-year and two-year programs.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do relating to your program. With the approval of the program chair, you may enroll in ECE280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## Child Development Certificate

The Child Development Certificate program is geared to students seeking on-the-job training in early childhood education. This two-term certificate provides initial minimal training information only and may not be suitable for everyone. (Please contact the program chair for further information.) Students completing the Child Development Certificate may use their credits toward completion of the one-year Early Childhood Education certificate and the two-year associate degree. Students completing this program may also enter employment as classroom aides in preschools, day care centers, family day care homes, and Head Start programs.
Participants will be enrolled in 13 credits of classroom instruction and 18 credits of Cooperative Work Experience. A competency-based evaluation and checklist will be used in fieldwork instruction.

In addition to tuition, estimated costs for students who complete the one-year program are books, \$170; class fees, \$5; basic first
aid card, \$25; criminal records check, \$375; and conference registration, $\$ 100$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 31 required credit hours:
Course Title Credit Hours

Term 1
ECE068A Observing the Preschool Experience . . . . . . . . . . . . . . . . . . . . . . 1
ECE151 Observing and Guiding Behavior ................................... 3
ECE280I Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
HDFS247 Preschool Child Development .................................. . . 3 or
HDFS249 Working and Living with Infants and Toddlers . . . . . . . . . . . . . 3
Term 2
ECE068B Observing the Preschool Experience . . . . . . . . . . . . . . . . . . . . . . . 1
ECE068C Observing the Preschool Experience . . . . . . . . . . . . . . . . . . . . . . 1
ECE280I Cooperative Work Experience . .................................. . . 9
HDFS248 Learning Experiences for Young Children .................... . . 4

## One-Year Option

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:
CA121A Keyboarding A (if less than 25 wpm ) ..... 1
MTH020 Basic Mathematics ..... 3
RD090 College Textbook Reading ..... 3
WR115 Introduction to Composition .....  3or
C0M051 Communication Skills I ..... 3

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-6071.
Failure to be assessed may delay your entry into program classes.

In addition to tuition, estimated costs for students who complete the one-year program listed below are books, \$456; class fees, \$35; equipment and supplies, \$36; immunization fees, \$10; basic first-aid card, \$35; criminal records check, \$70; and conference registration, \$100. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 55 required credit hours:
Course Title Credit Hours
Term 1
ECE068A Observing Preschool Experiences ............................... 1
ECE150 Introduction and Observation
in Early Childhood Education
ECE161 Infant/Toddler Practicum ........................................ . . . 3
HDFS222 Family Relationships .............................................. . 3
HDFS225 Prenatal, Infant and Toddler Development . .................... . 3
HDFS249 Introduction to Working with Infants and Toddlers ........... 3

Term 2
ECE068B Observing Preschool Experiences ............................... 1
ECE151 Observing and Guiding Behavior ................................. 3
ECE152 Creative Activities .............................................. . . . 3
ECE155 Child Nutrition ..................................................... . . 2
or
FN225 Nutrition ......................................................... . 4
ECE162 Early Childhood Educator Orientation .......................... . 2
HDFS247 Preschool Child Development .................................... . 3
MTH060 Introductory Algebra . ............................................. . . 4
WR121 English Composition-Exposition (or higher) ................. 3
Term 3
ECE068C Observing Preschool Experiences ............................... . 1
ECE153 Music and Movement for Young Children ...................... . 3
ECE154 Children's Literature and Literacy ............................... . . 3
ECE163 Preschool Practicum .............................................. . . . 4
HDFS229 Development in Middle Childhood . . . . . . . . . . . . . . . . . . . . . . . 3
HDFS248 Learning Experiences for Young Children ..................... . 4

## Two-Year Option

## - Getting Started

Program requirements have changed. See "Getting Started" under the One-Year Option heading on this page for details.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$924; class fees, \$55; equipment and supplies, \$72; immunization fees, \$10; basic firstaid card, \$35; criminal records check, \$70; and conference registration, \$100. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 95 credit hours:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| ECE068A | Observing Preschool Experiences |  |
| ECE150 | Introduction and Observation in Early Childhood | Education . 3 |
| ECE161 | Infant/Toddler Practicum . . . . . . . . . . . |  |
| HDFS222 | Family Relationships | , |
| HDFS225 | Prenatal, Infant and Toddler Development |  |
| HDFS249 | Introduction to Working with Infants and Toddlers | . 3 |
| Term 2 |  |  |
| ECE068B | Observing Preschool Experiences |  |
| ECE151 | Observing and Guiding Behavior |  |
| ECE152 | Creative Activities |  |
| ECE155 | Child Nutrition |  |
| FN225 | $\stackrel{\text { or }}{ }{ }^{\text {Nutrition }}$ |  |
| FN22 | Nutrition |  |
| ECE162 | Early Childhood Educator Orientation |  |
| HDFS247 | Preschool Child Development |  |
| WR121 | English Composition-Exposition (or higher) |  |
| Term 3 |  |  |
| ECE068C | Observing Preschool Experiences |  |
| ECE153 | Music and Movement for Young Children |  |
| ECE154 | Children's Literature and Literacy |  |
| ECE163 | Preschool Practicum .......... |  |
| HDFS229 | Development in Middle Childhood |  |
| HDFS248 | Learning Experiences for Young Children |  |
| Term 4 |  |  |
| ECE251 | Environments for Young Children | . 3 |
| ECE261 | Student Teaching I, ECE |  |
| HDFS285 | Professional Issues in Early Childhood Education |  |
| MTH060 | Introductory Algebra (or higher) |  |

## Term 5

ECE280D Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ED258 Multicultural Education ....................................... . 3
$\begin{array}{ll}\text { ED268 } & \text { Educating the Mildly and Severely Handicapped . . . . . . . . . . . . . } 3 \\ \text { HDFS257 } & 3 \\ \text { Home, School and Community . . . . . . . . . . . . . . . . . . . } 3\end{array}$
Computer Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Humanities/Fine Arts elective* . . . . . . . . . . . . . . . . . . . . . . . . 3
Science/Applied Science elective* .......................... . . 3
Communications elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
ECE262
ECE295
Student Teaching II, Early Childhood Education . . . . . . . . . . . 6
Administration of Early Childhood Education Programs . . . . . . 3
Humanities/Fine Arts elective* . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
Science/Applied Science elective* ............................ . 3
or
Communications elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
*Selection may not be repeated.


## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Economics are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. UO also offers a five-year program combining an undergraduate economics major and a master of business administration.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## Term

## First Year

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| :---: | :---: | :---: |
|  |  |  |
| 3 | 3 | $(3)$ |
| 3 | 3 | 3 |
| 3 | 3 | 3 |

Math or Science courses (MTH111 College Algebra and MTH241 Elementary Calculus or MTH251 Differential Calculus for OSU;** MTH111, MTH243, MTH244
Probability and Statistics I and II, and MTH241 for PSU;
UO requires MTH111, 241, 242, 243 or 251, 252; SOU
recommends MTH251, 252, 253 for graduate work; WOU
requires MTH111 and additional math and computer science class for B.S. degree)*
HPE295 Health and Fitness for Life* or electives
Electives*
Second Year
Economics sequence: EC201, 202, 203 Introduction to Microeconomics, Introduction to Macroeconomics or Applications of Economic Issues @TRANS PROG DT/2: (EC203 not required at OSU, SOU, or UO) 3
Science Electives* 4
Arts and Letters/Humanities or Social Science electives*

| 4 | 4 |
| :--- | :--- |

Electives (BA211 and BA212 Financial Accounting for PSU; CS course beyond CS101 for WOU)

6-7
*To meet four-year college general education requirements; OSU stidents should of Liberal Arts core requirements.
**OSU recommends three or more calculus courses for students interested in graduate study.

dUCATION
see also Early Childhood Education and Professional-Technical Teacher Preparation

## Elementary Education

(college transfer)
Oregon state colleges and universities offering Elementary Education programs are Western Oregon University, which offers a Bachelor of Arts and/or Bachelor of Science degrees in Elementary Education, and Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, and University of Oregon, which offer fifth-year programs.
Students planning on attending EOU will earn their degree in Multidisciplinary Studies. Students should see a Chemeketa advisor or consult with the EOU School of Education for requirements. Students planning on enrolling in a college offering a fifth-year Elementary Education program must obtain a baccalaureate degree in an academic major before being admitted to the fifth-year teacher education program. The major may be in general or liberal studies or in any subject taught in elementary schools. OSU recommends students major in Liberal Studies, General Science, Human Development, Family Studies, Exercises and Sport Science, or a single discipline that relates to the elementary school curriculum.
Admission to both four-year and fifth-year education programs requires a minimum grade point average (GPA), usually 2.75 to 3.00 . Admission also requires passing the California Basic Educational Skills Test (CBEST). Students transferring to WOU are advised to take the test at the completion of their general education requirements or early in
their sophomore year, as scores are included as data required for admission to the Elementary Education program.
Students planning to transfer to a college offering a fifthyear program should follow the program outlined in the catalog for the academic major which they plan to complete before entering a fifth-year program.
The program outlined below is designed to meet prerequisite requirements at WOU. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or an advisor in your program.
Students planning to transfer to the four-year baccalaureate degree programs at WOU should follow the program below:
$\left.\begin{array}{lcccc} & & \text { Term } \\ \text { First Year } \\ \text { WR121 English Composition-Exposition (recommend }\end{array}\right)$

## Secondary Education

## (college transfer)

Oregon state colleges and universities offering secondary education programs are Eastern Oregon University and Western Oregon University, which offer Bachelor of Science and Bachelor of Arts degrees in secondary education, and Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, and University of Oregon, which offer a fifthyear secondary education program. UO programs are limited to special education.

Admission to fifth-year education programs requires completion of a baccalaureate degree in the subject you plan to teach at a junior or senior high school. The secondary education program is at the graduate level. Admission to these programs requires maintaining a specific grade point average (GPA), usually 2.75 to 3.00 , and successfully passing the California Basic Educational Skills Test (CBEST) or Praxis I: Pre-Professional Skills Test (PPST) and the Praxis Examination in your major teaching area.
Admission to the four-year education program at WOU requires maintaining a 2.75 GPA and passing the CBEST or PPST.

You should enroll in courses that meet the general education requirements for the school to which you plan to transfer, as well as courses that meet the requirements for the major subject in which you plan to teach.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## Education Certificate

## (see advisor for transferability)

The Education program offers the training necessary to help you on your way to becoming an educational assistant and/or licensed teacher. The first step is the completion of the one-year certificate in education. This certificate provides the training necessary to become an educational assistant in public schools and gain valuable teaching experience. Students who complete the one-year certificate may then work towards an Associate of General Studies degree (see requirements on page 33). Completion of the associate degree requirements enables you to transfer to Portland State University or Oregon State University, where you may complete Bachelor of General Studies/Liberal Arts degrees and then apply to a teacher licensing program.
Students pursuing the one-year education certificate take a core of required courses, including practicum. The core courses offer instruction in basic teaching strategies, human relations, communication, and non-instructional support skills. In addition to the core courses, students select from one of three areas in which to specialize. These areas include working with children in multicultural/bilingual settings, helping children who are in special education programs, or assisting in a media/technology center. Students participate in worksite practicums to gain experience and to practice skills learned in classes. You are required to maintain a grade of C or higher in all courses in order to participate in any practicum.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) |
| :---: | :---: |
| CS101 | Introduction to Microcomputer Applications |
| MTH060 | Introductory Algebra |
| RD090 | College Textbook Reading |
| WR115 | Introduction to Composition |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5048.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, estimated costs for students who complete the certificate program listed below are books, \$550; class fees, \$78; measles vaccine, \$10, and criminal history check, \$17. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these 45 required credit hours:
An Education Certificate is awarded upon successful completion of the 45 required credit hours listed below. These include the 24 credit hours listed under Education core requirements and 21 credit hours of Approved Education electives. Choice of appropriate electives will depend on your prior experience and desired grade level of preparation. Students should consult with the Education program advisor, Cathie Whyte, at (503) 399-2694 or mail to whyc@chemeketa.edu for approval before enrolling in elective classes.

## Education core requirements ( 24 credit hours):

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| ED 101 | Introduction to Observation and Experience |  |
| ED 110 | Psychology of Learning |  |
| ED 131 | Teaching Techniques |  |
| ED 133 | Instructional Media and Materials | 3 |
| ED 212 | Schools and Society | 3 |
| ED 217 | Comprehensive Classroom Management | 3 |
| ED 251 | Overview of Students with Special Needs |  |
| ED 258 | Multicultural Education |  |
| Approved Education electives (Select 21 credit hours): |  |  |
| ED 102 | Practicum |  |
| ED 103 | Advanced Practicum |  |
| ED 123 | Classroom Techniques in Reading and Language . |  |
| ED 124 | Classroom Techniques in Math and Science | 3 |
| ED 209 | V1-V4Advanced Education Practicum | -6 |
| ED 210 | Professional Portfolio Development |  |
| ED 213 | Advanced Instructional Techniques in Reading | . 3 |
| ED 214 | Advanced Instructional Techniques in Math and S | Science .... 3 |
| ED 235 | Instructional Technology | . 3 |
| ED 236 | Introduction to Library / Media Technology | 3 |
| ED 253 | Current Issues in Special Education | 3 |
| ED 257 | Second Language Teaching Techniques | . 3 |
| ED 259 | Bilingual Methodology | . 3 |
| ED 268 | Educating the Mildly and Severely Handicapped ... | . 3 |
| ED 292 | Occupational Analysis, Curriculum and Evaluation | n . . . . . . . . 3 |
| ED 293 | Applied Integrated Academics |  |

ED 101 Introduction to Observation and Experience . . . . . . . . . . . . . . . 3
ED 110 Psychology of Learning . ....................................... . . 3
ED 131 Teaching Techniques ......................................... 3
ED 133 Instructional Media and Materials .............................. . 3
Schools and Sociey
ED 251 Overview of Students with Special Needs ............................ 3
ED 258 Multicultural Education .......................................... . . 3
Approved Education electives (Select 21 credit hours):
ED 102 Practicum ........................................................ 3
ED 123 Advanced Practicam ....................................................... 6
ED 124 Classroom Techniques in Math and Science . . . . . . . . . . . . . . . . . . . 3
ED 209 V1-V4Advanced Education Practicum .......................3-6
Professional Portfolio Development . ......................... . 3
Advanced Instructional Techniques in Reading .............. 3
Advanced Instructional Techniques in Math and Science ..... 3
Instructional Technology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Introduction to Library/Media Technology . . . . . . . . . . . . . . . . 3
Current Issues in Special Education ........................... . . 3
Second Language Teaching Techniques ....................... 3
Educ Ma Moldy and Severely Handicapped
Occupational Analysis, Curriculum and Evaluation ........... . 3
Applied Integrated Academics . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

Career opportunities in the electronics field are diverse, exciting, and rewarding. Chemeketa's electronics department offers three programs of study to meet the present and future challenges of the electronics industry: Electronics Engineering Technician, Computer Electronics, and Microelectronics/Industrial Electronics.
To successfully complete the Electronics Technologies programs, you must earn grades of C or better in all required courses.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do related to your program. You will need department approval before you may enroll in ELT280 Cooperative Work Experience. For more information, look under Cooperative Work Experience in the catalog index or contact Bruce Bothwell at (503) 399-6506.
For tours of the electronics laboratory, call (503) 399-5074.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA121A Keyboarding A (if less than 25 wpm ) ..................... 1
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . 3
MTH070 Elementary Algebra . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
RD090 College Textbook Reading . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR040 Writing Skills . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5248.
Failure to be assessed may delay your entry into program classes.

## Computer Electronics Option

Graduates of this option begin careers with companies that manufacture, install, or maintain computers or computerlike equipment. This equipment includes, but is not limited to, mainframe computers, mini and microcomputers, automated office equipment and systems (word processors, point-of-purchase terminals, local area and wide area networks), computer peripherals, engineering work stations, other automated factory products, and data communication networks.
The training includes both specific technical skills needed in the field and broader skills in communications and human relations which are necessary for career success.

You'll have hands-on practice working with computer hardware and software. Classes emphasize both component and system-level troubleshooting as well as installation and maintenance of equipment and networks.
As a graduate of this option, you may also choose to transfer to a school such as Oregon Institute of Technology to complete the course work required for a bachelor's degree. If you wish to transfer, declare your intent before the first term and work closely with the electronics advisor, Gary Boyington, at (503) 399-5218, and the institution to which you plan to transfer.
Students entering this option must have an Intel-compatible computer (Pentium or better) and be computer literate (type approximately 20 wpm , be familiar with the Windows operating system, a word processor, and a spreadsheet).
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,600; class fees, \$340; equipment and supplies, \$90; and Intel-compatible computer, $\$ 1,200$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 106 credit hours:
Course Title Credit Hours

Term 1
ELT123
Computer Operating Systems ............................. 4
ELT111 Electronics Orientation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
ELT131 Electronic Concepts I ...................................... . . 4
MTH111 College Algebra (or higher) ............................... 5
MTH081 Technical Mathematics I ................................... 4
WR121 English Composition-Exposition ............................ 3
Term 2
EIT132
ELT141 Electronic Concepts II ...................................... 4
ELT151 Digital Fundamentals ..................................... 4
MTH112 Trigonometry (or higher) .................................. 5
MTH082 Technical Mathematics II ................................... . . 4
Term 3
ELT133
ELT142
ELT143
ELT161
WR227
Electronic Concepts III . 4
Semiconductor Devices .................................... 3
Pulse Circuit Fundamentals ................................ . 3
Linear IC Fundamentals . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Technical Writing . 3
Term 4
ELT121
ELT244
Programming Concepts I
Electronic Circuit Analysis .................................. . . 4
ELT252 Digital Circuit Applications .................................. 3
FE205B Resumes and Job Search Correspondence ................... 1
PH201 General Physics (or higher) ............................... 4
PH081 Applied Physics .......................................... 4
SP111 Fundamentals of Public Speaking ......................... 3
Term 5
CS278
Data Communications .................................... 3
ELT253 Microprocessor Systems ................................ 5
ELT254 Computer Hardware . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PH203 General Physics (or higher) ................................ 4
PH082 Applied Physics .......................................... 4
PSY104 Psychology in the Workplace . . . . . . . . . . . . . . . . . . . . . . . . . . 4

| Term 6 |  |
| :---: | :---: |
| ELT183 | Logical Troubleshooting |
| ELT122 | Programming Concepts II |
|  | or |
| CS140U | UNIX/LINUX |
|  | or |
| CS179 | Introduction to Windows NT |
| ELT255 | Advanced Data Communications |
| ELT256 | Advanced Computer Architecture |
| Electronic Engineering Technician |  |
| Opti |  |

Upon graduation from the Electronic Engineering Technician option, you may begin a career assisting in the design, manufacturing, installation, and service of microelectronics and semiconductor manufacturing systems, telecommunication equipment and systems, electronic test instruments, medical measuring and monitoring equipment, computers, video systems, automation products, security and safety systems, process control systems, and flexible automation systems (robots). Training includes specific technical skills needed in the field and broader skills in communications, teamwork, and human relations which are necessary for career success.
As a graduate of this option, you may also choose to transfer to a school such as Oregon Institute of Technology to complete the course work required for a bachelor's degree. If you wish to transfer, declare your intent before the first term and work closely with the electronic engineering advisor, Roger White, at (503) 399-5068, and the institution to which you plan to transfer. Students entering this option must have an Intel-compatible computer (Pentium or better), and be computer literate (type approximately 20 wpm , be familiar with the Windows operating system, a word processor, and a spreadsheet).

## -Getting Started

Program requirements have changed. See "Getting Started" heading on page 71 for details.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,660$; class fees, \$340; equipment and supplies, \$90; and Intel-compatible computer, $\$ 1,200$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 103 credit hours: Course Title Credit Hours
Term 1
DRF101 Basic CAD for Electronics*................................ 2 or
DRF136 Advanced AutoCAD ......................................... 3
ELT111 Electronics Orientation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
ELT131 Electronic Concepts I ....................................... . . 4
MTH111 College Algebra (or higher) ............................... 5 or
MTH081 Technical Mathematics I ................................... . 4
WR121 English Composition-Exposition . . . . . . . . . . . . . . . . . . . . . 3
Term 2
ELT132 Electronic Concepts II

ELT141 Transistor Fundamentals . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ELT151 Digital Fundamentals ...................................... 4
MTH112 Trigonometry (or higher) .................................. 5
or
MTH082 Technical Mathematics II . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 3
ELT133 Electronic Concepts III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ELT142 Semiconductor Devices .................................... . 3
ELT143 Pulse Circuit Fundamentals ................................. 3
ELT161 Linear IC Fundamentals . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
WR227 Technical Writing ........................................ 3
Term 4
ELT121
ELT244
Programming Concepts I ................................... 4
ELT252 Digital Circuit Applications ................................ 3
FE205B Resumes and Job Search Correspondence .................... 1
PH201 General Physics (or higher) . . . . . . . . . . . . . . . . . . . . . . . . 4
or
PH081 Applied Physics ....................................... 4
SP111 Fundamentals of Public Speaking ......................... 3
Term 5
ELT181 Antennas and Transmission Lines ............................ . 2
ELT182 Telecommunications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ELT253 Microprocessor Systems ................................... 5
ELT262 Linear IC Applications . .................................... 3
PH203 General Physics (or higher) ................................ . 4
or
PH082 Applied Physics .......................................... . 4
Term 6
ELT183 Logical Troubleshooting .................................. 5
ELT191 Advanced Industrial Electronics .............................. 4
MTH243 Probability and Statistics I . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or
MTH241 Elementary Calculus . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or
ELT122 Programming Concepts II ................................. . 4
or
MT227A Introduction to Hydraulics/Pneumatics ..................... 3
PSY104 Psychology in the Workplace ............................... . 4
Approved Electronics elective* . .......................... 3
*Approved Electronics electives:
CH121 College Chemistry ...................................... 5
CH201 Chemistry for Engineers ................................. 4
ELT254 Computer Hardware . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ELT255 Advanced Data Communications ............................ 5
ELT256 Advanced Computer Architecture ........................... 4
ELT280 Cooperative Work Experience (For second-year students, must have prior approval of Program Chair)
MT110 Microelectronics .......................................... 3
MT223 High Vacuum Technology ................................. 3
MTH251 Differential Calculus (or higher) ........................... 5
PH202 General Physics .......................................... 4

## Microelectronics/ <br> Industrial Electronics Option

Students selecting this option may begin careers, upon graduation, assisting in the development, manufacturing, installation, and servicing of computer integrated manufacturing systems, semiconductor and microelectronic manufacturing equipment, process control equipment, robotic, and other electro-mechanical systems. This option stresses mechanical , computer and electronic theory, and communication and human relation skills needed for career advancement.

As a graduate of this option, you may also choose to transfer to a school such as Oregon Institute of Technology to complete the course work required for a bachelor's degree. If you intend to transfer, declare your intent before the first term and work closely with the Microelectronics advisor, Gary Boyington, at (503) 399-5218, and the institution to which you plan to transfer. Students entering this option must have an Intel-compatible computer (Pentium or better), and be computer literate (type approximately 20 wpm, be familiar with the Windows operating system, a word processor, and a spreadsheet).

## - Getting Started

Program requirements have changed. See "Getting Started" heading on page 71 for details.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,700; class fees, \$340; equipment and supplies, \$90; and Intel-compatible computer, $\$ 1,200$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 102 credit hours:
Course Title Credit Hours
Term 1
DRF101 Basic CAD for Electronics*................................ 2
DRF136 Advanced AutoCad ....................................... 3
ELT111 Electronics Orientation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
ELT131 Electronic Concepts I ............................................ . . 4
MT110 Microelectronics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MTH111 College Algebra (or higher) ................................. . . 5
MTH081 Technical Mathematics I .................................... 4
WR121 English Composition-Exposition . . . . . . . . . . . . . . . . . . . . . 3
Term 2
ELT132 Electronic Concepts II ....................................... . 4
ELT141 Transistor Fundamentals ................................... 5
ELT151 Digital Fundamentals . ...................................... . 4
MTH112 Trigonometry (or higher) ................................. 5
MTH082 Technical Mathematics II .................................. . 4
Term 3
ELT133 Electronic Concepts III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ELT142 Semiconductor Devices ................................... 3
ELT143 Pulse Circuit Fundamentals .................................. 3
ELT161 Linear IC Fundamentals ...................................... 4
WR227 Technical Writing ......................................... 3
Term 4
ELT121 Programming Concepts I ................................... . 4
ELT244 Electronic Circuit Analysis ................................ 4
ELT252 Digital Circuit Applications ................................ 3
FE205B Resumes and Job Search Correspondence ................... 1
PH201 General Physics (or higher) ................................ 4
PH081 Applied Physics ......................................... . 4
SP111 Fundamentals of Public Speaking ......................... 3
Term 5
ELT253 Microprocessor Systems .................................. 5
ELT262 Linear IC Applications ...................................... 3
PH203 General Physics (or higher) ................................ 4
PH082 Applied Physics . ........................................ 4
Approved technical electives** . . . . . . . . . . . . . . . . . . . . . 3

Term 6
ELT191 Advanced Industrial Electronics ........................... . 4
PSY104 Psychology in the Workplace .............................. 4
Approved technical electives** ........................... 9
*Approved Course Substitutions:
DRF072 Introduction to AutoCAD . . . . . . . . . . . . . . . . . . . . . . . . . . 3
**Approved technical electives:
CH121 College Chemistry ...................................... 5
CH201 Chemistry for Engineers .................................. 4
DRF251 Power Transmission Design .................................. 3
DRF252 Flexible Manufacturing Systems .......................... 3
MT223 High Vacuum Technology .................................. 3
MT227A Introduction to Hydraulics/Pneumatics ...................... 3
MTH243 Probability and Statistics I . . . . . . . . . . . . . . . . . . . . . . . . . . 4

## MERGENCY <br> Medical Technology/ <br> $\int$ Paramedic

The Emergency Medical Technology/Paramedic (EMT) program offers career training for entry-level personnel as well as certification and continuing education courses. Chemeketa offers a diverse, experienced EMT faculty, excellent on-campus facilities, and outstanding clinical training sites. The program is fully accredited by the Oregon Department of Education, the Oregon State Health Division, and the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions.
Students successfully completing a level of training (EMT Basic, Intermediate, or Paramedic) will be eligible to sit for the state certification exam at that level.
Emergency Medical Technicians may be employed by ambulance companies, fire departments, police departments, and industries. There is a great demand for EMTs and paramedics both locally and nationally.
Students working toward EMT Paramedic certification will complete approximately 300 hours of hospital clinical experience, and 320-500 hours of field internship. Clinical experiences focus on developing the skills, attitudes, and work habits necessary for graduates to be successful in their field.
The program has been designed to be completed in two years, if you attend full time. However, there are entrylevel expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. This program has special admission requirements and enrollment limits. To assess the time you will need to complete the program, please call (503) 399-5163.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,396; class fees, \$1,193; equipment and supplies, \$735. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 96 credit hours:


Course Title
Credit Hours
Term 1
BI231 Human Anatomy and Physiology (or higher) ................. 4
EMT051 Emergency Medical Technician Basic, Part $1 \ldots \ldots \ldots \ldots .$. . . . . . 5
EMT075 Introduction to Emergency Medical Services ................. . 3 or
ES072 Introduction to Emergency Services ........................... . . 4
H120 Medical Terminology/Systems 1 ................................ . . 3
WR121 English Composition-Exposition (or higher) .................. . 3
Term 2
AH080 Crisis Intervention ................................................ 3
BI232 Human Anatomy and Physiology (or higher) ................ . 4

EMT280A Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 3
BI233 Human Anatomy and Physiology (or higher) .................. . 4
EMT069 EMT Rescue ................................................... . . . 3 or
FRP056 Fire Service Rescue Practices ................................... . . 4
EMT070 Emergency Communication and Patient Transportation ...... 3
FRP053 Fire Incident Related Experience . . . . . . . . . . . . . . . . . . . . . . . . . 3
PSY101 Psychology of Human Relations ............................... 3
HUM259 Death and Dying ................................................ 3
PSY201 General Psychology-Biological Emphasis .................... 3
SP111 Fundamentals of Public Speaking (or higher) ................ . 3
Term 4
CS101 Introduction to Microcomputer Applications (or higher) ...... 3
EMT096 EMT Paramedic, Part 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14
Term 5
EMT097 EMT Paramedic, Part 2 ......................................... . . 14
Social Science elective ........................................ 3 or
Humanities/Fine Arts elective .................................. . . 3
Term 6
EMT280F Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . 6
HPE295 Health and Fitness for Life ..................................... . 3
Approved electives ............................................. . . 3
*Approved electives ( 3 hours required):
AH050 Health Care Delivery ......................................... . 1
ASL101 American Sign Language, Term 1 . . . . . . . . . . . . . . . . . . . . . . . 3
BA101 Business Environment ........................................... . 4
BA173 Public Relations in Business .................................. 3
BA206 Business Management Principles ................................. 3
BA211 Financial Accounting I .......................................... . 4
BA224 Personnel Management ........................................... . 3
BA226 Business Law I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
EMT280C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP050 Introduction to Fire Protection . . . . . . . . . . . . . . . . . . . . . . . . . . 3

FRP064 Hazardous Materials Operations ................................ 3
FRP077 Fire Service Instructor Training 1 ............................... . 2

HE250 Personal Health . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HE262 Cardiopulmonary Resuscitation Instruction .................... . 2
HS101 Addiction Pharmacology and Physiology . . . . . . . . . . . . . . . . 4
HS150 Personal Effectiveness for Human Service Workers . . . . . . . . . . 3
HS154 Community Resources ......................................... . 3
H101 Medical Law and Ethics ........................................ . . . 3
H114 CPT IV Coding/Reimbursement ................................ 3

H122 Advanced Topics in the Language of Medicine .............. 3
HUM259 Death and Dying . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MED128 Introduction to Medical Science ............................... 3
MTH243 Probability and Statistics I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PSY101 Psychology of Human Relations ............................... . 3
PSY201 General Psychology-Biological Emphasis ..................... 3
WR227 Technical Writing ................................................ . . 3
Foreign Language course . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

## NGINEERING

## (college transfer)

Oregon State University and Portland State University offer a Bachelor of Science or a Bachelor of Arts in Engineering. OSU offers degrees in Biological, Chemical, Civil, Electrical and Computer, Environmental, Geological, Industrial and Manufacturing, Mechanical, Metallurgical, Mining, and Nuclear Engineering, as well as Construction Engineering Management and Engineering Physics. PSU offers degrees in Civil, Computer, Electrical, and Mechanical Engineering.
The program outlined below follows closely the pre-engineering program at OSU and PSU, and is similar to requirements of other Bachelor of Arts and Bachelor of Science degree engineering programs. If you plan to apply for admission to the professional engineering program at OSU, you must meet pre-engineering course requirements. Requirements vary by engineering field. Students planning to transfer to PSU should consult with an engineering advisor.
The two-year program outlined below is designed to meet prerequisite requirements for OSU and PSU. However, there are entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.

Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## First Year

GE101 Engineering Orientation
ENGR248 Graphics and 3-D Modeling (not required for Electrical Engineering; CS161 Computer Science I required for Electrical Engineering)
GE102 Engineering Computations
CS162 Computer Science II (required
for Electrical Engineering at OSU)
GE103 Engineering Computations
MTH251, 252 Calculus and Calculus with Analytic Geometry; MTH253 Series Calculus and Linear Algebra
CH201, 202 Chemistry for Engineers (CH203/223 required for Civil/Mechanical Engineering at PSU)
Biological Science course for OSU*
WR121 English Composition-Exposition
WR227 Technical Writing
HPE295 Health and Fitness for Life (for OSU)
Arts and Letters/Humanities or Social Science electives*
Second Year
ENGR211 Statics
ENGR212 Dynamics
ENGR213 Strength of Materials (not required for Electrical Engineers)
ENGR201, 202 Electrical Fundamentals I and II
(ENGR202 not required for Civil Engineering at OSU)
ENGR203 Electric Control Fundamentals (not required for Mechanical or Civil Engineering)
MTH256 Applied Differential Equations
MTH254 Vector Calculus I
MTH255 Vector Calculus II (not required for Mechanical or Civil Engineering at PSU)
PH211, 212, 213 Physics for Engineers and Scientists
Arts and Letters/Humanities or Social Science electives and SP111 Fundamentals of Public Speaking or SP112 Fundamentals of Persuasion

Note: The above requirements are for the fields of Civil, Mechanical, and Electrical Engineering. For other fields of Engineering contact the program advisor.


## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in English are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to com-
plete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

| First Year | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: |
| WR121, 122, 123 English Composition (Chemeketa recommends taking all courses although some colleges do not require both WR122 and 123; SOU will accept WR123 or 227 Technical Writing) | 3 | 3 | 3 |
| Literature sequence (ENG204, 205, 206 Introduction to English Literature and ENG253, 254, 255 Introduction to American Literature, take all but 255 for EOU; choose two sequences from ENG107, 108, 109 World Literature, ENG204, 205, 206, or ENG253, 254, 255 for OSU; PSU recommends ENG204, 205, 206; two sequences from ENG107, 108, 109, 204, 205, 206, 253, 254, 255 for UO; only ENG204, 205, 206 for WOU) | 3 | 3 | 3 |
| First-year Foreign Language | 4 | 4 | 4 |
| Social Science courses* | 3 | 3 | 3 |
| Science or Math* (SOU requires two courses in math, computer science, statistics or logic for BS degree) | 4 | 4 | 4 |
| Second Year | 4 | 5 | 6 |

Second Year
ENG201, 202, 203 Introduction to Shakespeare;
EOU requires ENG201; OSU requires any one
course; UO requires ENG201 or 203; PSU requires
ENG201, 202); SOU and WOU do not require any.
Second-year Foreign Language sequence
333

Arts and Letters/Humanities electives*
HPE295 Health and Fitness for Life* or elective 3
Additional Social Science or Math/Science courses* $\quad 3-4 \quad 3-4 \quad 3-4$
Additional courses to meet major requirements or electives (J216 Newswriting and WR241, 242, or 243 Imaginative Writing for EOU)

33
*To meet four-year college general education requirements.

## Nalish as a Non-Native $\perp$ Language

The English as a Non-native Language program is an intensive, multi-level program designed to teach non-native English speaking students the reading, writing, listening, speaking, and intercultural skills necessary for success in academic and professional work settings. The program has reading, writing, aural (listening) and oral skills entry-level prerequisites for each course. See the course descriptions for individual course prerequisites.
The length of time you will need to complete the program will depend on your skills in each of these areas. To have
your language skill levels assessed for placement in any of these classes, contact the ESL office at 399-6298 or the Counseling and Advising Center at 399-5120.
Some of these courses can be transferred, as electives, to other Oregon state colleges and universities. As a student, you are responsible for learning the program requirements of the other school to which you plan to transfer.
Many of these classes are also offered on a non-credit basis. Contact the ESL office at 399-6298 for more information about non-credit ESL.
The courses below are designed to help students improve their English skills. They do not lead to a certificate or degree.
Oral Skills
ENL053 Listening and Speaking A .................................. 3
ENL054 Listening and Speaking B ................................. 3
ENL055 Listening and Speaking C ................................... 5
ENL102 English Pronunciation Techniques . . . . . . . . . . . . . . . . . . . . . 4
ENL104 Academic Listening and Speaking . . . . . . . . . . . . . . . . . . . . 4
Reading Skills
ENL057 Reading ................................................ . 5
ENL058 Reading and Vocabulary . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ENL059 Reading and Writing A . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
ENL060 Reading and Writing B . ..................................... 6
ENL061 American Grammar and Reading ........................... 5
ENL109 Academic Reading and Writing ............................... 4
Writing Skills
ENL065 Grammatical Sentences .................................... 4
ENL066 Writing Paragraphs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ENL067 Introduction to Essay Writing ............................. 5
ENL068 American College Language Skills . . . . . . . . . . . . . . . . . . . 7
ENL107 Better Writing Through Editing ............................. 5
ENL116 Writing for College . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ENL118 Technical Writing Research ................................. 4
Grammar Skills
ENL061 American Grammar and Reading ........................... 5
ENL113 Advanced Grammar I ........................................... 4
ENL114 Advanced Grammar II ..................................... . 4
English for Specific Purposes
ENL040A TOEFL Test Preparation-Listening .......................... 1
ENL040B TOEFL Test Preparation-Reading . ........................... 1
ENL040C TOEFL Test Preparation-Grammar ........................... 1
ENL106 American Business Language . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
see Biology

##  Business Management

The primary mission of the Farm Business Management program is to teach farmers the basic principles of record keeping and financial management. The major emphasis is on the development and maintenance of a complete set of
records and the skills necessary to interpret the records and use the information to make sound management decisions. The program is designed for a minimum commitment of three years and includes all active members of the farm business. A variety of delivery systems are used, including classroom instruction and individualized farm visits. Upon completion of the annual farm records, a computerized business analysis is provided to eligible farms. For more information, call (503) 399-5089 or 399-5066.

## 9801 Farm Business Management I

Emphasizes setting farm business goals; developing a complete set of farm financial records; and analyzing those records for management decision making.

## 9802 Farm Business Management II

Monitors and assesses financial position of the farm business based upon records and analysis obtained in Farm Business Management I. Explores computerized farm accounting and income tax management.

## 9803 Farm Business Management III

Focuses on reorganizing the farm business based on accumulated financial data. Further develops estate, retirement, and labor management plans.

## 9804 Farm Business Management IV

Applies recordkeeping skills and three years' analysis data to farm reorganization and financial management decisions. Uses year-end analysis in evaluating effectiveness of reorganization and management practices implemented during the first three years.

## 9805 Farm Business Management V

Applies recordkeeping skills to individual farm businesses. Uses records in business dealings with off-campus agencies and individuals.

## 9809 Farm Tour

Demonstrates agricultural production and marketing outside of Oregon via tours. Provides participants with an opportunity to learn from local managers, extension agents, and business people at both on- and off-farm sites.

## 9822 Farm Business Management Workshop

Examines a selected topic of current importance to farm business management.


Consider the Financial Services program if you want training to enter financial fields or if you are employed with a financial institution and want to become eligible for advancement or promotion to officer trainee or officer positions. The one-year program offers training for entry-level positions such as teller, proof operator, new accounts teller, accounting clerk, and data entry clerk. The two-year pro-
gram offers further training for those choosing a career in financial services. There are career opportunities in auditing, personnel, public relations, management and operations.
The basic core of the curriculum includes general education and general business courses as well as required and elective courses specifically related to the financial field. You may select individual courses to meet your needs, or you may work toward a Certificate of Completion or Associate of Applied Science degree. The financial services classes are offered mainly at night; other required classes are offered both days and evenings.
The Financial Services program has specific English and mathematics requirements. Initial placement in these courses is determined by results of placement tests you take when you apply for admission.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| BA066 | Introduction to Business Studies |
| :---: | :---: |
| BT085 | Business English 2 |
| CA121A | Keyboarding A (if less than 25 wpm ) |
| CS101 | Introduction to Microcomputer Applications |
| MTH060 | Introductory Algebra |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114.
Failure to be assessed may delay your entry into program classes.
You may be interested in our Cooperative Work Experience program which allows you to earn college credit for work you do relating to your program. With the approval of the program chair, you may enroll in FIN280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## Certificate of Completion

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$820; class fees, \$33; equipment and supplies, \$45. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these required 46 credit hours:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BA051 | Accounting Procedures I | . 4 |
|  | or |  |
| BA211 | Financial Accounting I |  |
| BT128 | Introduction to Records Management |  |
| CA122 | Keyboard Skillbuilding .......... | . 3 |
| SP218 | Interpersonal Communication | . 3 |
| SP111 | or <br> Fundamentals of Public Speaking | 3 |

## Term 5


BA223 Principles of Marketing 3

BA273 Marketing for Bankers ......................................... . 3
Financial Services elective** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Business elective** .............................................. 3
or
Financial Services elective** ................................... 3
or
FIN280C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
EC202 Introduction to Macroeconomics . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 6
BT086 Personal and Professional Development ........................ . 3
FIN280C Cooperative Work Experience ................................... . . 3
or
Business elective* .............................................. . 3
or
Financial Services elective** . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Financial Services elective** . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Computer Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Humanities/Fine Arts elective ................................... 3
*Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE except BA051, BA052, BA053, BA066, BT084, BT085, and CS101. College transfer students should take BA213 and EC203.
**Financial Services electives: Choose courses with FIN prefixes and BA269, BA270, BA273, BA278, BA281, BA282, and BA284.
***Choose three: CA118A Current Office Software-Operating Systems/Utilities; CA118B Current Office Software-Worksheets; CA118C Current Office Software-Database; CA118D Current Office Software-Internet; CA118E Current Office Software-Electronic Messaging Systems.

The Fire Protection program offers career training in Fire Suppression and Fire Prevention. Both options include training and education for those wanting to enter the career field and for those already employed. Chemeketa has a well-equipped fire station and training center on the Salem campus. Course work is accredited by the Oregon Board on Public Safety Standards and Training and by the International Fire Service Accreditation Congress.
Classes in this program are offered in the traditional oncampus classroom setting for students just beginning their fire protection training, and by distance education for fire service professionals active in the field. Distance education may include earning college credit for prior learning such as local training and work experience, individualized instructional contracts, transfer credits from local schools, and independent study courses by modem or correspondence. For information about distance education call (503) 399-6242.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with the department program chair. You may need to complete pre-program courses.

Then, your advisor will help you develop an individualized program of study.
The Fire Suppression degree option can be coordinated with the Emergency Medical Technician-Paramedic program so that both degrees can be earned in between nine and eleven terms. Dual degree students are provided with an individualized sequence of courses that may vary depending on the term in which classes are begun. For information call (503) 399-5163.

## Fire Suppression Option

Most firefighters work for public fire departments. Chemeketa's program includes a variety of courses in writing, mathematics, and speech as well as technical fire protection courses. Each term, students take a Fire Incident Related Experience course which focuses on developing required skills, attitudes, and work habits. On-campus fire suppression students work a 24-hour duty shift each week and respond to actual emergency incidents under the supervision of fire department officers.
This program has special admission requirements and enrollment limits. Applications are accepted every nine months. For additional information, call (503) 399-5163. The program operates year-round, including summer term.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,612; class fees, \$151; equipment and supplies, \$852. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing 100 required credit hours:
Course Title Credit Hours

## Term 1

EMT051 Emergency Medical Technician Basic, Part 1 . . . . . . . . . . . . . . 5
FRP050 Introduction to Fire Protection ................................. . . . 3
or
ES072 Introduction to Emergency Services ............................ . 4
FRP051 Fire Incident Related Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP064 Hazardous Materials Operations ................................ 3
MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . 4

## Term 2

CH111 Chemistry for Fire Science and Emergency Services ........ 5
CS101 Introduction to Microcomputer Applications ................. . 3
EMT052 Emergency Medical Technology Basic, Part 2 . . . . . . . . . . . . . . 4
EMT280A* Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
FRP052 Fire Incident Related Experience . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP066 Building Construction for Fire Protection ...................... . 3
Term 3
FRP053
FRP054 Fire Incident Related Experience . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP058 - Fi Pupply Operations 10 . . . . . . . . . . . . . . . . . . 3
FRP058 Fire Pump Construction and Operations ........................ . 3
FRP069 Fire Department Leadership . .................................... . . 3
PH111 Physical Science for Fire and Emergency Services .......... . 5
Approved electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 4
FRP060
FRP061 Fundamental of Fire Prevention ................................ . . 3
FRP061 Fire Incident Related Experience .............................. 3
HPE295 Health and Fitness for Life ....................................... . 3
WR121 English Composition-Exposition . . . . . . . . . . . . . . . . . . . . . . . . . . 3
General Education elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

## Term 5

FRP056 Fire Service Rescue Practices .................................. . 4
FRP062 Fire Incident Related Experience ............................... 3
FRP072 Fire Codes and Ordinances $1 \ldots \ldots$.............................. 3
SP111 Fundamentals of Public Speaking (or higher) ................. . 3
Term 6
FRP063 Fire Incident Related Experience . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP071 Fire Protection Systems and Extinguishers . . . . . . . . . . . . . . . . 3
FRP079 Wildland Urban Interface . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PSY101 Psychology of Human Relations (or higher) . . . . . . . . . . . . . . . . 3
WR227 Technical Writing . .............................................. . 3
*Approved electives:
AH080 Crisis Intervention ............................................... 3
BA255 Elements of Supervision .......................................... . 3
BI231 Human Anatomy and Physiology .............................. . 4
BI232 Human Anatomy and Physiology ............................... . 4
BI233 Human Anatomy and Physiology .............................. . 4
BLD150 Introduction to Building Inspection . . . . . . . . . . . . . . . . . . . . . . . . 3
BLD151 Building Codes I.................................................. . 3
BLD152 Building Codes II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
EMT065 Emergency Medical Technician Intermediate, Part 1 .......... . 5
EMT066 Emergency Medical Technician Intermediate, Part 2 . . . . . . . . . 5
EMT075 Introduction to Emergency Medical Services .................. . . 3
EMT280F Cooperative Work Experience .................................. . 6
FRP059 Major Emergency Strategy and Tactics ........................ 3
FRP070 Fire Fighting Tactics and Strategies . . . . . . . . . . . . . . . . . . . . . . 3
FRP073 Firefighters Law for Emergency Services ...................... . . 3
FRP074 Fire Investigation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
FRP075 Aircraft Crash/Fire Rescue . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
FRP077 Fire Service Instructor Training 1 . . . . . . . . . . . . . . . . . . . . . . . . . 2

FRP086 Advanced Detection and Protection Systems .................. 3
FRP087 Fire Insurance Fundamentals .................................... 3
H120 Medical Terminology/Systems 1 . . . . . . . . . . . . . . . . . . . . . . . . 3
HE262 Cardiopulmonary Resuscitation Instruction .................... 2
HUM259 Death and Dying ................................................. . . 3

## Fire Prevention Option

Graduates of this option may be hired by public fire departments and industrial businesses as fire prevention specialists.
Our Cooperative Work Experience program allows you to apply your knowledge and skills while earning college credit for working in a state or local fire prevention bureau. With the approval of the program chair, you may enroll in FRP280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$935; class fees, $\$ 70$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 100 credit hours.
For information call (503) 399-6241.
Course Title Credit Hours
Term 1
FRP050 Introduction Fire Protection . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
ES072 Introduction to Emergency Services ........................... . 4
FRP060 Fund. Of Fire Prevention . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP066 Building Construction for Fire Suppression ................... . . 3
MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . 4
WR121 English Composition-Exposition (or higher) .................. . 3
Term 2
DRF102 Print Reading ...................................................... . 2

FRP081 Fire Prevention Inspection . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PH111 Physical Science for Fire Science and Emergency Services ...5
PSY101 Psychology of Human Relations (or higher) . . . . . . . . . . . . . . . 3
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . 3
Term 3
CH111
FRP071
FRP089
SP111
WR227
Chemistry for Fire Science and Emergency Services ........ . 5
Fire Protection Systems and Extinguishers .................... 3
Fire Codes and Ordinances 2 3Fundamentals of Public Speaking (or higher) 3

Term 4
BLD151 Building Codes I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP074 Fire Investigation ............................................... . . 4
FRP080 Hazardous Materials for Inspectors .............................. . . 3
FRP280C Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Approved electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 5
BLD152 Building Codes II ................................................ . . 3
FRP073 Law for Emergency Services ................................... . . 3
FRP086 Advanced Detection and Protection Systems .................. . . 3
FRP088 Fire Prevention Education Programs . . . . . . . . . . . . . . . . . . . . . 3
FRP280C Cooperative Work Experience . ................................. 3
Term 6
BLD267 Nonstructural Plan Review ....................................... . 3
FRP054 Water Supply Operation ..................................................... . . . 3
FRP084 Public Information for Fire Service ............................. . . 2
FRP087 Fire Insurance Fundamentals ........................................ . . . . . 3
FRP280C Cooperative Work Experience . ................................ 3
Approved electives* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
*Approved electives (six hours required)
BLD181 Mechanical Codes 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP064 Hazardous Materials Operations ................................. 3
FRP065 Interface Fire Prevention and Mitigation . . . . . . . . . . . . . . . . . . 2

## Advanced Fire Officer Certificate

The Advanced Fire Officer Certificate program can help you prepare for promotion to officer positions; or if you are already a fire officer, you can gain valuable new skills and knowledge. The certificate program meets or exceeds NFPA and Oregon Standards for Fire Officer I and II. To be admitted to the Fire Officer Certificate program you must be certified as Firefighter I, or equivalent, and actively be pursuing Firefighter II or have an associate degree in fire protection or possess professional certificates and have experience or equivalent credentials in fire prevention, fire training, or public fire education.
To be admitted to this program you must be interviewed by the program chair, Gene Fisher, (503) 399-6241, and have your training, education, and experience evaluated. An individualized program of study will be developed for you.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$200; class fees, \$75; equipment and supplies, $\$ 20$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these required 54 credit hours:

## Advanced Fire Officer Certificate requirements:

Course Title Credit Hours
Communications: (WR115, WR121, WR227, BA214, BT084, or COM051 or any higher numbered class)
Math: (MTH052 or higher)
Human Relations: (PSY101, SOC204, SP111 or any higher numbered class)
Science: (PH111 and CH111 or any combination of one Chemistry and one
Physics course of at least four credit hours each and include a lab component)
Term 1

FRP069
FRP073


Emerga Services ................................. or
FRP166 Firefighter's Law ................................................ 1
FRP074 Fire Investigation ................................................ . . . 4
FRP077 Fire Service Instructor Training $1 \ldots \ldots . \ldots$..................... 2
Term 2
Science (see requirements above) ............................. 4
FRP054
FRP066
FRP070
FRP160
FRP161
FRP162
FRP163
Term 3
Science (see requirements above) ............................ 4 3

FRP072 Fire Codes and Ordinances 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FRP078
FRP164
FRP165
PS203
Fire Service Instructor Training 2 . 2
Fire Department Budgets .....  1
Public Relations, Public Information, and Public Education .....  . 2

State and Local Government

## Fower Languages

## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts degrees in Foreign Languages are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. OSU offers degrees in French, German, and Spanish; PSU offers degrees in Chinese, French, German, Japanese, Russian, and Spanish; UO offers degrees in Chinese, French, German, Greek, Italian, Japanese, Latin, Russian, and Spanish; and SOU and WOU offer a degree in Spanish. Eastern Oregon University offers degrees in Liberal Studies with a concentration in French, German, or Spanish.
If you complete your second year of course work in the language during your first year at Chemeketa, plan to transfer to a four-year institution for your sophomore year.
The program outlined below is designed so that you may meet requirements of these institutions in two years, if you attend full time. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## Term

First Year
WR121, WR122 and/or WR123 English Composition*
Arts and Letters or Humanities courses*
Mathematics or Science courses*
Foreign Language sequence (French, German, Japanese, Russian, or Spanish)
Social Science* (PSU recommends History and Geography classes of countries in which the language is spoken; UO recommends History; SOU requires Cultural Anthropology)

123

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| :---: | :---: | :---: |
|  |  |  |
| 3 | $(3)$ | $(3)$ |
| 3 | 3 | 3 |
| 4 | 4 | 4 |
|  |  | 4 |
|  | 4 |  |

HPE295 Health and Fitness for Life* or elective

Second Year
Foreign language sequence (second year)
Social Science*
Arts and Letters or Humanities* (PSU and UO recommend literature, philosophy)
Science*
Electives (A Foreign Language sequence in addition to the one chosen for the major may be used to fulfill requirements for a B.A. degree at OSU; SOU requires CS101 Introduction to Microcomputer Applications)
*To meet four-year college general education requirements.

Note: Prior to graduation, OSU requires graduates to participate in an approved study program or work experience in the country where the language is spoken or complete an alternative prescribed by the faculty.

## Orest Resources Technology

The Forest Resources Technology curriculum includes instruction and field work in the basic knowledge and technical skills required of forest technicians. There are job opportunities in forest management, silviculture, fire prevention and control, and surveying. In addition, there is an increasing demand for technicians in the fields of fish and wildlife, forest recreation, and watershed management. Potential employers include federal and state agencies and private timber or consulting firms.
You may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work relating to your program. With the approval of the program chair, you may enroll in FRT280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) |
| :---: | :---: |
| C0M051 | Communication Skills I |
| HD112 | Study Skills |
| MTH070 | Elementary Algebra |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5210.

Failure to be assessed may delay your entry into program classes.

In addition to tuition, estimate costs for students who complete the program listed below are books, $\$ 975$; class fees, $\$ 179$; equipment and supplies, \$355. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 104 credit hours:

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| BI131 | Environmental Science 1 |  |
| CS101 | Introduction to Microcomputer Applications | . 3 |
| FT111 | Introduction to Forest Resources . . . . . . . . . | . 5 |
| FT141A | Oregon Tree and Shrub Identification I | 3 |
|  | General Education elective | . 2 |
| Term 2 |  |  |
| BI132 | Environmental Science 2 |  |
| FT210A | Forest Surveying I | . 3 |
| FT220 | Forest Photo Interpretation | . 3 |
| MTH081 | Technical Mathematics I (or higher) | . 4 |
| WR121 | English Composition-Exposition (or higher) | . 3 |
| Term 3 |  |  |
| BI133 | Environmental Science 3 | . 4 |
| FT141B | Oregon Tree and Shrub Identification II | . 3 |
| FT221 | Forest Inventory | . 5 |
| FT280F | Cooperative Work Experience | . 6 |
| MTH082 | Technical Mathematics II (or higher) | . 4 |
| Term 4 |  |  |
| DRF220 | GIS ArcView | . 2 |
| FT210B | Forest Surveying II | . 5 |
| FT223 | Timber Cruising/Log Scaling | . 5 |
| FT270A | Silviculture I . . . . . . . | . 2 |
| FT130 | Forest Insect and Disease Management . | . 3 |
| Term 5 |  |  |
| FT120 | Principles of Supervision | . 3 |
| FT150 | Forest Seminar | . 1 |
| FT270B | Silviculture II | . 3 |
| SOC235 | Society and Forestry | . 3 |
| SP111 | Fundamentals of Public Speaking | . 3 |
| WR227 | Technical Writing | . 3 |
| Term 6 |  |  |
| BI251 | Principles of Wildlife Conservation | . 3 |
| ES071 | Work Place Safety Skills | . 1 |
| FT200 | Forest Contracts . . . . . . | . 3 |
| FT230 | Forest Policy . |  |
| FT290 | Forest Management Problem Solving | . 4 |

## ORESTRY

## (college transfer)

Oregon State University offers degrees in Forest Engineering, Forest Management, Forest Products, and Forest Recreation Resources or Natural Resources. These programs are designed as four-year programs of 180 to 192 credit hours. Students should plan to transfer after one year at Chemeketa.

The program suggested below is for students wishing to transfer to OSU for Forest Engineering, Forest Management, Forest Products or Forest Recreation Resources or Natural Resources.
This program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at OSU to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

| , | Term |  |  | transfer to learn of any possible changes in a program. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 | Refer to the Associate of Arts Oregon Transfer Degree infor- |  |  |  |
|  |  |  |  |  |  |  |  |
| Biology for Natural Resources; BOT201, 202, and |  |  |  |  |  |  |  |
| ZOO201, 202 for Forest Management) |  | 4 | 4 | Chemeketa also offers an Associate of General Studies |  |  |  |
| CH121 and 122 College Chemistry for Forest Management; CH121 and PH201, 202 General |  |  |  | Degree. Specific requirements are listed on page 33. |  |  |  |
| Physics for Forest Engineering; CH121, 122, 123 College Chemistry and PH211, 212 |  |  |  |  | Term |  |  |
| Physics for Engineers and Scientists |  | 5 | (5) |  |  |  |  |
| Mathematics (MTH112 Trigonometry, MTH251, |  |  |  | First Year | 1 | 2 | 3 |
| 252 Calculus for Forest Engineering; MTHI12, <br> MTH241 Elementary Calculus, and MTH243 |  |  |  | WR121, 122 and/or 123 English Composition or |  |  |  |
| Probability and Statistics I for Forest Products; MTH243 for Forest Recreation Resources; MTH24 |  |  |  | WR227 Technical Writing* | 3 | 3 | (3) |
| Management) |  | 4-5 | 4-5 | Social Science courses*(UO recommends history) | 3 | 3 | 3 |
| R121 English Composition-Exposition |  |  |  | Mathematics per placement test* or Science courses* |  |  |  |
| and one course chosen from WR122 or 123 English Composition or WR227 Technical Writing |  |  |  | (need MTH105 Introduction to Contemporary Mathematics or MTH111 College Algebra) | 4-5 | 4-5 | 4-5 |
| Writing and/or Speech* (SP111 Fundamentals of Public Speaking or SP112 |  |  |  | Arts and Letters/Humanities* (UO requires second |  |  |  |
| Persuasion for Forest Management, Forest |  |  |  | year college level Foreign Language) | 3-4 | 3-4 | 3-4 |
| Recreation Resources and Forest Products; WR227 for Forest Products) |  |  | 3 | HPE295 Health and Fitness for Life* | (3) |  |  |
| Electives* (EC201 Introduction to Microeconomics, |  |  |  |  |  |  |  |
|  |  |  |  | recommended for UO) | 0-3 | 0-3 | 0-3 |
| Management and Forest Products; EC201 for Forest |  |  |  | Second Year | 4 | 5 | 6 |
| Recreation Resources and Forest Engineering) |  |  | 3 |  |  |  |  |
| *To meet four-year college general education requirements. |  |  |  | Arts and Letters/Humanities* | 3-4 | 3-4 | 3-4 |
|  |  |  |  | Social Science courses* | 3 | 3 | 3 |
|  |  |  |  | Science sequence or electives* | 4 | 4 | 4 |
| - ENERAL |  |  |  | Electives* or courses to meet Chemeketa's A.A. degree requirements (CS101 Introduction to |  |  |  |
| I |  |  |  |  |  |  |  |
| TUDIE |  |  |  | Microcomputer Applications and a Speech course recommended, CS101 required for SOU; UO |  |  |  |
|  |  |  |  | recommends PHL201, 202, or 203 Philosophical |  |  |  |
| (college transfer) |  |  |  | Problems and Elementary Ethics; WOU requires |  |  |  |
| Most Oregon state colleges and universities offer Bachelor |  |  |  | minimum of 27 hours in each) | 6 | 6 | 6 |
| of Arts and/or Bachelor of Science degrees |  | ral |  | *To meet four-year college general education requirements. |  |  |  |

Studies. The major is listed as General Studies at Portland State University, Liberal Studies at Eastern Oregon University and Oregon State University, Humanities at University of Oregon, and Interdisciplinary Studies at Southern Oregon University and Western Oregon University.

The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.

Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28. Chemeketa also offers an Associate of General Studies Degree. Specific requirements are listed on page 33.

First Year
WR121, 122 and/or 123 English Composition or

Arts and Letters/Humanities* (UO requires second year college level Foreign Language)

HPE295 Health and Fitness for Life*
Electives (ART204, 205, or 206 Art History recommended for UO )

Second Year
Arts and Letters/Humanities*
Social Science courses*
Science sequence or electives*

6

[^1]
## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Geography are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122 and/or 123 English Composition* | 3 | 3 | (3) |
| GEOG105 Physical Geography, 106 Cultural Geogr Geography (not all schools require all three courses; GEOG106, Geography: The Developing World for OSU: GEOG105, 106 for UO) | Ec | mic | (3) |
| Mathematics per placement test* (MTH111 College Algebra and 112 Trigonometry for OSU; MTH243 and 244 Probability and Statistics I and II for PSU; MTH243 for SOU; UO has four choices to meet requirements [see UO catalog for courses]; MTH111 for WOU) | 4-5 | 4-5 | 5 |
| HPE295 Health and Fitness for Life* or elective |  | 3 |  |
| Arts and Letters/Humanities electives* (second-year Foreign Language required at UO) | 3-4 | 3-4 | 3-4 |
| Electives* (GEOG206 Geography of Oregon recommended for UO) | 3 |  | 3-6 |
| Second Year | 4 | 5 | 6 |
| Social Science electives* (EOU requires EC201 Introduction to Microeconomics and PS201, 202 American Government) | 3 | 3 | 3 |
| Science electives* (G201, 202 Geology and a Biological Science for OSU) | 4 | 4 | 4 |
| Arts and Letters/Humanities electives* (second-year Foreign Language for UO) | 3-4 | 3-4 | 3-4 |

Electives (CS101 Introduction to Microcomputer
Applications required for SOU; CIS120 and 121 or other CS programming course recommended for UO;
CS161, 162 for WOU or second-year Foreign Language)

(college transfer)
Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Geology are Oregon State University, Portland State University, Southern Oregon University, and University of Oregon.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :--- | :---: | :---: | :---: |
| First Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| WR121, 122 and/or WR123 or 227* | 3 | 3 | $(3)$ |
| Arts and Letters/Humanities courses* <br> Mathematics per placement test*(EOU requires MTH111, <br> 112; OSU requires Math through MTH252 Integral <br> Calculus; PSU through MTH254 Vector Calculus I; SOU <br> through MTH252 Integral Calculus, MTH253 Series | 3 | 3 | 3 |
| Calculus and Linear Algebra or MTH243 Probability <br> and Statistics I; UO through MTH253) | $4-5$ | $4-5$ | $4-5$ |
| G201, 202, 203 Geology (OSU only requires G201, 202) | 4 | 4 | 4 |
| Social Science* | 3 | 3 | $3-6$ |
| Second Year | 4 | $\mathbf{5}$ | $\mathbf{6}$ |
| PH201, 202, 203 General Physics or PH211, 212, 213 <br> Physics for Engineers and Scientists (OSU <br> requires only 2 terms) |  |  |  |
| CH221, 222, 223 General Chemistry (CH121, 122, <br> 123 College Chemistry also accepted at OSU and UO; <br> OSU requires CH123 or 223 or PH203 or 213) | 5 | 5 | 5 |
| HPE295 Health and Fitness for Life* or elective <br> Arts and Letters/Humanities or Social Science electives* | 3 | 3 | 3 |

Mathematics per placement test*(EOU requires MTH111,
112; OSU requires Math through MTH252 Integral
Calculus; PSU through MTH254 Vector Calculus I; SOU
through MTH252 Integral Calculus, MTH253 Series Calculus and Linear Algebra or MTH243 Probability and Statistics I; UO through MTH253) 4-5 4-5 4-5
G201, 202, 203 Geology (OSU only requires $\mathrm{G} 201,202$ ) $4 \quad 4$
Social Science* 3
Second Year
6
PH201, 202, 203 General Physics or PH211, 212, 213
Physics for Engineers and Scientists (OSU
CH221, 222, 223 General Chemistry (CH121, 122,
123 College Chemistry also accepted at OSU and UO;
OSU requires CH123 or 223 or PH203 or 213) 555
Arts and Letters/Humanities or Social Science electives* 33

Electives (OSU requires four credits of biological
science ;
Chemeketa recommends a CS course; CS133F FORTRAN IV recommended for UO
*To meet four-year college general education requirements.
Note: UO recommends that students obtain a graduate degree for most professional positions.

## $H^{\mathrm{mem}}$ Health Education

(college transfer)
Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Health, Health Education and/or Public Health Education are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, and Western Oregon University. EOU's degree is in Physical Education and Health. OSU offers options in Environmental Health and Safety, Health Promotion and Education, and Health Care Administration; PSU offers Health Education. SOU offers a Health and Physical Education degree, WOU offers a degree in Health Education with a non-teaching and a teaching option.
The program outlined below is designed so that you may meet requirements of these institutions in two years, if you attend full time. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Those students planning to teach health will need to complete a fifth year of post-baccalaureate work to meet teacher certification at all state-system colleges except WOU. Please refer to the section on Elementary and Secondary Education in this catalog.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## First Year

WR121, 122 and/or 123 English Composition or WR227 Technical Writing* (WR121, WR227 and SP111 Fundamentals of Public Speaking or SP112 Fundamentals of Persuasion for Environmental Health and Safety at OSU; WR121 and a Speech elective for WOU)

Term
12

Students must earn grades of C or better on all required courses.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| AH112A | Health Care Systems and Professions |
| :---: | :---: |
|  | or |
| AH112B | Health Care Systems and Professions |
| CA121A | Keyboarding A (if less than 25 wpm) |
| CS101 | Introduction to Microcomputer Applications |
| MTH060 | Introductory Algebra |
| RD090 | College Textbook Reading |
| WR115 | Introduction to Composition |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114. Failure to be assessed may delay your entry into program classes.

## One-Year Program Health Information Technology

As a graduate of the Health Information Technology program, you may become a health information technician or a medical biller. You may continue in this program to earn your Associate of Applied Science degree in Health Services Management or Public Health or Health Care Administration at four-year institutions.
As a health information technician, your duties may include maintaining and using a variety of health record indexes, special registries, storage, and retrieval systems; inputting and retrieving computerized health data; administering medical office duties; abstracting medical information for correspondence purposes; and assisting in compiling, analyzing, and preparing information needed by the health facility or external agencies. Graduates can also work in areas of coding and insurance billing in outpatient settings.
If you plan to transfer to Central Oregon Community College or Portland Community College to earn an associate degree as an associate records technician, you must meet college graduation requirements including general education, math, and English competencies as well as CA210 Office Microcomputer Applications, or an equivalent. Consult a program advisor for help in planning general education classes.
This program has special admission requirements and enrollment limits. For additional information, contact the Student Records (Admissions) Office at (503) 399-5006.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$525; class fees, \$85; equipment and supplies, $\$ 250$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 48 required credit hours:
Course Title Credit Hours

## Term 1

BI071 Body Structure and Function I . . . . . . . . . . . . . . . . . . . . . . . 3
B1231 Human Anatomy and Physiology ........................... 4
H101 Medical Law and Ethics ....................................... 3
H102 Professional Development A . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
H110 Health Information Systems Procedures 1 . . . . . . . . . . . . . . . . . . . 4
H120 Medical Terminology/Systems1 . . . .......................... 3
WR121 English Composition-Exposition (or higher) ................ 3
Term 2
BI072 Body Structure and Function II . ............................ . 3
or
BI232 Human Anatomy and Physiology ........................... 4
H103 Professional Development B .................................. 1
111
H114
CPT-IV Coding/Reimbursement
Health Information Systems Procedures 2 .................. 5
Introduction to Allied Health Data . . . . . . . . . . . . . . . . . . . . 3
Medical Terminology/Systems 2 ............................... 3
H121
Term 3
H104 Professional Development C ................................ 1
H115 ICD-9-CM Coding/Reimbursement ......................... 3
H122 Advanced Topics in the Language of Medicine ............. 3
H130 Health Information Systems Office Practice ................. 5
H131 Medical Practice Seminar .................................. 1

## Two-Year Programs <br> Health Services Management

As a graduate of this two-year program, you will be prepared for a variety of middle-management jobs in the health care field. You may be employed by hospitals, state agencies, medical clinics, or other health care organizations.
The Health Services Management program curriculum focuses on four areas: applied science; the U.S. health care delivery system; accounting, business, and health management; and general education courses.
You may transfer to a four-year institution to continue course-work in public health administration or health care administration. The combination of technical/professional courses and transfer courses will give you a wide variety of options.

## - Getting Started

Program requirements have changed. See "Getting Started" heading on page 85 for details.
In addition to tuition, estimated costs for students who complete the entire second year listed below are books, \$1,400; class fees, \$135; equipment and supplies, \$250. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing the required 97 credit hours. If you have completed or are currently enrolled in a health occupations program and wish to apply credits toward the Health Services Management degree program, contact the advisor in this program.
Course
Title
Credit Hours
Term 1
BI071
Body Structure and Function I
. 3


## 〕ISTORY

(college transfer)
Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in History are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122 and/or 123 English Composition | 3 | 3 | (3) |
| HST110, 111, 112 World History | 3 | 3 | 3 |
| Science courses* | 4 | 4 | 4 |
| Arts and Letters/Humanities courses* (Foreign Language required by PSU and UO and recommended | 3-4 | 3-4 | 3-4 |
| HPE295 Health and Fitness for Life * or elective | 3 |  |  |
| Electives (EOU requires CS101 Introduction to Microcomputer Applications or CA201P Word Processing Procedures 1; SOU and WOU require CS101) |  | 3 | 6 |
| Second Year | 4 | 5 | 6 |
| HST201, 202, 203 History of the United States | 3 | 3 | 3 |
| Mathematics per placement test* (WOU requires a minimum of one math beyond MTH105 Introduction to Contemporary Math and Computer Science course or second-year Foreign Language; EOU requires MTH105 or higher) | 4 | 4-5 |  |
| Arts and Letters/Humanities* (SOU recommends second-year Foreign Language for graduate work; PSU and UO require second-year Foreign | $3-4$ | $3-4$ | $3-4$ |
| Social Science courses other than history* | 3 | 3 | 3 |
| Additional Arts and Letters/ Humanities or Social Sciences or electives* (OSU requires 6 credits in non-European, non-U.S. History) | 3 | 3 | 6 |



## (college transfer)

Oregon State University offers a Bachelor of Science degree in Home Economics. Students major in Apparel, Interiors, Housing, and Merchandising; Human Development and Family Science; or Nutrition and Food Management. There are several options for each major. It is essential that you work closely with Chemeketa's home economics advisor or an advisor from OSU to ensure that you choose appropriate courses.
The two-year program outlined below is designed to meet requirements at OSU. (For some options, it may be to your advantage to transfer after one year at Chemeketa.)
However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at OSU to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

| Term |  |  |
| :---: | :---: | :---: |
| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| 3 |  |  |
|  | 3 | 3 |
| $(4)$ | $4-5$ | 3 |
| $4-5$ | $4-5$ | $4-5$ |
| 6 | 3 | 6 |
| $3-4$ |  |  |
|  | 3 |  |

Course
Credit Hours

Additional required courses can be taken at Chemeketa during a second year. These vary considerably, depending upon option chosen. It is important to work carefully with a home economics advisor to meet OSU's general education
(Baccalaureate core) requirements, major requirements, and option requirements.
*To meet OSU general education requirements.
**Check OSU catalog for requirements in your major and option.

## 〕TOSPITALITY and Tourism MANAGEMENT

The Hospitality and Tourism Management curriculum focuses on the management aspects of today's exciting hospitality industry: food and beverage; travel and tourism; lodging, recreation, and leisure; meeting and convention management; and casino management. Six terms of foreign language are required. Upon graduation you may enter the hospitality industry working in such areas as travel and tourism organizations, hotel operations, restaurant management, convention and visitor associations, recreation resource management, and casinos.
Cooperative Work Experience is required and nine college credit hours are needed for graduation. If you have a 2.0 grade point average or higher and the program chair approves, you may enroll in FS280 Cooperative Work Experience. For more information, look under Cooperative Work Experience in the catalog index.

## Travel Agency Operations

The Travel Agency Operations program offers technical training to persons who wish to work in the travel and tourism industry.
The curriculum covers technical and general education courses. Classes on the role, structure, and components of the travel industry; geography; and computer reservation systems are complemented by courses in verbal and written communication skills, human resources, and career management. The program combines classroom instruction with internships which offer students the opportunity to gain practical experience at travel industry job sites and field trips.
Nine college credit hours of Cooperative Work Experience are required. With the approval of the CWE instructor/coordinator you may enroll in HSM280 Cooperative Work Experience. For more information, look under Cooperative Work Experience in the catalog index.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$285; class fee, \$20. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 37 required credit hours:

Term 1
HSM071
HTM104
HTM114

## HTM117

Travel Agency Sales and Marketing .......................... 3
Introduction to the Travel and Tourism Industry ............... 3
Travel Destination Geography 1 . .............................. . . 3
Travel Agency Basics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 2
HSM072 Travel Agency Management ................................... 3
HSM074 Computer Reservation Systems . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HTM115 Travel Destination Geography 2 . .............................. . 3
SP219 Fundamentals of Small Group Communication ................. . . 3 or
SP218 Interpersonal Communication ................................. . . 3
or
SP115 Introduction to Intercultural Communication .................. . 3
Term 3
FE205A Job Search Preparation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
HSM280I Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 9
HTM116 Travel Destination Geography 3 .............................. . 3

## Hospitality and Tourism Management

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

BA066 Introduction to Business Studies ........................................ . . 4
CA121A Keyboarding A (if less than 25 wpm) .............................. . 1
CS101 Introduction to Microcomputer Applications . . . . . . . . . . . . . . . . . . . . . . . 3
MTH060 Introductory Algebra . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
WR115 Introduction to Composition ......................................... . . 3
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5296.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,494; class fees, \$35; equipment and supplies, \$15. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these 96 required credit hours:
Course Title Credit Hours

## Term 1

HTM100
Introduction to the Hospitality Industry . . . . . . . . . . . . . . . . . . . 3
HTM104 Introduction to the Travel and Tourism Industry . . . . . . . . . . . . . 3
WR121 English Composition-Exposition (or higher) .3
Foreign Language sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 2
CS160
Introduction to Computer Science (or higher)3

HTM102 Hotel, Restaurant and Travel Law ................................ . . 3
HTM105 Introduction to the Food and Beverage Industry ............... . 3
PSY201 General Psychology-Biological Emphasis (or higher) . ....... . 3
Foreign Language sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 3
HTM106 Introduction to the Lodging Industry . . . . . . . . . . . . . . . . . . . . . . 3
HTM107 Sanitation and Safety for Managers . . . . . . . . . . . . . . . . . . . . . . 3

MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . 4
SP111 Fundamentals of Public Speaking (or higher) ................. . 3
Foreign Language sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 4
HTM280I Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 9
Term 5
BA211 Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CA208 Computer Presentations for the Workplace-MS PowerPoint .. . 3
Approved elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 6
BA212 Financial Accounting II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
HTM103 Marketing for the Hospitality Industry . ....................... . . 3
Approved elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 7
BA224 Personnel Management . .......................................... . 3
HTM101 Hospitality and Tourism Management . . . . . . . . . . . . . . . . . . . . . . 3
Approved elective* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
*Approved electives:
HTM108 Introduction to the Leisure and Recreation Industry . . . . . . . . . . 3
HTM109 Front Desk Operations . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HTM111 Cultural Heritage Tourism . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HTM112 Bed and Breakfast Operations . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HTM117 Travel Agency Basics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HTM119 Introduction to Casino Management . . . . . . . . . . . . . . . . . . . . . . . 3
HTM126 Meeting and Event Planning . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

## 〒 Totel, Restaurant, and Resort Management

(college transfer)
Southern Oregon University offers a Bachelor's degree in Business Administration with a concentration in Hotel, Restaurant, and Resort Management. An agreement has been made with SOU that all 96 credits listed below will be accepted toward a degree. Students who complete all the courses outlined below will be awarded an Associate of Arts Oregon Transfer Degree with an emphasis in Hotel, Restaurant, and Resort Management.
The two-year program outlined below is designed to meet requirements at Southern Oregon University. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling center or the Chemeketa advisor in your program. You should also make early contact with an advisor at the institutions to which you plan to transfer to learn of any possible changes in a program.

Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.
Course Title Credit Hours
Term 1
CS101
Introduction to Microcomputer Applications 3
ENG104 Introduction to Fiction .....  3
HTM100 Introduction to Hospitality Industry .....  3
WR121 English Composition-Exposition (or higher) .....  3
Science elective with lab ..... 4
Term 2
ENG105 Introduction to Dramatic Literature .....  3
HTM105 Introduction to Food Service Industry .....  3
MTH111 College Algebra ..... 5
WR122 English Composition-Logic and Style .....  3
Science elective with lab ..... 4
Term 3
ENG106 Introduction to Poetry .....  3
HTM106 Introduction to the Lodging Industry .....  3
MTH243 Probability and Statistics I ..... 4
WR123 English Composition-Research Writing .....  3
WR227 Technical Writing .....  3
Science elective with lab .....  4
Term 4
BA211 Financial Accounting .....  4
EC201 Introduction to Microeconomics .....  3
HTM104 Introduction to Travel and Tourism Industry .....  3
PSY201 General Psychology-Biological Emphasis ..... 3
WR241 Imaginative Writing .....  3
Term 5
BA212 Financial Accounting II ..... 4
BA214 Business Communications .....  3
EC202 Introduction to Macroeconomics .....  3
HPE295 Health and Fitness for Life .....  3
PSY202 General Psychology-Cognitive Emphasis .....  3
or
History elective ..... 3
Term 6
BA213 Managerial Accounting .....  4
EC203 Applications to Economics .....  3
PSY203 General Psychology-Clinical/Social Emphasis .....  3
SP111 Fundamentals of Public Speaking .....  3
SP112 Fundamentals of Persuasion .....  3or
$\mathrm{H}^{\mathrm{wam}}$
Services

The Human Services program offers training for entrylevel positions in social service agencies. It is a two-year program which combines academic course work with five quarters of supervised field work in two different sites, each of which is at least two terms long. Students specialize in one of two options: Addiction Studies or Social Services.

Post B.A./B.S. students are also eligible to complete the Addiction Counselor Certification Preparation program and receive a one-year certificate.
This program has special admissions requirements and enrollment limits. For additional information, contact the Student Records (Admissions) Office at (503) 399-5006.
Admission to the certificate program is assessed individually by the Human Services staff.
WR121 and all Human Services courses used to meet certificate or degree requirements must be completed with a grade of C or better.
By enrolling in the CPL120 Credit for Prior Learning Resume course, you may be able to earn credit for prior learning you acquired through your job, non-credit classes, community or volunteer service, and individual study.

## Addiction Studies Option

The Addiction Studies option trains students to work in public and private agencies treating chemically dependent people and their families. Training sites include both inpatient and outpatient programs.
The curriculum includes courses in alcohol and drug information, family dynamics, case management, and basic and group counseling skills.

## - Getting Started

The first step to entering the two-year program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| MTH020 | Basic Mathematics |
| :---: | :---: |
| RD090 | College Textbook Reading |
| WR115 | Introduction to Composition |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5048.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, $\$ 1,175$; class fees, $\$ 20$; equipment and supplies, $\$ 123$; measles vaccine, $\$ 10$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

An Associate of Applied Science degree is awarded upon successful completion of the required 101 credit hours.
Twenty-five credits of practicum are required, at least 15 of which must be in an alcohol and drug placement.
Course
Title
Credit Hours
Term 1
HS101
HS150
HS154
HS170
WR121

Addiction Pharmacology and Physiology ................... 4
Personal Effectiveness for Human Service Workers . . . . . . . . . . 3
Community Resources . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Introduction to Practicum . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
English Composition-Exposition . . . . . . . . . . . . . . . . . . . . . . . . 3

## Term 2

## HS104

HS152
HS260
HS284A-
HS288A
PSY201
SSC150
SSC206
Term 3
HS103 Ethics for Human Service Workers ............................. . . 2
HS155 Interviewing Theory/Techniques ............................... 3
HS201
HS284A-
HS288A
PSY202
PSY203
PSY239
Term 4
CS101
HS202
HS284A-
HS288A
MTH060
SOC204
Family Addiction . 3

Term 5
FE205A
Practicum: Human Services .4-8
General Psychology-Cognitive Emphasis ..................... . 3 or
General Psychology-Clinical/Social Emphasis ................ . 3 or
Introduction to Abnormal Behavior . . . . . . . . . . . . . . . . . . . . . . 3

Introduction to Microcomputer Applications (or higher) ...... 3
Foundations for Addiction Professionals . . . . . . . . . . . . . . . . . . 4
Practicum: Human Services . . . . . . . . . . . . . . . . . . . . . . . . . .4-8
Introductory Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . 4
General Sociology-Introduction . . . . . . . . . . . . . . . . . . . . . . . . . . 3

Job Search Preparation
. 1
FE205B
FE205C Interviewing for Success ....................................... . 1
HS203 Practice of Addiction Treatment ............................... 4
HS284A-
HS288A
Practicum: Human Services . . . . . . . . . . . . . . . . . . . . . . . . . .4-8
SOC205 General Sociology-Institutions ................................ . 3
SOC206 General Sociology-Social Problems ............................ 3
Humanities/Fine Arts elective .................................. 3
or
Science/Applied Science elective ............................ 3
Term 6
HS204
Readiness for Addiction Professionals
. . 4
HS267 Systems Strategies .................................................... 3
HS284A- Practicum: Human Services . . . . . . . . . . . . . . . . . . . . . . . . . 4-8
PSY237 Life Span Development ......................................... . . 3
SP112 Fundamentals of Persuasion . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SP130 Business and Professional Speaking .......................... 3

## Addiction Counselor Certification Preparation

This one-year certificate program is designed for individuals with a baccalaureate or master's degree seeking the necessary course work and practical experience to enable them to compete for employment in the field of addiction treatment. This certificate prepares students to take the Oregon Level I Certified Alcohol and Drug Counselors (CADC) exam.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$650; class fees, \$20; equipment and supplies, \$65; measles vaccine, \$10. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 43 required credit hours:
Course Title Credit Hours
Term 1
HS101 Addiction Pharmacology and Physiology ..................... . 4
HS150 Personal Effectiveness for Human Service Workers . . . . . . . . . . 3
HS202 Foundations for Addiction Professionals . . . . . . . . . . . . . . . . . . 4
HS285A Practicum: Human Services ..................................... . . . 5
Term 2
HE210 H.I.V., A.I.D.S. and other S.T.D. s . . . . . . . . . . . . . . . . . . . . . . . . 1
HS103 Ethics for Human Service Workers .............................. . . 2
HS203 Practice of Addiction Treatment ................................. 4
HS260 Group Dynamics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HS285A Practicum: Human Services . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
Term 3
HS201 Family Addiction ............................................... . 3
HS204 Readiness for Addiction Professionals ......................... . 4
HS285A Practicum: Human Services ........................................ . . . 5

## Social Services Option

The Social Services option trains students for employment in social welfare agencies. These agencies provide services in areas such as crisis counseling, employment services, children's protective services, public welfare, housing, mental health, corrections and advocacy.
The curriculum includes courses in interviewing, counseling, assessment, and case management.

## - Getting Started

Program requirements have changed. See "Getting Started" under the Addiction Studies Option heading on page 90 for details.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,175; class fees, \$20; equipment and supplies, \$127; measles vaccine, \$10. Contact the Financial Aid Office to find out if you qualify for help with these costs.

An Associate of Applied Science degree is awarded upon successful completion of the required 101 credit hours. Twenty-five credits of practicum are required.

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| HS150 | Personal Effectiveness for Human Service Workers |  |
| HS154 | Community Resources |  |
| HS170 | Introduction to Practicum | . 3 |
| PSY201 | General Psychology-Biological Emphasis | 3 |
| WR121 | English Composition-Exposition | 3 |
| Term 2 |  |  |
| HS104 | Terminology for Human Service Workers . |  |
| HS260 | Group Dynamics . |  |
| HS284S- |  |  |
| HS288S | Practicum: Human Services | .4-8 |
| PSY202 | General Psychology-Cognitive Emphasis | . 3 |
|  | or ${ }^{\text {or }}$ |  |
| PSY203 | General Psychology -Clinical/Social Emphasis or | . 3 |
| PSY239 | Introduction to Abnormal Behavior | . 3 |
| SSC150 | Ethnic Cultures of the Northwest United States | . 3 |
|  |  |  |
| SSC206 | Dealing with Diversity .... |  |

Term 3
HS101 Addiction Pharmacology and Physiology ...................... . . 4
HS155 Interviewing Theory and Techniques ............................ . . 3
HS103 Ethics for Human Service Workers . . . . . . . . . . . . . . . . . . . . . . . 2
HS284S-
HS288S
PSY237
Term 4

## CS101

HS152
HS220
HS221
HS222
HS265
HS284S-
HS288S
SOC204
Term 5
HS266
HS284S-
HS288S
MTH060
SOC205
SOC206
Term 6
FE205A Job Search Preparation .......................................... 1
or
FE205B Resumes and Job Search Correspondence ..................... 1
FE205C Interviewing for Success .......................................... . 1
HS267 Systems Strategies .............................................. . 3
HS284S-
HS288S
SP112
Practicum: Human Services4-8

Fundamentals of Persuasion ............................................. . . . . 3
or
SP130 Business and Professional Speaking ........................... . . 3
Social Services elective* ....................................... . . 3
Humanities/Fine Arts elective .................................. . . 3
or
Science/Applied Science elective
.3
*Social Services electives (six hours total): Any class in Human Services, Anthropology, History, Political Science, Psychology numbered 200 or above, Sociology, Women's Studies, Criminal Justice, Early Childhood Education, Education Certificate, Sign Language, or Credit for Prior Learning.

## Tndustrial Technology and Apprenticeship

## Industrial Technology

Chemeketa grants an Associate of Applied Science degree in industrial technology. Journey-level men and women may earn credit for on-the-job training and related instruction. To earn the degree, you must meet the following requirements:

1. Have achieved journey-level status in a skilled occupation.
2. Complete a minimum of 30 credit hours or equivalent at Chemeketa.
3. Complete general education requirements for an Associate of Applied Science degree. (See page 32 of this catalog.)
4. Compile a total of 90 credit hours. You may be awarded up to 22 credit hours for journey-level status, 47 credit hours for trade-related training, and seven credit hours of Cooperative Work Experience.
If you have questions about the requirements, call (503) 399-5255 or (503) 399-5210. Failure to be assessed may delay your entry into program classes.
In addition to tuition, estimated costs for students who complete the entire program will vary. Contact the Financial Aid Office to find out if you qualify for help with these costs.

## Apprenticeship

Apprenticeship training as a method of vocational education is recognized by the Oregon Bureau of Labor and Industries (BOLI). It combines full-time, on-the-job work experience with trade-related theoretical instruction.
The instruction at Chemeketa is for people working in particular trades. Students generally are apprentices who are registered with the Oregon Bureau of Labor and Industries. They can also be journey-level men and women who wish to upgrade their skills and knowledge, pre-apprenticeship students, and others as approved by local committees.
Chemeketa has apprenticeship classes for plumbers, carpenters, electricians, sheet metal workers, heating ventilating air conditioning (HVAC) technicians, machinists, welders, and other trades, as required by local committees.

## Tntegrated Circut Mask Design

Graduates of the Integrated Circuit (IC) Mask Design program are employed by firms who design and manufacture the subminiature electronic circuits that are at the nucleus of all electronic and computerized equipment. Integrated circuit mask designers use computer-aided-design systems to design the templates or masks that are used to manufacture microelectronic circuits. Graduates of this program may also be employed as electronic circuit board designers and layout specialists.
The IC Mask Design program includes courses in comput-er-aided-design (CAD), CMOS layout, electronics, computer programming, computer operating systems, and the semiconductor manufacturing process, as well as the communication and human relations skills needed for career advancement.
If you have any questions about this program or the registration process, call Advising and Counseling at (503) 3995120 or (503) 399-5248. You may also meet with the


Integrated Circuit Mask Design program faculty or tour the facilities.

Students entering this program must have an Intel-compatible computer.

To successfully complete the IC Mask Design program, you must earn a grade of C or better in all classes.

## Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:
CA121A Keyboarding A (if less than 25 wpm) ......................... . 1
CS101 Introduction to Microcomputer Applications ................. . 3
MTH070 Elementary Algebra . .......................................... . . . 4
RD090 College Textbook Reading ..................................... . . 3
WR040 Writing Skills ...................................................... . 3
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5248.
Failure to be assessed may delay your entry into program classes.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,500; class fees, \$360; equipment and supplies, \$90; and Intel-compatible computer, \$1200. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 102 hours.

## Term 1

DRF101 $\begin{aligned} & \text { Basic CAD for Electronics* } \\ & \text { or }\end{aligned}$
DRF136 Advanced AutoCad .................................................. 3
ELT111 Electronics Orientation ........................................... . . 1
ELT131 Electronic Concepts I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
MT110 Microelectronics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MTH111 College Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5 or
MTH081 Technical Mathematics I ........................................ . . 4
WR121 English Composition-Exposition ............................... 3
Term 2
ELT132 Electronic Concepts II ............................................. . . 4
ELT141 Transistor Fundamentals ............................................ 5
ELT151 Digital Fundamentals ............................................ . . 4
MTH112 Trigonometry (or higher) ...................................... . . 5
MTH082 Technical Mathematics II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 3
ELT133 Electronic Concepts III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ELT142 Semiconductor Devices ............................................... 3
ELT143 Pulse Circuit Fundamentals ...................................... . 3
ELT161 Linear IC Fundamentals . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
WR227 Technical Writing .................................................... 3
Term 4
ELT121 Programming Concepts I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ELT244 Electronic Circuit Analysis .................................... . . 4
ELT252 Digital Circuit Applications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FE205B Resumes and Job Search Correspondence . ..................... 1
PH201 General Physics (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or
PH081 Applied Physics ............................................... 4
SP111 Fundamentals of Public Speaking .............................. 3
Term 5
DRF201 CMOS I............................................................ . 4
ELT253 Microprocessor Systems .......................................... . . 5
ELT262 Linear IC Applications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PH203 General Physics (or higher) .................................... . . 4
PH082 Applied Physics .................................................. . . 4
Term 6
CS140U UNIX/LINUX.......................................................... 3
DRF202 CMOS II .................................................................... 3
ELT122 Programming Concepts II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
or
Approved Programming Elective** ........................... . 3
PSY104 Psychology in the Workplace . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
SP219 Fundamentals of Small Group Communication ............... . 3
WR122 English Composition-Logic and Style . . . . . . . . . . . . . . . . . . . . 3
MTH243 $\stackrel{\text { or }}{\text { Probability and Statistics I (or higher) . . . . . . . . . . . . . . . . . . . } 4}$

* Other approved course substitutions: DRF072 may be substituted for DRF101.
**Approved programming electives: see program chair.


## OURNALISM

(college transfer)
The University of Oregon offers Bachelor of Arts and Bachelor of Science degrees in Journalism. Southern

Oregon University offers Bachelor of Arts and Bachelor of Science degrees in Communication: Journalism, with concentrations in News-Editorial, Public Relations,
Photojournalism, and Secondary Teaching.
The program outlined below is designed to meet requirements at these institutions. However, there are entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
Students planning to transfer to UO should consult the UO catalog for journalism major admission requirements and to determine when to transfer. (This usually is after one year at another college.)
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122 and/or 123 English Composition* (WR227 Technical Writing for SOU) | 3 | 3 | (3) |
| Humanities courses* (SOU recommends two years of Literature and Foreign Language; UO requires 16 credits in Literature) | 3-4 | 3-4 | 3-4 |
| Social Science courses (HST110, 111, 112 History of World Civilization or HST201, 202, 203 History of the United States recommended at SOU; choose 9 hours for UO) | 3 | 3 | 3 |
| Mathematics per placement test* | (4) | 5 | (4) |
| J224 Introduction to Mass Communications for UO | 3 |  |  |
| Electives (J216 Newswriting required and CA205 Desktop Publishing 1-PageMaker recommended for SOU; UO requires additional credits from the Arts and Letters requirements)** | 3 | 3 | 6 |
| Second Year | 4 | 5 | 6 |
| Social Science or other elective courses* (SOU recommends one year of Political Science and one year of Economics; UO requires EC201, 202, 203 Introduction to Microeconomics, Introduction to Macroeconomics, and Application to Economic Issues) | 3 | 3 | 3 |
| Humanities or Social Science courses* (second-year <br> Foreign Language or Literature recommended for SOU; Literature for UO) | 3-4 | 3-4 | 3-4 |
| Science courses* | 4 | 4 | 4 |
| Electives (Check SOU catalog for electives for each option; ART261 General Photography and SP115 Introduction to Intercultural Communication meet requirements in most options; choose courses for general education requirement at UO ) | 6 | 6 | 6 |
| *To meet four-year college general education requirements. <br> **UO will only accept two journalism courses besides J224 from a com |  |  |  |

## uvenile Corrections Certificate

Juvenile corrections workers provide supervision, facilitate in the treatment process and crisis intervention, provide social and life skills training, maintain records and documentation, engage in support services, and monitor and ensure a secure environment.
This one-year certificate program is specifically designed for individuals who want to work directly with juvenile offenders through different agencies in various settings. These agencies may include Oregon Youth Authority (OYA), as well as other public, private, and non-profit organizations.
As a statewide cooperative effort among several Oregon community colleges this program is transferable to the following participating schools: Clackamas Community College, Clatsop Community College, Lane Community College, Linn-Benton Community College, Portland Community College, Southwestern Community College, and Treasure Valley Community College. In addition, some courses may be applicable as electives toward a two-year degree. Consult with our Advising and Counseling Center or a Chemeketa advisor on course transferability.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) |  |
| :---: | :---: | :---: |
| CJ050 | Criminal Justice Foundations . | 3 |
| MTH020 | Basic Mathematics |  |
| RD090 | College Textbook Reading | . 3 |
| WR115 | Introduction to Composition | 3 |
|  | or |  |
| C0M051 | Communication Skills I | . 3 |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5048. Failure to be assessed may delay your entry into program classes.
In addition to tuition, estimated costs for students who complete the entire program are books, \$700. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion degree by successfully completing these 47 credit hours:
Course Title Credit Hours
CJ101 Criminology .......................................................... 3
CJ203 Crisis Intervention Seminar ..................................... 1
CJ206 Crime and Delinquency ....................................... . 3

CJ230 Introduction to Juvenile Corrections ............................ . . 3
CJ232 Introduction to Corrections Casework . . . . . . . . . . . . . . . . . . . . 3
CJ280 Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CJ235 Youth, Drugs and Corrections ................................... 3
CS101 Introduction to Microcomputer Application .................... . . 3
MTH060 Introductory Algebra . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PSY201 General Psychology-Biological Emphasis ..................... 3
PSY202 General Psychology-Cognitive Emphasis .................... 3
PSY203 General Psychology-Clinical/Social Emphasis . . . . . . . . . . . . . . 3
PSY237 Life Span Development ........................................ . 3
PSY239 Introduction to Abnormal Behavior . . . . . . . . . . . . . . . . . . . . . . 3
SOC206 General Sociology-Social Problems ............................ 3
WR121 English Composition-Exposition ............................... . 3
]/ ANAGEMENT

As a graduate of Chemeketa's Management program, you may begin as a management trainee or other entry-level employee of a small business or large firm.
You may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

BA066 Introduction to Business Studies .................................. 4
BT085 Business English II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CA121A Keyboarding A (if less than 25 wpm$)$......................... 1
CS101 Introduction to Microcomputer Applications .................. . 3
MTH060 Introductory Algebra ........................................... . . 4
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114.
Failure to be assessed may delay your entry into program classes.

You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do relating to your program. With the approval of the CWE instructor/coordinator, you may enroll in BA280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,505; class fees, \$36; equipment and supplies, \$86. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 96 credit hours:

Course Title Credit Hours
Term 1
BA101 Business Environment . ............................................. 4
BA202 Personal Effectiveness ................................................. 3
BA211 Financial Accounting I* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
MTH062 Business Applications Using Mathematics (or higher) . . . . . . . . 4
Term 2
BA203 Interpersonal Relations in Business . . . . . . . . . . . . . . . . . . . . . . . 3
BA212 Financial Accounting II* .......................................... . . . . 4
BA214 Business Communications** .................................... 3
MTH070 Elementary Algebra (or higher) . ................................ . . . 4
Humanities/Fine Arts elective . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 3
BA204
BA206
Teamwork Dynamics 3

Business Management Principles .............................. 3
CS125A
Micro Database Software-Access . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS125E Excel-Workbooks .................................................. . . 4
CS125Q Quattro-Workbooks ................................................ . 4
Term 4
BA223 Principles of Marketing . ........................................ . 3
BA226 Business Law I .................................................... . 3
EC200 Introduction to Economics (or higher) ......................... . 3
FE205C Interviewing for Success ........................................... . . . 1
SP111 Fundamentals of Public Speaking ............................... 3
BA277 Business Ethics .................................................... . . 3
WR227 Technical Writing ................................................. . 3
Term 5
BA222 Financial Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BA227 Business Law II ................................................... . 3
BA271 Information Technology in Business ............................ . 4
SP112 Fundamentals of Persuasion . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

Term 6
BA224 Personnel Management ......................................... 3
Business elective***
(BA280 Cooperative Work Experience recommended) ....... 6
Business elective*** .......................................... . . 3
Computer Science elective**** . . . . . . . . . . . . . . . . . . . . . . . . . . 3
*BA051, BA052, and BA053 may be substituted for BA211 and BA212. BA211 or BA051 requires concurrent enrollment in MTH070 or higher math placement.
**Placement in math and English determined by testing. College transfer classes may be substituted. WR123 may be substituted for BA214.
***Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE except BT084, BT085, BA051, BA052, and BA053.
****Choose from CS133VB, CS133C, CS133E, CS133F, CS133R, CS133U, CS135SS, or CA201X.

## ] ANUFACTURING Engineering TECHNOLOGIES

The Manufacturing Engineering Technologies program offers training in manufacturing skills. Employees may become involved in research and development; inspection and quality control; planning, managing, and producing prototypes; performing routine manufacturing; or completing simple to complex repairs. You may enroll in the threeterm Manufacturing Operations option or the six-term Manufacturing Technologies option. You may select individual courses to meet your needs, or you may work
toward an Associate of Applied Science degree or a Certificate of Completion.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for on-the-job work you do relating to your program. With the approval of the program chair, you may enroll in MFG280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| MTH020 | Basic Mathematics |
| :---: | :---: |
| SKD051 | Studying for College |
| WR040 | Writing Skills |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5210.
Failure to be assessed may delay your entry into program classes.

## Manufacturing Operations Option

The Manufacturing Operations option provides training in the basic setup and operation of machine tools (both manual and computer controlled) such as lathes, drills, mills, saws, and grinders; bench and layout work; inspection and quality control; and print reading and sketching relating to manufacturing careers. As a graduate, you may qualify to work as a machine tool operator, an entry level machinist, a quality control inspector, or in a variety of manufacturing related jobs.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$601; class fees, $\$ 190$; equipment and supplies, \$200. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 50 required credit hours:

Course Title Credit Hours

## Term 1

MFG100 Fundamentals Lab Practice* . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MFG101 Machining Fundamentals . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MFG111 Industrial Safety Seminar ......................................... 1
MFG120 Metrology ..................................................... . . 3
MFG124 Interpreting Engineering Drawings ............................. . 4
MFG130 CNC Machine Setup/Operation . . . . . . . . . . . . . . . . . . . . . . . . . 3
Term 2
MFG131 Lathe Fundamentals .............................................. . . 3
MFG136 Geometric Dimensioning/Tolerancing* ......................... . 2
MFG145A CMM/QA Applications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
MFG145B CMM/QA Applications-Lab* ................................... . 1
MFG151 Milling Machine Processes ...................................... 3

MFG160 Programming CNC Mills ........................................ . . . 3
MTH052 Introduction to Algebra and Geometry (or higher) ............ . 3
Term 3
C0M051
Communication Skills I . 3

WR121 English Composition-Exposition** (or higher) ............... 3
MFG161 Lathe Processes ................................................. . 3
MFG170 Total Quality Manufacturing ...................................... . 3
MFG176 Manufacturing Materials and Cutting Tools . . . . . . . . . . . . . . . 3
MFG190 Programming CNC Lathes ...................................... . 3
MTH053 Introduction to Trigonometry with Geometry (or higher) . .... . 3

## Manufacturing Technologies Option

The Manufacturing Technologies option offers training in the knowledge and skills used by employees in manufacturing and related occupations. The curriculum includes courses in manufacturing materials; interpretation of engineering drawings and measuring practices; inspection and coordinate measuring machine practices.
In this option, you set up and operate manual and computer controlled machine tools, including drill presses, engine lathes, milling machines, grinders, and saws. You work from prints or sketches to produce mechanical items in a variety of materials. This requires planning, layout, and fabricating using jigs, fixtures, and patterns; work holding; cutting tool selection; and applications.
As a graduate, you may qualify for several positions in manufacturing, including supervisor, technical report writer, estimator, purchaser, planner, or quality control technician, or in the areas of maintenance and repair, production, specialty work, machine setup and operation, CNC programming, or bench and layout work.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$460; class fees, $\$ 165$; equipment and supplies, $\$ 180$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these 99 required credit hours:

$$
\text { Course } \quad \text { Title } \quad \text { Credit Hours }
$$

Term 1
MFG100 Fundamentals Lab Practice* . ............................... . 1
MFG101 Machining Fundamentals . ................................. . 3
MFG111 Industrial Safety Seminar ................................. 1
MFG120 Metrology ............................................... 3
MFG124 Interpeting Engineering Drawings .......................... 4
MFG130 CNC Machine Setup/Operation . ............................ 3
Term 2
MFG131 Lathe Fundamentals ....................................... 3
MFG136 Geometric Dimensioning/Tolerancing* . . . . . . . . . . . . . . . . . 2
MFG145A CMM/QA Applications .................................... 2
MFG145B CMM/QA Applications-Lab* ............................... 1
MFG151 Milling Machine Processes ................................. 3
MFG160 Programming CNC Mills ................................... 3
MTH052 Introduction to Algebra and Geometry (or higher) . . . . . . . . . . 3
Term 3
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
WR121 English Composition-Exposition** . . . . . . . . . . . . . . . . . . . 3
MFG161 Lathe Processes ........................................ 3
MFG170 Total Quality Manufacturing ............................... 3
MFG176 Manufacturing Materials and Cutting Tools .....  3
MFG190
MTH053
Programming CNC Lathes .....  3
Introduction to Trigonometry with Geometry (or higher) .....  3
Term 4
MFG205 CAD for CAM .....  3
MFG210A Manufacturing Process Planning .....  2
MFG210B Manufacturing Process Planning Lab* .....  2
MFG223 Industrial Systems .....  3
MFG230 CAM Applications/Mills .....  3
PH060 Applied Physical Science (or higher) .....  3
Term 5
MFG200 Advanced Lab Practice .....  2
MFG231 Hydraulics ..... 3
MFG245A Fixture Design and Manufacturing .....  2
MFG245B Fixture Design and Manufacturing Lab* .....  . 2
MFG260 CAM Applications/Lathes .....  3
WLD077 Welding Process .....  4
Term 6
COM053 Technical Report Writing ..... 3
WR227 Technical Writing** ..... 3
FE205B Resumes and Job Search Correspondence .....  1
MFG265 Machinery's Handbook .....  2
MFG270A Production/Assembly/Control Methods .....  2
MFG270B Production/Assembly/Control Methods Lab* .....  2
MFG280C Cooperative Work Experience (needed if MFG200 not taken)
MFG290 CAD/CAM Integrations .....  4
PSY101 Psychology of Human Relations .....  3
*Courses must be taken concurrently with corresponding A class.
**Transfer classes: WR121 prerequisite to WR227.
] ANUFACTURING Engineering Technologies

## (transfer to OIT)

Oregon Institute of Technology offers a Bachelor of Science degree in Manufacturing Engineering Technology. Career opportunities for OIT graduates include supervision liaison between design and production areas, tool and process designer, plant layout planner, materials handler, technical field representative, technical writer, and plant safety engineer. You may also be prepared to set up and operate manufacturing equipment, handle inspection devices, analyze production problems, and move into frontline supervision.
The two-year program outlined below is designed to meet requirements at Oregon Institute of Technology. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with Chemeketa's Advising and Counseling Center or the Chemeketa advisor in your program. You should also
make early contact with an advisor at OIT to learn of any possible changes in the program.
Course Title Credit Hours

## Term 1

MFG100 Fundamentals Lab Practice .....  1
MFG101 Machining Fundamentals .....  3
MFG111 Industrial Safety Seminar .....  1
MFG120 Metrology .....  . 3
MFG124 Interpreting Engineering Drawings .....  . 4
MFG130 CNC Machine Setup/Operation .....  3
WR121 English Composition-Exposition (or higher) .....  3
Term 2
MFG151 Milling Machine Processes .....  3
MFG131 Lathe Fundamentals .....  3
MFG145A CMM/QA Applications .....  .2
MFG145B CMM/QA Applications-Lab* .....  . 1
MFG160 Programming CNC Mills .....  . 3
MTH111 College Algebra .....  . 4
Term 3
MFG161 Lathe Processes .....  3
MFG170 Total Quality Manufacturing .....  3
MFG176 Manufacturing Materials and Cutting Tools .....  3
MFG190 Programming CNC Lathes .....  3
MTH112 Trigonometry ..... 4
Term 4
MFG136 Geometric Dimensioning/Tolerancing .....  . 2
MFG205 CAD for CAM .....  3
MFG210A Manufacturing Process Planning .....  . 2
MFG210B Manufacturing Process Planning-Lab* .....  . 2
MFG230 CAM Applications/Mills .....  3
PH201 General Physics .....  4
Term 5
MFG200 Lab Practice .....  . 2
MFG245A Fixture Design and Manufacturing .....  . 2
MFG245B Fixture Design and Manufacture-Lab* .....  2
MFG260 CAM Applications/Lathes .....  3
PH202 General Physics .....  4
WR122 English Composition-Logic and Style .....  3
Term 6
CH104 Chemistry for Allied Health .....  5
MFG270A Production/Assembly/Control Methods .....  . 2
MFG270B Production/Assembly/Control Methods-Lab* .....  2
MFG231 Hydraulics .....  3
MFG290 CAD/CAM Integrations .....  . 4
WLD077 Welding Processes .....  4
WR227 Technical Writing .....  3
*Courses must be taken concurrently with corresponding A class.
Additional classes that transer to OIT:
CS101 Introduction to Microcomputer Applications .....  3
ENGR211 Statics .....  . 4
ENGR213 Strength of Materials .....  . 4
MTH243 Probability and Statistics I ..... 4
MTH251 Differential Calculus .....  5
MTH252 Integral Calculus ..... 5
Fundamentals of Public Speaking .....  3

## ATHEMATICS

## (college transfer)

Oregon state system of higher education universities offering Bachelor of Arts and/or Bachelor of Science degrees in Mathematics are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. Oregon State University offers degrees in Mathematical Sciences and Mathematics.

The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122 and/or 123, English Composition and/or WR227 Technical Writing*(WR121 for WOU) | 3 | 3 | (3) |
| Mathematics per placement test* MTH251, 252, 253 <br> Calculus required (EOU, OSU, PSU, SOU, and WOU also require MTH254 Series Calculus and Linear Algebra) | 4-5 | 4-5 | 4-5 |
| Arts and Letters/Humanities courses** (UO requires two second-year level languages from German, French, or Russian for admission to Ph.D. program) | 3-4 | 3-4 | 3-4 |
| Computer Science courses or electives (EOU requires at least 7 hours of Computer Science; CS133 FORTRAN IV or 113 C++ Language or other hi level language for OSU; CS161 or CS133F FORTRAN IV for PSU; CS161 and 162 Computer Science II for WOU) | gher | 4 | 4 |
| HPE295 Health and Fitness for Life* or elective |  |  | 3 |
| Second Year | 4 | 5 | 6 |
| Mathematics through MTH255 Vector Calculus II (OSU also requires MTH256 Applied Differential Equations; PSU and UO require MTH256; MTH255 not required at PSU, UO, and WOU; recommended for EOU) | 4 | (4) | (4) |

Science courses* (OSU requires PH211 Physics
for Engineers and Scientists and approved courses
in the physical or biological sciences for all
options and PH212, 213 for Applied
Mathematics option) 4 4 4
Social Science courses* $\quad 3 \quad 3$
Arts and Letters/Humanities or Social Science electives* $\quad 3 \quad 3$ Electives
$\begin{array}{lll}3 & 3-6 & 3-6\end{array}$
*To meet four-year college general education requirements.
**PSU strongly advises students planning to do graduate work in mathematics to complete two years of study in German, French or Russian; UO requires second-year level of two of these languages for the Ph.D. program.

## $\mathbf{M}^{\text {mauama }}$ Assisting

The program prepares you for a wide range of duties in medical offices. Administrative 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 administrative functions and processing insurance claims, accounts, fees, and collections. Students should contact the advisors for the Health Services Management program as some classes taken in the program may apply toward the A.A.S. degree.
Your clinical duties may include assisting with examinations and treatments, obtaining medical histories, sterilizing instruments and equipment, and performing certain diagnostic tests and laboratory procedures in a health care facility.
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 required courses and complete all courses required in the first two terms to be eligible for the practicum offered spring term.
This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) of the American Medical Association in collaboration with the American Association of Medical Assistants, which certifies graduates by examination. CAAHEP is located at 35 E. Wacker Drive, Chicago, Illinois. The telephone number is (312) 553-9355. The internet address is www.caahep.org.
This program is a fall term entry program with special admission requirements and enrollment limits. For information, contact the Student Records (Admissions) Office at (503) 399-5006.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses.
Then, your advisor will help you develop an individualized
program of study, which may include one or more of the following:
AH112A Health Care Systems and Professions .....  2
CA121A Keyboarding A (if less than 25 wpm) .....  1
CS101 Introduction to Microcomputer Applications .....  3
MTH052 Introduction to Algebra and Geometry .....  3
RD090 College Textbook Reading .....  3
WR115 Introduction to Composition .....  3

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5058.
Failure to be assessed may delay your entry into program classes.

For admission to the program, an application is required. This is a separate step from the testing and assessment steps. Applications are available in Advising and Counseling, Admissions, and program offices.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$341; class fees, \$93; equipment and supplies, \$355; physical examination, \$100; measles vaccination, \$10; Hepatitis B vaccination series, $\$ 150$. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 46 required credit hours:
Course Title Credit Hours

## Term 1

BI071 Body Structure and Function I . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
H120 Medical Terminology/Systems 1 . ............................... . . 3
MED120 Medical Office Procedures . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MED124 Medical Assisting Basic Procedure .......................... 4

## Term 2

BI072 Body Structure and Function II . . . . . . . . . . . . . . . . . . . . . . . . . . 3
FE205B Resumes and Job Search Correspondence ..................... . 1
H121 Medical Terminology/Systems 2 .............................. . 3
MED125 Medical Assisting, Advanced Procedures ...................... . 6
PSY100 Introduction to Psychology .................................. . . 3
Term 3
BT090 Bookkeeping . ..................................................... . . 3
MED128 Introduction to Medical Science ................................ . 3
MED130 Medical Assisting Practice . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MED131 Medical Assisting Seminar . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
General Education elective* ................................ . 3
*General Education electives:
AH080 Crisis Intervention ................................................ . . 3
BA173 Public Relations in Business ................................... . 3
CS101 Introduction to Microcomputer Applications (or higher) ...... 3
H101 Medical Law and Ethics ........................................ . . 3
H115 ICED-9-CM Coding/Reimbursement ........................... . 3
H140 Medical Transcription . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HE250 Personal Health. .................................................. . . 3
HS101 Psychoactive Drug Pharmacology and Physiology . . . . . . . . . . . 4
MS259 Death and Dying . ............................................. . . 3
PE Physical education .............................................. . 3
SPAN101 First Year Spanish, Term 1 (or higher) ....................... . 4

The Network Technology program offers hands-on training in a rapidly growing field. Graduates of this program will be able to design, install, administer and maintain computer networks for hardware and software.
Students entering this option must have an Intel-compatible computer (Pentium or better) and be computer literate (type approximately 20 wpm , be familiar with the Windows operating system, a word processor, and a spreadsheet).
To successfully complete the Network Technology program, you must earn grades of C or better in all required courses.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do relating to your program. For more information, look under Cooperative Work Experience in the catalog index.
If you are already employed in the field or have a degree (Master's, Bachelor's, Associate's), some of your education and training may transfer into this program. Contact Gary Boyington at (503) 399-5218 for an appointment to assess your education/training.
Some high schools that have been certified by Chemeketa can offer selected courses to students while they are in high school. Check with your high school counselor or contact Laurie Adams, (503) 399-5239, to see if your high school is certified.
For a tour of the Network Technology laboratory, call (503) 399-5074.

This program is a fall term entry program and has special admission procedures and requirements. For information, contact the Student Records (Admissions) Office at (503) 399-5006.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) |
| :---: | :---: |
| CS101 | Introduction to Microcomputer Applications |
| MTH070 | Elementary Algebra |
| RD090 | College Textbook Reading . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| WR040 | Writing Skills |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5218.

Failure to be assessed may delay your entry into program classes.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,750; class fees,
\$340; equipment and supplies, \$120; and Intel-compatible computer, \$1,200. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully competing these 98 required credit hours:

## Course Title Credit Hours

Term 1
ELE150 Network Essentials . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ELT123 Computer Operating Systems ............................. 4
MT100 Electronics Fundamentals for Non-Majors .................. . 4
MTH111 College Algebra* (or higher) .............................. 5
Term 2
CS145 Microcomputer Hardware ................................. 4 or
ELT254 Computer Hardware . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CS178I Introduction to Internet . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
CIS122 Computer Information Science III . . . . . . . . . . . . . . . . . . . . . 4
ELE120 Network Media Fundamentals .............................. . 4
ELE151 Network Router Configuration ............................ 5
Term 3
CS140U UNIX/LINUX............................................. 3
CS179 Introduction to Windows NT ................................ 3
ELE152 LANs and Internetwork Design . . . . . . . . . . . . . . . . . . . . . . . 5
SP111 Fundamentals of Public Speaking .......................... 3
WR121 English Composition-Exposition . . . . . . . . . . . . . . . . . . . . . . 3
Term 4
CS288 Windows NT Server . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ELE153 WAN Design ............................................. 5
WR227 Technical Writing . ...................................... 3
Approved programming elective . . . . . . . . . . . . . . . . . . . . . 3
Term 5
CS286 Web Server Configuration/Management ..................... . 4
ELE251 Advanced Internetwork Design . . . . . . . . . . . . . . . . . . . . . . . 5
PSY104 Psychology in the Workplace . . . . . . . . . . . . . . . . . . . . . . . . 4
Approved technical elective ............................. 3
Term 6
CS279 Network Management .................................... 5
CS289 Advanced Network Application Support . . . . . . . . . . . . . . . . 4
ELE252 Advanced WAN Configurations ............................ 5
Approved technical elective .............................. 3

* MTH081 may be substituted for MTH111.

Approved programming electives:
CS133U C++ Language . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CS133VB Visual Basic-Event-Driven . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CS161 Computer Science I .............................................. . . 4
ELT121 Programming Concepts $1 \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$. . . . . . . . . . . . . . 4
ELT280 Cooperative Work Experience (see program chair) . . . . . . max. 6
Approved technical electives:
CS125A Micro Database Software-Access .............................. . 3
CS162 Computer Science II ............................................ . . . 4
CS240 Advanced Computer Operating Systems . . . . . . . . . . . . . . . . . . . 3
CS260 Computer Science III-Data Structures . . . . . . . . . . . . . . . . . . . . . 4
ELT253 Microprocessor Systems ....................................... . 5
ELT280 Cooperative Work Experience (see program chair) . . . . . . max. 6
Continuing education unit (see program chair) ......... .max. 6

Chemeketa offers a career ladder program for women and men who want to become licensed practical nurses or registered nurses.
The program is approved by the Oregon State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC). NLNAC may be contacted for information about the program's accreditation status, tuition, fees, and length. The address for NLNAC is 61 Broadway, New York, NY 10006. The telephone number is (212) 989-9393. The internet address is

## www.accrediting-comm-nlnac.org.

Chemeketa's staff members are also ready to advise and help you plan your pre-Nursing program if you plan to transfer to a school of nursing that grants baccalaureate degrees. Chemeketa offers general education courses that apply to a Bachelor of Science program. See information under Nursing (college transfer).
The following five courses are required for application to the Nursing Program:

1. Algebra (MTH060 or MTH070), or one year of high school algebra, or placement in MTH095 based upon the results of the Chemeketa Placement Test.
2. Chemistry, CH110 or CH104 or CH121 or CH221 or one year of high school chemistry. A full sequence of chemistry is recommended for students planning to pursue a four-year degree.
3. Anatomy and Physiology, BI231.
4. Nursing Success Strategies, NUR060.

## 5. Medical Terminology/Systems I, H120 or equivalent.

These courses must be completed by the end of spring term of the application year with a grade of C or higher, and within five years prior to entering the Nursing Program (except for H 120 ).
In addition to the five prerequisite courses, most preNursing students complete some general education and science courses required for the Nursing Program in order to enhance their chance of admission. Specific entry requirements are outlined in a pre-nursing packet that you may obtain from the Advising and Counseling Center. Enrollment in the program is limited, and there is an early deadline for applications. We recommend that you contact the Student Records (Admissions) Office at (503) 399-5006, or the Advising and Counseling Center at (503) 399-5120 for details if you are considering the Nursing program. Most students spend one or more years in a pre-Nursing program to prepare for applying to the Nursing program.
The nursing curriculum is designed to prepare you to apply for licensure at the following levels:

## Practical Nursing

A practical nurse is a member of a nursing or health care team and gives care to patients of all ages under the direction of registered nurses and/or licensed physicians and dentists.
In addition to tuition, estimated costs for students who complete the entire Level I program listed below are books, \$1,011; class fees, \$138; equipment and supplies, \$385; testing fee, \$168. Contact the Financial Aid Office to find out if you qualify for help with these costs.

After successfully completing the required 49 credits of the first year of the Nursing program, you will be awarded a Certificate of Completion. You must earn grades of C or better in all required courses. Completion of this level qualifies you to apply to the Oregon State Board of Nursing to take the exam to become a licensed practical nurse (LPN).
Course Title Credit Hours

Term 1
B1232 Human Anatomy and Physiology ........................... 4
NUR106 Nursing .................................................... 9
PSY201 General Psychology-Biological Emphasis ................... 3
Term 2
B1233 Human Anatomy and Physiology ........................... 4
NUR108 Nursing ................................................. 9
PSY237 Life Span Development ..................................... 3
Term 3
BI234 Medical Microbiology ..................................... 4
NUR109 Nursing . .............................................. . 10
WR121 English Composition-Exposition (or higher) ................. 3
Note: The number of clock hours required for the above courses is higher than the number of credit hours. Details about clock hours for each course can be found in the Course Descriptions section of this catalog. Nursing courses are a combination of classroom and clinical hours with each classroom credit hour equal to one clock hour per week and each clinical credit hour equal to three clock hours per week. Preparation time for class and clinical experiences is outside the clock hours required for each course.

## Associate Degree Nursing

You may earn an Associate of Applied Science degree in Nursing by successfully completing 92 required credit hours of the two-year Nursing program (43 credits during the second year after the 49 credits of Practical Nursing). You must earn grades of C or better in all required courses. An associate degree in nursing qualifies you to apply to the Oregon State Board of Nursing to take the exam to become a registered nurse (RN).
RNs apply knowledge drawn from a broad, in-depth education in the social and physical sciences to assess, plan, order, give, delegate, teach, and supervise care that promotes a patient's optimum health and independence.
An RN guides other team members with less education and/or experience, evaluates needs 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.
In addition to tuition, estimated costs for students in Level II listed below are books, \$418; class fees, \$67; equipment and supplies, \$145; testing fee, \$168. Contact the Financial Aid Office to find out if you qualify for help with these costs.
Course Title Credit Hours

Term 4
CS101 Introduction to Microcomputer Applications* ................ . 3
NUR206 Nursing ......................................................... . . 10
Term 5
NUR208 Nursing ........................................................... . . 10
Social Science elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Sociology elective ............................................. 3
Term 6
NUR209 Nursing .............................................................. . 8
Humanities/Fine Arts elective ................................. 3
or
Communications elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
General Education elective ...................................... . 3
*May substitute a higher number CS course with CS101 as a prerequisite.
For clock hour information, see Note following Practical Nursing course plan.

## Specialized and Refresher Courses

The college also offers specialized and refresher courses to help registered nurses, licensed practical nurses, and other health care personnel keep abreast of current knowledge and new developments in nursing. For more information about refresher courses, contact the Nursing office, (503) 399-5252.

(college transfer)
Oregon Health Sciences University offers Bachelor of Science degrees in Nursing at Eastern Oregon University, Oregon Institute of Technology, Southern Oregon University, and at OHSU's School of Nursing in Portland. The curriculum is a two-year, upper division major.
Admission to the nursing programs is competitive. Students must complete 91 credits of general education requirements before being admitted to the nursing major. A 2.5 GPA is required. Deadline for admission to the program is usually in February. It is important to check with OHSU in September for admission requirements and to obtain admissions materials early, as requirements may change.
OHSU provides an opportunity for licensed practical nurses and registered nurses, including those completing Chemeketa's Licensed Practical Nurse and Registered Nurse program, to complete requirements for a baccalaureate degree. Contact OHSU for transfer requirements.
The program outline below indicates courses required for admission to the nursing major and is designed to meet prerequisite requirements. However, the program has entrylevel expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you
may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.

## Term

First Year
CH104, 105, 106 Chemistry for Allied Health or CH121, 122, 123 General Chemistry $\quad 5 \quad 5 \quad 5$
MTH111 College Algebra (begin Math per placement test)
MTH243 Probability and Statistics I
FN225 Nutrition 4
WR121, 122, 123 English Composition or WR227 Technical Writing

333
Humanities elective (Foreign Language, Philosophy, SP115 Introduction to Intercultural Communication or ASL101, 102, 103
American Sign Language recommended; ART101,
204, 205, 206 Art History; HUM251, 252, 253, 259
and SP111, 112, 113 also accepted)
Second Year
BI231, 232, 233 Anatomy and Physiology
3-4 3-4 3-4

BI234 Microbiology
456

Humanities elective
SOC204 General Sociology-Introduction (SOC205 or SOC206 General Sociology may be substituted)
PSY201 General Psychology-Biological Emphasis
PSY237 Life Span Development
Literature elective
SP111 Fundamentals of Public Speaking or SP218 Interpersonal Communication
SP219 Fundamentals of Small Group Communication
ANTH103 Cultural Anthropology
Social Science electives (Recommend courses with prefixes BA, EC, or PS and SSC206 Dealing with Diversity)
Electives (to total 91 transferable credit hours; CS101 Introduction to Microcomputer Applications recommended)


The Occupational Skills Training program offers students the opportunity to earn college credit for worksite-based training at an approved community training site. When you enroll in this short-term program (up to four terms or 60 credits), you will receive instruction based on a curriculum personalized for your chosen occupation and your individual abilities, skills, and interests. A suitable training site and curriculum will be determined jointly with you, your sponsoring agency (if applicable), and a Skills Training Coordinator at Chemeketa. The program is offered on an open entry/open exit basis so you may start the program any time during the year.
A variety of occupational areas may be appropriate for the Occupational Skills Training program. Related classroom
instruction may be included in the program if deemed part of the approved training plan.
Costs will include the per-credit tuition rate multiplied by 15 credits plus estimated costs of up to $\$ 150$ per term for books and supplies if related classes are taken. Additional travel fees may be charged for out-of-district students. Consult with your sponsoring agency counselor (if applicable) regarding funding or contact the Financial Aid Office to find out if you qualify for help with these costs.
Some training programs may require the purchase of specialized tools/equipment or payment for taking required certifications or licensing exams. These will be determined at the beginning of the program.
NOTE: Some sites may receive an additional \$336 per term employer/trainer incentive in addition to the above tuition costs if approved and paid by the sponsoring agency (if applicable).

You may earn a Certificate of Completion by successfully completing up to 60 credits of ST050 Occupational Skills Training and related prescribed courses based upon the approved length of your training plan. Up to 12 credit hours may be applied toward the Associate of Arts Oregon Transfer Degree. Up to 36 credit hours may be applied toward the Associate of General Studies, and variable credits may be applied toward the Associate of Applied Science degree as determined by each professional-technical program area.
Interested agencies or students should contact an Occupational Skills Training Coordinator in Building 2, (503) 399-5028, on the Salem Campus.


Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Philosophy are Oregon State University, Portland State University, and University of Oregon.
The two-year program outlined below is designed to meet requirements at these institutions in two years. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.

Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122 and/or 123 English Composition* | 3 | 3 | (3) |
| Arts and Letters/Humanities courses* (Second-year Foreign Language required at UO) | 3 | 3 | 3 |
| Science or Mathematics courses* | 4-5 | 4-5 | 4-5 |
| Social Science courses* | 3 | 3 | 3 |
| HPE295 Health and Fitness for Life* or elective |  |  | 3 |
| Electives (OSU and WOU require 12 credits in Computer Science and Quantitative Studies for B.S. degree or two years of Foreign Language for B.A. degree) | 3-4 | 3-4 | 3-4 |
| Second Year | 4 | 5 | 6 |
| Humanities courses* (PHL201 Philosophical Problems: Metaphysics and PHL203 Elementary Ethics <br> required at PSU; PHL201 recommended for OSU; PHL203 required and PHL201, 202 recommended for UO; PHL201, 203, 204 for WOU) | 3 | 3 | 3 |
| Social Science electives* |  | 3 | 3 |
| Math or Science electives* | 4 | 4 | 4 |
| Electives (second-year Foreign Language for UO) | 6 | 6 | 6 |

## hysical Education/ Human Movement Studies

## (college transfer)

Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Physical Education, Human Movement Studies, or Exercise and Movement Science are Eastern Oregon University, Oregon State University, Southern Oregon University, University of Oregon, and Western Oregon University. OSU offers a bachelor's degree in Exercise and Sports Science with options in Athletic Training, Fitness Program Management, Physical Activity and Development, and Applied Exercise and Sports Science. SOU offers options in Athletic Training/Sports Medicine and Health Promotion/Fitness Management. WOU has teaching and non-teaching options. Those students planning to teach Physical Education will need to complete a year of post-baccalaureate work to meet teacher certification at all state system colleges except WOU. Refer to the section on Elementary and Secondary Education in this catalog.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.


As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

First Year
WR121 and/or WR122 or 123 English Composition or SP111 Fundamentals of Public Speaking*
Mathematics per placement test (through MTH112 Trigonometry for OSU; MTH241 Elementary Calculus or 251 Differential Calculus for UO; to meet general education or B.S. degree requirements at SOU and WOU; MTH111 College Algebra, MTH112, 211, 212, or 213 for EOU; MTH111 for WOU)
Arts and Letters/Humanities courses*
PE194 Professional Activities (not required at most schools, except OSU 1 credit and PE194TF Tennis Professional; PE294WP for WOU)
CH121, 122, 123 College Chemistry or CH221, 222, 223 General Chemistry required at OSU and UO; choose electives for other colleges; Chemistry is prerequisite for Anatomy and Physiology sequence which is required at EOU and SOU
PE131 Introduction to Physical Education (recommended; required at WOU)

3
Elective
Second Year
Social Science courses (PSY201 General PsychologyBiological Emphasis for OSU and UO; PSY201 and 202 for Athletic Training option at SOU and for WOU)*
HPE295 Health and Fitness for Life* (EOU, OSU, SOU, WOU)
HE250 Personal Health (not required at EOU, OSU, or UO)
Science courses* (BI231, 232, 233 Human Anatomy and Physiology for EOU, OSU, and SOU; PH201, 202, 203 General Physics required at UO; BI101 and 102 General Biology for WOU)
Social Science or other electives*
1
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Term transfer
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :--- | :---: | :---: | :---: |
| First Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| Mathematics per placement test (OSU, UO and PSU <br> require MTH251 Differential Calculus through |  |  |  |
| MTH256 Applied Differential Equation, PSU <br> does not require MTH255; EOU <br> requires Math through MTH254) |  |  |  |
| CH221, 222, 223 General Chemistry (Not required <br> at SOU; CH121, 122, 123 also accepted at UO) | $4-5$ | $4-5$ | $4-5$ |
| WR121, 122, and/or 123 English Composition or <br> WR227 Technical Writing* | 5 | 5 | 5 |
| Arts and Letters/Humanities or Social Science courses* *** | $3-4$ | $3-4$ | $3-4$ |
| HPE295 Health and Fitness for Life* or elective |  |  | $(3)$ |
| Second Year | 4 | $\mathbf{5}$ | $\mathbf{6}$ |
| Mathematics <br> PH211, 212, 213 Physics for Engineers and <br> Scientists (PSU and UO also accept PH201, | $4-5$ | $(4-5)$ | $(4-5)$ |
| 202, 203 General Physics) |  |  |  |

Electives (EOU requires CS161 Computer Science I; PSU requires other approved courses in a related area of science or Computer Science; Chemeketa recommends CS161, 162 Computer Science
IC and IIC Language; OSU requires one approved course in computer programming)
(3-4) (3-4) (3-4)
*To meet four-year college general education requirements.
**French, German, or Russian recommended for students planning on graduate work.

(college transfer)
Oregon state colleges and universities offering Bachelor of Arts or Bachelor of Science degrees in Political Science are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University.

The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.

As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. It is advisable for you to make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122, and/or 123 English Composition* | 3 | 3 | (3) |
| Social Science courses* (SOC204 General Sociology or EC201 Intro to Microeconomics) | 3 | 3 | 3 |
| Arts and Letters/Humanities courses* | 3 | 3 | 3 |
| HPE295 Health and Fitness for Life* or elective |  |  | 3 |
| Math/Science courses*(MTH111 College Algebra, MTH112 Trigonometry, or MTH241 or 251 Calculus for B.S. degree for OSU. One math course beyond MTH105 Introduction to Contemporary Mathematics for WOU or second year Foreign Language) | 4 | 4 | 4 |
| Electives (Foreign Language for B.A. degree, Computer Science, or Math for BS degree required at OSU; CS101 Introduction to Microcomputer Applications for SOU and WOU; Foreign Language or MTH105 Contemporary |  |  |  |
| Probability and Statistics I for UO) | 3 | 3 | 3 |

Second Year
PS201, 202 American Government (required at SOU and recommended for OSU and UO; PS201 for WOU; PS201,202 not required at PSU)
203 State and Local Government and/or PS205
PS203 State and Local Government and/or PS205
International Relations recommended (both required at WOU; PS205 required at
OSU, SOU, and UO)
Math/Science courses*
Arts and Letters/Humanities courses*
Social Science courses*
Electives (Social Science electives and one computer science class beyond CS101 for WOU or second year Foreign Language; second year Foreign Language for OSU if chosen instead of math and computer science; second-year Foreign Language for UO if Foreign Language is chosen rather than three terms of math)

3-4 3-4
3-4
*To meet four-year college general education requirements.


## see Engineering



## (college transfer)

University of Oregon is the only Oregon state university which has a School of Law. (Lewis and Clark College and Willamette University are the Oregon independent schools which have Schools of Law.) Applicants for law school must have a baccalaureate degree from an accredited college or university. Admission to law schools is highly competitive.

Law schools do not recommend any particular major for pre-legal education. In general, they prefer a liberal undergraduate background to one which is narrowly specialized. Students may pursue an undergraduate major of their choice. The University of Oregon School of Law emphasizes the importance of well-developed skills in writing and communications and of acquiring the ability to read with understanding, to think logically, and to perform research and analysis competently.

Although not required for admission, University of Oregon recommends the following courses: BA211, 212, 213
Financial Accounting and Managerial Accounting; EC201, 202 Introduction to Microeconomics and Introduction to Macroeconomics; HST201, 202, 203 History of the United States; WR121, 122, 123 English Composition; as well as Literature, Philosophy, Psychology, and Sociology courses.

# Re-Professional Study (MEDICINE, DENTISTRY, VETERINARY MEDICINE) 

(college transfer)

Oregon Health Sciences University offers a D.M.D. degree in Dentistry and an M.D. degree in Medicine, and Oregon State University offers a D.V.M. in Veterinary Medicine.
Because admission into these professional schools is highly competitive, students should plan to transfer to a four-year institution upon completion of the first year at Chemeketa. Students should complete the most rigorous chemistry sequence for which they are qualified, as well as stipulated courses in basic science and general education.
The one-year program outlined below is designed to meet requirements for these majors. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## Term

| First Year | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: |
| WR121, 122, and/or 123 English Composition or approved Communications course* | 3 | 3 | 3 |
| CH221, 222, 223 General Chemistry (CH121, 122, <br> 123 College Chemistry if not qualified for CH221-223) | 5 | 5 | 5 |
| Mathematics (per placement test through MTH252 Calculus) | 4-5 | 4-5 | 4-5 |
| Arts and Letters/Humanities sequence | 3 | 3 | 3 |
| Social Science sequence or electives* | 3 | 3 |  |

## P <br> rofessional-Technical Teacher Preparation

The Professional-Technical Teacher Preparation program is designed for people who have gained professional skills from business and industry who now desire to share their knowledge and experience as teachers. Graduates of this
program will be eligible to apply for a special license enabling them to teach in Oregon's public high schools. Additional upper division coursework is required for a bachelor's degree and basic teaching certificate.
The one-year certificate option offers training for those who wish to apply through a school district for a special three-year non-renewable professional-technical certificate. Students who complete the two-year Associate of Applied Science degree, combined with one year of successful teaching, will be eligible to apply through a school district for a five-year renewable professional-technical teacher certificate.

To be accepted into these programs, students will need to provide verification of 4,000 hours of work experience in one of the following professional-technical fields: accounting/financial systems, agricultural science and technology, drafting technology, electronics technology, forestry/natural resources, graphic design and production, health occupations, hospitality, tourism and recreation, marketing, office systems, manufacturing technology (metals), and mechanical technology. They will also be required to demonstrate basic reading, writing, math, and computer skills on the college's placement test or through verification of course completion. Interested students should contact the program chair prior to enrolling in this program.

## Certificate of Completion

In addition to tuition, estimated costs for students who complete the one-year program listed below are books, \$400; class fee, \$70; measles vaccination, \$10, criminal history check, \$17. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 46 required credit hours, plus any additional professional-technical coursework determined necessary by your appraisal/advisory committee:

Course
Title
Credit Hours

## Term 1

ED110 Psychology of Learning . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ED133 Instructional Media and Materials .............................. . 3
ED209B Practicum: Introductory Observation and Experience (LDC) . . 3
ED251 Overview of Students with Special Needs ..................... . 3
ED258 Multicultural Education ......................................... . . . 3
ES071 Work Place Safety Skills ......................................... . 1
Term 2
ED131 Teaching Techniques ............................................ . 3
ED209C Professional Technical Practicum I . . . . . . . . . . . . . . . . . . . . . . . 6
ED217 Comprehensive Classroom Management . . . . . . . . . . . . . . . . . 3
ED292 Occupational Analysis, Curriculum and Evaluation ........... . 3
Term 3
ED209D Professional Technical Practicum II ............................ . 9
ED212 Schools and Society . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ED293 Applied Integrated Academics .................................. . . 3

## Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete the two-year program listed below are books, \$650; class fee,
\$75; measles vaccination, \$10. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science Degree by successfully completing the courses listed below, in addition to the courses listed under the Certificate of Completion option plus any additional professional-technical coursework determined necessary. To meet graduation requirements you must earn a total of 94 credit hours.

| Course | Title |
| :--- | :--- | :--- |
| Term 4 |  | Credit Hours


(college transfer)
Oregon state colleges and universities offering Bachelor of Arts and/or Bachelor of Science degrees in Psychology are Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and

Transfer Information section of this catalog beginning on page 28.

|  | Term |  |  |
| :---: | :---: | :---: | :---: |
| First Year | 1 | 2 | 3 |
| WR121, 122, and/or 123 English Composition (WR227 Technical Writing required by SOU; WOU only requires WR121)* | 3 | 3 | (3) |
| PSY201, 202, 203 General Psychology (PSY201, 202 for OSU, SOU, UO, and WOU) | 3 | 3 | 3 |
| Mathematics per placement test* (Mathematics through MTH111 College Algebra required by EOU; MTH111 and 112 or 241 for BS degree at OSU; PSU requires MTH241 Elementary Calculus and MTH243 and 244 Probability and Statistics; UO requires MTH111, 243 and one additional Math course; WOU requires one Math class beyond MTH105 Introduction to Contemporary Mathematics or second year Foreign Language) | (4) | 4-5 | (4) |
| Arts and Letters/Humanities courses* (second year Foreign Language required for BA degree at OSU, UO, WOU) | 3 | 3 | 3 |
| HPE295 Health and Fitness for Life* or elective Electives | 3-6 | 3-6 | 0-6 |
| Second Year | 4 | 5 | 6 |
| Social Science courses* | 3 | 3 | 3 |
| Arts and Letters/Humanities* (EOU recommends five hours of Philosophy) | 3 | 3 | 3 |
| Science courses* (SOU requires BI101 and 102 or 103 General Biology; UO requires Biology, Chemistry, or Physics; PSU recommends BI101, 102, 103) | 4-5 | 4-5 | 4-5 |
| Electives (SOU requires CS101 Introduction to Microcomputer Applications and one additional CS course; WOU requires one CS course beyond CS101; Chemeketa recommends CS101 or other Computer Science courses for all schools) | 6 | 6 | 6 |

*To meet four-year college general education requirements.


The goal of the Real Estate program is to prepare students for a wide variety of jobs which require knowledge of the complexities of real estate. The required courses cover factors affecting the value, control, use, appreciation, responsibilities, and privileges associated with real property. You may select individual courses to meet your needs, state license requirements, or you may work toward an Associate of Applied Science degree.
With this technical training, you may fill a variety of jobs in county assessors or county recorders offices, city planning departments, the Federal Housing Administration, veterans affairs agencies, 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 and subdivision firms, real estate brokerages, and appraising offices.

Students interested in fee appraising should consult with the real estate program chair, Ken Wachal at (503) 3996041, or the business director's office, (503) 399-5114.
We strongly suggest that you consult with your assigned advisor to plan your course of study before you begin the first term. The college requires you to take English and mathematics placement tests before you apply for admission. If the results show that your skills are above the levels of the required first term courses, you may request to substitute elective or general education courses.
You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work you do relating to your program. With the approval of the program chair, you may enroll in RE280 Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| BA066 | Introduction to Business Studies |
| :---: | :---: |
| CA121A | Keyboarding A (if less than 25 wpm ) |
| CS101 | Introduction to Microcomputer Applications |
| MTH060 | Introductory Algebra |
| WR115 | Introduction to Composition |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5114.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,430; class fees, $\$ 50$; equipment and supplies, $\$ 100$. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these required 100 credit hours:

## Course Title <br> Credit Hours

Term 1
BA101 Business Environment ................................... 4
BA260 Real Estate Principles . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
EC200 Introductions to Economics (or higher) . . . . . . . . . . . . . . . . . . . . 3
MTH062 Business Applications Using Mathematics (or higher) . . . . . . . . 4
WR121 English Composition-Exposition (or higher) . . . . . . . . . . . . . . . 3
Term 2
BA214 Business Communications . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BA263 Real Estate Law . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BA264 Real Estate Finance ............................................................. . . . . . . . . . . . 3
CS125E Excel-Workbooks . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 3
BA211 Financial Accounting I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
BA262 Real Estate Practices . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PSY101 Psychology of Human Relations (or higher) . . . . . . . . . . . . . . . . 3

WR227 Technical Writing .................................................. . . 3

## Term 4

RE161 Basic Appraisal Principles and Practices ...................... . . 3
RE171 Property Management ......................................... . 3
RE267 Real Estate Investment Analysis ............................... . 3
Computer elective*** ............................................ 3
Humanities/Fine Arts elective* . . . . . . . . . . . . . . . . . . . . . . . . 3
or
Science/Applied Science elective* ........................... . 3
Term 5
MTH105 Introduction to Contemporary Mathematics ................... . 4
or
BA232 Introduction to Business Statistics ............................. . . 3
RE162 Applied Residential Appraisal ................................... . . 3
RE164 Income Property Appraisal Principles and Methodology ..... . 3
RE170 Zoning, Subdivision and Community Planning ............... . 3
RE266 Uniform Standards and Professional Appraisal $\begin{aligned} & \text { Practice (USPAP) .................................... . . } 2\end{aligned}$
Business elective** (RE280 Cooperative Work Experience or BA226 Business Law or BA238
Sales and Persuasion recommended)

## Term 6

BLD154 Dwelling Construction Under the UBC ....................... 3
RE169 Elements of Design and Construction . . . . . . . . . . . . . . . . . . . . . 3
RE265 Applied Income Property Appraisal ........................... 3
Business elective** (RE280 Cooperative Work Experience recommended)
*Students may choose among the following electives: Art, Foreign Languages, Multidisciplinary Studies, Philosophy, General Science, Geology, Physical Science, and Physics.
**Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, FIN, and RE, except BT084.
***Computer elective (select three): CA118A, CA118C, CA118D, CA118E.

# MALL <br> Business <br> Danagement 

The Small Business Management program is designed to provide practical skills to owners of small businesses and their partners.

This one-year course features monthly evening classes, workshops, and on-site business consultation. The owner's business becomes the textbook and laboratory, achievement of business and family goals is the course assignment, and putting the owner in control of the business is the course objective. Students are enrolled annually, but are allowed to reapply each year.
Classes cover small business taxation, record keeping and accounting, marketing and advertising, and human relations and legal considerations. For more information or to be evaluated for enrollment, call (503) 399-5181.

OCIOLOGY
(college transfer)
Oregon state colleges and universities offering Bachelor of Arts or Bachelor of Science degrees in Sociology are Oregon State University, Portland State University, Southern Oregon University, University of Oregon, and Western Oregon University. Eastern Oregon University offers an Anthropology/Sociology degree with emphasis in Sociology.
The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## First Year

WR121, 122, and/or 123 English Composition or WR227 Technical Writing* (OSU strongly recommends WR123 or 227; WR121, 122, 123 required at SOU)
SOC204, 205, 206 General Sociology (OSU and SOU require only SOC204; OSU accepts a maximum of 12 credit hours of lower division Sociology; EOU requires SOC204 or 205)
Mathematics or Science* (EOU requires a statistical class at EOU; OSU requires MTH111 and 112 or 241
for BS degree; PSU requires Math through MTH243 Probability and Statistics I; WOU requires MTH111 College Algebra for the B.S. degree)

4-5 4-5 $4-5$
Arts and Letters/Humanities sequence* (OSU strongly recommends PHL201 Philosophical Problems: Metaphysics)

## Second Year

Social Science electives* (EOU requires ANTH101,
102, 103 Human Evolution, Archeology,
Introduction to Cultural Anthropology; SOU requires
ANTH103 Introduction to Cultural Anthropology)
33
Arts and Letters/Humanities electives* (Second year
Foreign Language required for BA degree at OSU, UO, and WOU)
Science courses*
333

HPE295 Health and Fitness for Life* or elective
Electives* (CS101 Introduction to Microcomputer Applications for SOU; CS101 and CS161 Computer Science I for B.S. degree at WOU; Computer Science recommended for OSU)
See WOU catalog for Interdisciplinary electives.
*To meet four-year college general education requirements.


## (college transfer)

Oregon State University, Portland State University, and Western Oregon University offer Bachelor of Arts and/or Bachelor of Science degrees in Speech or Speech Communications. Oregon State University offers an option in Theatre Arts. Southern Oregon University offers a baccalaureate degree in Communications with options in Human Communications and Broadcasting.

The two-year program outlined below is designed to meet requirements at these institutions. However, the program has entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, you may consult with Chemeketa's Advising and Counseling Center or a Chemeketa advisor in your program.
As a student, you are responsible for learning the program requirements of the school to which you plan to transfer. Consult with our Advising and Counseling Center or a Chemeketa advisor. You should also make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in a program.
Beginning fall 1994, OSU has prerequisite requirements for admission to the major. Contact the OSU Speech Department for a list of requirements.
Refer to the Associate of Arts Oregon Transfer Degree information in the Degrees, Diplomas, Certificates, and Transfer Information section of this catalog beginning on page 28.

## First Year

Term

WR121, 122, and/or 123 English Composition
SP111 Fundamentals of Public Speaking (not required at OSU or WOU)
SP112 Fundamentals of Persuasion (SP100 required at PSU ; not required at SOU or WOU)
SP219 Fundamentals of Small Group Communication (not required at OSU, PSU, or WOU)
SP218 Interpersonal Communication
Arts and Letters/Humanities courses*
Social Science courses*

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| :---: | :---: | :---: |
| 3 | 3 | $(3)$ |
| 3 |  |  |
|  |  |  |
|  | 3 |  |
|  |  | 3 |
|  |  | 3 |
| 3 | 3 | 3 |
| 3 | 3 | 3 |


| Math or Science* (MTH111 College Algebra required and |  |  |  |
| :---: | :---: | :---: | :---: |
| MTH243 recommended for B.S. degree at WOU; OSU |  |  |  |
| requires MTH111 ol12 241 Computer |  |  |  |
| Programming or second-year Foreign Language) | 4 | 4 | 4 |
| Second Year | 4 | 5 | 6 |
| Social Science electives* |  | 3 | 3 |
| Arts and Letters/Humanities electives* (Second year Foreign Language for BA |  |  |  |
| degrees at OSU, UO, and WOU) | 3 | 3 | 3 |
| Science courses* | 4 | 4 | 4 |
| HPE295 Health and Fitness for Life* or elective | 3 |  |  |
| Electives (SOU requires SP115 Introduction to |  |  |  |
| Intercultural Communications and recommends PHL203 |  |  |  |
| Elementary Ethics and PHL204 Critical Thinking and |  |  |  |
| Logic for Human Communications majors and J224 |  |  |  |
| Introduction to Mass Communication for Broadcasting majors; WOU requires CS101 Introduction to |  |  |  |
| Microcomputer Applications and 15 hours of electives |  |  |  |

*To meet four-year college general education requirements.

## $\int$ ineyard Management

Vineyard Management training includes instruction and hands-on training in the basic knowledge and technical skills required for successful employment in the cool-climate wine industry as a vineyard manager. Training is appropriate for employees or potential employees of vineyards or for persons wanting to establish such a business. Practical skills will also be emphasized and students will gain on-the-job work experience through the Cooperative Work Experience Program.
For more information about this program contact Al MacDonald at (503) 399-5066 or D. Craig Anderson at (503) 399-6565.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) |
| :---: | :---: |
| MTH020 | Basic Mathematics |
| RD090 | College Textbook Reading |
| WR115 | Introduction to Composition |1

1H02 Baic M 3
WR115 Introduction to Composition ..... 3

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-6071. Failure to be assessed may delay your entry into program classes.
In addition to tuition, costs for students who complete the entire program listed below may vary. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 93 required credit hours:

| Course | Title C | Credit Hours |
| :---: | :---: | :---: |
| Term 1 |  |  |
| CH115 | Consumer Chemistry |  |
| CS101 | Introduction to Microcomputer Applications | . 3 |
| PSY101 | Psychology of Human Relations (or higher) |  |
| SPAN111 | Beginning Spanish Conversation | . 3 |
| VMW101 | General Viticulture . ........... | . 3 |
| Term 2 |  |  |
| CH172 | Chemical Methods for Analysis of Musts and Wines | es . . . . . . . . 3 |
| CS125A | Micro Database Software-Access .............. |  |
| MTH052 | Introduction to Algebra and Geometry (or higher) |  |
| VMW105 | Spanish in the Vineyard | . 3 |
| WR121 | English Composition-Exposition (or higher) | . 3 |
| Term 3 |  |  |
| CS125E | Excel-Workbooks |  |
| WR227 | Technical Writing | 3 |
|  | General Education elective |  |
|  | General Education elective |  |
| Term 4 |  |  |
| VMW113 | Summer Vineyard Practices |  |
| Term 5 |  |  |
| VMW110 | Fall Vineyard Practices |  |
| VMW250 | Agricultural Supervisor Training |  |
| VMW280D | Cooperative Work Experience | . 4 |
|  | General Education elective |  |
| Term 6 |  |  |
| VMW111 | Winter Vineyard Practices |  |
| VMW121 | Introduction to Winemaking | . 3 |
| VMW260 | Soil and Plant Nutrition | . 4 |
| VMW280D | Cooperative Work Experience | . 4 |
| Term 7 |  |  |
| VMW112 | Spring Vineyard Practices |  |
| VMW252 | Vineyard Management |  |
| VMW261 | Vine Physiology |  |
| VMW280D | Cooperative Work Experience |  |

## Vineyard Operations

Course work for the Vineyard Operations Certificate includes instruction and hands-on training in the basic knowledge and practical skills required for successful employment as a vineyard technician or for persons wanting to establish a vineyard.
For more information about this program contact Al MacDonald at (503) 399-5066 or D. Craig Anderson at (503) 399-6565.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA121A Keyboarding A (if less than 25 wpm) ......................... 1
MTH020 Basic Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
RD090 College Textbook Reading . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR040 Writing Skills ..................................................... 3

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-6071.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, costs for students who complete the entire program listed below may vary. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these 40 required credit hours:
Course Title Credit Hours

Term 1
VMW101 General Viticulture ......................................... 3
VMW110 Fall Vineyard Practices . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
VMW250 Agricultural Supervisor Training . ............................ 4
CS101 Introduction to Microcomputer Applications ................ 3
Term 2
VMW111 Winter Vineyard Practices ................................. 4
VMW260 Soil and Plant Nutrition .................................... 4
MTH052 Introduction to Algebra and Geometry (or higher) ........... 3
Term 3
VMW112 Spring Vineyard Practices .................................. 4
VMW261 Vine Physiology ......................................... 4
WR115 Introduction to Composition (or higher) .................... 3
Term 4
VMW113 Summer Vineyard Practices ................................

## TTISUAL <br> Communications

The Visual Communications program is constantly changing, reflecting the rapid growth in the field of graphic arts in a digital age. The logo you design may be printed on a Tshirt and animated on a web page. The photograph you take might be printed in a four-color book or used as part of a multimedia collage. Never before have there been so many opportunities in a variety of media. As part of the Visual Communications program, you will work in both classroom and live production settings to learn not only the technical skills, but also the teamwork and creative problem solving essential to a lifelong career in graphic arts. You will develop skills in graphic design, layout, typography, traditional and digital photography, image assembly, electronic imaging and prepress. Students will produce a portfolio of work including a personal letterhead and resume in preparation for entering the job market. A class portfolio show is part of the spring term of your second year.
The Visual Communications program offers a two-year Associate of Applied Science degree that emphasizes Graphic Design. Additional coursework may allow for study in prepress, printing, illustration and web design. The program has special admissions prerequisites, requirements, and enrollment limits. You are required to earn a grade of C or better in all required classes to continue in the program.

This is a hands-on, intensive program, which can lead to numerous career options. Because most courses are only offered once a year, it will take two full years from the fall that you enter to complete the program. If you are entering in winter or spring we will advise you on which courses to take while waiting to begin the fall sequence of required courses. Interested students are encouraged to come to Building 4, Room 284 or call (503) 399-5070 and ask to speak with an instructor. For additional information, contact the Student Records (Admissions) Office at (503) 3995006.

Special Note: Apply early. There is a required pre-program introductory course, VC080 (A, B, and C), that takes place in early September prior to fall term. All VC classes take place in a Macintosh lab. Students will be required to take CA100 or demonstrate proficiency on the Macintosh as a prerequisite for admission into the program.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA100 Microcomputer Basics (Macintosh Version) ................... . 3
CA121A Keyboarding A (if less than 25 wpm) .......................... . 1
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MTH020 Basic Mathematics .............................................. . . 3
SKD014 A, B, C Spelling Rules . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SKD051 Studying for College .............................................. 3
VC080A Introduction to Visual Communications ....................... 1
VC080B Introduction to Graphic Processes .............................. . . 1
VC080C Introduction to Macintosh Graphics .......................... . . 1
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-5184.
Failure to be assessed may delay your entry into program classes.

In addition to tuition, estimated costs for students who complete the entire program listed below average $\$ 300$ per term. These costs include photographic supplies, books, high resolution output, mounting supplies and zip disks. A 35 mm camera, approximately \$300, is required for the photography courses. A portfolio, at a cost of up to $\$ 200$, is required for graduation. Class fees total an additional \$525. Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn an Associate of Applied Science degree by successfully completing these 102 required credit hours:
Course Title Credit Hours

Term 1
ART131 Introduction to Drawing 1 (or higher) ....................... . 4
ART261 General Photography .................................... 4
VC111 Survey of the Graphic Arts . ............................... 3
VC114 Introduction to Computers for Graphics .................... 3
WR121 English Composition-Exposition (or higher) ............... 3
Term 2
ART115 Basic Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

MTH060 Introductory Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . 4
SP111 Fundamentals of Public Speaking (or higher) . . . . . . . . . . . . . . . 3
VC100 Special Topics in Visual Communications ........................ . 1
VC121 Layout and Design 1 ........................................... . . 3
VC151 Electronic Imaging 1 ........................................... . 3
Term 3
ART116 Basic Design ....................................................... . . 3
ART262 Technical Photography . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PSY100 Introduction to Psychology (or higher) ........................ . . . 3
VC100 Special Topics in Visual Communications .................... 1
VC122 Layout and Design 2 ............................................... 3
VC145 Print Production 1.................................................... 3
Term 4
ART221 Graphic Design 1 ................................................. . 4
ART224 Type Design 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4


VC280B Cooperative Work Experience . .................................. 2
or
Studio Practices $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ 2
VC272 Studio Practices ...................................................... 2
Term 5
ART222 Graphic Design 2 . ................................................... . . 4
ART225 Type Design 2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
VC183 Business of Graphic Arts . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
VC222 Layout and Design 4 . ............................................... . . 3
VC237 Web Design 1 ................................................................ . . 3
Term 6
ART223 Graphic Design 3 ................................................ . . . 4
ART264 Digital Photography ........................................... 4
FE205B Resumes and Job Search Correspondence ............................ 1
VC184 Portfolio Preparation ........................................... 3
VC238 Web Design 2 .......................................................... . 3
VC273 Studio Practices ................................................... 3
*Approved electives:
ART238 Introduction to Illustration . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART239 Introduction to Computer Illustration .......................... . . 3
CA205 Desktop Publishing 1-Pagemaker ............................... 3
CA206 Desktop Publishing 2-Pagemaker ................................ 3
CA208 Computer Presentations for the Workplace - MS PowerPoint . . 3
J215 Publications Lab .................................................... . . 2
J226 Editing/Design ...................................................... . 3
VC100 Special Topics in Visual Communications ..................... 1
VC130 Beginning Photoshop . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
VC131 Advanced Photoshop .............................................. . . 2
VC133 Page Layout with QuarkXPress .................................. . . 2
VC137 Web Graphics 1 .................................................... 2
VC138 Web Graphics 2 ................................................... 2
VC139 Beginning Freehand ............................................ . 2
VC171-179 Special Projects . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1-9
VC200 Advanced Topics in Visual Communications .................. 1
VC230 Painter .............................................................. . . 2
VC237 Web Design 1 ..................................................... . . 3

VC246 File Prep .......................................................... . . 2
VC271-273 Studio Practices . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1-3


The Welding program offers two options. The three-term Welding Technology program combines training with classes in the background knowledge needed by workers in welding occupations. You practice and develop your weld-
ing skills in the laboratory and may take an examination for certification in arc MIG welding. The six-term Welding Fabrication program is for those who want to acquire the technical knowledge and skills required for 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 (TIG) and metallic inert gas processes (MIG), and have a working knowledge of shop blueprints and welding symbols, jig fabrication, and assembly processes.
The certificate program has been designed to be completed in one year and the degree program in two years, if you attend full time. However, there are entry-level expectations for skill levels in reading, writing, and mathematics. The length of time you take to complete the program will depend on your skills in these areas. To assess the time you will need to complete the program, please meet with the program chair.

## Welding Technology

This program prepares you for a variety of positions in job specialty production and maintenance shops. Graduates may find work as (MIG) welders, arc welders, oxyacetylene welders, semiautomatic welding equipment operators, and (TIG) welders.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$278; class fees, \$302; equipment and supplies, \$612; certification test, \$200 (optional). Contact the Financial Aid Office to find out if you qualify for help with these costs.
You may earn a Certificate of Completion by successfully completing these 49 required credit hours:
Course Title Credit Hours

## Term 1

MTH052 Introduction to Algebra and Geometry (or higher) ........... 3
WLD051 Basic Arc Welding . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
WLD056 Blueprint Reading and Sketching ................................ 2
WLD061 Basic Gas Metal Arc Welding (MIG) . . . . . . . . . . . . . . . . . . . . . 3
WLD070 Oxyacetylene Processes ................................... 3
Term 2
WLD052 Intermediate Arc Welding . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
WLD057 Layout Practices ............................................... . 1
WLD062 Intermediate Gas Metal Arc Welding (MIG) . . . . . . . . . . . . . . . 3
WLD073 Basic Gas Tungsten Arc Welding (TIG) . . . . . . . . . . . . . . . . . . . 4
WLD081 Welding Metallurgy I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Term 3
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WLD053 Advanced Arc Welding .............................................. 3
WLD058 Weld Shop Problems . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7
WLD063 Advanced Gas Metal Arc Welding (MIG) . . . . . . . . . . . . . . . . . . . 3
WLD082 Welding Metallurgy II ........................................... . . 2

## Welding Fabrication

As a graduate of the Welding Fabrication program you 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 you 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.
At the end of the third term you may take a plate or pipe certification test. The fee for this test is determined by the number of students involved and the type of test.
In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$871; class fees, \$544; equipment and supplies, \$612; certification test, $\$ 200$ (optional).
Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these required 94 credit hours:
Course Title Credit Hours
Term 1
MTH052 Introduction to Algebra and Geometry (or higher) ............ . 3
WLD051 Basic Arc Welding ............................................... . 5
WLD056 Blueprint Reading and Sketching ................................ 2
WLD061 Basic Gas Metal Arc Welding (MIG) . . . . . . . . . . . . . . . . . . . . 3
WLD070 Oxyacetylene Processes ........................................ . . 3
Term 2
WLD052 Intermediate Arc Welding . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
WLD057 Layout Practices ................................................ . . 1
WLD062 Intermediate Gas Metal Arc Welding (MIG) .................. . 3
WLD073 Basic Gas Tungsten Arc Welding (TIG) ....................... . . 4
WLD081 Welding Metallurgy I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Term 3
COM051 Communication Skills I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WLD053 Advanced Arc Welding ......................................... . 3
WLD058 Weld Shop Problems . ............................................. . 7
WLD063 Advanced Gas Metal Arc Welding (MIG) ..................... 3
WLD082 Welding Metallurgy II ........................................... . 2
Term 4
GS104 Physical Science (or higher) ...................................... 4
MFG101 Machining Fundamentals . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MFG130 CNC Machine Setup/Operation . . . . . . . . . . . . . . . . . . . . . . . . . 3
MFG205 CAD for CAM ....................................................... . 3
MFG223 Industrial Systems .................................................. 3
Term 5
MFG131 Lathe Fundamentals .............................................. . 3
MFG151 Milling Machine Processes ........................................ 3
MFG160 Programming CNC Mills ....................................... . . 3
MTH053 Introduction to Trigonometry with Geometry (or higher) ..... 3
WFB087 Fabrication Practices III ......................................... . . 3
Term 6
COM052 Communication Skills II (or higher) . ........................... . 3
MFG161 Lathe Processes ...................................................... 3
PSY100 Introduction to Psychology (or higher) ........................ . . 3
WFB088 Fabrication Practices IV . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WFB096 Shop Projects ........................................................ 2
$\mathbf{W}^{\text {mename }}$
The two-year Winemaking program includes instruction and hands-on training in the basic knowledge and technical skills required for successful employment in the cool-climate wine industry as a winemaker. Training is appropriate for employees or potential employees of wineries or for persons wanting to establish such a business. Practical skills will also be emphasized and students will gain on-the-job work experience through the Cooperative Work Experience Program.
For more information about this program contact Al
MacDonald at (503) 399-5066 or D. Craig Anderson at (503) 399-6565.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA121A Keyboarding A (if less than 25 wpm) ......................... 1
MTH060 Introductory Algebra .......................................... . . 4
RD090 College Textbook Reading . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR115 Introduction to Composition .................................. . 3
If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-6071.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, costs for students who complete the entire program listed below may vary. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 98 required credit hours:
Course Title Credit Hours

## Term 1

CH121 College Chemistry .......................................... 5
CS101 Introduction to Microcomputer Applications (or higher) ...... 3
MTH070 Elementary Algebra (or higher) . . . . . . . . . . . . . . . . . . . . . . . . . . 4
VMW101 General Viticulture ............................................... . . 3
VMW131 Wine Appreciation ........................................... 3
Term 2
CH122 College Chemistry ............................................. . . 5
CS125A Micro Database Software-Access .............................. . 3
VMW121 Introduction to Winemaking ................................... . 3
VMW132 Wines of the World .............................................. . . 3
WR121 English Composition-Exposition (or higher) ................. 3
Term 3
CH123 College Chemistry .............................................. . 5
CS125E Excel-Workbooks ....................................................... 4

## Term 4

VMW241 Winery Operations I ........................................... 10
VMW250 Agricultural Supervisor Training . . . . . . . . . . . . . . . . . . . . . . . 4
VMW280D Cooperative Work Experience4

Term 5
CH172 Chemical Methods for Analysis of Musts and Wines . ........ 3
PSY101 Psychology of Human Relations (or higher) . . . . . . . . . . . . . . . 3
VMW221 Advanced Winemaking ........................................... 3
VMW242 Winery Operations II ............................................. . . . 2
VMW280D Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Term 6
CH272 Fundamentals of Wine Chemistry and Microbiology .......... . 3
VMW232 Sensory Evaluation of Wine . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
VMW243 Winery Operations III ............................................ . 2
VMW251 Winery Management ............................................ . 3
VMW280D Cooperative Work Experience . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

## Winemaking Certificate

Coursework for the Winemaking certificate includes instruction and hands-on training in the basic knowledge and practical skills required for successful employment as a winery technician or for persons wanting to establish a winery.
For more information about this program contact Al MacDonald at (503) 399-5066 or D. Craig Anderson at (503) 399-6565.

## - Getting Started

The first step to entering this program is to take part in an assessment process which includes taking the college's free placement test and meeting with counseling and advising staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

| CA121A | Keyboarding A (if less than 25 wpm ) |
| :---: | :---: |
| MTH020 | Basic Mathematics |
| RD090 | College Textbook Reading |
| WR040 | Writing Skills |

If you have questions about the requirements, call Advising and Counseling at (503) 399-5120 or (503) 399-6071.
Failure to be assessed may delay your entry into program classes.
In addition to tuition, costs for students who complete the entire program listed below may vary. Contact the Financial Aid Office to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 42 required credit hours:

Course Title Credit Hours
Term 1
VMW101 General Viticulture . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
VMW241 Winery Operations I ........................................... . . 10
VMW250 Agricultural Supervisor Training ................................. . 4
Term 2
CH172 Chemical Methods for Analysis of Musts and Wines ......... . . 3

MTH052 Introduction to Algebra and Geometry (or higher) ............ . 3
VMW121 Introduction to Winemaking ................................... 3
VMW131 Wine Appreciation ............................................... . . 3
VMW242 Winery Operations II ............................................. 2
Term 3
CS101 Introduction to Microcomputer Applications .................. . 3
VMW243 Winery Operations III ......................................... . 2
VMW232 Sensory Evaluation of Wine . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
WR115 Introduction to Composition (or higher) ....................... . 3

see Biology


## Course Descriptions

## About these course descriptions

This list of course descriptions reflects the diversity and scope of the many credit courses Chemeketa currently offers. However, some of our current courses may not be included here as the college may add classes after this catalog is published.

## The courses are listed alphabetically by letter prefix.

You will find prerequisites specified in many of these course descriptions. These are conditions you must meet before you enroll in a course. It is your responsibility as a student to fulfill the prerequisite.
Some prerequisites indicate that you must complete certain preparatory courses or must have the consent of the course instructor. To gain consent, meet with the instructor. Consent is based upon the instructor's assessment of your readiness to enroll in the course.
The letters, $\mathbf{F}, \mathbf{W}, \mathbf{S p}$, and $\mathbf{S u}$ at the end of a course description indicate the term (fall, winter, spring, 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 courses not included here. They are also listed in the Schedule of Classes.

## Definitions of Electives

You may find the information listed below helpful in choosing the classes necessary to fulfill your Associate of Applied Science, Associate of Arts, and Associate of General Studies degree requirements. The general area of study is followed by the course prefixes which satisfy the elective requirements in those areas. (All courses selected must be numbered 050 or higher.)

Please be advised that not all courses may apply to all degrees. Consult with our Advising and Counseling Center or a Chemeketa advisor for details regarding specific program and degree requirements.
Communication Electives: COM (Communication Skills), ENL (English as a Non-Native Language), J (Journalism), SP (Speech), WR (Writing), plus these specific classes: BA214, BT120, HD112, RD115, RD116, RD117A, B, C, and RD120.
Humanities/Fine Arts Electives: ART (Art), ASL (American Sign Language), ENG (English), FA (Film Arts), FR (French), GER (German), JPN (Japanese), HUM (Humanities), MUS (Music), MUP (Music Performance), PHL (Philosophy), R (Religion), RUS (Russian), SPAN (Spanish), TA (Theater Arts).
Science/Applied Science Electives: BI (Biology), BOT (Botany), CH (Chemistry), FN (Foods and Nutrition), G (Geology), GS (General Science), GE (General Engineering), OC (Oceanography), PH (Physics), ZOO (Zoology).
Social Science Electives: ANTH (Anthropology), CHLA (Chicano/Latino Studies), EC (Economics), GEOG (Geography), HST (History), HDFS (Human Development and Family Studies), PS (Political Science), PSY (Psychology), SOC (Sociology), SSC (Social Science), WS (Women's Studies).

## How courses are numbered

Chemeketa Community College is committed to offering instruction that provides students with the opportunity for self-improvement, entry-level employment skills, and completion of the first two years of a baccalaureate degree. The following course prefixes describe the primary intent of the courses offered:

## Developmental Courses*

MTH: Mathematics
RD: Reading
SKD: Skills Development
WR: Writing
*Developmental courses numbered less than 50 are considered below collegiate level academic and Professional-Technical Education courses, and do not apply to meeting the requirements of the AAOT, A.A.S. or A.G.S. degree.

## Professional-Technical Courses**

| AH: | Allied Health |
| :--- | :--- |
| APR: | Apprenticeship |
| AUM: | Automotive Technology |
| BC: | Building Construction Skills |
| BLD: | Building Inspection Technology |
| BT: | Business Technology |
| CA: | Computer Applications |
| CJ: | Criminal Justice |
| COM: | Communication Skills |
| CPL: | Credit for Prior Learning |
| CS: | Computer Science |
| CTX: | Construction Skills |
| CVL: | Civil Engineering Technology |
| DEN: | Dental Assisting |
| DRF: | Drafting Technology |
| ECE: | Early Childhood Education |
| ED: | Education |
| ELE | Electronics Technologies |
| ELT: | Electronics Technologies |
| EMT: | Emergency Medical Technology |
| ENL: | English as a Non-Native Language |
| ES: | Emergency Services |
| FE: | Field Experiences |
| FIN: | Financial Services |
| FRP: | Fire Protection Technology |
| FT: | Forest Resources Technology |
| HDF: | Human Development Family Studies |
| H: | Health |
| HDF: | Human Development and Family Studies |
| HR: | Human Resources |
| HS: | Human Services |
| HSM: | Health Services Management |
| HTM: | Hospitality and Tourism Management |
| MED: | Medical Office Assisting |
| MFG: | Manufacturing Technologies |
| MT: | Microelectronics/Industrial |
| NUR: | Nursing |
| QS: | Quality Science |
| RE: | Real Estate |
| SKD: | Skills Development |
| ST: | Occupational Skills Training |
| VC: | Visual Communications |
| VMW: | Vineyard Management/Winemaking |
| WFB: | Welding Fabrication |
| WLD: | Welding |
|  |  |

[^2]
## Lower Division Collegiate Courses

(first two years of the baccalaureate degree)
ANTH: Anthropology
ART: Art
AS: Aerospace
ASL: American Sign Language
BA: Business Administration***
BI: Biology***
BOT: Botany
CG: Counseling and Guidance***
CH: Chemistry
CHLA: Chicano/Latino Studies
CIS: Computer Information Science
CS: Computer Science***
EC: Economics
ENG: English
ENGR: Engineering
FA: Film Arts
FN: Foods and Nutrition
FR: French
G: Geology
GE: General Engineering
GEOG: Geography
GER: German
GS: General Science
HD: Human Development
HDFS: Human Development and Family Studies
HE: Health Education
HPE: Health and Physical Education
HST: History
HUM: Humanities
J: Journalism
JPN: Japanese
MS: Military Science
MTH: Mathematics***
MUP: Music Performance
MUS: Music
OC: Oceanography
PE: Physical Education
PHL: Philosophy
PH: Physics***
PSY: Psychology
PS: Political Science
RD: Reading***
RUS: Russian
R: Religion
SOC: Sociology
SP: Speech
SPAN: Spanish
SSC: Social Science
TA: Theater Arts
WR: Writing***
WS: Women's Studies
Z00: Zoology
***A number below 100 indicates a support course, which is usually not transferable to a BAgranting institution.

## Accounting

see Business Administration

## AH

## Alled Health

see also Chemistry, Dental Assisting, Emergency Medical Technology, Emergency Services, Health Education, Health Services Management, Medical Office Assisting, and Nursing

## AH080 Crisis Intervention

3 class hrs/wk, 3 cr.
Intervention in behavioral crises of sudden death, suicide, rape, murder, vehicle accidents, disease, trauma, and child abuse. Focuses on supportive behavioral patterns and handling emotional stress of the individual as well as coping with emotional conflict within oneself. F, Sp, offered as needed.

## AH112A Health Care Systems and Professions

 2 class hrs/wk, 2 cr.Introduces health care systems and related professions. Includes health care delivery systems and trends, characteristics of the health care professional, societal issues influencing health care systems and health promotion and wellness. F, $\mathbf{W}, \mathbf{S p}, \mathrm{Su}$

## AH112B Health Care Systems and Professions

 3 class hrs/wk, 3 cr.An introductory overview of health care systems and related professions. Includes health care delivery systems and trends, characteristics of the health care professional, societal issues influencing health care systems and health promotion and wellness. Academic success strategies are incorporated with health care systems applications. F, W, Sp, Su

## ANTH

## ANTHROPOLOGY

## ANTH101 Human Evolution

3 class hrs/wk, 3 cr .
Studies the processes of the biocultural evolution of humans with emphasis on evolutionary theory, Mendelian and population genetics, the fossil record, classification of primates, and the nature of race. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## ANTH102 Archaeology

## 3 class hrs/wk, 3 cr.

An overview of human prehistoric development. Covers basic archaeological method and theory and the techniques used for dating the prehistoric past. Focuses on the agricultural revolution and the rise of the world's earliest civilizations, and provides a general overview of the time of unrecorded human experience and the early beginnings of recorded history. W, Sp

## ANTH103 Introduction to Cultural <br> Anthropology

3 class hrs/wk, 3 cr .
A survey of culture and how it structures human nature, including an examination of cross-cultural methodology and anthropologi-
cal theory. Presents a general overview of language, economic and political systems, technology, social orientation, art, religion, warfare, and the nature of play. $\mathbf{F}, \mathbf{S p}$

## ANTH153 Introduction to Field Archaeology

2 class hrs and 3 lab hrs/wk, 3 cr.
An introduction to the methods and goals of American archaeology. Students will learn the basic techniques of scientific field archaeology in the classroom and at on-site archaeological digs and labs. Offered as needed.

## ANTH180 The Nature of Language

## 3 class hrs/wk, 3 cr.

Introduction to anthropological linguistics. Includes the history of linguistics and written language, descriptive linguistics, sociolinguistics, language and thought, language acquisition and the biology and physiology of language development. Also includes bilingualism and multiculturalism, and written language development in both the old and new world. Offered as needed.

## ANTH207 Cultural Anthropology

3 class hrs/wk, 3 cr .
An analysis of the significance of culture for humans, including 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. Offered as needed.

## ANTH208 Cultural Anthropology

3 class hrs/wk, 3 cr .
An exploration of human culture. Includes a cross-cultural study of marriage and the family, and an examination of kinship and social groupings, belief systems, mythology, the functions of religion, art, and creativity in human societies. Offered as needed.

## ANTH209 Cultural Anthropology

3 class hrs/wk, 3 cr.
Explores the processes of cultural growth and expansion and the nature of culture change. Analyzes the nature of culture as it relates to such conditions as acculturation and assimilation, the implication of technical assistance programs in developing nations, the ethics of applied anthropology, and the future of humanity. Prerequisite: ANTH207 and ANTH208 recommended. Offered as needed.

## ANTH212 Aztec Civilization/La Civilización

 Azteca3 class hrs/wk, 3 cr.
Presents an overview of Aztec institutions and demonstrates examples present in contemporary Mexican culture. Focuses on the daily life, culture, religion, philosophy, literature, social, political, and economic structures of the Aztecs. Students will analyze and compare Aztec concepts of life, death, the sacred, time, space, property, and education with American mainstream concepts. Offered as needed.

## ANTH214 Contemporary Mexican Culture

3 class hrs/wk, 3 cr.
Provides an understanding of Mexican culture by focusing on the main historical events that have shaped the identity of the Mexican. Explores the mixture of cultural institutions in modern Mexico from pre-Columbian indigenous cultures through European conquest and the Revolution. Offered as needed.

## ANTH231 Native American Studies

## 3 class hrs/wk, 3 cr.

Focuses on the Northeastern and Southeastern Native American cultures from earliest times to the present. Contrasts the Algonkian and Iroquois confederacies, as well as the Five Civilized Tribes; evaluates differences in tribal strategies adapting to Europeans while struggling to retain tribal sovereignty. Covers native identity, intertribal culture, and contemporary issues. Offered as needed.

## ANTH232 Native American Studies

3 class hrs/wk, 3 cr .
Focuses on the Prairie-Plains (Northern and Southern Plains) Native American cultures from earliest times to the present, emphasizing environmental adaptive strategies; explores Lakota and Kiowa relations with Euroamericans while struggling to retain tribal sovereignty. Surveys intertribal powwows, religious rights, urban migration, culture loss and retention, and changing gender roles. Offered as needed.

## ANTH233 Native American Studies

3 class hrs/wk, 3 cr.
Focuses on the Northeastern and Southeastern Native American cultures from earliest times to the present. Contrasts the various cultures west of the Rockies, with particular emphasis on women's changing roles. Explores Oregon coastal (Coos) and California (Pomo) tribal cultures and evaluates Navajo and Hopi Southwestern tribal adaptations to Europeans while struggling to retain tribal sovereignty. Covers Kwakiutl and Haida masking arts, Shoshone women's music, and contemporary Potlatch. Offered as needed.

## ART

## Art

see also Visual Communications
ART101 Understanding Art
3 class hrs/wk, 3 cr.
Designed to provide students with the tools to look at, think about, and communicate ideas about the visual arts. Focuses on purposes of art; subject/form/content; media and techniques; approaches to art (critical, historical, analytical, interpretive); and artists' intentions. Prerequisite: College-level writing skills. F, $\mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## ART115, 116, 117 Basic Design

2 class and 2 lab hrs/wk, 3 cr .
An introduction to basic principles of design, visual perception, and organization of visual elements in works of art. ART115: Explores black and white two-dimensional design.

ART116: Focuses on color and two-dimensional design. ART117: A study of threedimensional design. ART115: F, Sp, Su; 116: $\mathbf{W}, \mathbf{S p}, \mathrm{Su} ; 117$ : $\mathbf{S p}$

## ART131 Introduction to Drawing 1

2 class hrs and 4 lab hrs/wk, 4 cr.
Provides individualized instruction in practical drawing skills designed for the beginner. Introduces fundamental gesture, contour, and value approaches to drawing, utilizing a variety of monochromatic media. Covers lectures, demonstrations, and training in traditional methods of representing shape and space on a two-dimensional surface. F, W, Sp, Su

## ART132 Introduction to Drawing 2

## 6 class hrs/wk, 3 cr.

Covers basic drawing skills of observation, selection, representation, perception, and hand-eye-mind coordination. Emphasizes composition and the understanding of visual form, and introduces style as a means to personal expression. Prerequisite: ART131 or consent of instructor (based on portfolio review). W, Sp, Su

## ART133 Introduction to Drawing 3

6 class hrs/wk, 3 cr.
Continued training in skills of observation, selection, representation, perception, and hand-eye-mind coordination. Emphasizes composition and understanding drawing as a visual form of communication and expression. Prerequisite: ART131 and ART132, or consent of instructor (based on portfolio review). W, $\mathrm{Sp}, \mathrm{Su}$

## ART154 Pottery I-Handbuilding

## 6 lab hrs/wk, 3 cr.

An introduction to ceramics through handbuilding. Includes basic form and design considerations as well as pinch, coil, slab construction, press mold, decoration, and glazing techniques. Class fee $\$ 9$. F, W

## ART155 Pottery II-Beginning Wheel Throwing

 6 lab hrs/wk, 3 cr.Basic techniques for producing pottery on the potter's wheel. Emphasis includes forming, trimming, decorating, glazing, and firing of projects, as well as visual and functional form considerations. Class fee $\$ 9$. F, W, Sp

## ART156 Pottery III-Intermediate Techniques

 6 lab hrs/wk, 3 cr.Designed to expand on the basic wheelthrowing skills acquired in ART155 through a series of intermediate projects. Includes production of lidded containers, teapots, combined forms, altered forms; study of kiln theory and design; development and testing of glazes; and the use of alternative firing techniques. Prerequisite: ART154 and ART155, or consent of instructor. Class fee $\$ 9 . \mathbf{S p}$

## ART198A-E Independent Studies

Variable 1-5 credits
By use of the college learning contract, provides student and instructor with vehicle to allow independent study in an area of student interest. Course may be repeated as desired. Students should consult the transfer institution they wish
to attend for limitations. Prerequisite: Consent of instructor. Offered as needed.

ART199E Special Studies:
European Foreign Study Tour
3 credits
Designed to prepare students for a college-sponsored European foreign study tour. Pretour classroom sessions include a series of lectures on the specific countries, peoples, cultures and places to be visited. Participants then travel together, following the tour itinerary as outlined, to obtain first-hand experience in the art and culture of the countries studied. Offered as needed.

## ART204 Introduction to Art History

3 class hrs/wk, 3 cr .
Examines art in the Western tradition from the Prehistoric era through the Early Christian/ Byzantine period. $\mathbf{F}$

## ART205 Introduction to Art History

3 class hrs/wk, 3 cr.
Examines art in the Western tradition from the Middle Ages to A.D. 1500. W

## ART206 Introduction to Art History

3 class hrs/wk, 3 cr.
Examines art in the Western tradition from A.D. 1500 to the present. $\mathbf{S p}$

## ART210 Topics in Art History

3 class hrs/wk, 3 cr.
Covers specific historical art topics. Topics will vary and may include historical styles and periods, genres, women artists, and media. Offered as needed.

## ART221 Graphic Design 1

2 class and 4 lab hrs/wk, 4 cr .
Applies the basic design concepts, terms, and elements to the process of creating solutions to graphic design challenges. Introduces the use of illustration software on the Macintosh as a production tool. Focuses primarily on black and white work and communication graphics. Prerequisite: ART115, ART 116, and demonstrated ability to work with computers. Class fee $\$ 20$. $\mathbf{F}$, offered as needed.

## ART222 Graphic Design 2

2 class and 4 lab hrs/wk, 4 cr .
Continues exploration of graphic design with multiple colors, using illustration software on the computer as a design and production tool. Emphasis is on symbol and logo design and includes corporate identification. Prerequisite: ART221. Class fee $\$ 20$. W, offered as needed.

## ART223 Graphic Design 3

2 class and 4 lab hrs/wk, 4 cr .
Continues exploration of graphic design with advanced projects using the computer as a design and production tool. Includes work in packaging. Prerequisite: ART221, ART222. Class fee $\$ 20$. Sp, offered as needed.

## ART224 Type Design 1

2 class and 4 lab hrs/wk, 4 cr.
Introduces the study of letterforms and their importance in the design of visual communications. Prerequisite: VC114, VC121, and

VC122, or consent of instructor. Class fee $\$ 20$. F , offered as needed

## ART225 Type Design 2

2 class and 4 lab hrs/wk, 4 cr.
Continues the study of typography as a design element. Prerequisite: ART224 or consent of instructor. Class fee $\$ 20$. W, offered as needed.

## ART230 Drawing: Anatomy for Artists

1 class and 4 lab hrs/wk, 3 cr.
An introductory anatomy course designed specifically for art students. Includes a brief overview of body organization and terminology, an examination of body proportions and of the skeletal and musculature systems, and a summary of surface features (e.g. skin, superficial vessels). Expands on basic skills developed in beginning drawing classes. Prerequisite: Grade C or better in a college-level drawing class. W

## ART234 Figure Drawing 1

6 lab hrs/wk, 3 cr.
Uses the human figure as a constant subject matter. Offers intensive study of the problems the figure presents to the artist. Proportion, composition, and dynamic representation are emphasized. Prerequisite: ART131 or consent of instructor. Class fee $\$ 9$. F, W, Sp

## ART235 Figure Drawing 2

6 lab hrs/wk, 3 cr.
Offers further study and practice in drawing the human figure. Prerequisite: ART131 and ART234, or consent of instructor. Class fee $\$ 9$. F, W, Sp

## ART236 Figure Drawing 3

6 lab hrs/wk, 3 cr.
Continued study and practice in drawing the human figure. Prerequisite: ART131, ART234, and ART235, or consent of instructor. Class fee \$9. F, W, Sp

## ART238 Introduction to Illustration

2 class and 2 lab hrs/wk, 3 cr .
Introduces concepts of illustration in the graphic arts and offers training in traditional (nondigital) illustration technique for students with strong skills in drawing and/or painting. Course may be repeated for a maximum of nine credits. Prerequisite:ART131 or 200 level drawing or painting course or demonstrated experience in drawing and/or painting. ART115 and ART116 and Art History are recommended. Experience with color media recommended. Class fee $\$ 5$. W, offered as needed.

## ART239 Introduction to Computer Illustration

 2 class and 2 lab hrs/wk, 3 cr .Introduces the basics of illustration using the computer and graphic arts software. Course may be repeated for a maximum of nine credits. Prerequisite: ART221, VC139, or previous experience in graphics software. Class fee $\$ 15$. Sp , offered as needed.

## ART244 Stained Glass

6 lab hrs/wk, 3 cr.
Provides individualized instruction for the beginner in the design and construction of two moderately challenging stained glass windows
made of both smooth clear and textured colored glass. Introduces techniques in designing, pattern making, glass cutting, assembling, soldering, and puttying using both lead came and copper foil. Students produce original designs based on sources selected by the student. Class fee $\$ 9$. F, W, Su

## ART245 Intermediate Stained Glass

6 lab hrs/wk, 3 cr .
Provides individualized instruction for the intermediate level student who has taken ART244 or equivalent as determined by instructor. Students consult with the instructor and complete projects which are original, challenging, and complex. Students will learn glass techniques such as sandblasting, fusing, and slumping. Prerequisite: ART244. Class fee $\$ 9$. F, W, Su

## ART246 Advanced Stained Glass

6 lab hrs/wk, 3 cr.
Continuation of ART245. Projects will reflect an in-depth investigation of sources, including personal influences, and exhibit technical mastery of the medium. Prerequisite: ART244, ART245. Class fee $\$ 9$. F, W, Sp, Su

## ART254 Pottery IV-Low-Fire Ceramics

2 class and 4 lab hrs/wk, 3 cr.
An introduction to low-fire ceramic materials, including both low-tech and high-tech application and processes. Prerequisite: ART154, ART155, ART156, or consent of instructor. Class fee $\$ 9$. Offered as needed.

## ART256 Art as a Profession

3 class hrs/wk, 3 cr.
Designed to provide visual artists with the professional skills necessary to succeed in their own art business. Through a series of marketing, promotion, presentation, employment and educa-tion-related assignments, students will gain an understanding of the business aspects involved in being a visual artist. Prerequisite: Completion of a studio art class or experience with studio art, or consent of instructor. Class fee $\$ 9$. Offered as needed.

## ART261 General Photography

2 class and 4 lab hrs/wk, 4 cr .
Introduces 35 mm black and white photography. Topics include camera equipment, exposure calibrations, film processing, darkroom techniques and presentation of enlargements. A 35 mm camera required. Class fee $\$ 25 . \mathbf{F}, \mathbf{W}$, $\mathrm{Sp}, \mathrm{Su}$, offered as needed.

## ART262 Technical Photography

## 2 class and 4 lab hrs/wk, 4 cr .

Introduction to studio and technical photography. Topics include lighting, color transparency, copy-stand work and art direction. A 35 mm camera required. Prerequisite: ART261. Class fee $\$ 25$. $\mathbf{S p}$, offered as needed.

## ART263 Intermediate Photography 2 class and 4 lab hrs/wk, 4 cr .

Topics include darkroom work, infrared black and white, toning techniques, multiprinting and introduces color negative printing. Emphasizes the freedom to experiment with photographic techniques. A 35 mm camera required. Prere-
quisite: ART261, ART262, or consent of instructor. Class fee $\$ 30$. F, offered as needed.

## ART264 Digital Photography

2 class and 4 lab hrs/wk, 4 cr .
Adds digital imaging and manipulation to traditional photographic skills in the study of photo illustration for print or web design. A 35 mm camera required. Prerequisite: ART262 and VC151 or VC130, or consent of instructor. Class fee $\$ 15$. $\mathbf{W}$, offered as needed.

## ART270 Introduction to Printmaking:

## Screen Printing 1, Beginning

## 6 lab hrs/wk, 3 cr.

Introduces the methods, materials, and techniques of silk-screen printing, including the photostencil process through lecture, demonstration, and studio experience. Students will design and pull their own prints. Prerequisite: ART131, ART115, or consent of instructor. Class fee $\$ 9$. F

## ART271 Introduction to Printmaking:

Press Processes 1
6 lab hrs/wk, 3 cr.
Demonstrates methods, materials and techniques of printmaking with an intaglio press, using media such as intaglio (etching), relief (woodcut and linocut), and monotypes. Offers lectures, demonstrations, and studio experience. Prerequisite: ART131 or consent of instructor based upon demonstrated skill in drawing. ART115 and 116 recommended. Class fee \$9. W

## ART272 Introduction to Printmaking:

## Press Processes 2

6 lab hrs/wk, 3 cr.
Demonstrates advanced techniques, methods, and materials of printmaking using media such as relief (woodcut, linocut, embossing), intaglio (etching, engraving, collography), monotype/ monoprint, and lithography. Emphasizes studio practice and experimentation with all printmaking processes and style development as a means of personal expression. Relates historical and modern contexts. Prerequisite: ART271. Class fee $\$ 9$. $\mathbf{S p}$
ART273 Printmaking: Press Processes 3 6 lab hrs/wk, 3 cr.
An integration of the methods and materials introduced in ART271 and ART272 to create mixed media prints. Emphasizes collage plate printmaking and mixed media monoprinting. Offers lectures, demonstrations, and studio experience. Prerequisite: ART271, ART272. Class fee $\$ 9$. $\mathbf{S p}$

## ART274 Printmaking: Screen Printing 2,

## Intermediate

$6 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
Skill building in techniques of silkscreen printing introduced in ART270, including photographic processes. Prerequisite: ART270. Class fee $\$ 9$. Offered as needed.

ART275 Printmaking: Screen Printing 3,
Advanced
6 lab hrs/wk, 3 cr.
Studio practice in the expressive and technical principles of screen printing. Emphasizes skill
development and use of composition, color, and various stencil processes to achieve an expressive visual form. Prerequisite: ART274. Class fee $\$ 9$. Offered as needed.

## ART281 Painting

6 lab hrs/wk, 3 cr.
Introduces traditional approaches to and techniques of painting. Includes introduction to materials, color theory, and historical perspectives. For beginning painters who have strong fundamental drawing skills. Course may be repeated for a maximum of nine credits. Prerequisite: ART131 or consent of instructor based upon demonstration in drawing. ART115 and ART116 recommended. W, Sp

## ART284 Watercolor

6 lab hrs/wk, 3 cr.
Technique and use of watercolor. Includes characteristics of watercolor as a medium, compositional problems, observation of detail, potential for personal expression, and color theory and design elements. Prerequisite: ART131, or consent of instructor based upon demonstrated skill in drawing. ART115 and ART116 recommended. F, W, Sp

## ART285 Intermediate Watercolor

6 lab hrs/wk, 3 cr.
Emphasizes skill building and technical control of the medium. Prerequisite: ART284 or consent of instructor. F, W, Sp

## ART286 Advanced Watercolor

$6 \mathrm{lab} \mathrm{hr} / \mathrm{wk}, 3 \mathrm{cr}$.
A continuation of projects and explorations begun in ART284 and ART285. A self-motivated contract class. Prerequisite: ART284 and ART285, or consent of instructor. F, W, Sp

## ART291 Beginning Sculpture <br> 6 lab hrs/wk, 3 cr.

An introduction to the use of materials, tools, and methods of sculpture, and an exploration of the three-dimensional form. Class fee $\$ 9 . \mathbf{F}$

## ART292 Ceramic Sculpture

6 lab hrs/wk, 3 cr.
An introduction to the characteristics and potential of clay as a sculptural material. Class fee $\$ 9$. W

## ART293 Wax to Bronze Sculpture <br> 6 lab hrs/wk, 3 cr.

An introduction to the casting and finishing of bronze sculpture through the lost wax process using ceramic shell technologies. Class fee $\$ 9$. Sp

## AS

## AEROSPACE ScIENCE

## AS111, 112, 113 The Air Force Today

1 class hr/wk, 1 cr. each
A study of the U.S. Air Force in the contemporary world through an examination of the total force structure, strategic offensive and defensive forces, general purpose forces, and aerospace support forces. Offered as needed.

## AS120 Leadership Laboratory

3 lab hr/wk, 1 cr.
Covers officership, leadership, drill and ceremony, and customs and courtesies for cadets. Co-requisite: AS111, 112, and 113. Offered as needed.
AS211, 212, 213 Air Power Development 2 class hrs/wk, 2 cr. each
Study of air power from balloons and dirigibles through the jet age; a historical review of airpower employment in military and non-military operations in support of national objectives; a study of changes in the nature of military conflict; a look at the evolution of air power concepts and doctrine; and the changing mission of the defense establishment with emphasis on the U.S. Air Force. Offered as needed.

## AS220 Leadership Laboratory

## 3 lab hrs/wk, 1 cr.

ROTC Cadets are placed in elementary leadership positions in order to learn Air Force concepts of command, discipline, tradition, and courtesies. Co-requisite: AS211, 212, and 213. Offered as needed.

## ASL

## American Sign Language

ASL101 American Sign Language 1
3 class hrs/wk, 3 cr .
An introduction to American Sign Language (ASL) and the culture of the deaf community. Study and application of ASL vocabulary and grammar is introduced. F, W, $\mathbf{S p}, \mathbf{S u}$

## ASL102 American Sign Language 2

## 3 class hrs/wk, 3 cr .

Continuation of ASL101. Study and application of ASL vocabulary and grammar is incorporated in more depth. Prerequisite: ASL101 or consent of instructor. F, W, Sp, Su

ASL103 American Sign Language 3
3 class hrs/wk, 3 cr.
Continuation of ASL102. Study and application of ASL vocabulary and grammar is further incorporated. Prerequisite: ASL102 or consent of instructor. $\mathbf{S p}, \mathbf{S u}$

ASTRONOMY

## see Physics

## AUM

## Automotive Technology

## AUM086A Automotive Air Conditioning and Heating

1 class and 2 lab hrs/wk, 2 cr.
A course designed to familiarize the student with the theory and operation of automotive heating and air conditioning systems. Methods for service and repair of heating and air conditioning will be covered, along with troubleshooting techniques. Class fee $\$ 10$. Offered as needed.

## AUM086B Automotive Air Conditioning and Heating

2 class and 2 lab hrs/wk, 3 cr .
A course designed to familiarize the student with the theory and operation of automotive heating, air conditioning, and engine cooling systems. Methods for service and repair of heating and air conditioning will be covered, along with troubleshooting techniques. Class fee $\$ 10$. Offered as needed.

## AUM150 Introduction to Automotive

 Technology2 class and 3 lab hrs/wk, 3 cr.
Covers the automotive mechanic's duties. Explores current and future job opportunities. Emphasizes the complex and rapidly changing role of an auto mechanic. $\mathbf{S u}$

## AUM151 Basic Automotive Engines <br> \section*{3 class and 6 lab hrs/wk, 5 cr .}

Designed to familiarize the student with construction, working principles, and methods of servicing a gasoline internal combustion engine. Proper use of tools, torque wrenches, micrometers, and equipment is stressed. Discusses theory and operation of simple and complex machines involving levers, cams, inertia, and momentum. Class fee $\$ 15$. F

## AUM152 Automotive Machine Shop

2 class and 6 lab hrs/wk, 4 cr .
Covers the methods, technical aspects, theory, checks, and procedures used to recondition internal combustion engines and related components. Introduces the precision measuring tools, torque wrenches, and machining equipment used daily by automotive machinists. Discusses procedures, precision measuring devices, and special tools, as well as theories of leverage, pressure/volume, expansion, momentum, inertia, and work related to engines. Prerequisite: AUM151 or consent of instructor. Class fee $\$ 30$. W

## AUM156 Automotive Shop Safety

1 class hr/wk, 1 cr.
Covers safety guidelines in the automotive industry. Focuses on the rules, regulations, and methods to maintain and use automotive shop equipment and work areas. F, W, Sp

## AUM157 Automotive Brake Systems <br> 2 class and 7 lab hrs/wk, 5 cr.

Designed to provide instruction in the theory, service, and principles of automotive brake systems. Covers repair of disc and drum brakes, manual and power brakes, brake system control, indicating devices, and A.B.S. systems. Class fee $\$ 15$. F

## AUM158 Auto Steering and Suspension 2 class and 8 lab hrs/wk, 5 cr .

Principles of automotive wheel, steering, and suspension systems. Includes study of front and rear suspension alignment; theory of suspension operation, wheel service and balance; and application of accepted repair procedures on automotive suspension. Class fee $\$ 15$. W

AUM161 Manual Drive Trains and Axles I
3 class and $6 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 5 \mathrm{cr}$.
Theory and service of automotive power trains. Covers clutches and clutch linkage, drive shafts and universal joints, front-wheel-drive axles, manual transmissions, manual transaxles, rear axles, and differentials (including open and limited slip). Includes friction, gear reduction, and torque multiplication through use of gearsets, inertia, and momentum as they apply to power train components. Class fee $\$ 15$. $\mathbf{S p}$

## AUM168 Automotive Electrical Systems I <br> 3 class and 3 lab hrs/wk, 4 cr.

An introduction to automotive electricity and electronics, and circuitry. $\mathbf{S p}$

## AUM187 Introduction to Autobody Technology

 3 lab hrs/wk, 1 cr.An introduction to the basic principles of autobody repair. Includes entry-level training in the use of autobody tools, equipment, and techniques in the repair of various damaged autobody components. Class fee $\$ 15$. Offered as needed.

## AUM188 Automotive Machine ShopUpper Engine

1 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 2 \mathrm{cr}$.
Instruction in the theory and practice of automotive machining. Includes precision measuring tools, torque wrenches, valve and seat grinding, valve guide and seat repairs, resurfacing, valve springs, and cylinder head assembly. Class fee $\$ 20$. F

## AUM189 Automotive Machine ShopLower Engine

1 class and 3 lab hrs/wk, 2 cr.
Instruction in the theory and practice of automotive machining. Includes precision measuring tools, torque wrenches, cylinder block boring and honing, cylinder block resurfacing, mainline checks and repairs, and connecting rod reconditioning. Class fee $\$ 20$. W

## AUM190 Automotive Machine Shop- <br> Engine Assembly

1 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 2 \mathrm{cr}$.
Instruction in the theory and practice of automotive machining. Includes precision measuring tools, torque wrenches, camshaft timing checks, clearancing, blueprint measurement, and engine assembly and sealing techniques. Class fee $\$ 20$. Sp

## AUM192 Automotive Diesel Engines

2 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
Construction, working principles, and methods of servicing automotive diesel engines. Prerequisite: AUM151. Class fee $\$ 5$. $\mathbf{S p}$

## AUM253 Automotive Engines II

## 6 lab hrs/wk, 2 cr.

Focuses on repair and service of automotive internal combustion engines. Stresses speed and accuracy of diagnosis and repair. Builds on prior training. Prerequisite: Sixth term standing in the Automotive Technology program or consent of instructor. Class fee \$15. Sp

## AUM262 Manual Drive Trains and Axles II

 1 class and 6 lab hrs/wk, 3 cr.A continuation of AUM161 concentrating on diagnosis and service of automotive power train components on vehicles in the lab. Practical application of diagnosis, service, and repair of clutches, drive shafts, universal joints, front-wheel-drive axles, manual transmissions, manual transaxles, rear axles, differentials, and four-wheel-drive transfer cases. Prerequisite: AUM161. Class fee \$15. F

## AUM263 Automatic Transmissions and

Transaxle I
3 class and 6 lab hrs/wk, 5 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. Class fee $\$ 15$. F

## AUM266 Basic Fuel Systems

## 3 class and 4 lab hrs/wk, 5 cr .

Principles of carburetion and carburetor circuits. Covers the basics of pressure differential, the venturi principle, fuel systems, gasoline, and engine variables pertinent to gasoline. Basic one-, two-, and four-barrel carburetor overhaul, service and adjustment, and fuel pump testing and inspection. Introduces closed loop systems. Class fee $\$ 5$. F

## AUM267 Advanced Fuel Systems

3 class and 5 lab hrs/wk, 5 cr .
Covers advanced carburetor systems and operating principles; diagnosis of system problems, and service of the electro-mechanical (feedback) carburetors. Includes the theory and principles of carburetor accessory special feature devices, and carburetor computer control operation and adjustments. Also focuses on automotive fuel injection systems, computer functions, inputs, commands, system diagnosis, causes of emissions, testing, and instrumentation studies and infrared, four-gas, and five-gas analyzer testing. Prerequisite: AUM266 or consent of instructor. Class fee $\$ 5$. W

AUM273 Automatic Transmissions and
Transaxles II

## 6 lab hrs/wk, 2 cr.

Focuses on diagnosis, repair, and service of automatic transmissions and automatic trans-axles, including electronic transmissions. Emphasizes speed and accuracy in diagnosis and repair. Builds on prior training. Prerequisite: Sixthterm standing in Automotive Technology program or consent of instructor. Class fee $\$ 15$. $\mathbf{S p}$

## AUM276 Automotive Electrical Systems II

 3 class and 3 lab hrs/wk, 4 cr .Continues DC electrical systems for the repair and service of automotive vehicles. Includes basic electrical systems, storage batteries, starters, charging systems, and ignition systems. Prerequisite: AUM168 or consent of instructor. Class fee $\$ 5$. F

AUM277 Automotive Electrical Systems III 3 class and 5 lab hrs/wk, 5 cr .
Emphasizes testing, diagnosis, theory of ignition operations, charging, cranking systems, electron-
ic ignitions, oscilloscope testing, meter usage, and vehicle computer systems and testing. Reviews basic electrical principles, laws, and forces. Prerequisite: AUM168 and AUM276 or consent of instructor. Class fee $\$ 5$. W

## AUM280A-L Cooperative Work Experience

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.

## AUM281 Tune-up and Driveability

## 3 class and 8 lab hrs/wk, 6 cr.

Covers tuneup and diagnosis procedures of the gasoline internal combustion engine, including use of diagnostic equipment, with emphasis on tuneup of computer-controlled vehicles. Stresses diagnosis and repair of electrical and fuel systems related to tuneup and diagnosis of these systems using computer scanners, exhaust analyzers, engine analyzers, and oscilloscopes. Prerequisite: AUM267 and AUM277, or consent of instructor. Class fee \$15. Sp

## AUM282 Electronic Vehicle Controls

3 class and 4 lab hrs $/ \mathrm{wk}, 5 \mathrm{cr}$.
Familiarizes the student with the theory, operation, and testing of automotive electronic engine control system. Includes emission control systems, automotive computer systems, anti-lock brake systems, turbo charging, and fuel injection systems as they relate to engine control systems. Prerequisite: AUM168, AUM266 and AUM267, AUM276 and AUM277. Class fee \$5. W

## AUM283 Advanced Electronic Vehicle Control

 Systems3 class and 3 lab hrs/wk, 4 cr.
Designed to provide advanced training in the operation and testing of automotive electronic control systems. Prerequisite: AUM282 or consent of instructor. Class fee $\$ 15$. Sp

## AUM286 Automotive Heating and Air Conditioning

3 class and 5 lab hrs/wk, 5 cr.
Theory and operation of automotive heating and air conditioning systems, methods for service and repair of heating and air conditioning systems, and troubleshooting techniques. Class fee $\$ 15$. W

## BA <br> Business Administration

## BA051 Accounting Procedures I

4 class hrs/wk, 4 cr.
A study of the accounting cycle using the dou-ble-entry system 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 Accounting program. $\mathbf{F}$

## BA052 Accounting Procedures II

4 class hrs/wk, 4 cr.
Basic procedures and theory of business accounting using the double-entry system to
study the business accounting cycle. For students who do not plan to attend a four-year college and/or who are not enrolled in Chemeketa's Accounting program. Prerequisite: BA051. W

## BA053 Accounting Procedures III

## 4 class hrs/wk, 4 cr.

A study of accounting for corporations, capital stock, corporate earning, corporate bonds, investments, analysis of financial statements, and manufacturing firms. For students who do not plan to attend a four-year college and/or who are not enrolled in Chemeketa's Accounting program. Prerequisite: BA052 and BA101. Sp

## BA055 Governmental/Nonprofit Accounting II 3 class hrs/wk, 3 cr .

Compares and contrasts principles of accounting and reporting for state and local government with those of state and local school systems, colleges and universities, hospitals, and the federal government. Familiarizes the student with budgeting, cost determination, and audits of governmental and nonprofit entities. Offered as needed.

## BA056 Intermediate Financial Accounting I

## 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: Concurrent enrollment in BA213 or consent of instructor. $\mathbf{F}, \mathbf{S p}$

## BA057 Intermediate Financial Accounting II

 4 class hrs/wk, 4 cr.Comprehensive study of plant assets, depreciation, depletion, intangible assets, long-term liabilities, issuance and reacquisition of capital stock, additional paid-in capital and retained earnings, dilative securities and earnings per share calculations, long-term investments in securities and funds, and revenue recognition. Prerequisite: BA056 or consent of instructor. W, Sp

## BA058 Intermediate Financial Accounting III

 4 class hrs/wk, 4 cr.Comprehensive study of revenue recognition, accounting changes, error analysis, income taxes, pension plans, leases and cash flow statements. Prerequisite: BA057 or consent of instructor. F, Sp

## BA062A AMA Coaching for Top Performance

 2.5 class hrs/wk, for 5 weeks, 1 cr.Designed for managers and supervisors. Presents training, communication, and motivational skills to build a solid foundation of coaching techniques. Class fee $\$ 114$. Offered as needed.

## BA062B AMA Managing and Resolving Conflict

2.5 class hrs/wk, for 5 weeks, 1 cr.

Designed for managers and supervisors. Presents skills to resolve conflicts effectively and develop productive working relationships among staff. Class fee $\$ 114$. Offered as needed.

## BA062C AMA Communication Skills for

 Managers2.5 class hrs/wk, for 5 weeks, 1 cr.

Focuses on effective oral, non-verbal, and written communication. Participants will develop techniques to better express themselves in writing reports, conferencing with colleagues, and running meetings. This course is designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. Offered as needed.

## BA062D AMA First-Line Supervision

2.5 class hrs/wk, for 5 weeks, 1 cr.

Covers the essential elements of supervising others. Focuses on leadership styles, decision making, rewards, productivity, conflict, grievances, and problem employees. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. Offered as needed.

## BA062E AMA Reading and Interpreting Financial Statements <br> 2.5 class hrs/wk, for 5 weeks, 1 cr.

Covers the essential elements of accounting: balance sheet, income statement, and statement of cash flows. Emphasizes analysis of financial statements and their relationship to the overall financial condition of an organization. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$.

## Offered as needed.

## BA062F AMA What Managers Do

## 2.5 class hrs/5 wks, 1 cr .

Focuses on contemporary management skills, including planning, organizing, staffing, motivating, and controlling. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. Offered as needed.

## BA062G AMA Getting Results with Time Management <br> 2.5 class hrs $/ 5 \mathrm{wks}, 1 \mathrm{cr}$.

Focuses on techniques to increase productivity and efficiency by better use of time and organizational skills. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. Offered as needed.

## BA062H AMA How to Delegate Effectively 2.5 class hrs wk for 5 weeks, 1 cr.

Focuses on effective delegation methods. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114 . \mathrm{Sp}$

## BA062I AMA A Manager s Guide to Human Behavior <br> 2.5 class hrs/wk, for 5 weeks, 1 cr.

Focuses on the skills necessary to inspire employees to high performance, maximize positive impact on others, deal with on-the-job conflict, develop more productive working relationships, establish rapport and mutual trust, and receive performance feedback. Designed for management and supervisors in business, industry, and government. Class fee $\$ 114$. Offered as needed.

## BA062J AMA Successful Negotiating

2.5 class hrs/wk for 5 weeks, 1 cr.

Focuses on negotiation techniques. Topics range from the steps used in pre-negotiation planning to the use of details such as seating arrangements and meeting site selection to determine the results of negotiations. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. W

## BA062K AMA Leadership Skills for Managers

2.5 class hrs/wk, for 5 weeks, 1 cr.

Presents methods for enhancing the leadership qualities necessary for managing a diverse and changing workforce. Emphasizes the development of visioning, coaching, and empowerment skills. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. W

BA062L AMA Fundamentals of Finance and Accounting for Non-financial Managers
2.5 class hrs/wk, for 5 weeks, 1 cr.

Non-technical, basic accounting for managers. How to interpret financial information and incorporate it into decision making. For nonfinancial executives in general management, manufacturing, marketing, personnel, and research and development. Class fee $\$ 114$. Offered as needed.

## BA062M AMA Writing for Management Success

2.5 class hrs/wk, 5 weeks, 1 cr.

Designed for supervisors and managers in business and industry. Training, communication, and motivational skills will be covered in order to build a solid foundation of coaching techniques. Class fee $\$ 114$. Offered as needed.

## BA062N AMA-Total Quality Management

 2.5 class hrs $/ 5 \mathrm{wks}, 1 \mathrm{cr}$.Reviews the history, concepts, techniques and implementation of Total Quality Management (TQM) processes for both manufacturing and service organizations. Designed for managers and supervisors in business, industry, and government. Class fee $\$ 114$. Offered as needed.

## BA0620 AMA How to Make Teams Work 12.5 class hrs, 1 cr.

Presents team-building skills for a changing business environment. In the role of team leader, participants will gain an understanding and management tools to make teams function. Class fee $\$ 114$. Offered as needed.

## BA062PAMA-Effective Team-Building for Managers

2.5 class hrs $/ 5 \mathrm{wks}, 1 \mathrm{cr}$.

Focuses on methods of team-building: from recruiting the right team members to empowering them with authority and responsibility for their decisions and performance. Covers method of building trust, confidence, and group work skills. Designed for managers and supervisors in business, industry, and government. Class fee \$114. W

BA062Q First Level Leadership: Supervising in the New Organization
12.5 class hrs/wk, 1 cr.

Focuses on the concepts and skills needed to manage the "new" workforce, influence others, and create and foster organizational stewardship. Emphasizes the keys to building strong teams, defining the basics of their businesses, and gaining the tools to manage the change process. Uses case studies, assessments, and focused activities to measure progress and gain the tools to lead in the new organization. Class fee $\$ 114$. F

## BA066 Introduction to Business Studies

## 4 class hrs/wk, 4 cr.

Integrates reading, writing, and study skills with a variety of business simulation activities to present a basic understanding of today's business environment. Includes basic concepts, resources, management and learning strategies for business studies and careers. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## BA077 New Supervisor Orientation

2 class hrs/wk, 2 cr.
How front-line supervisors may guide and motivate employees toward greater productivity. Focuses on management styles, communication, performance appraisals, and personnel development. Offered as needed.

## BA092 Federal Cost Principles, Monitoring and Reporting <br> 1 class hr/wk, 1 cr.

Study of federal cost principles and allocation. Includes federal financial assistance reporting and monitoring of A-128 and A-133 subrecipients. Offered as needed.

## BA093 Fixed Assets Accounting and Reporting

 2 class hrs/wk, 2 cr.Accounting for fixed assets in governmental and proprietary funds. Includes study of capitalization policy, property disposition, and generally accepted accounting principles (GAAP) and financial reporting requirements. Prerequisite: Six credit hours of accounting or consent of instructor. Offered as needed.

## BA094 Reconciliations/Verifications

1 class hr/wk, 1 cr.
Introduces reconciliation procedures used between outside sources and an agency's records. Covers verification of account balances, problem-solving techniques, and the identification of reconciling items and the steps necessary to correct them. Prerequisite: Six credit hours of accounting or consent of instructor. Offered as needed.

## BA095 State Financial Management System: RSTARS INTRO

3 class hrs/wk, 3 cr.
The course will cover the Relational Statewide Accounting and Reporting System (RSTARS) General User Training Manual, a manual developed by KPMG Peat Marwick and the State of Oregon, specifically for the Oregon Statewide Financial Management System. Prerequisite: BA211 and BA054. Offered as needed.

## BA096 State Financial Management System: ADPICS

2 class hrs/wk, 2 cr.
One of two course offerings that are part of the State of Oregon accounting and reporting system. Covers requisitions, purchase orders, receiving, invoices, and voucher payables. Offered as needed.

## BA101 Business Environment

4 class hrs/wk, 4 cr.
An introduction to the inter-relationships of business, government, and society; roles of businesses and members of the business community; ethics and social responsibility; and employment opportunities in various business fields. Prerequisite: BA066. F, W, Sp, Su

## BA121 Project Management I - Tools and Techniques

3 class hrs/wk, 3 cr .
Covers tools and techniques associated with project management. Focuses on gathering, analyzing, formatting, and presenting specific types of information and data. Offered as needed.

## BA122 Project Management II - Teams and Influencing Without Authority

2 class hrs/wk, 2 cr.
Covers team development associated with project management, including application, and how to influence others without authority. Offered as needed.
BA123 Project Management III - Estimating, Risk, Contracts, and Procurement
3 class hrs/wk, 3 cr.
Covers estimating, risk, contracts, and procurement. Offered as needed.

## BA124 Project Management IV - Simulation

 2 class hrs/wk, 2 cr.Reviews project management techniques from start-up to close-out. Brings together tools learned in the previous Project Management courses through use of a simulation. Offered as needed.

BA160 Purchasing I
3 class hrs/wk, 3 cr.
Discusses purchasing functions, policies, procedures, manuals, legal considerations, public relations, ethics, quality and sources of supplies, storekeeping, and personnel. Offered as needed.

## BA161 Principles of Public Contracting

4 class hrs/wk, 4 cr.
Covers principles of contract management and administration within the State of Oregon including authority to contract; preparing and awarding contracts for personal/professional services, architects and engineers, goods and services, and public (works) improvements; preparation for audits; and ethical, legal and risk management considerations. Offered as needed

## BA173 Public Relations in Business

3 class hrs/wk, 3 cr.
Explains the basic theories and principles involved in the practice of public relations and
provides practical information needed to develop or to implement public relations activities in the business environment. Offered as needed.

## BA177 Payroll

4 class hrs/wk, 4 cr.
Offers a comprehensive overview to both federal and State of Oregon payroll practices and procedures. Includes computing and recording gross wages, withholding amounts, and net wages. Introduces computerized and manual systems to create and maintain employee earnings records and payroll registers; compute employers taxes and other payroll-related costs; make payroll tax deposits; complete payroll reports and W-2s; and make general journal entries for all payroll transactions. Prerequisite: CS101 and BT090 or BA051 or BA211 or consent of instructor. Class fee $\$ 12$. W, Sp

## BA200K Conflict Resolution at Work

1 class hr/wk, 1 cr.
Stresses skills and methods which lead to conflict resolution in the workplace. Offered as needed.

## BA201 Community Leadership

1 class hr and 7 lab hrs/wk, 3 cr .
Study of effective leadership action within the community. Includes motivation techniques to prepare individuals to assume leadership positions within the community. Participants will attend seminars, tours, and briefings and will talk with people in decision-making positions.
Offered as needed.

## BA202 Personal Effectiveness

3 class hrs/wk, 3 cr.
Uses individual and small group exercises to improve skills in self-awareness, communication, values clarification, individual problemsolving, and presents strategies to assist the student in maintaining employment and in demonstrating a professional image and work behavior. F, W, Sp, Su

## BA203 Interpersonal Relations in Business

3 class hrs/wk, 3 cr.
Covers interpersonal relations in an organization. Includes effective verbal and nonverbal communication styles, interviewing skills, coworker relations considering individual and cultural differences, customer relationships, conflict management, and coaching/teaching. Prerequisite: BA202. W, Sp

## BA204 Teamwork Dynamics

3 class hrs/wk, 3 cr .
Fundamentals of effective work-team relationships. Covers team-building, group problem solving, self-directed teams, cultural diversity in the Northwest, and diversity and team management. Prerequisite: BA202. Sp

## 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. Prerequisite: BA066 and BT085. F, W, Sp, Su

## BA207 Collective Bargaining and Labor

 Arbitration3 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.

## BA210 Professional Development and Leadership

3 class hrs/wk, 3 cr.
Covers issues related to organizational leadership, including organization structure, culture, funding, performance measures, and planning. Emphasizes professional growth planning and development within the organization. Offered as needed.

## BA211 Financial Accounting I

4 class hrs/wk, 4 cr.
Covers the complete accounting cycle for service and merchandising firms including recording transactions, adjustments, financial statements, worksheets, number closing entries, cash and accounts receivable, notes and interest, and accounting for inventories. Designed for students enrolled in the accounting program and students transferring to four-year institutions. Prerequisite: MTH062 or higher, or concurrent enrollment in MTH062. F, W, Sp, Su

## BA212 Financial Accounting II

## 4 class hrs/wk, 4 cr.

Studies liabilities associated with payrolls, recording payroll transactions, special payroll records and forms, accounting for and pricing inventories, costing of capital assets, and current and long-term liabilities. Covers partnerships and the formation and division of earnings, changes in ownership and liquidation, capital acquisition and reporting, dividends, stock splits, donated capital, earnings measurement theory and practice, reporting income taxes on financial statements, corporate bonds, corporation accounting principles, and cash flow statements. Prerequisite: BA101, BA211, and MTH070 or higher, or concurrent enrollment in MTH070, or consent of instructor. F, W, Sp, Su

## BA213 Managerial Accounting

4 class hrs/wk, 4 cr.
Covers 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, joint costing, cost allocation, income effects of alternative product-costing methods and relevant costs, and the contribution approach to decisions. Prerequisite: BA212. F, $\mathbf{W}, \mathbf{S p}$

## BA214 Business Communications

3 class hrs/wk, 3 cr.
Applies principles of written, oral and non-verbal communication. Students write good news, bad news, and persuasive messages in simulated situations, using letters, memoranda, and reports. Includes resumes, job application letters, and job interviews. Assignments may
require students to work as individuals and groups; perform written and oral assignments. Prerequisite: BT120 or WR121 or consent of instructor based on the proficiency exam. F, W, $\mathrm{Sp}, \mathrm{Su}$

## BA215 Cost Accounting

3 class hrs/wk, 3 cr .
Analysis of methods of detailed and specific identification of cost elements in business. Emphasizes job orders, processes, and standard cost accounting systems and their related theory; principles, techniques, and managerial use of cost accounting data; and use of budget and performance reports as related to cost accounting. Prerequisite: BA211, BA212, and BA213. F

## BA218 Personal Finance

3 class hrs/wk, 3 cr.
Principles and concepts of consumer economics. Covers consumer decision making, money management, use of credit, food shopping, housing, family transportation, insurance, savings, and investment. $\mathbf{F}, \mathbf{S p}$

## BA221 Production and Operations

## Management

3 class hrs/wk, 3 cr.
Overview of the functions an organization must perform to produce goods or services. Emphasis on the role operational policy plays in the overall strategy of an organization and how that policy affects other areas such as marketing, finance, accounting, personnel, and management information systems. Offered as needed.

## BA222 Financial Management <br> \section*{3 class hrs/wk, 3 cr .}

The principles of planning, acquiring, and using funds in an organization. Includes investment analysis, budgeting, ratio analysis, capital investments (using present value and internal rate of return), cost of capital, and cash and credit management. Prerequisite: BA212. W, Sp

## BA223 Principles of Marketing <br> 3 class hrs/wk, 3 cr.

Surveys all functions of marketing from research and product development to the sale of a product or service and feedback of consumer acceptance. Emphasizes marketing planning and strategy as dictated by the consumer through marketing research. Prerequisite: BA101 or consent of instructor. $\mathbf{F}, \mathbf{S p}$

## BA224 Personnel Management

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. F, Sp

## BA226 Business Law I

3 class hrs/wk, 3 cr .
An introduction to the nature and function of the law in our society. The study of contracts, the formation of contracts, the right of contracts, and the obligations of contracts. 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

## BA228 Computer Accounting Applications

## 3 class hrs/wk, 3 cr.

Introduces computer-based accounting for small businesses and provides hands-on experience with business applications including general ledger, accounts receivable, accounts payable, payroll, inventory management processing, sales invoicing, check reconciliation, and financial statements. Prerequisite:BA212 and BA213, CS125SS or equivalent microcomputer experience. Class fee $\$ 12$. F, Sp

## BA232 Introduction to Business Statistics

3 class hrs/wk, 3 cr.
Elementary statistical techniques to aid decision making in business. Includes populations and variances, indexes, estimating, hypotheses testing, analysis of variances, time series, and correlation. Prerequisite: MTH095. Offered as needed.

## BA233 Marketing Research

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 psychology or sociology. Offered as needed.

## BA234 International Business

3 class hrs/wk, 3 cr .
An overview of international business. Presents theories and trends in the global marketing of goods and services. Emphasizes the analysis of cultural, legal, political and monetary environments in the international setting. Prerequisite: BA101, BA223, or equivalent business background as determined by instructor. Offered as needed.

## BA238 Sales and Persuasion

## 3 class hrs/wk, 3 cr.

Emphasizes behavioral sciences, sales psychology and techniques, and communication. How to sell ideas and attitudes within a firm, and products and services to customers. F, Sp

## 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. Offered as needed.

## BA240 Governmental/Non-Profit Accounting I

 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, debtservice funds, special assessment funds, enterprise funds, general fixed asset group of
accounts, and summary of funds and groups. Prerequisite: BA212. F

## BA241 Risk and Insurance

3 class hrs/wk, 3 cr.
Concepts of risk, probability and insurance; role of insurance in the management of risk. An examination of the underlying legal principles and common elements of most insurance contracts. Emphasizes the role of insurance from the viewpoint of the consumer. Covers business and personal applications of the major types of property and liability insurance, and life and health insurance, with emphasis on the underlying economic need each is designed to meet. Offered as needed.

## BA242 Investments

## 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 the individual investment opportunities as part of an investor's portfolio. Prerequisite: BA101, BA211, or equivalent as determined by instructor. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## 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. A discussion of the influences of perception, personality, attitudes, culture, family life, and social class on how and why people buy and consume products. Offered as needed.

## 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, including planning, organizing, staffing, actuating, and controlling. Prerequisite: Second-year standing or consent of instructor. Offered as needed.

## BA251 Office Management

## 3 class hrs/wk, 3 cr.

A study of administrative office manager responsibilities. Includes planning, organizing, and controlling business services, systems, and procedures. $\mathbf{W}, \mathbf{S p}$

## BA255 Elements of Supervision

3 class hrs/wk, 3 cr.
Studies current supervisory processes, reviews supervisory responsibilities, provides practical instruction for new and current supervisors; and examines the role of supervision in business and industry. Offered as needed.

## BA256 Income Tax Accounting I

4 class hrs/wk, 4 cr.
First of two courses in preparing federal and Oregon individual income tax returns. Completing BA256 and BA257 meets the Board of Tax Service Examiners educational requirements to take the Oregon tax preparer's licensing examination. Prerequisite: BA212 or BA052, or consent of instructor. F, Sp

## BA257 Income Tax Accounting II

4 class hrs/wk, 4 cr.
Second of two introductory courses in preparing federal and Oregon individual income tax returns. See BA256. Prerequisite: BA256 or consent of instructor. $\mathbf{F}$

## BA258 Budgeting in the Public Sector

 3 class hrs/wk, 3 cr.Provides an overview of the techniques and politics of budget preparation, modification, and implementation in the public sector. Topics include history, decision-making process, various budgeting methods, and implementation. F

## BA260 Real Estate Principles

3 class hrs/wk, 3 cr.
The nature, importance, and character of real property, real estate business, markets and brokerages; taxes and assessment; contracts; and ownership. Offered as needed.

## BA262 Real Estate Practices

## 3 class hrs/wk, 3 cr.

Surveys the procedures involved in the listing, selling, and closing of residential property. Emphasizes agency relationships, Oregon real estate license law, listing and purchase agreements, client trust accounts, neutral escrows, co-op transactions, closing procedures, codes of ethics, professional organizations, and related real estate activities. Prerequisite: BA263 and BA264. Offered as needed.

## BA263 Real Estate Law

3 class hrs/wk, 3 cr.
Surveys Oregon real estate law as it applies to the ownership, use, and transfer of real property. Emphasizes basic real property law, legal descriptions, landlord/tenant relationships, title transfer, real estate contracts, encumbrances, title insurance, document recording, taxes, assessments, and land use controls. Prerequisite: BA260 or consent of instructor. Offered as needed.

## BA264 Real Estate Finance

## 3 class hrs/wk, 3 cr.

Surveys the methods of financing acquisition of real property. Emphasizes lending laws, the mortgage market, financing documents, foreclosures, governmental and commercial loan programs, appraisals, mathematical calculations, taxation, and alternative methods of financing. Prerequisite: BA260 or consent of instructor. Offered as needed.

## BA269 Principles of Banking

## 3 class hrs/wk, 3 cr.

Presents a comprehensive introduction to banking in today's economy, including the language and documents of banking, check processing, teller functions, deposit functions, trust services, bookkeeping, and loans and investments. Discusses the bank's role in the community. Offered as needed.

## BA270 Money and Banking

3 class hrs/wk, 3 cr.
Basic economic principles most closely related to money and banking for current 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. Prerequisite: BA269 or consent of instructor. Offered as needed.

## BA271 Information Technology in Business

4 class hrs/wk, 4 cr.
Application of information technology in the business environment through the combined use of database, spreadsheet, word processing, presentation, groupware and hypertext tools. Prerequisite: BA101, BA211, BA212, BA213, CS101, and CS125E. F, W

## BA272 Analyzing Financial Statements

3 class hrs/wk, 3 cr .
Techniques necessary for the evaluation of financial conditions and operating performance of a business enterprise. Includes financial statement analysis and accounting, business funds flow, and tools and techniques for the analysis of financial statements. Prerequisite: BA212. Offered as needed.

## BA273 Marketing for Bankers

3 class hrs/wk, 3 cr.
Presents bank marketing relations, advertising, and personal selling. Covers concepts and philosophies of marketing specifically related to banking, including information research, target markets, the marketing mix, and methods of market planning. Offered as needed.

## BA275 Quantitative Business Methods

4 class hrs/wk, 4 cr.
Presents management decision processes utilizing statistical methods, use and application of probability concepts, sampling procedures, statistical estimation, and regression. Prerequisite: MTH244, CS125E. Offered as needed.

## BA277 Business Ethics

3 class hrs/wk, 3 cr.
A comparative study of ethical and economic systems designed to increase decision-making capabilities. Emphasizes issues and policy formation in varied business settings. W

## BA278 Law and Banking-Principles

3 class hrs/wk, 3 cr.
Legal aspects of banking. A non-technical presentation of all aspects of the legal system that directly affect banking. Prerequisite: BA269. Offered as needed.

## BA280 Cooperative Work Experience see AUM280.

## BA281 Consumer Lending

3 class hrs/wk, 3 cr .
An overview of consumer lending, including the many types of credit arrangements in which a financial charge is paid for the privilege of repaying debts in delayed payments. Includes credit evaluation, consumer credit policy, the requirements of making credit decisions, and loan documentation and closing. Prerequisite: BA269 and current employment in a financial institution or enrollment in the Financial Services program. Offered as needed.

## BA282 The Trust Business

3 class hrs/wk, 3 cr.
The changing role of a trust department, the services it provides, and how it fits into the overall banking business. Prerequisite: BA269 or on-the-job banking experience. Offered as needed.

## BA284 Law and Banking-Applications

## 3 class hrs/wk, 3 cr .

An introduction to laws pertaining to secured transactions, letters of credit, and bank collection processes. Discusses check losses and a broad range of legal issues related to processing checks. Includes up-to-date summaries of laws related to collateral, perfection, and default. Case studies illustrate important legal points related to banking practices. Prerequisite: BA269. Offered as needed.

## BC and CTX

## Building Construction Training

## BC051 Construction Print Reading

4 class and 2 lab hrs/wk, 5 cr .
Instruction in reading and understanding basic blueprints, terminology, symbols, and construction standards. Prerequisite: Consent of instructor. F, W

## BC053 Construction Tools and Materials Application

3 class and 6 lab hrs/wk, 5 cr .
An orientation to construction methods, standards, and safety practices common to all construction trades. The combination of lecture and laboratory provides a realistic overview of the construction trades and allows students to experience specific skill areas. Class fee $\$ 30$. F

## BC055 Concrete Forming

3 class and 6 lab hrs/wk, 5 cr .
Covers concrete forming and the terminology related to the various forming techniques. Prerequisite: Consent of instructor. Class fee \$40. F, W

## BC061 Basic Construction Framing

3 class and 15 lab hrs/wk, 8 cr .
Covers construction framing with emphasis on walls, ceilings, and fasteners. Prerequisite: BC053 or consent of instructor. Class fee $\$ 40$. W, Sp

## BC063 Construction Estimating

2 class and 3 lab hrs/wk, 3 cr.
An introduction to building trades skills, including plan reading, excavation, concrete, and framing. W, Sp

## BC071 Advanced Construction Framing

3 class and 15 lab hrs/wk, 8 cr.
Provides advanced framing skills, including roof and stairs. Prerequisite: BC061 or consent of instructor. Class fee $\$ 40$. Sp

## BC073 Basic Interior Finish

2 class and 4 lab hrs/wk, 4 cr .
An introduction to terminology and skills related to finish work. $\mathbf{S p}$

BC280 Cooperative Work Experience
see AUM280.

## CTX051 Orientation to Construction

 3 class and 1 lab hrs/wk, 4 cr.An orientation to construction methods, standards, and safety practices common to all construction trades. The combination of lecture and laboratory provides an overview of the construction trades and allows students to experience specific skill areas. Information and assistance will be given to students in choosing a trade area for future employment and career development. F

CTX052 Advanced Construction Methods I 1 class and 3 lab hrs/wk, 2 cr.
Covers methods, standards, safety practices, and tools common to residential foundation construction. The combination of lecture and laboratory provides an overview of the foundation construction and allows students to experience specific skill areas. W

## CTX053 Advanced Construction Methods II 1 class and $3 \mathrm{lab} 2 \mathrm{hrs} / \mathrm{wk}, 2 \mathrm{cr}$.

Presents knowledge and skills related to construction methods, standards, and safety practices common to residential construction. The combination of lecture and laboratory provides an overview of residential framing and allows students to experience specific skill areas. Information and assistance will be given to students in choosing a trade area for future employment and career development. Sp

## BI

## Biology

## BI060 Basic Science for Dental Assistants

2 class and 2 lab hrs/wk, 3 cr .
Designed especially for Dental Assisting program students. Presents introductory concepts of cell biology, microbiology, oral histology and embryology, and head and neck anatomy. Includes practical application of problem solving, scientific observation and measurement, use of equipment, and basic laboratory techniques. Class fee $\$ 8$. F, Sp

## BI071 Body Structure and Function I

## 2 class and 2 lab hrs/wk, 3 cr.

Normal structure and function of the human body, chemical principles, characteristics of the cell as a basis for life, organization of tissues, organs and systems; and structure and function of body systems. Includes lecture, demonstration, and laboratory practice. Class fee $\$ 8$. Offered as needed.

## BI072 Body Structure and Function II

2 class and 2 lab hrs/wk, 3 cr .
A continuation of BI071. Prerequisite: BI071. Class fee $\$ 8$. Offered as needed.
BI100 Orientation to Marine Life of the Oregon Coast
2 class and 4 lab hrs/wk, 3 cr.
Presents introductory information about marine organisms including birds, mammals, fish and invertebrates native to the Oregon Coast. Includes identification of these organisms, basic knowledge about their natural history, introduction to scientific terminology, basic awareness of scientific classification and infor-
mation related to the understanding of the physical exhibitory structure and life support systems to maintain these animals in an aquarium environment. $\mathbf{S p}$

## BI101 General Biology

3 class and 3 lab hrs/wk, 4 cr .
Investigates the diversity of organisms, principles of ecology, and effects and consequences of ecosystem alteration by humans. This sequence need not be taken in order, although some carryover from one term to the next does occur. Class fee $\$ 12$. F, $\mathbf{S p}$

## BI102 General Biology

3 class and 3 lab hrs/wk, 4 cr .
Investigates the principles of cell division; Mendelian, population, and molecular genetics; evolution, natural selection and origin of species; and animal behavior. Class fee $\$ 12$. F, $\mathbf{W}$, offered summer as needed.

## BI103 General Biology

## 3 class and 3 lab hrs/wk, 4 cr.

Investigates the principles of animal structure (anatomy) and function (physiology); human (and comparative) reproductive, nervous, circulatory, immune, digestive, respiratory, and urinary systems; plant structure and function; nutrition, growth, and reproduction. Prerequisite: None. This sequence need not be taken in order, although some carryover from one term to the next does occur. Class fee $\$ 12 . \mathbf{W}, \mathbf{S p}$, offered summer as needed.

## BI131 Environmental Science 1

3 class and 3 lab hrs/wk, 4 cr .
Introduces basic principles of ecology and environmental science and examines environmental problems and issues concerning human population growth. Class fee $\$ 12$. F

## BI132 Environmental Science 2

## 3 class and 3 lab hrs/wk, 4 cr.

Examines environmental problems and issues related to resource use and management such as deforestation, global warming, soil erosion, water and food shortages, the loss of biodiversity, and energy issues. Prerequisite: BI131 or BI101. Class fee $\$ 12$. W

## BI133 Environmental Science 3

3 class and 3 lab hrs/wk, 4 cr.
Examines environmental problems and issues related to environmental contamination such as air and water pollution, solid waste disposal, and pesticide use, and explores relationships between environmental problems and other aspects of society. Prerequisite: BI132. Class fee $\$ 12$. Sp

## BI143 Marine Biology

3 class and 3 lab hrs/wk, 4 cr.
An investigation of the variety of marine ecosystems, including intertidal areas, salt marshes, estuaries, and other marine environments. Examines the ecology, physiology, and morphology of marine plants and animals. Emphasizes Oregon adaptations of life forms to marine environments. Offered as needed

BI200 Principles of Ecology-Field Biology
3 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 4 \mathrm{cr}$.
Emphasizes the broad concepts of ecology using Western Oregon coniferous forests as a model. Concepts are first introduced in the classroom and then examined in detail using student-collected field data. Prerequisite: BI101, 102, or consent of instructor. Class fee $\$ 12$. Su

## BI231 Human Anatomy and Physiology

3 class and 3 lab hrs/wk, 4 cr.
In-depth examination of the structure and function of the human body. First of a three-term sequence. Includes a review of chemical principles and the study of cells, tissues and the integumentary, skeletal, and nervous systems. Prerequisite: CH110, CH104 or CH105 (CH105 must be taken concurrently with BI231 if not completed previously) or consent of instructor. Class fee $\$ 12$. F, W, Sp, offered summer as needed.

## BI232 Human Anatomy and Physiology

3 class and 3 lab hrs/wk, 4 cr .
Second of a three-term sequence providing an in-depth examination of the structure and function of the human body. Includes the study of the muscular, circulatory, and respiratory systems. Prerequisite: BI231 with a grade of C or higher; CH110 or CH105 and CH106 (CH106 must be taken concurrently with BI232 if not completed previously) or consent of instructor. Class fee $\$ 12$. F, W, Sp, offered summer as needed.

## BI233 Human Anatomy and Physiology

3 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 4 \mathrm{cr}$.
Third of a three-term sequence providing an indepth examination of the structure of the human body. Includes the study of the endocrine, digestive, urinary, and reproductive systems, as well as an examination of body fluids, electrolytes, pH balance, and medical genetics. Prerequisite: BI232 with a grade of C or higher; CH110 or CH104, CH105, and CH106; or consent of instructor. Class fee $\$ 12$. $\mathbf{W}, \mathrm{Sp}$, offered summer as needed.

## BI234 Microbiology

3 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 4 \mathrm{cr}$.
A survey of bacteria and other microorganisms emphasizing their impact upon human health. Includes discussion of infection, immunity, common pathogens, and methods and mechanisms of control. Prerequisite: CH110 or CH104, CH105, and CH106. Class fee $\$ 12$. F, $\mathbf{W}, \mathrm{Sp}$, offered summer as needed.

## BI251 Principles of Wildlife Conservation

## 3 class hrs/wk, 3 cr.

Introduces the principles and practices of wildlife conservation and management. Covers the history of wildlife conservation, basic ecological concepts, human impact on wildlife and habitat, social and economic issues relating to wildlife management, and management objectives and strategies for fisheries and wildlife populations. Sp

## BLD

## Building Inspection Technology

## BLD150 Introduction to Building Inspection

 3 class hrs/wk, 3 cr.Introduces history and legality of building codes. Explores and compares the performance versus specification standards. Emphasizes Uniform Building Code with Oregon amendments. F

## BLD151 Building Codes I

3 class hrs/wk, 3 cr.
Covers the nonstructural standards of the Uniform Building Code including occupancy classifications, building area, height and location limitations, types of construction, exits, and fire resistive standards. Emphasizes oneand two-family structures. $\mathbf{F}$

## BLD152 Building Codes II

3 class hrs/wk, 3 cr.
Continues building code studies concerning areas that present 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: BLD151. W

## BLD153 Building Codes III

## 3 class hrs/wk, 3 cr.

Provides a comprehensive review of the Uniform Building Code including pedestrian protection, permanent occupancy, prefabricated construction, fire systems, energy conservation, and architectural barriers. Prerequisite: BLD151 and BLD152. Sp

BLD154 Dwelling Construction Under the UBC 3 class hrs/wk, 3 cr .
Relates the Uniform Building Code to residential buildings and miscellaneous structures. Includes administration, definitions, foundations, occupancy standards, wood framing systems, and roof and wall coverings. $\mathbf{S p}$

BLD155 Building Department Administration 3 class hrs/wk, 3 cr .
Discusses purpose and procedures of building department administration. Examines laws and principles that affect building department personnel and code compliance. Sp

## BLD159 Materials of Construction

2 class hrs/wk, 2 cr.
Covers materials and processes regulated by the Uniform Building Code. Reviews testing standards as a quality control of traditional and nontraditional building materials. Class fee \$10. W

## BLD161 Structural Inspection-Wood

3 class hrs/wk, 3 cr.
Introduces basic methods of wood framing. Covers allowable stresses, loads, and fundamental design of wood products and construction systems. Emphasizes one- and two-family structures. Class fee $\$ 10$. W

## BLD162 Structural Inspection-Masonry

3 class hrs/wk, 3 cr.
Covers the specific code requirements for all types of masonry construction, both structural
and nonstructural. Includes an introduction to fireplace construction. Class fee $\$ 10$. Sp

## BLD181 Mechanical Codes I

## 3 class hrs/wk, 3 cr.

Introduces the thermodynamics of heat and how it relates to the mechanical appliance. Examines the International Mechanical Codes general code requirements for heating, venting and air conditioning equipment. Studies the fuel gas piping system from the gas meter to the appliance, and the combustion air requirements for appliances that burn gas fuel. Stresses evaluation of appliances and equipment for its listing and installation instruction for dwelling and commercial applications. F

## BLD182 Mechanical Codes II

## 3 class hrs/wk, 3 cr.

An introduction to the air distribution system that serves a central heating plant. Studies the construction and installation requirements for sheet metal ducts and the fabrication and installation requirements for factory-made air ducts. Covers the venting systems serving gas burning and solid fuel burning appliances. Examines commercial and domestic incinerators, vented decorative appliances, direct gas-fired makeup air heaters and industrial air heaters, and domestic ranges and clothes dryers. Stresses evaluation of the appliance and equipment for its listing and installation instruction for dwellings and commercial applications. Prerequisite: BLD181. W

## BLD183 Mechanical Codes III

3 class hrs/wk, 3 cr.
Provides a working knowledge of the International Mechanical Codes and its provisions for the exhaust systems, boilers, water heaters, hydronics heating systems, and process piping and refrigeration systems. Prerequisite: BLD181, BLD182. Sp

## BLD191 One- and Two-Family Electrical Code

 3 class hrs/wk, 3 cr.Covers general wiring design, methods and equipment, as related to one- and two-family dwelling applications. $\mathbf{S p}$

## BLD193A-F Building Inspection-Lab

4 lab hrs/wk, 1 cr. each
Provides code standards and conditions typical of building inspection work for inspectors in the following areas: mechanical inspection, structural inspection, and one- and two-family dwelling codes. Stresses writing correction notices based upon field observations. F, W, Sp

## BLD260 Fire Protection for Buildings

3 class hrs/wk, 3 cr.
Covers the installation, function, location, and purpose of sprinkler systems. Sp

## BLD263 Structural Inspection-Concrete

3 class hrs/wk, 3 cr.
Introduces concrete as a construction material and its identity as a type of construction as defined by the Uniform Building Code. Covers its physical properties including mix design, handling, storage, delivery, placement and its fire resistive qualities. Emphasizes analysis of
one- and two-family structures (up to 30\% of course). Class fee $\$ 10$. F

## BLD264 Structural Inspection-Steel

3 class hrs/wk, 3 cr.
Introduces steel as a construction material and its identity as a construction type in light, medium, and heavy steel frame construction. Covers methods of connections, its fire resistive qualities, and manufacturing and fabrication processes. Prerequisite: BLD151 or consent of program chair. Class fee $\$ 10$. W

## BLD266 Structural Plan Review

2 class and 3 lab hrs/wk, 3 cr.
Covers the fundamentals of structural plan review. Includes analysis and design of beams, columns, and connections. Prerequisite: CVL054. W

## BLD267 Non-Structural Plan Review

2 class and 3 lab hrs/wk, 3 cr .
Examines the techniques and processes of nonstructural plans. Includes familiarization with plan and construction documents, specifications, and the application of fire, life and safety code requirements. Prerequisite: BLD151 and BLD152. Sp

## BLD268 Foundations, Excavation and Grading

 3 class hrs/wk, 3 cr.Covers fundamentals of and the code requirements for regulating excavations and fills for any building or structure, construction of foundation and retaining structures, and general grading. Presents code requirements and emphasizes application to plan review and inspection functions. Uses grading and building plans and soil reports to complement the codes. Prerequisite: MTH052. F

## BLD269 Engineering for the Building Inspector

 3 class hrs/wk, 3 cr.A study of static forces and their effect upon rigid bodies at rest, including a study of stresses and strains that occur in these bodies when subjected to tensile, compressive and shearing forces. Prerequisite: MTH052 or equivalent. F

## BLD271 Plumbing Codes I

## 3 class hrs/wk, 3 cr.

Investigates certain standards of the Uniform Plumbing Code. Covers the principles of plumbing design, materials, and installation standards related to dwelling construction. $\mathbf{F}$

## BLD272 Plumbing Codes II

3 class hrs/wk, 3 cr.
Covers plumbing code requirements related to water and gas distribution systems, storm and sanitary sewer systems, water heater installations, and mobile home connections. Prerequisite: BLD271 or consent of instructor. W

## BLD280 Cooperative Work Experience see AUM280.

BLD291 One- and Two-Family Electrical Code 3 class hrs/wk, 3 cr .
Covers general wiring design, methods, and equipment, as related to one- and two-family dwelling applications. $\mathbf{S p}$

## BLD292A CABO One- and Two-Family <br> Dwelling Code (Structural) <br> 3 class hrs/wk, 3 cr .

Covers the structural portion of the CABO One- and Two-Family Dwelling Code as it relates to residential construction and other applicable codes. W

## BLD292B CABO One- and Two-Family

 Dwelling Code (Mechanical)3 class hrs/wk, 3 cr.
Covers the mechanical portion of the CABO One- and Two-Family Dwelling Code as it relates to residential construction and applicable codes. Sp

## BOT

## Botany

## BOT201 General Botany

3 class and 3 lab hrs/wk, 4 cr .
Introductory study of plant life emphasizing principles, theories, and applications of plant biology. Includes the study of plant ecology, generalized plant cells, photosynthesis, and respiration. Prerequisite: High school biology and chemistry recommended. Class fee $\$ 12$. F

## BOT202 General Botany

3 class and 3 lab hrs/wk, 4 cr .
Introductory study of plant life emphasizing principles, theories, and applications of plant biology. Includes the study of genetics, evolution of plant diversity, and the biology of nonvascular plants. Prerequisite: High school biology and chemistry recommended. Class fee \$12. W

## BOT203 General Botany

3 class and 3 lab hrs/wk, 4 cr .
Introductory study of plant life emphasizing principles, theories, and applications of plant biology. Includes the growth, development, and structure of vascular plants, including the effects of light, hormones, water, and nutrients. Laboratory work emphasizes the classification of flowering plants. Prerequisite: High school biology and chemistry recommended. Class fee $\$ 12$. $\mathbf{S p}$

## BT <br> Business Technology

## BT061 Electronic Calculators

## 2 class hrs/wk, 2 cr.

Use of electronic printing calculators to solve simple business and mathematical problems. Prerequisite: MTH060. Class fee $\$ 12$. F, W, Su

## BT061A Electronic Calculators A

2 lab hrs/wk, 1 cr.
Use of electronic calculators to solve mathematical problems. Includes development of speed and accuracy in touch operation of the calculator. Class fee $\$ 4$. F, W, Su

## BT061B Electronic Calculators B

## 2 lab hrs/wk, 1 cr.

Continuation of BT061A. Covers percentages, simple interest, trade discounts, payroll, and calculation of consumer installment payment
schedules. Speed and accuracy development in touch operation of the calculator. Prerequisite: BT061A and MTH060. Class fee \$4. F, W, Su

## BT084 Business English 1

3 class hrs/wk, 3 cr.
Emphasizes basic English skills, including spelling, parts of speech, sentence patterns, terminal punctuation, and dictionary use. Uses written and oral exercises to develop skills in class. F, W, Sp, Su

## BT085 Business English 2

## 3 class hrs/wk, 3 cr.

Emphasizes effective business writing by focusing on proper grammar, punctuation, and sentence structure. Covers the writing of busi-ness-related paragraphs. Prerequisite: BT084 or consent of instructor based on proficiency exam. F, W, Sp, Su

## BT086 Personal and Professional Development

 3 class hrs/wk, 3 cr.Designed to assist students in identifying the personal and professional strengths sought by employers in hiring and promoting employees. Encourages students, through self-assessment, to compare those traits with their own personal and professional strengths and potential weaknesses. Offers opportunities to develop step-bystep approaches toward enhancing the marketability of their skills. $\mathbf{S p}$

## BT090 Bookkeeping

3 class hrs/wk, 3 cr.
Basic accounting principles and procedures to provide familiarity with financial records and accounting terminology used in business today. Includes training in processing techniques for handling information: special journals, controlling accounts, and worksheets used in preparation of account statements, purchases, sales, and end-of-the-period procedures. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## BT099 Proofreading/Editing

3 class hrs/wk, 3 cr.
Effective proofreading techniques emphasizing punctuation, word division, spelling, grammar, and abbreviations. Includes practical applications and use of an office reference manual while developing editing and pre-transcription skills. Prerequisite: BT085. W, Sp

## BT099A Proofreading/Editing A

1 class hr/wk, 1 cr.
Effective proofreading techniques emphasizing punctuation, word division, spelling, grammar, and abbreviations. Includes practical applications and use of an office reference manual while developing editing and pre-transcription skills. Prerequisite: BT084 or concurrent enrollment, CA121. W, Sp

## BT099B Proofreading/Editing B

1 class hr/wk, 1 cr.
Effective proofreading techniques emphasizing punctuation, word division, spelling, grammar, and abbreviations. Includes practical applications and use of an office reference manual while developing editing and pre-transcription skills. Prerequisite: BT085, BT099A, CA121, or equivalent as determined by instructor. W, Sp

## BT099C Proofreading/Editing C

1 class hr/wk, 1 cr.
Effective proofreading techniques emphasizing punctuation, word division, spelling, grammar, and abbreviations. Includes practical applications and use of an office reference manual while developing editing and pre-transcription skills. Prerequisite: BT085, BT099A, BT099B, CA121, or equivalent as determined by instructor. W, Sp

## BT110A,B,C Business Grammar and Punctuation Review A, B, C

1 class hrs/wk, 1 cr. each
Reviews impact of grammar rules on business documents. Part A: Sentence types, parts of speech, nouns and pronouns; Part B: Verbs, verb tenses, adjectives, and adverbs; Part C: Prepositions, conjunctions, phrases, clauses, capitalization, and punctuation. BT110A,B,C will not substitute for BT084 or BT085. Prerequisite: Touch keyboarding skills, basic grammar skills. Class fee $\$ 35$ each. Offered as needed.

## BT111A,B,C Business Letters and Memo Writing Review A, B, C

1 class hrs/wk, 1 cr. each
Reviews business letter and memo writing techniques. Part A: Style, process and product of writing, guides for effective writing; Part B: Includes writing positive, negative, and persuasive documents; Part C: Includes form and goodwill/personal letters. Class fee $\$ 35$ each. Offered as needed.

## BT116 Office Procedures

3 class hrs/wk, 3 cr.
An introduction to administrative support activities. Includes using the telephone, practicing effective listening skills, employing mailing and shipping services, preparing financial records, planning meetings and conferences, making travel arrangements, scheduling appointments, meeting with the public, and developing supervision and leadership skills. Presents employment opportunities. Prerequisite: BT085 or concurrent enrollment. F, W, Sp, Su

## BT120 Professional Communication Skills

4 class hrs/wk, 4 cr.
Introduces principles of written, oral, and nonverbal communication. Includes composition of business documents related to meetings (letters, memorandums, agendas, minutes); use of reference manuals and procedures manuals; participation in small groups and business meetings (group dynamics, team building, short oral reports); and preparation of written report with documentation. Prerequisite: BA066, BT085, or placement through the proficiency exam. W, Sp

## BT128 Introduction to Records Management

 3 class hrs/wk, 3 cr.Principles and procedures for efficient organization and control of business records. Covers the creation, management, maintenance, storage, and disposition of records. Includes practice in alphabetic, numeric, subject, and geo-
graphic filing systems of correspondence and other papers. $\mathbf{F}, \mathbf{S p}$
BT128A Introduction to Records Management A 1 class hr/wk, 1 cr.
Basic principles used in the systematic planning of the classification, arrangement, and filing of alphabetic correspondence and the requisition, charge, and follow-up controls. F, Sp
BT128B Introduction to Records Management B 1 class hr/wk, 1 cr.
Presentation of various other types of filing systems: color-coded, alphabetic, subject, numeric, and geographic. Emphasizes records control, transfer, storage, retrieval, and disposition of paper recorded and special records filing. Prerequisite: BT128A. F, Sp

## BT128C Introduction to Records Management C

 1 class hr/wk, 1 cr.Basic principles used in the systematic planning of the classification, arrangement, and filing of alphabetic correspondence and the requisition, charge, and follow-up controls.
Prerequisite: BT128B. Offered as needed.
BT280 Cooperative Work Experience
see AUM280.

## CA

## COMPUTER APPLICATIONS

## CA091 Computerized Bookkeeping

3 class hrs/wk, 3 cr.
An introduction to computerized accounting principles, including chart to accounts, journal, posting to ledger, trial balance, income statement, and balance sheet. Additional materials introduced on receivables, payables, comparative analysis, depreciation, payroll, and inventory. Prerequisite: BT090 or BA051 or BA211. Class fee $\$ 12$. Offered as needed.
CA092A,B,C Payroll Procedures 1,2,3
1 class hr/wk, 1 cr. each
An introduction to payroll recordkeeping in Oregon. Includes: Part A) computing and recording gross wages, withholding amounts, and net wages. Uses both manual and computerized systems to create and maintain employee earnings records and payroll registers; Part B) computing employers taxes and other pay-roll-related costs, making payroll tax deposits, completing payroll reports and W-2s, and making general journal entries for all payroll transactions. Uses both manual and computerized systems; Part C) computing deductions for both credit and child support wage garnishments, and a study of payroll systems and control procedures, management reports, and cost-control methods. Prerequisite: BT090, BA051, or BA211. Class fee $\$ 4$ each. Sp

## CA100 Microcomputer Basics

9 lab hrs/wk, 3 cr.
Introduces basic computer concepts and application skills using the Windows operating system. Covers word processing, spreadsheet, database, and Internet applications. Prerequisite: Touch keyboarding skills. Class fee $\$ 12$. F, W, Sp, Su

CA115 Introduction to Office 2000
4 class hrs/wk, 4 cr.
Introduces five programs within the Microsoft Office 2000 Suite, with emphasis on integration of word processing, database, spreadsheet, presentation software, and desktop management. Includes exploring the Internet, managing documents, and creating web pages. Prerequisite: Computer literacy; touch keyboarding skills; CS101 preferred. Class fee $\$ 35$. Offered as needed.

## CA117A Microsoft Publisher 1

1 class hr/wk, 1 cr.
A hands-on introduction to the use of Microsoft Publisher desktop publishing software. Covers formatting and enhancing text; working with art, Design Gallery, and drawing tools; and using Page Wizard for creating publications. Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboarding skills of 25 words per minute. Class fee $\$ 4$. Offered as needed.

## CA117B Microsoft Publisher 2

1 class hr/wk, 1 cr.
A continuation of CA117A. Covers developing styles, using columns and tables, enhancing text with special effects, working with multiple pages, and employing special features to create publications. Prerequisite: CA117A or equivalent, computer literacy (prior experience with computer and mouse device), and touch keyboarding skills of 25 words per minute. Class fee $\$ 4$. Offered as needed.

## CA117C Microsoft Publisher 3

1 class hr/wk, 1 cr .
A continuation of CA117B. Includes a review of Microsoft Publisher features, an examination of publication design considerations, and practice in publication production and critiquing. Prerequisite: CA117B or equivalent, computer literacy (prior experience with computer and mouse device), and touch keyboarding skills of 25 words per minute. Class fee $\$ 4$. Offered as needed.

## CA118A Current Office Software-Operating Systems/Utilities

1 class hr/wk, 1 cr.
A hands-on introduction to software currently used in business and industry. The brands of software in this class may change as industry standards evolve. Currently in use: Microsoft Windows 95. Includes the use of Program Manager, File Manager, Windows Accessories, and other features. Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboarding skills of 25 words per minute. Class fee $\$ 4$. F, W, Sp, Su

## CA118B Current Office Software-Worksheets

 1 class hr/wk, 1 cr.A hands-on introduction to software currently used in business and industry. The brands of software in this class may change as industry standards evolve. Currently in use: MS Excel 97 for Windows. Includes worksheet basics and an introduction to charting. Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboard-
ing skills of 25 words per minute. Class fee $\$ 4$. W, Sp

## CA118C Current Office Software-Database

## 1 class $\mathrm{hr} / \mathrm{wk}, 1 \mathrm{cr}$.

A hands-on introduction to software currently used in business and industry. The brands of software in this class may change as industry standards evolve. Currently in use: MS Access 97 for Windows. Includes basics for forms design, data entry, queries, and reports. Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboarding skills of 25 words per minute. Class fee $\$ 4$. W, Sp

CA118D Current Office Software-Internet 1 class hr/wk, 1 cr.
An introduction to and demonstration of the Internet and how this resource may be used effectively in a modern office. Emphasizes search and retrieval of information most often needed by office professionals. Prerequisite: CA118A or CS101. Class fee $\$ 4$. Offered as needed.

## CA118E Current Office Software-Electronic Messaging Systems <br> 1 class hr/wk, 1 cr.

A hands-on introduction to office software currently used in business and industry. The brands of software in this class may change as industry standards evolve. Currently in use: Electronic Messaging Systems Software-Novell GroupWise 5.5 covers electronic messaging (e-mail management), use of the address book, calendaring and task management, discussions (chat sessions), and remote access. Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboarding ability of 25 words per minute. Class fee $\$ 4$. W, $\mathbf{S p}$, offered as needed.

## CA118F Current Office Software-Microsoft PowerPoint

1 class hr/wk, 1 cr.
Introduces presentation software with an emphasis on designing and formatting busi-ness-related presentations. Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboarding skills of 25 words per minute. Class fee $\$ 4$. Offered as needed.

## CA119 Exploring Office Desktop Publishing

 3 class hrs/wk, 3 cr.An introduction to publication planning, typography, publication design principles, and desktop publishing for preparation of office publications. Also includes an overview of duplication methods and how to work with print shops. Prerequisite: Touch keyboarding skills. Class fee $\$ 12$. W, Sp

## CA121 Keyboarding

2 class and 3 lab hrs/wk, 3 cr.
Basic touch keyboarding skills on standard microcomputer or typewriter keyboard. Emphasizes speed and accuracy, understanding the basic vocabulary of entering or retrieving information, and formatting business letters and reports. Class fee $\$ 12$. F, W, $\mathbf{S p}, \mathbf{S u}$

## CA121A Keyboarding A

2 lab hrs/wk, 1 cr.
Covers basic touch keyboarding on standard microcomputers or typewriter keyboard. Class fee $\$ 4$. F, W, Sp, Su

CA121B Keyboarding B
2 lab hrs/wk, 1 cr.
Reviews alphabetic and numeric keyboarding and emphasizes the development of speed and accuracy in touch keyboarding. The course introduces number and symbol keys, and basic punctuation rules. Prerequisite: CA121A. Class fee $\$ 4$. F, W, Sp, Su
CA121C Keyboarding C
2 lab hrs/wk, 1 cr.
Emphasizes drills to increase speed and accuracy in touch keyboarding. Includes formatting different types of business letters and a short report. Prerequisite: CA121A and CA121B. Class fee $\$ 4$. F, W, Sp, Su
CA122 Keyboard Skillbuilding
1 class and 4 lab hrs/wk, 3 cr .
Exercises to improve keyboarding proficiency, speed, and accuracy on microcomputers or typewriters. Prerequisite: Touch keyboarding skills of 25 words per minute; 30 wpm recommended. Course may be repeated for a maximum of six credits. Class fee $\$ 12$. F, W, Sp, Su
CA122A,B,C Keyboard Skillbuilding
2 lab hrs/wk, 1 cr. each
Designed to improve keyboarding skill, including keyboard proficiency, speed, and accuracy. May be taken any time after one has learned the keyboard and is typing approximately 30 words per minute. Prerequisite: CA121 or consent of instructor. Class fee $\$ 4$ each. F, W, Sp

## CA123 Formatting

2 class and 3 lab hrs/wk, 3 cr .
Formatting business documents, including letters, envelopes, tables, memorandums, reports, forms, financial statements, and manuscripts. Prerequisite: CA122 and touch keyboarding skills of 35 words per minute. Class fee $\$ 12$. F, W, Sp, Su
CA123A Formatting A
2 lab hrs/wk, 1 cr.
This course covers the first credit of formatting. Includes formatting business and personal letters, memos, and reports. Prerequisite: CA122A, and CA201D1 or CA201X1. Touch keyboarding skill is essential. Class fee $\$ 4$. F, W, Sp, Su

## CA123B Formatting B <br> $2 \mathrm{lab} \mathrm{hr} / \mathrm{wk}, 1 \mathrm{cr}$.

This course covers the second credit of formatting. Covers various format styles for business letters, tables, and reports. Prerequisite: CA123A, and CA201D1 and D2 or CA201X1 or X2. Touch keyboarding skill is essential. Class fee $\$ 4$. F, W, Sp, Su

## CA123C Formatting C

2 lab hrs/wk, 1 cr.
This course covers the third credit of formatting. Presents additional format styles for tables, letters, and reports, including minutes
and itineraries. Prerequisite: CA123B, and CA201D1 and D2 or CA201X1 or X2. Touch keyboarding skill is essential. Class fee $\$ 4$. F, $\mathbf{W}, \mathbf{S p}, \mathrm{Su}$

## CA201D Word Processing Procedures 1 3 class hrs/wk, 3 cr.

Basic training in Microsoft Word for Windows.
Prerequisite: Touch keyboarding skills of 30 words per minute. Class fee $\$ 12$. Offered as needed.

## CA201D1-D3 Word Processing Procedures-

Parts 1, 2, 3
2 lab hrs/wk, 1 cr. each
Basic to intermediate training in Microsoft Word for Windows. Prerequisite: CA201D1: Touch keyboarding skills of 30 words per minute. CA201D2: CA201D1. CA201D3: CA201D2. Class fee $\$ 4$. F, W, $\mathbf{S p}, \mathbf{S u}$

## CA201X Word Processing Procedures 1

 3 class hrs/wk, 3 cr.Basic word processing training in the operation of WordPerfect software on IBM-compatible equipment. Prerequisite: Touch keyboarding skills of 30 words per minute. Class fee $\$ 12$. Offered as needed.
CA201X1 Word Processing Procedures 1-Part 1 $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 1 \mathrm{cr}$.
Basic training in WordPerfect for Windows software on IBM-compatible equipment. Prerequisite: Touch keyboarding skills of 30 words per minute. Class fee $\$ 4$. Offered as needed.

CA201X2 Word Processing Procedures 1-Part 2 2 lab hrs/wk, 1 cr.
Basic training in WordPerfect for Windows software on IBM-compatible equipment. Prerequisite: CA201X1. Class fee $\$ 4$. Offered as needed.

CA201X3 Word Processing Procedures 1-Part 3 $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 1 \mathrm{cr}$.
Basic training in WordPerfect for Windows software on IBM-compatible equipment. Prerequisite: CA201X2. Class fee $\$ 4$. Offered as needed.

## CA202D Word Processing Procedures 2 3 class hrs/wk, 3 cr .

Intermediate training using Microsoft Word software for persons with basic skills and knowledge of word processing. Prerequisite: CA201D or equivalent as determined by instructor, and touch keyboarding skills of 35 words per minute. Class fee $\$ 12$. W, Sp
CA202D1 Word Processing Procedures 2-Part 1 2 lab hrs/wk, 1 cr.
Intermediate training using Microsoft Word for persons with basic skills and knowledge of word processing. Prerequisite: CA201D and touch keyboarding skills of 35 words per minute. Class fee $\$ 4$. W, $\mathbf{S p}$
CA202D2 Word Processing Procedures 2-Part 2 2 lab hrs/wk, 1 cr.
Intermediate training using Microsoft Word for persons with basic skills and knowledge of
word processing. Prerequisite: CA202D1. Class fee $\$ 4$. W, $\mathbf{S p}$

## CA202D3 Word Processing Procedures 2-Part 3

## 2 lab hrs/wk, 1 cr.

Intermediate training using Microsoft Word for persons with basic skills and knowledge of word processing. Prerequisite: CA202D2. Class fee $\$ 4$. W, $\mathbf{S p}$

## CA202X Word Processing Procedures 2

3 class hrs/wk, 3 cr.
Intermediate training for persons with basic skills and knowledge of WordPerfect for Windows on IBM-compatible equipment. Prerequisite: CA201X1 or equivalent as determined by instructor, and touch keyboarding skills of 35 words per minute. Class fee $\$ 12$. $\mathbf{W}, \mathrm{Sp}$, offered as needed.
CA202X1 Word Processing Procedures 2-Part 1 Intermediate word processing training for persons with basic skills and knowledge of WordPerfect on IBM-compatible equipment. Prerequisite: CA201X or equivalent and touch typing skills of 35 words per minute. Class fee $\$ 4$. Offered as needed.

CA202X2 Word Processing Procedures 2-Part 2 Intermediate word processing training for persons with basic skills and knowledge of WordPerfect on IBM-compatible equipment. Prerequisite: CA201X or equivalent; CA202X1; and touch typing skills of 35 words per minute. Class fee $\$ 4$. Offered as needed.
CA202X3 Word Processing Procedures 2-Part 3 Intermediate word processing training for persons with basic skills and knowledge of WordPerfect on IBM-compatible equipment. Prerequisite: CA201X or equivalent; CA202X2; and touch typing skills of 35 words per minute. Class fee $\$ 4$. Offered as needed.

## CA203 Advanced Formatting

## 1 class hr/wk, 1 cr.

Focuses on correct formats for personal and business letters, envelopes, tables, memoranda, reports, and business forms. Prerequisite: CA201 and touch keyboarding skills of 35 words per minute. Class fee $\$ 4$. $\mathbf{S p}$

## CA204D Advanced Word Processing

3 class hrs/wk, 3 cr.
A review of Microsoft Word features, including draw, WordArt, charts, styles, macros, sort and select, tables, indexes, and lists. Emphasizes the production of documents requiring students to combine features in a project-oriented format. Prerequisite: CA202D, or proficiency in intermediate word processing skills and touch keyboarding skills of 35 words per minute. Class fee $\$ 12$. W, Sp

## CA204P Advanced Word Processing

## 3 class hrs/wk, 3 cr.

Advanced WordPerfect training covering tables, graphics, styles, math, columns, merge, macros, and sort. Prerequisite: CA202P or proficiency in intermediate word processing skills, and touch keyboarding skills of 35 words per minute. Class fee $\$ 12$. Offered as needed.

## CA204X Advanced Word Processing

3 class hrs/wk, 3 cr.
Advanced WordPerfect training covering tables, graphics, styles, math, columns, merge, macros, and sort. Prerequisite: CA202X or proficiency in intermediate word processing skills, and touch keyboarding skills of 35 words per minute. Class fee $\$ 12$. Offered as needed.

## CA205 Desktop Publishing 1—PageMaker

 3 class hrs/wk, 3 cr.A hands-on microcomputer desktop publishing course using Adobe PageMaker. Includes microcomputer use, an overview of the printing process, typography and basic design, and the use of PageMaker software. Prerequisite: Touch keyboarding skills of 25 words per minute and previous computer experience. Class fee $\$ 12$. F

CA206 Desktop Publishing 2-PageMaker 3 class hrs/wk, 3 cr.
An advanced hands-on microcomputer desktop publishing course using Adobe PageMaker. Includes a review of PageMaker software operation, additional basic design for desktop publishing, and the production of publications. Prerequisite: CA205 or equivalent. Class fee $\$ 12$. Offered as needed.

## CA208 Computer Presentations for the Workplace-MS PowerPoint <br> 3 class hrs/wk, 3 cr.

An introduction to the preparation of computer presentations for the workplace using current presentation software. Includes an overview of software features, design and typography basics, and production techniques for slides, overheads, and screen shows. Prerequisite: CS101 or equivalent as determined by instructor, or consent of instructor. $\mathbf{S p}$

## CA210 Office Microcomputer Applications

 3 class hrs/wk, 3 cr.Integrated software training. Includes training in word processing, database, spreadsheet, graphics, and Internet (minimal) on the microcomputer. Emphasis on integration and mailability of business documents. Prerequisite: CS101 and touch keyboarding skills. Class fee \$12. F, W, Sp

## CA210W Office Micro-Windows

3 class hrs/wk, 3 cr.
Integrated software training using Microsoft Works for Windows. Includes training in the word processing, database, spreadsheet, graphics, and communications features of this software on the microcomputer. Application problems will consist of using the integrated program in business-related projects. Prerequisite: CS101 and touch keyboarding skills. Class fee $\$ 12$. F, W, Sp

## CA211 Advanced Office Microcomputer Applications

## 2 class and 2 lab hrs/wk, 3 cr.

Advanced applications applicable to all computer environments, currently offered in ClarisWorks 4.0 for the Macintosh. Includes word processing, database, spreadsheet, graphics, and presentation software. Introduces the
use of clip art, quick-time movies, and the Internet, as well as exporting and importing files. Prerequisite: CA210. Class fee $\$ 12$. Offered as needed.

## CA225A Machine Transcription 1-A <br> $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 1 \mathrm{cr}$.

An introduction to transcribing from recorded dictation using a microcomputer, including operation of a transcribing machine and techniques of efficient transcribing. Stresses language arts skills and the development of accuracy. Students progress at their own rate of speed. Prerequisite: BT099 or BT099A; CA121A, B, C or equivalent as determined by instructor; CA201D or CA201X. Class fee $\$ 4$. Sp

## CA225B Machine Transcription 1-B

$2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 1 \mathrm{cr}$.
Continuation of CA225A. Covers techniques of efficient transcription on a transcribing machine. Language arts skills and the development of accuracy are stressed. Students progress at their own rate of speed. Prerequisite: CA225A. Class fee $\$ 4$. $\mathbf{S p}$

## CA225C Machine Transcription 1-C

2 lab hrs/wk, 1 cr.
A continuation of CA225B. Covers techniques of efficient transcription on a transcribing machine. Stresses language arts skills and the development of accuracy. Students progress at their own rate of speed. Prerequisite: CA225B. Class fee $\$ 4$. $\mathbf{S p}$

## CA230 Executive Office Simulation

2 class and 2 lab hrs/wk, 3 cr .
A work-flow simulation that gives students experience in working as team members with office co-workers. Includes practice in deci-sion-making, prioritizing, and time management. This course brings together skills acquired in prerequisite courses. Prerequisite: BA214, BT116, and CA210. Class fee $\$ 12$. Sp

CA232 Integrating Office Software Applications 3 class hrs/wk, 3 cr.
Emphasizes critical thinking skills to apply previous computer and business knowledge in the creation of individual and group projects. Students study and apply procedures for importing, exporting, linking, embedding, and merging. Students will also use electronic mail, peripheral equipment, and presentation software in the production of business documentation and oral reports. Prerequisite: CA202D, CA118ABC, CA210, and CS125Q. Sp
CA280 Cooperative Work Experience see AUM280.

## CG

## Counseling and Guidance

## CG090 Peer Assistance Training

## 3 class hrs/wk, 3 cr.

Provides training in implementing communication skills and referral techniques and in locating college and community-based resources and services as peer assistant. Students serve as resource personnel to assist and/or refer other
students with personal, social, or academic concerns. Offered as needed

## CG100 Preparing for College

1 class hr/wk, 1 cr.
Introduces students to techniques, strategies and information fundamental to success in the college environment. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## CG110 Career and Life Planning

1 class hr/wk, 1 cr.
Introduces students to the strategies and procedures fundamental to the identification of career development. Provides an assessment of individual personality traits, interests, skills, and values. Students will be exposed to career related materials, methods, and activities. Class fee $\$ 15$. F, W, Sp

## CG114 Career and Life Development <br> 3 class hrs/wk, 3 cr.

Provides strategies to integrate the personal, educational, and occupational elements of career and life development. Introduces the life-long process of career planning and transitions. Includes assessment of experiences, interests, skills, values, personality, and how these can influence career choice. Covers planning for education and training, decision making, and planning short-, medium-, and longrange career plans. Prerequisite: None. College-level reading and writing skills; some computer and World Wide Web/Internet experience is helpful. Class fee $\$ 15$. F, W, Sp

## CG130A Career Exploration and Planning 1 class hr/wk, 1 cr.

Uses an individualized study approach to select and explore career identification and decisionmaking. Includes evaluation of individual personality type, interests, skills, values, and work-related preferences. Offered as needed.

## CG130B Career Exploration and Planning

2 class hrs/wk, 2 cr.
Uses an individualized study approach to provide information and resources needed in exploring careers. Explores and assesses how interests, skills, values, and personality type influence career choice. Includes career research references as well as information on job and labor market trends. Offered as needed.

## CG130C Career Exploration and Planning

 3 class hrs/wk, 3 cr.Uses an individualized study approach to provide information, instruments, and procedures useful in exploring and determining career and life decisions. Includes selection of various career components involving assessment, research, planning, and decision-making process and identification of educational or training objectives. Offered as needed.

## CG217 Career Development Facilitator I

## 4 class hrs/wk, 4 cr.

Overviews career development theory and practice. Includes application of the career development facilitator's role/scope of practice, case management, career development theorists, adult development, and legal/ethical issues. Covers working with diverse populations, the career development interview, and
helping/assessment skills. Prerequisite: Consent of instructor. Class fee $\$ 20$. Offered as needed.

## CG218 Career Development Facilitator II

## 4 class hrs/wk, 4 cr.

Overviews assessment and labor market information in relation to career development. Includes hands-on use of formal and informal assessment instruments, selection criteria, administration and interpretation. Covers assessment of obstacles/ opportunities and research of labor market information. Prerequisite: CG217 or consent of instructor. Class fee $\$ 20$. Offered as needed.

## CG219 Career Development Facilitator III

 4 class hrs/wk, 4 cr.Overviews career decision-making and goal setting, job search strategies and techniques, and workshop facilitation skills. Includes program design and promotion. Prerequisite: CG217, CG218, or consent of instructor. Class fee $\$ 20$. Offered as needed.

## CG225 Understanding the Four-Year College Transition

2 class hrs/wk, 2 cr.
Identifies the connection between the transfer student's previous collegial institution and that of four-year colleges. Introduces students to the four-year college systems and provides strategies and information critical to both academic development and adjustment. F, W, Sp

## CH

## Chemistry

## CH104 Chemistry for Allied Health

4 class and 2 lab hrs/wk, 5 cr .
First term of a three-term sequence dealing with the molecular basis for life. Designed for Nursing, Dental Hygiene, EMT, and other Allied Health students who plan to pursue careers in the health science professions. Focuses on general chemistry with emphasis on the applications of chemical principles to the life sciences. Topics include structure and properties of matter, energy; atomic structure and bonding; gas laws; chemical reactions; reaction rates and equilibrium; and water, solutions, and colloids. Prerequisite: MTH070. Class fee $\$ 8$. F

## CH105 Chemistry for Allied Health

## 4 class and 2 lab hrs/wk, 5 cr .

Second term of a three-term sequence dealing with the molecular basis for life. Designed for Nursing, Dental Hygiene, EMT, and other Allied Health students who plan to pursue careers in the health science professions. Topics include colloids; reaction rates and equilibrium; acids and bases and their regulation in the body; saturated and unsaturated hydrocarbons; alcohol, ethers, aldehydes, ketones, carboxylic acids, and esters. Prerequisite: CH104. Class fee $\$ 8$. W

## CH106 Chemistry for Allied Health <br> 4 class and 2 lab hrs/wk, 5 cr .

Third term of a three-term sequence dealing with the molecular basis for life. Designed for Nursing, Dental Hygiene, EMT and other

Allied Health students who plan to pursue careers in the health science professions. Topics include carbohydrates; lipids; proteins; enzymes, vitamins, and hormones; pathways of metabolism; and nucleic acids. Prerequisite: CH105. Class fee $\$ 8$. Sp

## CH110 Foundations of General, Organic, and Biochemistry

4 class and 2 lab hrs/wk, 5 cr .
A one-term survey course of basic general, organic, and biochemistry designed to introduce students to the chemistry needed for understanding the functions of living organisms. Intended to serve as a minimum prerequisite for students entering beginning anatomy and physiology courses. Prerequisite: MTH070. No previous background in chemistry is required. Class fee \$8. F, W, Sp, Su

## CH111 Chemistry for Fire Science

and Emergency Services
4 class and 2 lab hrs/wk, 5 cr .
Presents basic information about general inorganic and organic chemistry. Covers elements, compounds, atomic structure, electronic configuration, periodic table, enthalpy, entropy, kinetic molecular theory, ionic and covalent bonding, chemical formulas, nomenclature, acids, bases, gases, hydrocarbons, aromatics, functional groups, carbohydrates, fats, proteins, enzymes, and nucleic acids. Prerequisite: MTH070. Class fee $\$ 8$. Offered as needed.

## CH115 Consumer Chemistry

3 class and 2 lab hrs/wk, 4 cr.
A general education approach to chemistry, emphasizing the meaning of science and how chemistry is connected to other disciplines and to the students lives. Covers science vs. technology, scientific method, atomic structure and theory, nuclear chemistry, chemical bonding, nomenclature, chemical reactions, acids and bases, oxidation and reduction, and chemistry of the earth. Class fee $\$ 8$. F

## CH116 Consumer Chemistry

3 class and 2 lab hrs/wk, 4 cr.
Second of a three-term sequence for the nonscience major. Covers organic chemistry, polymers, energy and the future, air and its pollution, water and its pollution, agricultural chemistry, and the starving Third World. Prerequisite: CH115 or consent of instructor. Class fee \$8. W

## CH117 Consumer Chemistry

3 class and 2 lab hrs/wk, 4 cr.
Third of a three-term sequence for the non-science student. Covers carbohydrates, fats, proteins, vitamins, brewing, baking, food additives, household chemicals, cosmetics, chemotherapy, drugs, sports medicine, and chemical toxicology. Prerequisite: CH116 or consent of instructor. Class fee $\$ 8$. Sp

## CH121 College Chemistry

## 4 class and 2 lab hrs/wk, 5 cr .

First of a three-term sequence. Introduction to the fundamentals of chemistry for students majoring in fields other than chemistry. Examines the interrelationships of chemistry to all disciplines of science. Covers scientific
method, atomic theory, stoichiometry, energy, periodicity, atomic structure, and bonding. Prerequisite: MTH070 or equivalent as determined by instructor. Class fee $\$ 12$. F, W

## CH122 College Chemistry

4 class and $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 5 \mathrm{cr}$.
Second in a three-term sequence. Provides basic understanding of molecular compound formations, changes of state, solutions, and reaction rates. Covers quantitative composition; stoichiometry; the gaseous state; acids, bases, and salts; oxidation-reduction reactions; nuclear chemistry; chemical equilibrium; and introduction to organic chemistry. Prerequisite: CH121. Class fee $\$ 12$. W, Sp

## CH123 College Chemistry

4 class and $2 \mathrm{lab} \mathrm{hr} / \mathrm{wk}, 5 \mathrm{cr}$.
Third in a three-term sequence. A continuation of organic chemistry including aliphatic, aromatics, function groups and their reactions, structure and chemistry of carbohydrates, lipids, proteins, and nucleic acids. Prerequisite: CH122. Class fee $\$ 12$. $\mathbf{S p}$

## CH172 Chemical Methods for Analysis of Musts and Wines <br> 2 class hrs and 2 lab hrs/wk, 3 cr .

Introduces vineyard and winery laboratory practices. Covers basic chemical principles, laboratory techniques and analytical procedures for musts and wines. Prerequisite: CH117 or higher. Class fee $\$ 12$. Sp

## CH201 Chemistry for Engineers

3 class and 3 lab hrs/wk, 4 cr .
First of a three-term sequence. Covers definitions, measurements, atomic nucleus, elements, compounds, binary nomenclature, gas laws, and chemical thermodynamics: heat, work, and energy. Prerequisite: MTH095. Class fee $\$ 12$. F

## CH202 Chemistry for Engineers

3 class and 3 lab hrs/wk, 4 cr .
Second of a three-term sequence. Covers liquids, phase changes, solutions, colloids, water pollution, distillation, chemical equilibrium, spontaneous changes, free energy, heat engines, acids and bases, atomic structure, quantum theory, stimulated emission, and laser light. Prerequisite: CH201. Class fee $\$ 12$. W

## CH203 Chemistry for Engineers

3 class hrs and 3 lab hrs/wk, 4 cr.
Third of a three-term sequence. Covers chemical bonds, polar molecules, the periodic table, conductivity, bonding theories, molecular shapes, crystals, nonconductors, semiconductors, liquid crystals, metals, alloys, ceramic materials, polymers, electrochemistry, oxidation and reduction, electrochemical cells, galvanic cells, electrolysis, and electrolytic processes. Prerequisite: CH202. Class fee $\$ 12$. Offered as needed.

## CH221 General Chemistry

## 4 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 5 \mathrm{cr}$.

First of a three-term sequence for students majoring in science and related professional fields. Covers matter and measurement; atoms, molecules, and ions; chemical formulas and equations; atomic structure; periodic table; the
gas laws; metals; and thermochemistry. Prerequisite: MTH111 or consent of instructor. Class fee $\$ 12$. F

## CH222 General Chemistry

4 class and 3 lab hrs/wk, 5 cr .
Second of a three-term sequence designed for students majoring in science and related professional fields. Covers periodic properties; molecular bonding; hybridization; resonance; solutions and solids; intermolecular forces; rates of reactions, and organic polymers. Prerequisite: CH221. Class fee $\$ 12$. W

## CH223 General Chemistry

4 class and 3 lab hrs/wk, 5 cr .
Third of a three-term sequence designed for students majoring in science and related professional fields. An in-depth study of acids and bases, ionic reactions, complex ions, oxidation and reduction, electrochemistry, quantitative analysis, and thermodynamics. Prerequisite: CH222. Class fee $\$ 12$. Sp

## CH241 Organic Chemistry

4 class hrs/wk, 4 cr .
Introduces the principles of organic chemistry for students majoring in the physical or life sciences. Emphasizes structure, nomenclature, physical properties, and chemical reactivities of organic molecules. Stresses bonding, functional groups, alkanes, and cycloalkanes, conformational analysis, stereochemistry, alkenes and alkynes. Prerequisite: CH123 or CH223. F

## CH241L Organic Chemistry Lab 3 lab hrs/wk, 1 cr.

Offers laboratory course to accompany CH241 Organic Chemistry for students majoring in the physical or life sciences. Emphasizes microscale laboratory experiments related to basic techniques of recrystalization, extraction, melting and boiling point determination, IR spectroscopy, extraction, chromatography, and synthesis. Prerequisite: CH123 or CH223. Corequisite with CH241. Class fee $\$ 12$. F

## CH242 Organic Chemistry

## 4 class hrs/wk, 4 cr.

Introduces the principles of organic chemistry for students majoring in the physical or life sciences. Emphasizes structure, nomenclature, physical properties, and chemical reactivities of organic molecules. Stresses alcohols, ethers, free-radical reactions, aromatic compounds, spectroscopy, oxidation-reduction, aldehydes and ketones. Prerequisite: CH241. W

## CH242L Organic Chemistry Lab

3 lab hrs/wk, 1 cr.
Offers a laboratory course to accompany CH242 Organic Chemistry for students majoring in physical and life sciences. Emphasizes microscale laboratory experiments related to reaction mechanisms, kinetics, spectroscopy, gas chromatography, and synthetic techniques. Prerequisite: CH241L. Corequisite with CH242. Class fee $\$ 12$. W

## CH243 Organic Chemistry

## 4 class hrs/wk, 4 cr.

Introduces the principles of organic chemistry for students majoring in the physical or life sci-
ences. Emphasizes structure, nomenclature, physical properties and chemical reactivities of organic molecules. Stresses carboxylic acids and their derivatives, amines, condensation reactions, carboxylics, lipids, amino acids, proteins and nucleic acids. Prerequisite: CH242 or consent of instructor. $\mathbf{S p}$

## CH243L Organic Chemistry Lab

$3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 1 \mathrm{cr}$.
Offers a laboratory course to accompany CH243 Organic Chemistry for students majoring in physical and life sciences. Emphasizes microscale laboratory synthesis, spectroscopy, covering biological activity of organic compounds, and qualitative analysis of unknowns. Prerequisite: CH 242 or consent of instructor. Corequisite with CH243. Class fee $\$ 12$. Sp

## CH272 Fundamentals of Wine Chemistry and

 Microbiology2 class hrs and 2 lab hrs/wk, 3 cr .
Covers wine chemistry and microbiology including wine acidity (with special emphasis on ionization curves, diprotic acids and buffers), sulfur dioxide in wine, spoilage and its treatment. Includes wine microorganisms, microbiological spoilage, stuck fermentations, sanitation, stabilization, and quality assurance. Prerequisite: CH172. Class fee $\$ 12$. W

## CHLA

## Chicano/Latino Studies

## CHLA201 Introduction to Chicano/Latino Studies I: Historical Overview <br> 4 class hrs/wk, 4 cr.

Introduces Latino history in the United States beginning with Spanish colonization and continuing with the Mexican-American War. Covers the Bracero Program, the Chicano Movement and U.S. foreign policy in Latin America. F

CHLA202 Introduction to Chicano/Latino Studies II: Political and Economic Overview 4 class hrs/wk, 4 cr.
Introduces the social, political, and economic status of Latinos in the context of United States institutions and structures. Examines demographic profiles and current issues. W

## CHLA203 Introduction to Chicano/Latino Studies III: Cultural Overview

## 4 class hrs/wk, 4 cr .

Provides an overview of the cultural heritage of Chicanos and Latinos in the United States. Draws from anthropology, folklore, literature, and linguistics. Examines folk and popular culture as well as the integration of various traditions. Offered as needed.

## CIS

## Computer Information Science

## CIS120 Computer Information Science I

4 class hrs/wk, 4 cr.
First in a three-course sequence. Introduction to terminology and overview of the historical development of computer and information science. Focuses on the basic concepts of computer
hardware and software systems, the science of information representation, and the fundamental elements of program design and computer language. Concepts are reinforced in a laboratory environment. Prerequisite: MTH070 and RD115, or equivalent level of skill as demonstrated by satisfactory score on placement test. Class fee $\$ 16$. F, W, Sp

## CIS121 Computer Information Science II 4 class hrs/wk, 4 cr.

Second in a three-course sequence. Introduction to the fundamental logic in designing specific algorithms for processing information typified by management information systems. Concepts are reinforced in a laboratory environment. Prerequisite: CIS120 or concurrent enrollment, or consent of instructor. Class fee \$16. F, W, Sp

## CIS122 Computer Information Science III <br> 4 class hrs/wk, 4 cr.

Third in a three-course sequence. Introduces software and languages that are used in today's network environment. Covers features of objectoriented design and programming concepts and contrasts them with structured methodology related language. Prerequisite: CIS121 or consent of instructor. Class fee $\$ 16$. Sp

## CJ

## Criminal Justice

## CJ050 Criminal Justice Foundation

3 class hrs/wk, 3 cr.
Provides the basic knowledge and skills needed to succeed in the Criminal Justice program. Includes the integration of reading, writing, technology, interpersonal communication, reasoning, and study skills as they pertain to the criminal justice profession. Designed for students who have not completed the Certificate of Advanced Mastery in Human Resources. Prerequisite: Designated placement procedure. Offered as needed

## 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. Offered as needed.

## CJ101 Criminology

3 class hrs/wk, 3 cr.
Development and conceptualization of crime, including historical perspective, social and legal definitions, and classifications. Presents an overview of criminology, research, data gathering, and analysis. Introduces theoretical perspectives on the nature of crime, criminals, and victimization and identifies current trends and patterns of crime. Offered as needed.

## CJ110 Introduction to Law Enforcement

3 class hrs/wk, 3 cr.
An introduction to the history and philosophy of law enforcement and the administration of justice. Provides a preview of law enforcement as a career and examines how an agency func-
tions in relation to the community. Offered as needed.

## CJ112 Field Operations and Patrol Procedures

 3 class hrs/wk, 3 cr.Introduces the nature and purpose of patrol activities, including routine and emergency procedures, types of patrol, arrest procedures, and field interviews. Covers equipment, technology, and vehicle operation. Emphasizes report documentation, courtroom testimony, and police tactical communications. Offered as needed.

## CJ123 Survival Spanish for Law Enforcement

 3 class hrs/wk, 3 cr .A practical, learner friendly Spanish language course for law enforcement students and personnel. Course emphasizes officer safety, increased community safety, enhanced job performance, projecting a positive image in the Hispanic community, and protection from legal liability. No prior knowledge of Spanish is necessary. Class fee $\$ 50$. Offered as needed.

## CJ130 Introduction to Corrections Process 3 class hrs/wk, 3 cr .

An overview of the corrections process, including historical development through contemporary issues. Examines variations in correctional institutions, levels of custody, administration practices, correctional staff roles and responsibilities, institutional policies, procedures, and programs. Covers inmate demographics, spe-cial-needs inmates, safety and security concerns, and current issues. Offered as needed.

## CJ132 Introduction to Parole and Probation

## 3 class hrs/wk, 3 cr.

Introduction to the basic philosophies, principles, and functions of parole, probation, and community corrections. Focuses on the role of community corrections in the administration of justice, community corrections options, techniques and training issues, and current challenges affecting these options. Offered as needed.

## CJ150 Unarmed Private Security Operations and Procedures

3 class hrs/wk, 3 cr .
Provides the training required by the Department of Public Safety Standards and Training D.P.S.S.T. for certification as an unarmed private security officer in the State of Oregon. Includes deportment and ethics; legal powers and limitations; fire detection, reporting, and safety procedures; criteria and procedures for notifying public authorities; observation and reporting techniques; and patrol fundamentals. Prerequisite: Enrollment limited to students and professionals who desire D.P.S.S.T. certification and licensing as unarmed private security officers in Oregon. Students are required to complete criminal history disclosure and PS-2 Private Security fingerprinting packet. Offered as needed.
CJ200 Police and Public Policy
3 class hrs/wk, 3 cr .
Discusses the role of criminal justice practitioners in maintaining community relations.

Examines the interrelationships and role expectations of agencies and the public, police and community tension, minority groups, social forces, and police image. Offered as needed.

## CJ203 Crisis Intervention Seminar 1 class hr/wk, 1 cr.

An overview of the techniques and approaches to crisis intervention for entry-level criminal justice professionals. Presents strategies for initial intervention, defusion and assessment, resolution and/or referral, with emphasis on safety. Includes personal effectiveness, recognition of threat levels, voluntary compliance, verbal and non-verbal communication, active listening, and mediation. Offered as needed.

## CJ206 Crime and Delinquency

3 class hrs/wk, 3 cr.
Study of crime and delinquency data using age, sex, race, socioeconomic and educational status, urbanization, and other variables. Introduces key concepts affecting juvenile victimization and theoretical perspectives and their application in the study of juvenile delinquency. Offered as needed.

## CJ207 Seminar in Criminal Justice

## 3 class hrs/wk, 3 cr.

Analysis of current and ongoing issues in criminal justice. Stresses creative thinking and problem solving through team discussion and classroom presentation. Offered as needed.

## CJ210 Introduction to Criminal <br> Investigations I: Crimes vs. Persons <br> 3 class hrs/wk, 3 cr .

Covers historical development of criminalistics. Introduces basic techniques and components involved in processing and investigating person-related crime scenes. Identifies specialized procedures and technology used to identify, profile, locate and apprehend offenders. Offered as needed.

## CJ211 Introduction to Criminal Investigations II: Crimes vs. Property

3 class hrs, wk, 3 cr.
Introduces basic techniques and components involved in processing and investigating prop-erty-related crime scenes. Identifies specialized procedures and technology used to identify, locate, and recover stolen property. Covers methods to identify and apprehend individuals. Emphasizes correlation between property crimes and drug use. Offered as needed.

## CJ212 Police Report Writing

3 class hrs/wk, 3 cr.
Provides students with the necessary information to become knowledgeable and successful writers of narrative police reports, documenting both original crimes and follow-up investigations. Utilizes a specialized format to meet different types of investigative activities, e.g., crime scene processing, interviews with suspects and witnesses, undercover operations, and the execution of search warrants. Reemphasizes basic writing skills and spelling accuracy related to criminal justice terminology. Offered as needed.

## CJ215 Criminal Justice Administration

3 class hrs/wk, 3 cr.
A survey of the administrative practices of criminal justice agencies with special emphasis on law enforcement. Covers administration in the public services area, including organizational theory and management, personnel management, and policy and procedures formulation. Offered as needed.

## CJ220 Introduction to Substantive Law and Oregon Criminal Code <br> 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. Offered as needed.

## CJ226 Introduction to Constitutional Law 3 class hrs/wk, 3 cr.

An intensive study and analysis of the United States Constitution and court decisions which determine the admissibility of evidence in criminal cases and which affect the role of law enforcement in police procedures. Includes criminal procedures processes. Offered as needed.

## CJ230 Introduction to Juvenile Corrections

## 3 class hrs/wk, 3 cr.

Surveys the historical and contemporary aspects of juvenile corrections. Identifies and explores the philosophy, functions, and goals of the juvenile justice system. Emphasizes the role of law enforcement, the courts, communitybased corrections, and custodial facilities, and includes an overview of the ongoing debate concerning rehabilitation vs. punishment philosophies in the juvenile justice system. Offered as needed.

## CJ232 Introduction to Corrections Casework

3 class hrs/wk, 3 cr.
An introduction to casework in corrections settings. Includes introduction to behavior-modification theories and methods, contemporary counseling techniques, assessment processes, and the development of officer-client relations. Emphasizes observation skills, perception issues, information gathering, interpersonal communication skills, and interviewing strategies and techniques. Offered as needed.

## CJ235 Youth, Drugs and Corrections

3 class hrs/wk, 3 cr.
The study of current trends, programs and philosophies regarding addiction, assessment processes, treatment options and related behavioral issues for youth offenders specifically in correctional institutions and post-conviction supervision. Offered as needed.

## CJ253 Introduction to Penology

## 3 class hrs/wk, 3 cr.

Includes a historical overview of punishment, the development of prisons, and the role of imprisonment as a correctional tool. Examines prison conditions, administrative practices, classification and custody, as well as correc-
tions staff responsibilities, recruitment, training, and retention. Focuses on inmate demographics, special-needs inmates, basic prison programs, visitation, prisoners rights, and legal issues. Offered as needed.

## CJ280 Cooperative Work Experience

 see AUM280.
## COM

## Communication Skills

see also Human Development, Reading, Skills Development, Writing

## C0M051 Communication Skills I

3 class hrs/wk, 3 cr.
Designed to improve the students writing skills. Students work on writing projects intended to replicate projects in occupational and technical fields. Class fee $\$ 2$. F, W, $\mathbf{S p}, \mathbf{S u}$

C0M051A,B,C Communication Skills IA, IB, IC

## 1 class hr/wk each, 1 cr. each

Designed to improve writing skills. Students work on writing projects intended to replicate projects in the occupational and technical fields in order to keep practical considerations in the foreground. Prerequisite: COM051B: COM051A; COM051C: COM051B. Class fee \$2 each. COM051A: F, COM051B: W, COM051C: Sp

## COM052 Communication Skills II

## 3 class hrs/wk, 3 cr.

Designed to improve a student's reading, writing, speaking, and listening skills using a variety of oral and written formats. Prerequisite: COM051 or equivalent as determined by instructor. Class fee $\$ 2$. F, W, Sp

## C0M053 Technical Report Writing

3 class hrs/wk, 3 cr.
For those following a vocational (non-transfer) track of study. Prepares students to write reports in a variety of styles, emphasizing clarity, coherence, conciseness, and accuracy. Prerequisite: COM051 or consent of instructor. Class fee $\$ 2$. Sp

## CPL

## 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. Class fee $\$ 5 . \mathbf{F}, \mathbf{W}, \mathbf{S p}$

## CS <br> Computer Science

## CS060 Techniques of User Training

2 class hrs/wk, 2 cr.
Introduces teaching methods, materials, and instructional design as related to training computer users. Prerequisite: Second-year standing in the Computer Programming program. $\mathbf{S p}$

## CS061 Computer Lab Assistant

3 lab hrs/wk, 1 cr.
Hands-on experience in working with students in a microcomputer lab. Prerequisite: Secondyear standing in Computer Programming program. Class fee $\$ 8$. Offered as needed.

## CS100 Beginning Microcomputer Use

1 class hr/wk, 1 cr.
An introduction to the use of microcomputers in an office. A brief overview of necessary hardware and software, proper use of the equipment, operation of a microcomputer, use of purchased programs, and maintenance of computer files. Class fee $\$ 8$. Offered as needed.

## CS101 Introduction to Microcomputer

## Applications

3 class hrs/wk, 3 cr .
Introduces the basic microcomputer hardware/ software system. Covers operating system concepts and beginning commands; word processing, spreadsheet, database applications; and introduction to Internet. Prerequisite: Touch typing ability and current enrollment in RD090 or equivalent. Class fee $\$ 12$. F, W, Sp, Su
CS103 Microcomputer Skills Problem Solving 3 class hrs/wk, 3 cr .
Designed to improve students' ability to learn to use new computer systems and software packages. Instructional methods will be designed to foster critical thinking, teamwork, and use of resources such as software documentation and help screens. Prerequisite: CS101 or CIS120, or consent of instructor. Class fee $\$ 12$. Offered as needed.

## CS105 Introduction to MS Windows

## 3 class hrs/wk, 3 cr.

Introduces the Graphical User Interface (GUI) environment with an emphasis on the operation of Microsoft Windows. Focuses on the multitasking environment, including multiple window interface, common user access (CUA) pull-down menus, and the interaction of RAM memory and PC hardware. Prerequisite: CS101. Class fee $\$ 12$. F, W, Sp

## CS125A Micro Database Software-Access

3 class hrs/wk, 3 cr.
A microcomputer database software course using Microsoft Access. Topics include: navigation through Windows and Access menus; PC relational database concepts; creation and updating of a relational database; simple queries, reports, and forms; complex queries, reports, and forms. Prerequisite: CS101 or consent of instructor. Class fee $\$ 12$. F, W, Sp

## CS125E Excel-Workbooks

4 class hrs/wk, 4 cr.
A course in the use of electronic workbooks in a multi-workbook environment using Excel. Pre-requisite: CS101 or equivalent. Class fee \$12. F, W, Sp

## CS125P Micro Database Software-Paradox

 3 class hrs/wk, 3 cr.The Paradox language is used to introduce personal computer (PC) database language concepts. Prerequisite: CS101 or equivalent as
determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS125Q Quattro-Workbooks

## 4 class hrs/wk, 4 cr.

Includes concepts associated with data type (labels and values) and how to build arithmetic formulas and use internal functions. Applications may include financial functions, statistical functions, and the use of commands to perform data distribution and general change of the workbooks appearance as well as graphics representation. Prerequisite: CS101 or equivalent as determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS131 Introduction to Data Processing 3 class hrs/wk, 3 cr.

Concepts, elements, and structure of business data processing systems. Includes classifying, calculating and reporting functions, programming, and computer fundamentals. Prerequisite: RD090 or equivalent as determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS133C COBOL I

## 4 class 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. Prerequisite: CIS121 or equivalent as determined by the instructor. Class fee $\$ 12$. W

## CS133E EASYTRIEVE PLUS

3 class hrs/wk, 3 cr.
How to code simple business-oriented programs. Emphasizes language structure and rules, file management, and retrieval. Prerequisite: CS233C or equivalent as determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS133F FORTRAN IV

## 4 class hrs/wk, 4 cr.

An introduction to language structure, manipulation of arrays, input and output formats, coding techniques, function, subroutines, disk files, and memory-dump debugging. Program assignments involve simple management and science problems. Prerequisite: MTH095 or equivalent as determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS133R RPG for Programmers

## 3 class and 3 lab hrs/wk, 4 cr.

Basic features of the RPG III language. Students write several RPG programs that print reports and build and maintain files. Prerequisite: CIS121 or equivalent as determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS133U C++ Language

4 class hrs/wk, 4 cr.
An introduction to the C++ programming language. Covers the structure of the language, the manipulation of data and arrays, and how to handle input and output functions. Prerequisite: CIS121. Class fee $\$ 12$. W

## CS133VB Visual Basic-Event-Driven

 Programming4 class hrs/wk, 4 cr.
An introduction to the Visual Basic programming environment. Emphasizes application event-driven and structured problem-solving and programming techniques to develop software. Students will design, code, test, and debug several programs. Prerequisite: CIS121 or equivalent programming experience as determined by the instructor. Class fee $\$ 12$. F, Sp

## CS135AC Advanced Micro Computer Database Software Using Access

## 3 class hrs/wk, 3 cr.

Advanced course in the development of an application system using Access software emphasizing forms and macros executed by the forms. Students will create a system which includes a startup menu form, an update form with a subform where the two forms interact with at least two tables, and inquiry and reporting options on the forms. Prerequisite: CS125A, or consent of instructor. Class fee \$12. Sp

## CS135SS LOTUS II-Macros

3 class hrs/wk, 3 cr .
Uses of LOTUS 1-2-3. Emphasizes writing and development of LOTUS macros. Class fee $\$ 12$. Offered as needed.

## CS140B Microcomputer Operating Systems

3 class hrs/wk, 3 cr.
Studies operating systems currently used on microcomputers. How to use these operating systems to access files and communicate with other microcomputers. Prerequisite: CS101, CIS120, or equivalent as determined by the instructor. Class fee \$12. F, W

## CS140M MS/DOS Operating Systems

1 class hr/wk, 1 cr.
A study of the MS/DOS operating system used on IBM-PC type microcomputers. Includes practice in using MS/DOS to run a microcomputer and access files. Prerequisite: CS101 or equivalent as determined by the instructor. Class fee $\$ 3$. Offered as needed.

## CS140U UNIX/LINUX

## 3 class hr/wk, 3 cr.

Covers the UNIX operating system using LINUX. Includes experience in using the UNIX operating system to run a microcomputer, access files, and communicate with other microcomputers. Prerequisite: CS101 or equivalent as determined by instructor. Class fee $\$ 20$. $\mathbf{S p}$

## CS145 Microcomputer Hardware

3 class and 2 lab hours/wk, 4 cr .
A study of the hardware concepts necessary to install and maintain computers and computer peripherals. Explains the interface between software and hardware and the requirements for A+ certification. Prerequisite: CS240 or CS140B, and ELT151 or ELT123. Class fee \$20. W

## CS160 Introduction to Computer Science

 3 class hrs/wk, 3 cr.Presents the history and current and future trends in computer science, as well as hardware and software development. Surveys campus computing resources, and introduces use of Internet facilities, and network basics. Computer science transfer students should coenroll in CS161. Prerequisite: CS101 or consent of instructor. F

## CS161 Computer Science I

4 class hrs/wk, 4 cr.
The first of a three-term sequence in computer science concepts for computer science majors and other students desiring a foundation in computer programming. Prerequisite: Grade of C or higher in MTH111 or equivalent, and concurrent enrollment in CS160. Class fee $\$ 12$. F

## CS162 Computer Science II

## 4 class hrs/wk, 4 cr.

The second term of computer science concepts emphasizing the appropriate use of style and algorithms. Includes searching and sorting algorithms, stacks, queues, linked lists, dynamic memory allocation, and file I/O. Prerequisite: Grade of C or higher in CS161 or equivalent as determined by instructor. W

CS171 Principles of Computer Organization 3 class and 3 lab hrs/wk, 4 cr.
An introduction to the organization of a digital computer. Covers historical development, number systems, data encoding, Boolean and digital logic fundamentals, processor components, instruction execution and addressing. Presents an introduction to Assembler language programming and the Assembler process, RISC machines, and parallel architectures. Prerequisite: MTH111; fourth term standing in the Microcomputer Support Specialist program. Class fee $\$ 12$. W

## CS178I Introduction to the Internet/World Wide Web <br> 3 class hrs/wk, 3 cr.

Introduces the use and history of the global computer network known as the Internet or information superhighway. Explores the philosophy of the Internet, as well as its use as a tool for research, communication, and entertainment. Students will develop and publish a simple web page on the World Wide Web. Prerequisite: CS101. Class fee $\$ 12$. F, W, $\mathbf{S p}, \mathbf{S u}$

## CS179 Introduction to Windows NT

3 class hrs/wk, 3 cr .
An introduction to computer networks from an end-user prospective. Provides hands-on experience installing network software and managing user accounts and network resources. Prerequisite: CS140B, or ELT123, and previous experience with Windows. Class fee $\$ 12$. Sp

## CS233B BASIC for Programmers

## 3 class 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: CS133B or equivalent as deter-
mined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS233C COBOL II

## 4 class hrs/wk, 4 cr.

Continuation of CS133C. Business-oriented programs are coded, debugged, and documented using top-down structured programming techniques. Emphasizes coding techniques to make program coding, debugging, and documentation, as well as program maintenance, easier. Prerequisite: CS133C. Class fee $\$ 12$. Sp

## CS233U Advanced C

4 class hrs/wk, 4 cr .
A continuation of CS133U. Studies features and instructions of the C language. Emphasizes application-oriented programs that produce printed reports, maintain files, and modify an operating system. Class fee $\$ 12$. Prerequisite: CS133U. Offered as needed.

## CS234C C0B0L/CICS Programming Techniques <br> 4 class hrs/wk, 4 cr.

Advanced course in ANS COBOL. Complete business application packages are coded and documented. Emphasis on efficiency coding, file backup and restoration procedures, systems planning, modular programming, VSAM files, systems documentation, data management techniques, independent research, and problem solving. Prerequisite: CS234L and CS246. Class fee $\$ 12$. Sp

## CS234L On-Line Programming Techniques

4 class hrs/wk, 4 cr.
Study of CICS on-line application programming using the COBOL language. Prerequisite: CS233C or consent of instructor. Class fee $\$ 12$. F

## CS237 Software Design

3 class and 3 lab hrs/wk, 4 cr .
Coding and documentation of microcomputer programs as well as the special considerations and requirements of interactive programs. Prerequisite: Consent of instructor. Class fee $\$ 12$. Offered as needed.

## CS240 Advanced Operating Systems

3 class hrs/wk, 3 cr.
Study of advanced operating systems. Incorporates the use of third-party utility programs, hard disk management concepts, MS/DOS in a network environment, and MS/DOS-OS-AIX migration considerations. Prerequisite: CS140B or consent of instructor. Class fee $\$ 12$. F

## CS244 Systems Analysis I

## 3 class hrs/wk, 3 cr.

Basic administrative procedures. Principles of organizing, planning, and administering a procedure program. Methods of carrying out individual systems and procedures studies. Procedures analysis and improvement techniques, the role of systems and procedures in business management, systems charting, work simplification, and measurement. Sp

## CS246 Systems Analysis II

3 class hrs/wk, 3 cr.
Fundamentals of automated systems and procedures. Techniques and principles of top-down systems analysis and design, data gathering, feasibility studies, problem analysis, systems economics, forms design and control, procedure writing, and the planning involved in the installation of electronic data processing systems. Prerequisite: CS244. F

## CS260 Computer Science III: Data Structures

4 class hrs/wk, 4 cr.
Continuation of CS162. A further analysis of topics in CS162 with additional concepts in recursion, binary trees, and object-oriented programming. Prerequisite: Grade of C or higher in CS162 or equivalent as determined by the instructor. Class fee $\$ 12$. Sp

## CS275 Database Management

4 class hrs/wk, 4 cr .
Designed to be broader than teaching specific database products or fourth generation languages. Addresses database development, a concept which includes data modeling, database design, and database implementation. Identifies the enti-ty-relationship and object data modeling techniques, and the importance of normalizing data models. Presents techniques of implementing these models into a relational database scheme. Discusses SQL. Prerequisite: CS244. W

## CS278 Data Communications

## 3 class hrs/wk, 3 cr.

Fundamental concepts in data communication including definition of terms, communicating concepts, comparison of voice and data communication (analog vs. digital signals), medium access, elementary data link protocols, topologies, servers, and operating system standards implemented in Local Area Networks (LAN). Prerequisite: Second-year standing in Computer Programming program. Class fee \$12. W

## CS279 Network Management

3 class and $4 \mathrm{lab} \mathrm{hr} / \mathrm{wk}, 5 \mathrm{cr}$.
A study of Local Area Network Systems (LANs) and Wide Area Network Systems (WANs) using Novell's operating system. Includes the design, construction, operation, maintenance, and management of a network, including the installation of software packages, printers, and adding new users. Prerequisite: CS145 and CS278 or ELE150. Class fee $\$ 30$. Sp

## CS280 Cooperative Work Experience

 see AUM280.
## CS285 Fourth-Generation Language-SQL

## 3 class hrs/wk, 3 cr.

Use of standard SQL commands and syntax forms to perform typical query commands. Prerequisite: CIS121 or equivalent as determined by the instructor. Class fee $\$ 12$. Offered as needed.

## CS286 Web Server Configuration and Management

3 class and 2 lab hrs/wk, 4 cr .
Explains the process to design and build an Intranet system. Includes establishing a multi-
server environment that requires web services, Common Gateway Interfaces, E-mail services, database services and other web based applications. Prerequisite: CS140U, and CS288. Class fee $\$ 30$. W

## CS288 Windows NT Server

3 class and 2 lab hrs/wk, 4 cr.
Provides hands-on experience installing, configuring, customizing, administering and maintaining a Windows NT server and network resources. Prerequisite: CS140B or ELT123, and CS179. Class fee $\$ 30$. F

CS289 Advanced Network Application Support 3 class and 2 lab hrs/wk, 4 cr .
Focuses on software and hardware troubleshooting and support required in a Local Area Network environment. Prerequisite: Concurrent enrollment in CS279, or consent of instructor. Class fee $\$ 30$. Sp

## CVL

## Civil Engineering Technology

## CVL143 Introduction to Civil Survey

2 class and 3 lab hrs/wk, 3 cr.
Introduces a broad variety of office- and fieldbased activities associated with the work of a professional land surveyor. Emphasizes profes-sional-technical development. Prerequisite: MTH060 or concurrent enrollment. F

## CVL161A Plane Surveying I-Lecture

2 class hrs/wk, 2 cr.
Covers plane survey theory and practice. Includes measurement techniques associated with taping, leveling, topographic, and boundary surveys. Emphasizes professional-technical development. Prerequisite: MTH081 or MTH070 and concurrent enrollment in CVL161B, or consent of instructor. W

## CVL161B Plane Surveying I-Lab

## 6 lab hrs/wk, 2 cr.

Covers field practices and application of equipment utilized in professional land surveying. Emphasizes tactile learning with strong team orientation. Prerequisite: CVL161A, concurrent enrollment in CVL161A, or consent of instructor. Class fee $\$ 10$. W

## CVL162A Plane Surveying II-Lecture

2 class hrs/wk, 2 cr.
Continuation of Plane Surveying. Studies distance and direction measurement, employing theodolites, steel tapes, traversing and associated office computations, areas, stadia, circular curves, and outlines of public land surveys. Introduces electronic distance-measuring devices. Prerequisite: CVL161A, concurrent enrollment in MTH082 and CVL162B. Sp

## CVL162B Plane Surveying II-Lab

6 lab hrs/wk, 2 cr.
Incorporates field survey with a focus on data gathering for computerized mapping. Introduces American Land Title Association specification standards. Prerequisite: CVL162A, concurrent enrollment in CVL162A, or consent of instructor. Class fee $\$ 10$. Sp

CVL230 Applied Statics
3 class hrs/wk, 3 cr.
Analyzes the forces induced in structures and machines by various types of loading. Prerequisite: MTH082 or consent of instructor. F

## CVL231 Applied Strength of Materials

4 class hrs/wk, 4 cr .
Analyzes internal stresses, deflections, and deformations of structures when subjected to external forces. Covers how to design structures based on structural analysis. Prerequisite: CVL230 or consent of instructor. W

## CVL260 Survey Project Planning <br> 1 class and 6 lab hrs/wk, 3 cr .

Covers advanced research of deed and survey data. Emphasizes preparation of equipment and labor requirement plans needed for field survey project planning. Prerequisite: CVL162. W

## CVL261 Environmental and Sanitary Engineering

2 class and 6 lab hrs/wk, 4 cr.
Introduces elementary concepts of hydraulics, hydrology, storm collection and detention, sanitary sewer and domestic water supply designs. Applies concepts to typical design documentation. Prerequisite: MTH082 and DRF245. W

## CVL263A Construction and Route SurveyingLecture

2 class hrs/wk, 2 cr.
Covers design and construction of typical route survey and site construction projects. Applies state plane coordinate systems, astronomical observation, and in-process field computations. Prerequisite: CVL161B, MTH082, concurrent enrollment in CVL263B, or consent of instructor. $\mathbf{S p}$

## CVL263B Construction and Route SurveyingLab

6 lab hrs/wk, 2 cr.
Reviews field practices and applies survey techniques to construction of public and private roads and structures. Covers advanced responsibilities of a team leader with additional equipment care and use requirements. Uses advanced mapping techniques from data gathered in the field. Prerequisite: Concurrent enrollment in CVL263A or consent of instructor. Class fee $\$ 10$. $\mathbf{S p}$

## Dance

see Physical Education

## DEN

## Dental Assisting

## DEN050 Dental Sciences

3 class hrs/wk, 3 cr.
A study of the sciences associated with the practice of dentistry. Includes oral microbiology, oral pathology, sterilization and disinfection principles, OSHA bloodborne pathogen and hazard communication standard, anesthesia, dental office emergencies and pharmacology. Prerequisite: Current enrollment in the Dental Assisting program or consent of instructor. $\mathbf{F}$

## DEN051 Introductory Concepts in Dental Assisting

2 class and 3 lab hrs/wk, 3 cr .
A basic study of the dental assistant's role with emphasis on terminology, instruments and equipment, personal regimen, chairside techniques, and patient communication. Emphasis is placed on the qualifications necessary for success in the dental assistant field. Prerequisite: Enrollment in Dental Assisting program or consent of instructor. $\mathbf{F}$

## DEN052 Dental Head and Neck Anatomy

2 class and 2 lab hrs $/ \mathrm{wk}, 3 \mathrm{cr}$.
Introduces the student to head and neck anatomy. Directs particular attention toward the oral cavity and its associated structures and anatomical terminology. Covers the skeletal system, head and neck anatomy, musculature, nervous and circulatory systems, and anatomical and functional structures of the oral cavity. Prerequisite: Enrollment in Dental Assisting program or consent of instructor. Class fee $\$ 5$. F

## DEN053 Dental Materials I

2 class and 3 lab hrs/wk, 3 cr .
Introduces the student to the various materials and laboratory equipment used in the dental office. Includes the chemical and physical properties, manipulation, and uses of restorative materials, medications, impression materials, and dental cements. Includes an overview of restorative and crown preparation procedures. Prerequisite: Enrollment in the Dental Assisting Program or consent of instructor. Class fee $\$ 15$. $\mathbf{F}$

## DEN054 Preventive Dentistry

## 1 class hr/wk, 1 cr.

Introduces the student to basic techniques and information relevant to prevention of plaquerelated disease. Includes causative factor, nutritional influences, prevention products, and their uses, patient motivation, and public health programs. Prerequisite: Enrollment in the Dental Assisting program or consent of instructor. F

## DEN060 Dental Specialities

3 class hrs/wk, 3 cr .
A study of the various fields of specialized dentistry recognized by the American Dental Association. Introduces applied psychology through role playing with laboratory and clinical application in the specialties. Prerequisite: Second-term standing in the Dental Assisting program. W

## DEN061 Dental Assisting Practicum I

1 class and 7 lab hrs/wk, 3 cr .
Course designed to provide supervised clinical experience in basic chairside assisting procedures, including material manipulation, oral evacuation, instrument transfer, charting and patient management at the Oregon Health Sciences University School of Dentistry. Prerequisite: Second-term standing in Dental Assisting program and proof of current health care provider CPR card. Class fee $\$ 10 . \mathrm{W}$

## DEN062 Intermediate Clinical Skills

2 class and 3 lab hrs/wk, 3 cr .
A presentation of the theory and practice of intermediate clinical responsibilities delegated to dental auxiliary personnel. Includes discussion, demonstration and practical application of rubber dam placement and removal; alginate impressions; bite registration; oral hygiene instruction; and dietary analysis. Prerequisite: Second-term standing in the Dental Assisting program. Class fee $\$ 15$. W

## DEN063 Dental Materials II

2 class and 3 lab hrs/wk, 3 cr.
Designed to introduce the student to the principles of laboratory procedures related to fixed and removable prosthetics. The use of appropriate laboratory equipment by the student will be supplemented by instructional demonstration of additional laboratory techniques and materials.
Prerequisite: Second-term standing in the Dental Assisting program. Class fee $\$ 15$. W

## DEN064 Dental Radiology I

2 class and 3 lab hrs/wk, 3 cr.
Provides information pertinent to the principles of dental radiology, and legal aspects regarding the use of radiation. Includes the history of dental radiology; terminology; radiation physics; machine operation and equipment use; biological effects of x-rays; principles of radiation health, safety, and protection; anatomical landmarks; and dental films, and darkroom processing techniques. Students use x-ray manikins to practice film placement and exposure techniques. One patient full-mouth radiographic series is required. Exposed films are processed and evaluated. Prerequisite: Second-term standing in the Dental Assisting program. Class fee $\$ 15$. W

## DEN070 Dental Office Management

 2 class hrs/wk, 2 cr.Designed to prepare the student for management of the dental office, including the study of business office procedures and techniques, written communications, computer use, dental insurance, inventory control, accounts receivable, recall systems, and staff and patient management. Class fee $\$ 5$. Prerequisite: CS101. F, W, $\mathbf{S p}$

## DEN071 Dental Assisting Practicum II 1 class and 24 lab hrs/wk, 9 cr.

Observation and practice in an ethical dental office. Students develop communication rapport with the dental team and patients, perform specified chairside procedures, complete reception tasks, apply skills in laboratory procedures, and expose and process patient x-rays as directed by the dentist. Prerequisite: Third-term standing in the Dental Assisting program. Class fee $\$ 10$. $\mathbf{S p}$

## DEN072 Expanded Functions

2 class and 3 lab hrs/wk, 3 cr.
Theory and practice of legal Expanded Functions for dental assistants. Includes discussion, demonstration, and practical application of coronal polish; topical fluoride; amalgam polish; cement removal; and pit and fissure sealant placement. Prerequisite: Third-term
standing in the Dental Assisting program. Class fee $\$ 15$. Sp

## DEN074 Dental Radiology II

1 class and 3 lab hrs/wk, 2 cr .
A continuation of DEN064. Course allows students to take additional adult and pedodontic manikin films using low dose technique. Students then develop skills in patient management and perfect radiographic techniques by completing two full-mouth patient x - ray series. Lectures include information to assist the student in taking pedodontic films, films in edentulous areas, films taken while the patient is in a supine position, endodontic films, occlusal films, and extra-oral films. Students learn utilization of the panoramic x-ray unit, film duplicators, and automatic film processors. Students process and evaluate all exposed films and are eligible to take the State x-ray examination upon successful completion of DEN064 and DEN074. Prerequisite: Third-term standing in the Dental Assisting program. Class fee $\$ 15$. $\mathbf{S p}$

## DEN080 Dental Assistant Seminar <br> 2 class hrs/wk, 2 cr.

Designed to prepare the student for the Dental Assisting National Board Certification Examination and for successful employment by incorporating resume writing, completion of a job application, and interview techniques into the course. Prerequisite: Third-term standing in the Dental Assisting program. $\mathbf{S p}$

## DRF <br> Drafting Technology

## DRF051 Technical Graphics

1 class and $6 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
Covers fundamentals of graphics communication. Includes multiview and pictorial representation, dimensioning, and section and auxiliary views. Prerequisite: DRF072 or consent of instructor. Class fee $\$ 5$. Offered as needed.

## DRF054 Drafting I

1 class and 3 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, including metrics. Class fee $\$ 5$. Offered as needed.

## DRF056A,B,C Architectural Drafting-A, B, C

 3 lab hrs/wk, 1 cr. eachBasic architectural drafting techniques and methods. Includes architectural lettering, layout, arrangement, symbols, and conventional construction methods used in residential or light commercial buildings. Prerequisite: DRF056A: DRF051, DRF054, or consent of instructor. DRF056B: DRF056A. DRF056C: DRF056B. Offered as needed.

## DRF072 Introduction to AutoCAD

2 class and 3 lab hrs/wk, 3 cr.
Incorporates hands-on experience with AutoCAD, a PC-based computer-aided drafting program. Includes standard graphics com-
mands for two-dimensional drawings. Class fee $\$ 5$. F, W, Sp, Su

## DRF095A,B,C Special Projects in Drafting and Design

Variable hours/1-3 credits
Student and instructor identify drafting project or problem and jointly draw up a contract. The contract sets forth a proposal to complete the project or solve the problem. Identifies objectives, procedures, and equipment needed, together with key checkpoints for studentinstructor conferences. This course is intended for, but not limited to, second-year drafting or mechanical design students as an elective. Potential areas of consideration include community development projects, computer programming and applications, machine design, mapping, civil engineering drafting, or any drafting-related field. Provides consideration and encouragement to an interdisciplinary team of students working on a common problem. Prerequisite: Second-year standing in the Drafting Technology program or consent of instructor. F, W, Sp, Su

## DRF101 Basic CAD for Electronics

1 class and 3 lab hrs/wk, 2 cr.
Covers the use of AutoCAD, schematic drawings, wiring diagrams, block diagrams, and packaging drawings, in addition to basic CAD operations in the field of electronic drafting. Class fee $\$ 5$. F, W

## DRF102 Print Reading

1 class and 3 lab hrs/wk, 2 cr.
Students study various drawings of residential and commercial construction. Includes symbol designations used in construction. Emphasizes construction methods, terminology, and reference sources. W

## DRF103 Advanced Print Reading

## 1 class and 3 lab hrs/wk, 2 cr.

Develops the student's ability to read and interpret architectural drawings and specifications for complex building construction using the Uniform Building Code (UBC) as a basis for plan review. Prerequisite: DRF102 or consent of instructor. $\mathbf{S p}$

## DRF110 Introduction to Hewlett Packard

## Calculators

2 class hrs/wk, 2 cr .
Covers computation and presentation of technical data using the HP engineering calculator to solve typical problems in mechanical, civil and tool design, and related areas. Prerequisite: Concurrent registration in an algebra course or consent of instructor. F, W

## DRF112 Sketching

## 3 labs/wk, 1 cr.

Development of basic freehand technical sketching skills and techniques used in drafting and practical pictorial communication. $\mathbf{F}$

## DRF114 Drafting Orientation

1 class and 3 lab hrs/wk, 2 cr.
Introduces drafting as a career option. Offers field trips to offices and job sites, guest lecturers, Internet and periodical research on cutting-
edge technology. Includes creating and presenting multimedia reports. $\mathbf{F}$

## DRF121 AutoCAD R14 to 2000

3 lab hrs/wk, 1 cr.
Introduces new features and commands found in AutoCAD 2000 for current users of AutoCAD Release 14. Implements new techniques to complete a project. Prerequisite: Experience with AutoCAD R14. Class fee $\$ 5$. Offered as needed.

## DRF136 Advanced AutoCAD

2 class and 3 lab hrs/wk, 3 cr.
Incorporates hands-on experience with AutoCAD software. Includes standard graphics commands for two-dimensional drawings. Prerequisite: DRF072. Class fee $\$ 5$. F, W, $\mathbf{S p}, \mathbf{S u}$

## DRF137 AutoCAD 3-D

2 class and 3 lab hrs/wk, 3 cr .
Uses 3-D capabilities to generate three-dimensional models of mechanical parts. Covers Advanced Modeling Extension (AME) and generation of 2-D projections using Profile operations. Prerequisite: DRF136 or consent of instructor. Class fee \$5.F, W, Sp

## DRF140 Advanced Technical Graphics

1 class and 6 lab hrs/wk, 3 cr .
Covers fundamentals of graphics communication. Includes multi-view drawings, dimensioning, section views, auxiliary views, and descriptive geometry concepts. Prerequisite: DRF072 or consent of instructor. Class fee $\$ 5$. $\mathbf{S p}$

## DRF150 Architectural Drafting I

1 class and 6 lab hrs/wk, 3 cr.
Covers basic architectural drafting techniques and methods. Includes architectural lettering, dimensioning, layout, arrangement, symbols, and conventional construction methods used in residential or light commercial buildings. Uses AutoCAD to draft a set of construction drawings. Prerequisite: DRF072 or consent of instructor. Class fee $\$ 5$. Sp

## DRF155 Mapping and Platting

1 class and 6 lab hrs/wk, 3 cr.
Covers map components, legal descriptions, plot plans and contours. Introduces Geographic Information Systems (GIS) and Global Positioning Systems (GPS). Prerequisite: DRF136 or consent of instructor. Class fee $\$ 5$. Sp

## DRF160 Technical Software Applications

2 class and 3 lab hrs/wk, 3 cr.
Engineering applications of purchased software packages. Includes the use of spreadsheets to design structural members and as an aide in statistical analysis and parametric design. Prerequisite: CS101, MTH081 and concurrent enrollment in DRF136. Sp

## DRF165 CAD System Administration

2 class and 3 lab hrs/wk, 3 cr.
Covers techniques for enhancing performance of AutoCAD software; selecting hardware components; using conventional, system, expanded, and extended memory; customizing operating systems; and installing ADI drivers. Includes use of local area network.

Prerequisite: DRF136 or consent of instructor. Class fee $\$ 5$. $\mathbf{S p}$

## DRF201 CMOS I

## 2 class and 6 lab hrs/wk, 4 cr.

Entry-level integrated circuit design in Complimentary Metal Oxide Silicone (CMOS) technology. Covers layout and drafting of logic, schematic and stick diagrams. Prerequisite: DRF101, MT110, ELT151 or consent of instructor. Class fee $\$ 5$. W

## DRF202 CMOS II

1 class and 6 lab hrs/wk, 3 cr .
Advanced concepts of integrated circuit mask design. Uses specialized CAD tools to produce major team integrated circuit layout project.
Prerequisite: DRF201 or consent of instructor. Class fee $\$ 5 . \mathbf{S p}$

## DRF210 Parametric Design

1 class and 6 lab hrs/wk, 3 cr.
Uses Autodesk Mechanical Desktop parametric design software to create models of parts. Produces detail and assembly drawings for a simple machine. Applies precision dimensioning and tolerancing to current manufacturing standards. Prerequisite: DRF137 or consent of instructor. Class fee $\$ 5$. $\mathbf{F}$

## DRF220 GIS ArcView

1 lecture, 3 lab hrs/wk, 2 cr.
Uses ArcView software to view geographic relationships. Study of GIS basic concepts. Covers physical, climactic, and social attributes of various regions of the world. Class fee $\$ 5$. F, W

## DRF221 GIS ArcCAD

1 class and 6 lab hrs/wk, 3 cr.
Uses ArcCAD and R13 AutoCAD software in GIS applications. Studies advanced GIS concepts and covers ArcCAD commands and operations. Prerequisite: DRF220 or consent of instructor. Class fee $\$ 5$. W

## DRF230 Introduction to MicroStation PC

2 class and 3 lab hrs/wk, 3 cr .
Introduces the MicroStation PC drafting software. Covers the basic drawing, editing, and display commands. Contrasts operations to AutoCAD. Prerequisite: DRF072. Class fee $\$ 5$. W, Su

## DRF231 Advanced MicroStation <br> 1 class and 6 lab hrs/wk, 3 cr.

Uses Microstation software to produce building construction drawings. Emphasizes creating master drawings containing all building data. Includes manipulation of file contents to produce multiple drawings. Covers researching codes to develop a site plan. Prerequisite: DRF230, DRF241. Class fee $\$ 5$. Sp

## DRF240 Architectural Drafting II

## 1 class and 6 lab hrs/wk, 3 cr.

Covers advanced architectural drafting techniques and methods. Includes complete plan submittal process, shearwall designs, engineered foundation wall, advanced building process, advanced construction details, complex roof systems, current building products, advanced CABO and UBC. Prerequisite:

DRF150 or consent of instructor. Class fee $\$ 5$. F, W

## DRF241 Structural Drafting

1 class and 6 lab hrs/wk, 3 cr.
Uses AutoCAD software to produce working drawings. Covers drafting practices applied to the use of steel and concrete as building materials. This steel manual will be used as a reference. Prerequisite: DRF136 or consent of instructor. Class fee $\$ 5$. F

## DRF242 3-D Studio

1 class and 6 lab hrs/wk, 3 cr .
Students will produce objects and scenes as 3-D computer images, incorporating various materials and lights. Class fee $\$ 5$. F

## DRF243 Architectural Design

1 class and 6 lab hrs/wk, 3 cr .
Elements and principles of aesthetic design are studied and applied to assigned laboratory projects. Prerequisite: DRF137 or consent of instructor. Class fee $\$ 5$. Sp

## DRF245 Civil Drafting and Design

1 class and 6 lab hrs/wk, 3 cr .
Introduces AutoCAD Land Development Desktop. Develops residential subdivision and typical utility design documentation. Prerequisite: DRF136 or consent of instructor. Class fee \$5. F

## DRF246 Project Development

1 class and 6 lab hrs/wk, 3 cr .
Covers elements of field and office survey, residential design and layout with associated utility work including an engineer's cost estimate. Incorporates preparation of all design documentation in review-ready condition. Prerequisite: CVL261. Sp

## DRF251 Power Transmission Design

3 class hrs/wk, 3 cr .
Focuses on the design of power transmission systems. Incorporates hydraulics, pneumatics, electric motors, chains, belts, bearings, and speed reducers. Analyzes system requirements, sizing of machine elements, and selection of components from industrial catalogs. Prerequisite: MTH082 or consent of instructor. W

## DRF252 Flexible Manufacturing Systems

2 class and 3 lab hrs/wk, 3 cr .
Application of hydraulic, pneumatic, and electronic circuits for automated control of industrial systems. Includes digital design, Boolean algebra, combinational logic, and sequential logic. Lab exercises cover programming of industrial robots and programmable logic controllers. Prerequisite: MTH082 and concurrent enrollment in PH081. Sp

## DRF255 Technical Illustration

1 class and 6 lab hrs/wk, 3 cr.
Presents methods of pictorial drawing, exploded view drawing, computer rendering, and printing. Introduces AcuRender and Photoshop software for use in color rendering. Prerequisite: DRF137 or consent of instructor. Class fee $\$ 5$. $\mathbf{S p}$

## DRF256 AutoLISP Programming

2 class and 3 lab hrs/wk, 3 cr .
Introduction to AutoLISP functions. Focuses on development of programs to increase AutoCAD productivity. Prerequisite: DRF136. F

## DRF260 Tool Design

1 class and 6 lab hrs/wk, 3 cr.
Introduces the principles of tool design, focusing on gauging, locating, clamping, and figure design. Incorporates high production techniques and tooling. Prerequisite: DRF210 or consent of instructor. Class fee \$5. W

## DRF262 Machine Design

1 class and 6 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. Prerequisite: DRF210. Class fee $\$ 5$. Sp
DRF280 Cooperative Work Experience see AUM280.

## EC

## Economics

## EC200 Introduction to Economics

## 3 class hrs/wk, 3 cr.

A study of the concepts involving scarcity and choice, supply and demand, government spending and taxation, national income accounting, business cycles, unemployment, inflation, financial markets, and the evolution of economic thought. Prerequisite: MTH070. F, W

## EC201 Introduction to Microeconomics

3 class hrs/wk, 3 cr.
A study of price elasticity, production costs, the competitive firm, monopoly, imperfect competition, market power and antitrust, (de)regulation of business, and the labor market. Prerequisite: MTH095. F, W

## EC202 Introduction to Macroeconomics

 3 class hrs/wk, 3 cr.A study of aggregate spending, fiscal and monetary policies, money and banking, Federal Reserve, business cycle, unemployment, and inflation. Prerequisite: MTH095. W, Sp

## EC203 Applications to Economic Issues

 3 class hrs/wk, 3 cr.Emphasizes such global issues as economic growth, environmental protection, rent, interest and profit, international trade and finance, international development, and the collapse of communism. Prerequisite: EC201 and EC202. Sp

## ECE

## Early Childhood Education

see also Education, Human Development and Family Studies

## ECE068A, B, C Observing Preschool Experiences

1 class hr/wk, 1 cr . each
Students observe various aspects of a preschool. In ECE068A, students observe children's development; ECE068B focuses on observing guidance; ECE068C emphasizes the
classroom environment and curriculum. Each course may be repeated for a maximum of two credits. Prerequisite: Consent of instructor. ECE068A: F; ECE068B: W; ECE068C: Sp

## ECE070A-D Infant/Toddler Training

1 class hr/wk, 1 cr. each
Four infant/toddler training modules. A: Socialemotional growth and socialization; B: Group care; C: Cognitive learning and developing; D: Culture and families. Class fee $\$ 15$ each. Offered as needed.

## ECE086 Family Day Care I (Basic)

1 class hr/wk, 1 cr.
Provides the caregiver with basic information on managing a family day care home. Includes practical suggestions for working with parents, keeping business records, providing healthy and safe environments for children, and establishing a home business. F, W, Sp, Su

## ECE087 Family Day Care II (Advanced)

1 class hr/wk, 1 cr.
Continues information on managing a family day care home. Focuses on environments and activities and how children grow and learn. Covers children of different ages, cultures, and abilities. Offered as needed.

## ECE150 Introduction and Observation in Early Childhood Education

## 3 class hrs/wk, 3 cr.

An overview of early childhood education including the history, professional opportunities, and different philosophies of early education. Covers the value and use of objective observation as a teaching tool. Includes occasional field trips during class time, weekly lec-ture-discussion, and written observations. F

## ECE151 Observing and Guiding Behavior

3 class hrs/wk, 3 cr.
Emphasizes the role of the teacher and techniques of individual and group guidance and management. Prerequisite: ECE150 or consent of instructor. W

## ECE152 Creative Activities

2 class and $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
Focuses on understanding and implementing a developmental approach to creative activities for the young child. Involves hands-on experience with a wide variety of activities, discussion of presentation, and methods of evaluation. Includes art activities, use of natural materials, cooking experiences, puppet-making, and the development of new art. Class fee $\$ 10$. W

## ECE153 Music and Movement for Young Children

3 class hrs/wk, 3 cr.
Emphasizes music as a pleasurable medium of expression. Topics include: the value of music in the preschool setting; the role of the teacher; environments that support music and movement experiences; basic music theory and terminology; and the use of spontaneous and planned activities for young children. Class fee \$5. Sp

## ECE154 Children's Literature and Literacy

3 class hrs/wk, 3 cr.
Surveys children's literature along with presenting methods for using and evaluating such literature. Students will read children's books, evaluate these, and have story groups with children. Explores how children develop literacy. $\mathbf{S p}$

## ECE155 Child Nutrition

2 class hrs/wk, 2 cr.
Introductory course in human nutrition and health with emphasis on the nutritional needs of the young child. Includes practical application in the day care setting and planning snacks and meals for preschool children. W

## ECE161 Infant/Toddler Practicum

1 class and 6 lab hrs/wk, 3 cr .
Experience in working with infants and toddlers in a laboratory setting and assisting with supervision of the various daily activities.
Prerequisite: HDFS249 or consent of instructor. Class fee $\$ 5$. F, W, Sp

ECE162 Early Childhood Educator Orientation 1 class and 3 lab hrs/wk, 2 cr .
Roles and responsibilities of the early childhood educator. Experience in working with young children in an organized setting and assisting with supervision of the various daily activities in a preschool program. Prerequisite: ECE151 or consent of instructor. Class fee $\$ 5$. F, W, Sp

## ECE163 Preschool Practicum

2 class and 6 lab hrs/wk, 4 cr .
Experience working with young children in a laboratory preschool setting. Students will assist with supervision of the various activities in a preschool program. Includes some planning, executing, and evaluation of curriculum materials appropriate for the young child. Prerequisite: Grade of C or higher in HDFS225, HDFS249, ECE151, and ECE162. Class fee $\$ 10$. F, W, Sp

## ECE251 Environments for Young Children

 3 class hrs/wk, 3 cr.Covers planning, implementing, and evaluating environments for preschool children. Includes how to facilitate play in the environment, room arrangements, outdoor areas, equipment selection and sources, children's furniture, and scrounging for materials usable in the preschool environment. Prerequisite: Secondyear standing in the Early Childhood Education program or consent of instructor. $\mathbf{F}$

## ECE261 Student Teaching I, Early Childhood Education

2 class and 12 lab hrs/wk, 6 cr.
Supervised teaching of young children in a laboratory setting. Prerequisite: Grade C or higher in ECE163, second-year standing in the Early Childhood Education program, and consent of instructor. Class fee $\$ 10$. F, W, Sp

## ECE262 Student Teaching II, Early Childhood

 Education2 class and 12 lab hrs/wk, 6 cr.
Supervised teaching of young children in a preschool laboratory. Prerequisite: Grade C or
higher in ECE261, and consent of instructor. Class fee $\$ 10$. F, W, Sp

## ECE280 Cooperative Work Experience

see AUM280.

## ECE295 Administration of Early Childhood

## Programs

3 class hrs/wk, 3 cr.
Covers areas of administrative responsibility: finances and budget and sources of income; selection and purpose of materials and equipment; standards (local, state, federal) and regulatory agencies in regard to health, nutrition, and safety. Computer simulations and software will be used to experience administrative functions. Prerequisite: Second-year standing in Early Childhood Education program or consent of instructor. $\mathbf{S p}$

## ED

## Education

## ED101 Introductory Observation and Experience

2 class and 3 lab hrs/wk, 3 cr.
Designed to provide an introduction to the role and work of instructional assistants through casework and weekly field trips. Covers occupational opportunities, career ladders, and other training models. Provides students direct experience with educational settings and opportunities to examine the attitudes and work habits which influence job effectiveness and satisfaction. $\mathbf{F}$

## ED102 Practicum

1 class and 6 lab hrs/wk, 3 cr .
Field experience in a variety of classroom activities directly related to assisting and supervising children in school settings. Allows students to apply knowledge, methods, and skills gained from education courses. Seminars cover classroom experience, problem-solving techniques, and materials. Prerequisite: ED101 or equivalent experience, and current First Aid Card. Class fee $\$ 5$. F, W, Sp, offered summer as needed.

## ED103 Advanced Practicum

## 1 class and 15 lab hrs/wk, 6 cr.

Field experience in a variety of classroom settings closely paralleling duties regularly assigned to instructional assistants in a school. Allows students to apply in-depth knowledge, methods, and skills gained from education courses. Seminars cover classroom experience and problem-solving techniques. Prerequisite: ED102 and current First Aid Card. See advisor for writing, math, and computer science prerequisites. Class fee $\$ 5$. F, W, Sp

## ED110 Psychology of Learning

3 class hrs/wk, 3 cr.
Modern theories of behavior, motivation, and human development as applied to the classroom and techniques derived from these theories. $\mathbf{F}$

ED123 Classroom Techniques in Reading and Language
3 class hrs/wk, 3 cr.
An introduction to the nature of the reading process. Students will be introduced to the skills and techniques used in providing supplemental reading instruction with elementary age students. Focuses on teaching reading for meaning through the use of the four cuing systems, comprehension strategies, sight and meaning vocabulary development, reading and writing connections, and appropriate uses of graphophonics. W

## ED124 Classroom Techniques in Mathematics

 and Science3 class hrs/wk, 3 cr.
Prepares educators to help children learn specific mathematical content (facts, skills, concepts), apply mathematical ideas to solve problems, and to foster a positive attitude toward mathematics. Covers concepts of patterns, estimation, graphing, addition, subtraction, multiplication, division, and fractions. $\mathbf{S p}$

## ED125 Techniques for Tutoring Adults

1 class and 4 lab hrs/wk, 3 cr .
Prepares tutors to work with students primarily in professional and technical areas. Offered as needed.

## ED131 Teaching Techniques

3 class hrs/wk, 3 cr.
Introduces a variety of teaching techniques and provides practice for students in lesson planning and peer teaching. Students will plan lessons, teach these lessons to small groups of peers, and participate in self-evaluation and peer evaluation of others teaching. W

## ED133 Instructional Media and Materials

## 3 class hrs/wk, 3 cr.

Designed to train students in the preparation and use of instructional media and materials commonly found in public schools. Includes an introduction to computers and other new learning technologies. Helps students develop an understanding of the place and importance of these instructional tools in the learning process, and how to design lessons using these materials. F

## ED205A Tutoring Principles and Practices

1 class and 2 lab hrs/wk, 2 cr.
Principles and practices of tutoring basic reading, writing, and English as a Second Language skills to adult learners. Following completion of course basics, additional options provide instruction in tutoring basic math, advanced grammar, conversation, and pronunciation. Also considers learning styles and tutoring with the aid of a computer. Offered as needed.

## ED205B Tutoring Principles and Practices 1 class and 4 lab hrs/wk, 3 cr.

Principles and practices of tutoring basic reading, writing, and English as a Second Language skills to adult learners. Following completion of course basics, additional options provide instruction in tutoring basic math, advanced grammar, conversation, and pronunciation. Also considers learning styles and tutoring with the aid of a computer. Offered as needed.

## ED209B Practicum: Introductory Observation and Experience (LDC)

1 class and 6 lab hrs/wk, 3 cr.
Introduces the field of education to students exploring education as a career. $\mathbf{S p}$, offered as needed.

## ED209C Professional Technical Practicum I 1.5 class and $4.5 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 6 \mathrm{cr}$.

Prepares students for extended teaching responsibility in a public school setting. Students will assess, plan, and implement a five-day (four periods a day) unit of instruction at the practicum placement site. Prerequisite: ED209B. Offered as needed.

## ED209D Professional Technical Practicum II

 2 class and 7 lab hrs/wk, 9 cr .Prepares students for full teaching responsibility in a public school setting. Students will assess, plan, and implement all instructional programs for a period of four weeks (four periods a day) at the practicum placement site. Seminar experiences will support full-time teaching experience. Prerequisite: ED209B and ED209C. Offered as needed.

## ED209V1-V4 Advanced Education Practicum

1 class and 6-16 lab hrs/wk, variable 3-6 cr.
Provides for an educational field experience in a classroom setting for students pursuing careers in instructional assisting, professionaltechnical teaching, or education. Prerequisite: Consent of instructor. Offered as needed.

## ED210 Professional Portfolio Development 3 class hrs/wk, 3 cr.

Focuses on professional portfolio development to document educational experience and expertise. Provides students with an opportunity to develop a professional portfolio to document their experience and effectiveness as an educator. Includes portfolio demonstrations in seeking a licensed position. Prerequisite: Consent of instructor. Offered as needed.

## ED212 Schools and Society

## 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. $\mathbf{S p}$

## ED213 Advanced Instructional Techniques in Reading

## 3 class hrs/wk, 3 cr .

Designed to prepare students to use a variety of instructional strategies which build upon the foundations of reading developed in ED123. Compares and contrasts current instructional strategies and explores the interactive nature of language, reading, writing, and spelling. Prerequisite: ED123. Offered as needed.

## ED214 Advanced Instructional Techniques in Mathematics and Science <br> 3 class hrs/wk, 3 cr .

Designed to prepare students to use a variety of instructional strategies built upon the foundations of mathematics taught in ED124. Explores manipulative mathematics across the curriculum as well as additional areas of math
instruction including operations with rational numbers, probability, geometry, measurement, time, and money. Prerequisite: ED124. Offered as needed.

ED217 Comprehensive Classroom Management 3 class hrs/wk, 3 cr.
Provides current theory and methodology for managing small and large groups of students effectively. Covers understanding students personal/psychological and learning needs, establishing positive teacher-student relationships, implementing instructional methods that facilitate optimal learning, and using organizational and group management methods that maximize on-task student behavior. W, offered as needed.

## ED235 Instructional Technology

3 class hrs/wk, 3 cr.
Introduces students to current technology available in education. Presents the tools to evaluate, select, and implement appropriate technology in the instructional setting. Offered as needed.

## ED236 Introduction to Library/Media Services

 3 class hrs/wk, 3 cr.Introduces students to the role of the instructional assistant in library/media centers. Common features in the organization of these centers will be explored and students will perform routine duties to maintain the collection and provide service to library/media patrons. Offered as needed.

## ED251 Overview of Students with Special Needs

3 class hrs/wk, 3 cr.
Introductory course covering disabilities and medical conditions that teachers in the public and private sector must be able to recognize and understand including learning disabilities, mental retardation, severe emotional disturbances, speech and language impairments, visual impairments, hearing impairments, physical disabilities and other health impairments, autism, traumatic brain injuries, Tourette's Syndrome, and Attention Deficit Disorder. Although not a disability or medical condition, the needs of at-risk youth will be covered also. $\mathbf{F}$

## ED253 Current Issues in Special Education

3 class hrs/wk, 3 cr.
Designed to provide students interested in special education an opportunity to explore indepth current issues in special education. Students will be exposed to current philosophical frameworks, legislative changes, emerging conditions, and technological advances.
Prerequisite: ED251 or consent of instructor. Offered as needed.

ED257 Second Language Teaching Techniques 3 class hrs/wk, 3 cr.
Covers philosophy, activities, materials, and various techniques used to teach English as a Second Language. Offered as needed.

## ED258 Multicultural Education

3 class hrs/wk, 3 cr.
Covers philosophy, activities, and materials used in developing a culturally-sensitive multicultural classroom and curriculum. $\mathbf{F}$

## ED259 Bilingual Methodology

3 class hrs/wk, 3 cr.
Covers philosophy, techniques, activities, and materials used in bilingual/bicultural education programs. Examines the philosophy, rationale, and legal implications of bilingual/bicultural programs and management and use of English and Spanish reading materials in a bilingual classroom. Offered as needed.

## ED268 Educating the Mildly and Severely Handicapped

3 class hrs/wk, 3 cr.
Covers theories and techniques for working with students with disabilities. Studies services and funding provided for students with mild and severe disabilities. Prerequisite: ED251 or consent of instructor. Offered as needed.

## ED270 Teaching at the Community College

 3 class hrs/wk, 3 cr.Assists new, continuing, or adjunct instructors in developing and refining the skills necessary to apply successful instructional strategies in a community college classroom. Addresses shifting paradigms in teaching/learning related to diversity, brain-based teaching, and student centered instruction. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## ED270A Teaching at the Community College: Planning for Instruction

1 class hr/wk, 1 cr .
Assists new, continuing, or adjunct instructors in developing and refining the skills necessary to plan for and assess student-centered instruction. F, W, Sp, Su

## ED270B Teaching at the Community College: What Every Instructor Should Know About Adult Learners

1 class hr/wk, 1 cr.
Assists new, continuing, or adjunct instructors in understanding the nature of adult learners by becoming informed about community colleges and the students who attend them, characteristics of effective instructors, student learning styles, and anti-bias classroom practices. F, W, $\mathrm{Sp}, \mathrm{Su}$

## ED270C Teaching at the Community College: Brain-Based Teaching and Learning

1 class hr/wk, 1 cr.
Assists new, continuing, or adjunct instructors in learning about the brain's natural operational principles and how they can be applied to the teaching and learning process in a community college setting. F, W, Sp, Su

## ED291 Natural Resource Institute

5 class hrs and 35 lab hrs, 2 cr.
The study of natural resource education for teachers interested in establishing a natural resource program at their high schools. Involves instruction in ecosystem-based management and sustainability in natural resource education. Field experiences are provided by experts in natural resource management and connections made towards program development at schools. Su

## ED292 Occupational Analysis, Curriculum, and

 Evaluation3 class hrs/wk, 3 cr.
Course provides students with the opportunity to analyze their professional-technical specialty area in order to develop curriculum and evaluation strategies for professional-technical programs. Includes community surveys, occupational advisory committees, occupational analysis, program goals and objectives, and evaluation. Prerequisite: ED209B, ED212, or consent of instructor. Offered as needed.

## ED293 Applied Integrated Academics

3 class hrs/wk, 3 cr.
Designed for students in the Professional Technical Teacher Preparation program. Prepares professional-technical teachers to integrate mathematics, language arts, and science content into their professional-technical courses. Offered as needed.

## ELE and ELT

## Electronics Technologies

see also Microelectronics/Industrial and
Integrated Circuit Mask Design
ELE056 Concepts of Electronics

## 4 class and 4 lab hrs/wk, 6 cr.

Includes DC and AC theories, troubleshooting concepts, use of test equipment, and safety. Prerequisite: MTH070 or equivalent as determined by the instructor. Offered as needed.

## ELE120 Network Media Fundamentals

3 class and 2 lab hr/wk, 4 cr .
Focuses on network media fundamentals and types of transmission media used in computer network environments. Covers transmission line theory, and discusses the characteristics of Coaxial-cables, Twisted-pair-cables, Singlemode and Multi-mode fiber. Compares the specification for cables and connectors used in networking. Prerequisite: MT100, or consent of instructor. Class fee $\$ 20$. W

## ELE150 Networking Essentials

4 class and 3 lab hrs/wk, 5 cr .
The first course of a four-part sequence in a Cisco curriculum directed toward the Cisco Certified Network Associate Certification (CCNA). Provides students with classroom and laboratory experience in current networking technology and includes network terminology, protocols, network standards, LANs, WANs OSI model, cabling, cabling tools, safety, network topology and IP addressing. Prerequisite: CS101, or consent of instructor. Class fee $\$ 40$. F

## ELE151 Network Router Configurations

4 class and 3 lab hrs/wk, 5 cr.
The second course of a four-part sequence in a Cisco curriculum directed toward the Cisco Certified Network Associate Certification (CCNA). Emphasizes experience in current networking technology, and includes network terminology and protocols, LANs network topology, and IP addressing, routers, router programming and application of routing and protocols. Prerequisite: ELE150. Class fee $\$ 40$. W

ELE152 LANs and Internetwork Design
4 class and 3 lab hrs/wk, 5 cr.
The third course of a four-part sequence in a Cisco curriculum directed towards the Cisco Certified Network Associate Certification (CCNA). Emphasizes experience in current networking technology that includes LAN segmentation using bridges, routers and switches to control network traffic. Prerequisite: ELE150, ELE151. Class fee $\$ 40$. Sp

## ELE153 WAN Design

4 class and 3 lab hrs/wk, 5 cr .
The fourth course of a four-part sequence directed towards the Cisco Certified Network Associate Certification (CCNA). Introduces WAN services. Covers ISDN, ATM, frame relay and dial-up services. Prerequisite: ELE150, ELE151, ELE152. Class fee $\$ 40$. F

## ELE251 Advanced Internetwork Design <br> 4 class and 3 lab hrs/wk, 5 cr .

The first course of a two-part sequence in the Cisco Certified Network Professional (CCNP) curriculum. Provides students with classroom and advanced laboratory experience in current networking technology. Focuses on design issues related to complex routed LANs and WANs. Prerequisite: ELE150, ELE151, ELE152, ELE153. Class fee $\$ 40$. W

## ELE252 Advanced WAN Configurations

4 class and 3 lab hrs/wk, 5 cr .
The second course of a two-part sequence in the Cisco Certified Network Professional (CCNP) curriculum. Provides students with advanced experience in networking design. Focuses on installation, configuration, and troubleshooting of complex routed LANs, routed WANs, switched networks and Dial Access Services. Prerequisite: ELE150, ELE151, ELE152, ELE153, CCNA, or consent of instructor. Class fee $\$ 40$. Sp

## ELE256 Computer Networks for Educators I

4 class and 3 lab hrs/wk, 5 cr.
First course in a four-course sequence for people involved in education or training. Covers the history and fundamentals of computer networking, both software and hardware. Studies local, wide-area, and global networks. Smallto medium-size networks will be designed, built, and maintained. Discusses issues related to teaching networking concepts. Covers networking fundamentals, ISU/OSI model, and TCP/IP Protocols. Prerequisite: One year experience in technical instruction. Offered as needed.

## ELE257 Computer Networks for Educators II

4 class and 3 lab hrs/wk, 5 cr .
Second course in a four-course sequence for people involved in education or training. Covers the history and fundamentals of computer networking, both software and hardware. Studies local, wide-area, and global networks. Small- to medium-size networks will be designed, built, and maintained. Discusses issues related to teaching networking concepts. Covers router fundamentals and network topology. Prerequisite: ELE256. Offered as needed.

ELE258 Computer Networks for Educators III 4 class and 3 lab hrs/wk, 5 cr .
Third course in a four-part sequence directed towards the Cisco Certified Network Associate (CCNA) certification. Emphasizes experience in current networking technology that includes LAN segmentation using bridges, routers, and switches to control network traffic. Designed for educators/trainers to discuss issues related to teaching networking concepts. Prerequisite: ELE257. Offered as needed.

## ELE259 Computer Networks for Educators IV

4 class and 3 lab hrs/wk, 5 cr .
Fourth course in a four-part sequence directed towards the Cisco Certified Network Associate (CCNA) certification. Introduces WAN services. Covers ISDN, ATM, Frame Relay, and Dialup Services. Designed for educators/trainers to discuss issues related to teaching networking concepts. Prerequisite: ELE258. Offered as needed.

## ELT111 Electronics Orientation

## $2 \mathrm{lab} \mathrm{hr} / \mathrm{wk}, 1 \mathrm{cr}$.

Introductory course in the field of electronics. Covers career opportunities, basic vocabulary, soldering, static awareness, tool identification, safety, first aid, hardware, and chemicals used in electronics. Class fee $\$ 4$. F, W

## ELT121 Programming Concepts I

3 class and 2 lab hrs/wk, 4 cr.
An introduction to computer programming and computer operating systems using $\mathrm{C}+$ language. Prerequisite: MTH081 or consent of instructor. Class fee $\$ 8$. $\mathbf{F}$

## ELT122 Programming Concepts II

3 class and 2 lab hrs/wk, 4 cr.
Surveys various professional software applications. Students will learn and demonstrate one major software application. Prerequisite: ELT121 or any high-level programming class. Class fee $\$ 8$. $\mathbf{S p}$

## ELT123 Computer Operating Systems

3 class and 2 lab hrs/wk, 4 cr.
Introduces computer operating systems. Prerequisite: CS101, or equivalent experience. Class fee $\$ 12$. F, W

## ELT131 Electronic Concepts I

3 class and 4 lab hrs/wk, 4 cr.
First in a three-term sequence. Covers electrical and atomic theory applicable to the field of electronics. Introduces DC and AC theory, test equipment use, schematic reading, and circuit construction. Prerequisite: High school algebra, MTH070, or consent of instructor. Class fee $\$ 16$. F, W

## ELT132 Electronic Concepts II

3 class and 4 lab hrs/wk, 4 cr .
Second in a three-term sequence. Covers electrical and atomic theory applicable to the field of electronics. Stresses reactive circuit theory and the theorems used for circuit analysis. Prerequisite: ELT131 or consent of instructor, and concurrent enrollment in a trigonometry class. Class fee $\$ 16$. W, Sp

## ELT133 Electronic Concepts III

## 3 class and 3 lab hrs/wk, 4 cr .

Last in a three-term sequence. Covers electric circuit analysis and atomic theory applicable to passive circuits used in electronics. Applies the fundamental concepts learned in ELT131 and ELT132. Prerequisite: ELT132. Class fee $\$ 12$. $\mathbf{S p}, \mathbf{S u}$

## ELT141 Transistor Fundamentals

3 class and 6 lab hrs/wk, 5 cr .
Provides an introduction to semiconductor physics and covers the fundamental principles of diodes and bipolar transistors, and field effect transistors. Introduces the diode as a switching device, with emphasis on forward and reverse operating characteristics. Presents bipolar transistors as switching devices and as linear amplifiers, using six standard methods of biasing. The field effect transistor (JFET and MOSFET) is introduced and compared with the operating characteristics and biasing methods of the bipolar transistor. Prerequisite: Concurrent enrollment in ELT132. Class fee \$16. W, Sp

## ELT142 Semiconductor Devices

2 class and 3 lab hrs/wk, 3 cr.
Covers the fundamentals of basic power supplies, including both discrete and integrated devices in current and voltage regulating circuits. Surveys the operating principles of solidstate devices such as unijunction transistors, special purpose diodes, thyristors (SCRs, TRIACs, etc.) and photoelectric devices. Prerequisite: ELT141 or consent of instructor. Class fee $\$ 12$. $\mathbf{S p}, \mathbf{S u}$

## ELT143 Pulse Circuit Fundamentals <br> 2 class and 3 lab hrs/wk, 3 cr.

An introduction to discrete pulse techniques which includes theory and operation of discrete multivibrator circuits, synchronization circuits, and discrete sweep generators. Prerequisite: ELT141 or consent of instructor. Class fee $\$ 12$. $\mathbf{S p}, \mathbf{S u}$

## ELT151 Digital Fundamentals

3 class and 2 lab hrs/wk, 4 cr.
First course in a two-part sequence covering digital electronics, an introduction to digital logic theories. Includes number systems and conversions, Boolean algebra, simplification theorems, combinational logic, and an introduction to arithmetic circuits. Prerequisite: ELT131 or consent of instructor. Class fee $\$ 8$. W, Sp

## ELT161 Linear IC Fundamentals <br> 3 class and 3 lab hrs/wk, 4 cr.

Introduces linear integrated circuit amplifiers. Emphasizes device parameters and basic circuit operating characteristics. Various linear integrated circuit amplifying devices are compared and evaluated through laboratory experiments. Co-requisite: ELT133 and ELT142. Prerequisite: ELT132 and ELT141. Class fee $\$ 12$. Sp, Su

## ELT181 Antennas and Transmission Lines

 2 class hrs/wk, 2 cr.Covers the practical and theoretical aspects of basic transmission lines and antennas. Covers the characteristics and properties of open-wire, coaxial, and special-purpose transmission lines, plus those of vertical and horizontal antennas. Also covers the coupling of source, transmission lines, and antennas. Prerequisite: ELT244 and ELT252. W

## ELT182 Telecommunications

## 2 class and 3 lab hrs/wk, 3 cr.

Studies communications theory and systems. Laboratory experiments help develop practical knowledge and reinforce theoretical concepts. Prerequisite: Concurrent enrollment in ELT181. Class fee $\$ 12$. W

## ELT183 Logical Troubleshooting

3 class and 6 lab hrs/wk, 5 cr .
Covers the principles and process of logical troubleshooting to diagnose and repair systems. Video systems are used for troubleshooting experience. Prerequisite: ELT244 and ELT262, or equivalent with consent of instructor. Class fee $\$ 24$. Sp

## ELT191 Advanced Industrial Electronics

## 3 class and 3 lab hrs/wk, 4 cr.

Principles and concepts of electronic and electrical control and sensing devices used in industry. Covers electric motors, three-phase electricity, control devices and circuits, process control systems and servos, measurement transducers, and programmable controllers (PCLs). Prerequisite: ELT141, ELT142, ELT262, or consent of instructor. Class fee $\$ 12$. Sp

## ELT244 Electronic Circuit Analysis <br> 2 class and 6 lab hrs/wk, 4 cr.

A study of basic electronic devices and circuit designs with emphasis on proving design concepts using the R parameters. Covers small-signal amplifiers, bipolar circuits, FET circuits, oscillators, and power amplifiers. Circuits are analyzed using P-Spice and Electronic Workbench simulation software while other circuits are constructed and analyzed using laboratory test equipment. Prerequisite: ELT141 and ELE133, or consent of instructor. Class fee \$16. F

## ELT252 Digital Circuit Applications

2 class and 3 lab hrs/wk, 3 cr.
A continuation of ELT151. The course is labo-ratory-oriented to give students hands-on experience with sequential logic circuits such as flip-flops, counters, registers, combinations circuits, and arithmetic logic units. Prerequisite: ELT151. Class fee $\$ 12$. F

## ELT253 Microprocessor Systems

3 class and 6 lab hrs/wk, 5 cr .
Covers hardware and software concepts and interfacing criteria and techniques used by microprocessors. Stresses hardware and software, and troubleshooting techniques. Prerequisite: ELT151, ELT252, and a highlevel programming language, or consent of instructor. Class fee $\$ 24$. W

## ELT254 Computer Hardware

3 class and 3 lab hrs/wk, 4 cr.
Studies computer hardware and peripherals. Explains the theories of operation and concepts of interfacing both software and hardware. Emphasizes installation and troubleshooting techniques. Prerequisite: ELT123. W

## ELT255 Advanced Data Communication <br> 3 class and 6 lab hrs/wk, 5 cr .

Covers the theories and concepts of information exchange between computers via data networks. Discusses a variety of communication methods. Laboratory sessions emphasize the installation, maintenance, and operation of data communication network systems. Multiple network hardware configurations are constructed and tested using Novell's Netware operating system. Prerequisite: ELT123, ELT253, CS278, and a high-level programming language, or consent of instructor. Class fee $\$ 12$. $\mathbf{S p}$

## ELT256 Advanced Computer Architecture

## 3 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 4 \mathrm{cr}$.

For students with a solid foundation in digital logic, microprocessors, and programming. Explains advanced computer system theory. Lab sessions emphasize system installation and troubleshooting of both hardware and software. Prerequisite: ELT253. Class fee $\$ 24$. Sp

## ELT262 Linear IC Applications

2 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
A design and applications course using the integrated circuit amplifier and special function IC devices to study circuits related to industrial applications. Applies and evaluates selected circuit designs in the laboratory. Prerequisite: ELT244 and ELT161. Class fee \$12. W

## ELT280 Cooperative Work Experience

see AUM280.

## EMT

## Emergency Medical Technology

## EMT051 Emergency Medical Technician Basic, Part 1

4 class and 3 lab hrs/wk, 5 cr .
Designed to instruct a student in the skills of Emergency Medical Technician Basic. Includes all skills necessary to provide emergency medical care as outlined by the Oregon Board of Medical Examiners. This two-part course is one of a series comprising a national and state EMS training program. Prerequisite: Concurrent enrollment in BLS Health Care Provider CPR. Must meet standards as set by the Oregon State Health Division for certification, including health, driving, and criminal record. Class fee $\$ 7$. F, offered as needed.

## EMT052 Emergency Medical Technician Basic,

## Part 2

3 class and 3 lab hrs/wk, 4 cr .
This course is designed to instruct a student in the skills of Emergency Medical Technician Basic. Includes all skills necessary to provide emergency medical care as outlined by the Oregon Board of Medical Examiners. This twopart course is one of a series comprising a national and state EMS training program.

Students successfully completing Part 2 will be recommended to the Oregon Health Division for the certification process. Prerequisite: Successful completion of EMT051 and concurrent enrollment in EMT280A. Class fee $\$ 5$. W, offered as needed.

## EMT065 Emergency Medical Technician <br> Intermediate, Part 1 <br> 4 class and 2 lab hrs/wk, 5 cr .

Discussion, demonstration, and practical application of EMT roles and responsibilities, patient assessment, airway management, oxygen and ventilation therapy, shock treatment, intravenous therapy, intraosseous therapy, ECG monitoring, defibrillation, pharmacology, and field protocols. Prerequisite: Current Oregon EMT Basic certification and a score of $75 \%$ or better on pretest. Class fee $\$ 25$. Offered as needed.

## EMT066 Emergency Medical Technician Intermediate, Part 2 <br> 4 class and 2 lab hrs/wk, 5 cr .

A continuation of EMT065. Students successfully completing Part 2 will be recommended to the Oregon Health Division for the certification process. Prerequisite: EMT065. Class fee $\$ 25$.
Offered as needed.

## EMT069 EMT Rescue

## 2 class and 4 lab hrs/wk, 3 cr.

Elementary procedures of rescue practices, systems, components, support, and control of rescue operations including ladder procedures and basic rescue tools. Introduction to techniques and tools of patient extrication, emphasizing application to traffic accidents, as required for paramedic certification. Prerequisite: EMT051 and EMT052, or current Oregon EMT Basic certification. Offered as needed.

## EMT070 Emergency Communication and Patient Transportation

2 class and 3 lab hrs/wk, 3 cr .
Ambulance operation, laws, maintenance, and safety; emergency response driving and route planning; communication systems, radio types, HEAR system, codes, and correct techniques. Class fee $\$ 5$. $\mathbf{S p}$, offered as needed.

## EMT075 Introduction to Emergency Medical Service

3 class hrs/wk, 3 cr.
Covers roles and responsibilities of the paramedic, emergency medical services systems, medical-legal considerations, major incident response, hazardous materials awareness, and stress management. Offered as needed.

## EMT096 EMT Paramedic, Part 1

11 class and 9 lab hrs/wk, 14 cr .
First term of a two-term course. Focuses on patient assessment; airway/ventilation; pathophysiology of shock; general pharmacology; respiratory, cardiovascular, neurologic, and endocrine systems; and acute abdomen. Students will apply knowledge to campusbased laboratory skills practice and clinical patient care in the hospital setting. Prerequisite: Fourth-term standing in the

Emergency Medical Technology program. Class fee $\$ 266$. F, Sp

## EMT097 EMT Paramedic, Part 2

6 class and 24 lab hrs/wk, 14 cr.
Second term of a two-term course. Focuses on anaphylactic, toxicologic, environmental, geriatric, pediatric, obstetric, gynecologic, neonatal, and behavioral emergencies; infectious diseases; and trauma care. Students will apply knowledge to campus-based laboratory skills practice and clinical patient care in the hospital setting. Prerequisite: EMT096. Class fee $\$ 220$. W, Su

## EMT280 Cooperative Work Experience

see AUM280.

## ENG

## English

## ENG104 Introduction to Fiction

## 3 class hrs/wk, 3 cr.

Features critical analysis and appreciation of fiction through the reading of narratives originally written in English as well as works in translation. Employs chronological, genre, stylistic, or thematic approaches to content to introduce the short story, the novel or novella, and basic literary terminology and concepts. F, $\mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## ENG105 Introduction to Dramatic Literature

3 class hrs/wk, 3 cr.
Features critical analysis and appreciation of drama from the classical Greek to contemporary periods written by an international range of playwrights. Introduces concepts and types of dramatic literature, including comedy and tragedy as well as the elements and conventions of drama as both a literary and performing art. F, W, Sp, Su

## ENG106 Introduction to Poetry

3 class hrs/wk, 3 cr.
Features critical analysis and appreciation of poetry originally written in English as well as works in translation by major poets from various cultural backgrounds. Introduces poetic terminology, concepts and principles, and explores a variety of the art form's structures and types. F, W, Sp, Su

## ENG107 Introduction to World Literature

3 class hrs/wk, 3 cr.
Features discussion and analysis of histories, stories, poems, and plays of the Western and non-Western world between 2000 B.C.E. and 1450. F

## ENG108 Introduction to World Literature

3 class hrs/wk, 3 cr .
Features discussion and analysis of literary works of the Western and non-Western world between 1450-1850. W

## ENG109 Introduction to World Literature

3 class hrs/wk, 3 cr.
Features discussion and analysis of literary works of the Western and non-Western world of the nineteenth and twentieth centuries. $\mathbf{S p}$

## ENG201 Introduction to Shakespeare

3 class hrs/wk, 3 cr.
Surveys selected Shakespearean tragedies, emphasizing dramatic structure, characterization, imagery, and theme. Uses critical essays to explore these plays and to provide background on the nature of tragedy. $\mathbf{F}$

## ENG202 Introduction to Shakespeare

## 3 class hrs/wk, 3 cr .

Surveys selected Shakespearean comedies, emphasizing dramatic structure, characterization, imagery, and theme. Uses critical essays to provide background on the nature of comedy. W

## ENG203 Introduction to Shakespeare

3 class hrs/wk, 3 cr.
Surveys selected Shakespearean history plays, emphasizing dramatic structure, characterization, imagery, and theme. Uses critical essays to provide background on the nature of historical drama. $\mathbf{S p}$

## ENG204 Introduction to English Literature

## 3 class hrs/wk, 3 cr.

Covers the development of English literature from its beginnings in the Anglo-Saxon period through the early Renaissance (to c.1600). Focuses on literary works as products of a historical period and on the analysis and interpretation of works. F

## ENG205 Introduction to English Literature

3 class hrs/wk, 3 cr .
Covers the development of English literature from the time of Shakespeare (c. 1600) to the end of the 18th century. Focuses on literary works as products of a historical period and on the analysis and interpretation of works. W

## ENG206 Introduction to English Literature

3 class hrs/wk, 3 cr .
Covers the development of English literature from late 18th century (Romanticism) to the late 20th century. Focuses on literary works as products of a historical period and on the analysis and interpretation of works. $\mathbf{S p}$

## ENG214 Literature of the Northwest

3 class hrs/wk, 3 cr.
Studies fictional and non-fictional works by Northwest writers from the time of early exploration of the territory. Emphasizes the relationship between Northwest writing and the unique Northwest social, cultural, and physical environments. Offered as needed.

## ENG222 Images of Women in Literature

3 class hrs/wk, 3 cr.
Focuses on the portrayal of the feminine in mythology, conventional images in Western literature, literature of non-Western cultures or that of other groups within the Western world in relation to specific themes, or a combination of any of these. Students analyze and interpret images of women in the works of literature assigned. Offered as needed.

## ENG250 Introduction to Mythology and Folklore <br> 3 class hrs/wk, 3 cr .

Introduces folklore and some of its various forms: myths, legends, and folktales. Explores
the nature and functions of folklore through examples from the classical world, from the native cultures of the Americas, and from at least one other area of the world. Also examines folklore in contemporary life. Offered as needed.

## ENG253 Introduction to American Literature

 3 class hrs/wk, 3 cr .Focuses on the literature of the Native Americans, European explorers, settlers, chroniclers, missionaries, and American contributors to the character of a new nation, the United States of America from 1492-1800. Genres include story, chant, journal, letter, report, biography, autobiography, chronicle, narrative, dictionary, satire, poetry, song, sermon, novel, drama, essay, and political document. F

## ENG254 Introduction to American Literature

3 class hrs/wk, 3 cr .
Focuses on the literature of the 19th Century, with attention given to the themes and issues of slavery, abolition, Native American and women's rights, the Civil War, westward expansion, and industrial and urban growth. Genres studied include journal, narrative, speech, poetry, short story, novel, and essay. W

## ENG255 Introduction to American Literature

 3 class hrs/wk, 3 cr.Focuses on the literature of the 20th Century, with attention given to the eras and events of the World Wars, American-European interconnections, modernism, the decade of the twenties (including the Harlem Renaissance), the Depression, post-World War II issues and realities, the Cold War with the Soviet Union, the civil rights movement, the Vietnam War, the Sixties, environmentalism, post-modern and contemporary life, multiculturalism, and global perspectives. Genres studied are poetry, short story, novel, drama, essay, and lyrics. $\mathbf{S p}$

## ENG256 African-American Literature

3 class hrs/wk, 3 cr .
Surveys the literature of the African-American people, including the influence of African origins, oral tradition, the diaspora, slavery, the post-Civil War era, the Harlem Renaissance, the civil rights movement, and recent and contemporary periods. Focuses on oral and written texts representing interests, aspirations, and experiences of African-Americans. Includes a selection of works taken from slave narratives, early literary publications, novels, short stories, poems, autobiographies, and plays. Uses a chronological or thematic approach. $\mathbf{F}$

## ENG257 Native American Literature

## 3 class hrs/wk, 3 cr.

Introduces formal written and oral literatures by Native Americans through a wide variety of texts from different tribes, regions, and individual authors. Examines world views and major thematic currents of Native American literatures; distinctive characteristics of Native American writing; characteristics it shares with Euro-American writing; and characteristics of oral literature. $\mathbf{S p}$

## ENG258 Latin American Literature

3 class hrs/wk, 3 cr.
Features reading and analysis of works by Latin American writers. Covers literary styles, historical background, and the unique voices and perspectives of authors from this region. Uses a chronological, regional, or thematic approach. F

## ENG260 Introduction to Women Writers

## 3 class hrs/wk, 3 cr.

Focuses on the achievements and perspectives of women writers through critical analysis of their literary works and literary strategies. Uses a chronological, stylistic, or thematic approach. W

## ENG261 Introduction to Science Fiction

3 class hrs/wk, 3 cr .
Features exposure to and analysis of science fiction through the reading of representative works that explore the history and typology of this literary genre. Uses a chronological, thematic, or stylistic approach. $\mathbf{S p}$

## ENG262 The American Western

3 class hrs/wk, 3 cr.
Features the critical reading and analysis of western fiction to determine the conventions and the variety of the genre. Focuses primarily on the novel, but may include short stories, essays, and poetry. Uses either a chronological, thematic, or stylistic approach. W

## ENG263 Introduction to Detective Fiction

3 class hrs/wk, 3 cr.
Focuses on the genre of detective fiction, its history, and conventions through reading and critical analysis of representative works and authors. Uses a chronological, thematic, or stylistic approach. F

## ENG269 Environmental Literature

3 class hrs/wk, 3 cr.
Emphasizes environmental literature, which addresses the relationship between human beings and the natural world, as well as the place of humans in the natural world. Uses chronological, regional, or thematic approaches. Analyzes and interprets various works. Includes field trips, recording "field notes," and writing environmental literature. Offered as needed.

## ENGR

## Engineering

see also General Engineering

## ENGR201 Electrical Fundamentals I

3 class and 2 lab hrs/wk, 4 cr.
Studies basic electrical circuit theory, including voltage and current relationships, and circuit parameters of resistance, inductance, and capacitance. Covers basic DC, AC, and natural responses of circuits. Prerequisite: MTH252. Class fee $\$ 10$. F

## ENGR202 Electrical Fundamentals II

## 3 class and 2 lab hrs/wk, 4 cr.

Studies the Fourier-Series representation of periodic time-varying functions, sinusoidal steady-state analysis, basic operation of threephase circuits, electric circuits which contain mutually coupled coils, functions of transform-
ers in circuits, characteristics of resonant circuits, and use of operational amplifiers to perform various functions in circuits with periodic inputs. Prerequisite: MTH252 and ENGR201. Class fee $\$ 10$. W

## ENGR203 Electric Control Fundamentals

3 class and 2 lab hrs/wk, 4 cr.
Studies LaPlace Transform and its use in electrical control theory including the bode diagram. Includes analysis of two-part circuits, Boolean algebra, and basic logic gates. Prerequisite: MTH252, ENGR201, and concurrent enrollment in MTH256. Class fee $\$ 10$. Offered as needed.

## ENGR211 Statics

3 class and 2 lab hrs/wk, 4 cr .
An analysis of forces induced in structures and machines by various types of loading. Prerequisite: MTH252. F

## ENGR212 Dynamics

3 class and 2 lab hrs/wk, 4 cr.
Kinematics, Newton's laws of motion, work energy, and impulse-momentum relationships applied to engineering systems. Prerequisite: ENGR211, MTH252, and PH211. W

## ENGR213 Strength of Materials

3 class and $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 4 \mathrm{cr}$.
Covers properties of structural materials and analysis of stress and deformation in axially loaded members, circular shafts, and beams, and in statically indeterminate systems containing these components. Prerequisite: ENGR211 and MTH252. Sp

## ENGR248 Graphics and 3-D Modeling

1 class hr and 6 lab hrs/wk, 3 cr .
Covers graphic communication, multiview and pictorial representation, conceptual design, spatial analysis, and engineering design representation through use of advanced level computer tools. Prerequisite: DRF072 or consent of instructor. Class fee $\$ 5$. W

## ENL

## English as a Non-Native Language

## ENL040A TOEFL Test Preparation-Listening

1 class hr/wk, 1 cr.
Designed to help prepare students to take the listening portion of the TOEFL Test. Prerequisite: Completion of ESL level 3 or CELSA score of 40 , and oral proficiency score of 30 . Class fee $\$ 2$. Offered as needed.

## ENL040B TOEFL Test Preparation-Reading

1 class hr/wk, 1 cr.
Designed to help prepare students to take the reading portion of the TOEFL Test. Prerequisite: Completion of ESL level 3 or CELSA score of 40 , and oral proficiency score of 30 . Class fee $\$ 2$. Offered as needed.

## ENL040C TOEFL Test Preparation-Grammar 1 class hr/wk, 1 cr.

Designed to help prepare students to take the grammar portion of the TOEFL Test. Prerequisite: Completion of ESL level 3 or CELSA
score of 40 , and oral proficiency score of 30 . Class fee $\$ 2$. Offered as needed.

## ENL053 Listening and Speaking A

## 3 class hrs/wk, 3 cr.

Focuses on improving interpersonal and smallgroup speaking and listening skills needed for success in academic and professional settings. This course covers a portion of the content of ENL055. Designed for non-native speakers of English preparing to take college credit classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-49 and oral proficiency score of $30+$. SPL level 5. F, Sp, Su

## ENL054 Listening and Speaking B

3 class hrs/wk, 3 cr .
Focuses on improving interpersonal and smallgroup speaking and listening skills needed for success in academic and professional settings. This course covers a portion of the content of ENL055. Designed for non-native speakers of English preparing to take college credit classes.
Prerequisite: Completion of ESL level 3 or CELSA score of 40-49 and oral proficiency score of 30+. SPL level 5. W

## ENL055 Listening and Speaking C <br> 5 class hrs/wk, 5 cr.

Focuses on improving interpersonal and smallgroup speaking and listening skills needed for success in academic and professional settings. Designed for non-native speakers of English preparing to take college credit classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-50 and oral proficiency score of $30+$. SPL level 5 . Class fee $\$ 2$. F, W, Sp

## ENL057 Reading

5 class hrs/wk, 5 cr .
Focuses on developing reading skills in preparation for academic and professional purposes. Improves reading strategies, vocabulary, and basic library research skills, and reinforces reading skills through the use of extended reading selections as a basis for writing assignments. Designed for non-native speakers of English preparing for college credit classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-49 and oral proficiency score of $30+$ and a writing sample. SPL level 5. Class fee $\$ 2$. F, W, Sp

## ENL058 Reading and Vocabulary <br> 5 class hrs/wk, 5 cr.

Focuses on improving basic reading skills, paragraph comprehension, and vocabulary skills (using the dictionary, identifying word parts, and finding the meaning of a word based on context clues). Designed for non-native speakers of English preparing for college credit classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-49, and oral proficiency of $30+$. SPL level 5 . Class fee $\$ 2$. F

## ENL059 Reading and Writing A

## 6 class hrs/wk, 6 cr.

Focuses on developing reading and writing skills in preparation for academic and professional purposes. Improves reading strategies and vocabulary, and reinforces reading skills through the use of extended reading selections
as a basis for writing assignments. This course covers a portion of the content of ENL057 and ENL067. Designed for non-native speakers of English preparing to take college classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-49, oral proficiency score of $30+$ and a writing sample. SPL level 5 . F, Sp, Su

## ENL060 Reading and Writing B

## 6 class hrs/wk, 6 cr.

Focuses on developing reading and writing skills in preparation for academic and professional purposes. Emphasizes sentence structure, appropriate grammar, essay writing, and bibliographic sources. This course covers a portion of the content of ENL057 and ENL067. Designed for non-native speakers of English preparing to take college credit classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-49, oral proficiency score of $30+$ and writing samples. SPL level 5. W

## ENL061 American Grammar and Reading

## 5 class hrs/wk, 5 cr.

Reviews basic English grammar and applies this knowledge to the reading and understanding of short stories, poems, and/or short novels written by contemporary American authors who represent a variety of cultural and ethnic groups. Designed for non-native speakers of English preparing to take college classes. Prerequisite: Completion of ESL level 3 or CELSA score of 40-49, oral proficiency score of 30+ and writing sample. SPL level 5. Sp

## ENL065 Grammatical Sentences

## 4 class hrs/wk, 4 cr .

Focuses on writing accurate sentences in English. Covers parts of speech, kinds of sentences, common sentence errors, and spelling.
Prerequisite: Course \#0747103 ESL Level 3 Reading and Writing, or CELSA score of 35 and writing assessment. Class fee $\$ 2$. F, W, Sp

## ENL066 Writing Paragraphs

5 class hrs/wk, 5 cr.
Focuses on writing standard paragraphs in English. Covers paragraph structure and organization. Incorporates use of paragraphs to respond to test questions. Prerequisite: Successful completion of ENL065 or CELSA score of 40 and writing assessment. Class fee \$2. W, Sp

## ENL067 Introduction to Essay Writing 5 class hrs/wk, 5 cr.

Focuses on writing simple essays with complete paragraphs and writing responses to academic reading selections. Prerequisite: Completion of ENL066 or CELSA score of 45 and writing assessment. Class fee $\$ 2$. F, W, $\mathbf{S p}, \mathbf{S u}$

## ENL102 English Pronunciation Techniques

4 class hrs/wk, 4 cr.
Focuses on production of English speech patterns, intonation, and pronunciation for the purpose of improved comprehensibility. Designed for non-native speakers of English who wish to improve their academic skills. Prerequisite: Completion of ESL level 4 or CELSA score of $45+$, oral proficiency score of $30+$. F, W, Sp

## ENL104 Academic Listening and Speaking

4 class hrs/wk, 4 cr.
An introduction to the effective listening and speaking skills needed for success in academic and professional settings, including interpersonal, small-group communication, and intercultural communication. Designed for nonnative speakers of English who wish to improve their academic skills. Prerequisite: Completion of ESL level 4 or CELSA score of 50 and oral proficiency assessment of $30+$. SPL level 6. Class fee $\$ 2$. F, W, $\mathbf{S p}, \mathbf{S u}$

## ENL106 American Business Language <br> \section*{4 class hrs/wk, 4 cr.}

Develops communication skills, including reading, writing, vocabulary, idioms, grammar for business and employment. Prepares students who plan to enter college programs or immediate employment in the fields of accounting, financial services, business administration, business technology, economics, marketing, real estate, computer science, or small business management. Designed for non-native speakers of English who wish to improve their academic skills. Prerequisite: Completion of ESL level 4 or CELSA score of 50+, oral proficiency score of $30+$ and writing sample. SPL level 7. W, Sp

## ENL107 Better Writing Through Editing

 5 class hrs/wk, 5 cr.Teaches students how to proofread and edit their own writing, to find and correct errors, and improve writing through skilled proofreading, editing, and revising. Focuses on spelling, grammatical sentences, and punctuation at the sentence, paragraph, and essay level. Prerequisite: Successful completion of ENL067 or CELSA score of 50 and writing assessment. Class fee $\$ 2$. F

## ENL109 Academic Reading and Writing <br> 4 class hrs/wk, 4 cr.

Presents strategies for improving specific reading skills in order to increase comprehension and ability to analyze and summarize reading content. Source documentation and test-taking skills are included. Designed for non-native speakers of English who wish to improve their academic skills in preparation for taking college credit classes. Prerequisite: Completion of ESL level 4 or CELSA test score of 50+, and oral proficiency score of 30+. SPL level 7. F, $\mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## ENL113 Advanced Grammar I

## 4 class hrs/wk, 4 cr.

Focuses on advanced English grammar, with a contextual emphasis on American culture and current topics of interest. Designed for nonnative speakers of English who wish to improve their academic skills. Prerequisite: Completion of ESL level 4 or CELSA score of 50+, and oral proficiency score of $30+$ and writing sample. SPL level 7. Class fee $\$ 2$. F, W, Sp

## ENL114 Advanced Grammar II

## 4 class hrs/wk, 4 cr.

Focuses on advanced English grammar, with a contextual focus on American culture and current topics of interest. Designed for non-native
speakers of English who wish to improve their academic skills. Prerequisite: ENL113 or CELSA score of $60+$, oral proficiency score of $30+$, and writing sample. SPL level 7. W, Sp, Su

## ENL116 Writing for College

4 class hrs/wk, 4 cr.
A comprehensive writing course which introduces the English composition concepts of WR121. Focuses on the writing process, organization, and a variety of expository writing techniques and styles. Reading selections model effective writing, enhance vocabulary, and reinforce the ability to read for understanding and information. Designed for non-native speakers of English who wish to improve their academic skills. Prerequisite: ENL114 or CELSA score of 55+, oral proficiency score of 30+ and writing sample. SPL level 7. Class fee \$2. F, W, Sp

## ENL118 Technical Writing and Research 4 class hrs/wk, 4 cr.

Prepares students to successfully complete research and report writing in technical and academic courses leading to degrees. Includes use of appropriate format, organization, and bibliographic references, and emphasizes American source citation conventions, the consideration of writing purposes, audience, and objective presentation. Designed for non-native speakers of English who wish to improve their academic skills. Prerequisite: Completion of ENL116 or CELSA score of 55+, oral proficiency score of $30+$ and writing sample. Offered as needed.

## ES <br> Emergency Services

## ES071 Work Place Safety Skills

4 class and 12 lab hrs, 1 cr .
Combines first aid, CPR, and hazardous materials awareness to meet minimum federal and state occupational safety requirements. Students completing the course will receive American Red Cross first aid certification. Meets OSHA requirements. Class fee $\$ 7 . \mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## ES072 Introduction to Emergency Services

 4 class hrs/wk, 4 cr.Presents philosophy, history, roles, and responsibilities of emergency services within a community. Includes a survey of professional career opportunities and requirements, and presents techniques for developing a resume. Offered as needed.

## . 4

## Flim Arts

## FA255 Understanding Movies: Classic Film Styles

3 class hrs/wk, 3 cr.
Introduces the art of cinema. Emphasizes the feature-length film. Introduces ways to understand the meaning of a movie. Co-requisite: FA255L. F

## FA255L Film Screening Lab

$2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 1 \mathrm{cr}$.
Offers a weekly film screening to accompany the lecture course. Requires enrollment in FA255, which introduces ways to understand the meaning of a movie. Co-requisite: FA255. Class fee $\$ 8$. F

## FA256 Understanding Movies: The Great Film Directors

3 class hrs/wk, 3 cr.
Analyzes films from the standpoint of the director as creator. Highlights the films of one or two directors in an effort to understand and critique the individual films as the work of an artist, especially within the context of viewing the films as an evolving body of work expressing a particular and unique view of the world. Course may be repeated for a maximum of 12 lecture and lab credits. Co-requisite: FA256L. W

## FA256L Film Screening Lab

2 lab hrs/wk, 1 cr.
Offers a weekly film screening to accompany the lecture course. Requires enrollment in FA256, which analyzes films from the standpoint of the director as creator. Co-requisite: FA256. Class fee \$8. W

## FA257 Understanding Movies: Themes and Genres

3 class hrs/wk, 3 cr.
Explores the meanings a film conveys within the context of a specific film genre, national movement, or thematic topic. Course may be repeated for a maximum of 12 lecture and lab credits. Co-requisite: FA257L. Sp

## FA257L Film Screening Lab

2 lab hrs/wk, 1 cr.
Offers a weekly film screening to accompany the lecture course. Requires enrollment in FA257, which explores the meanings a film conveys. Co-requisite: FA257. Class fee $\$ 8$. Sp

## FE

## Field Experiences

## FE205A Job Search Preparation

1 class hr/wk, 1 cr.
How to find the job you want. Self-analysis of what you have to offer an employer, the ideal job for you, the job search process, and employer research. Includes informational interviewing, follow-up procedures, and portfolio documentation. F, W, Sp, Su

## FE205B Resumes and Job Search Correspondence <br> 1 class hr/wk, 1 cr.

How to apply for the job you want. Covers composition and analysis of all written correspondence used in applying for employment, including applications, resumes, and other employment-related communications. F, W, $\mathbf{S p}, \mathbf{S u}$

## FE205C Interviewing for Success

1 class hr/wk, 1 cr.
How to interview for the job you want. Focuses on development of interviewing techniques and effective methods of follow-up. F, W, Sp, Su

FE280 Cooperative Work Experience see AUM280.

## FIN

## Financial Services

## see also Business Administration

## FIN051 Lending: Introductory

## 15 class hrs/ 1 cr.

Provides a basic understanding of lending and associated career opportunities in the financial services field. Offered as needed.

## FIN052 Accounting Basics

## 3 class hrs/wk, 3 cr.

Designed for students interested in employment in financial institutions. Provides a foundation in basic accounting procedures for students with minimal or no college accounting or business background, or those desiring a refresher course or preparation for further accounting study. Offered as needed.

## FIN053 Accounting

3 class hrs/wk, 3 cr.
Accounting for students interested in financial institution accounting. Emphasizes current accounting procedures, including the latest principles set by the Financial Accounting Standards Board. Offered as needed.

## FIN055 Introduction to Spanish for Bankers

 15 class hrs/1 cr.Basics of Spanish in relation to specific financial services/business-related terminology. Offered as needed.

## FIN056 Commercial Lending

## 3 class hrs/wk, 3 cr.

An overview of a bank's commercial lending division and its functions. Includes four aspects of commercial lending: the economic process, the lending process, the management of the loan portfolio, and the influences of regulation and business development on commercial lending. Prerequisite: Current employment in financial services, background in financial education or training, or consent of instructor. Offered as needed.

## FIN057 Loan and Discount Series <br> 3 class hrs/wk, 3 cr.

Presents essential information about promissory notes, supporting documents, and concepts of secure transactions. Includes calculating interests and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by bonds, stocks, and savings accounts; and the concepts of attachment, perfections, priority, defaults, and foreclosure. Specifically useful for note tellers and commercial lending clerks. Prerequisite: Employment in financial services, education or training related to the financial industry, or consent of instructor. Offered as needed.

## FIN064 Personnel and the Law

15 class hrs/ 1 cr.
Concentrates on numerous laws that shape the financial industries personnel policies and procedures. Includes Civil Rights Act, Equal Pay Act, equal employment opportunity, and laws
and legislation affecting Vietnam-era veterans.
Offered as needed.

## FIN064A Understanding and Selling Bank

 Products3 class hrs/wk, 3 cr.
Provides the skills needed to sell financial industry services and meet customer needs. Cultivates a positive attitude towards selling and develops specific selling techniques. Offered as needed.

## FIN066 Supervisory Training

3 class hrs/wk, 3 cr.
Develops the skills needed for successful supervision by incorporating managerial concepts with practical experience examples. Covers the management role and responsibilities, management teamwork, task analysis, job performance techniques, employee orientation, and delegation. Prerequisite: Financial industry experience preferable. Offered as needed.

## FIN067 Teller Training: Advanced

15 class hrs/ 1 cr .
Designed to develop and improve the knowledge and abilities deemed essential in the performance of teller duties. Emphasizes dealing with customers and performing normal financial procedures. Offered as needed.

## FIN068 Teller Training: Basic

## 15 class hrs/1 cr.

Focuses on the skills new tellers need in today's financial industry. Reflects the changing responsibility of today's teller and includes the most recent compliance information. Offered as needed.

## FIN070 Economics for Bankers

3 class hrs/wk, 3 cr.
An introduction to the principles of economics as they pertain to financial industry. Special emphasis on macroeconomics. Offered as needed.

## FIN078 Customer Service

## 15 class hrs/ 1 cr .

Emphasizes the development of better communications skills in working with financial service customers. Covers effective ways of establishing contact, exploring customer needs, defining and resolving problems, and closing the encounter. Prerequisite: BA269 or employment in financial fields. Offered as needed.

## FIN080 Deposit Operations

## 3 class hrs/wk, 3 cr.

Examines the deposit operations of banks in the context of the U.S. payments system. Explores how banks operate relative to their deposit-taking activities and management of deposited funds. Emphasizes the system rather than the product. Prerequisite: BA269. Offered as needed.

## FIN081 Trust Operations

3 class hrs/wk, 3 cr.
Discusses the concepts and ideas that comprise the various trust functions and translates them into workable procedures. Prerequisite: BA269. Offered as needed.

## FIN085 Fundamentals of Analyzing Financial

 Statements15 class hrs/ 1 cr .
Promotes basic understanding of financial statements and their use in lending. Uses financial statement analysis techniques employed in making commercial loan decisions. Prerequisite: BA212, BA269, or employment in financial fields. Offered as needed.

FIN280 Cooperative Work Experience see AUM280.

## FN

## Foods and NuTRITION

see also Hospitality and Tourism Management

## FN225 Nutrition

4 class hrs/wk, 4 cr.
The study of nutrients and their ingestion, digestion, absorption, transport, metabolism, interaction, storage, and excretion. Course includes the study of the environment and human behavior as it relates to these processes. F, W, Sp

## FR

## French

FR101, 102, 103 First Year French I, II, III

## 4 class hrs/wk, 4 cr. each

Introduction to the French language (including listening, speaking, reading and writing) and Francophone culture (including geography, customs, daily life, heritage and literature), facilitated by the study of vocabulary, grammar, short readings and guided conversation. Prerequisite: These classes are to be taken sequentially. FR101: None; FR102: FR101, one year of high school French, or consent of instructor; FR103: FR102, two years of high school French, or consent of instructor. Class fee $\$ 2$ each. FR101: F; FR102: W; FR103: Sp
FR201, 202, 203 Second Year French I, II, III 4 class hrs/wk, 4 cr. each
Extensive practice in all four language skills (reading, writing, speaking, and listening). Included are cultural and literary readings and an in-depth review and expansion of basic French grammar and vocabulary, as well as a broadening of the student understanding of Francophone culture. Prerequisite: These classes are to be taken sequentially. FR201: FR103, three years of high school French, or consent of instructor; FR202: FR201 consent of instructor; FR203: FR202 or consent of instructor. Class fee $\$ 2$ each. FR201: F; FR202 W; FR203: Sp

## FRP

## Fire Protection Technology

## FRP050 Introduction to Fire Protection

3 class hrs/wk, 3 cr.
Philosophy and history of fire protection. History of loss of life and property by fire, responsibilities 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, and development of resume. Offered as needed.

## FRP051 Fire Incident Related Experience

9 lab hrs/wk, 3 cr.
Orientation to fire-incident-related experience, which fulfills the requirements of OR-OSHA and the Board on Public Safety Standards and Training for Basic Firefighter. These standards must be met prior to an individual responding to emergency incidents. Prerequisite: Admission is restricted to the students chosen through an application process. Consent of instructor required. Class fee $\$ 15$. Offered as needed.

## FRP052 Fire Incident Related Experience

9 lab hrs/wk, 3 cr.
Provides information about large-diameter hose uses, attack hose procedures, ICS and passport information, firefighter responsibilities, and ISI SCBA procedures. Includes SCBA use under extreme working loads, SCBA bottle refilling procedure, cascade systems use, live-fire attack practices, salvage operations, overhaul practices, fire cause investigation, firefighter responsibility, district familiarization, map book use, radio procedures, driving laws and practices, power tool operation and maintenance, ventilation principles, and vertical ventilation. Prerequisite: FRP051. Class fee $\$ 15$. Offered as needed.

## FRP053 Fire Incident Related Experience

$9 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
Covers emergency driving practices, a comprehensive officer selection assessment center, single company evolutions, drafting and tender operations, and flammable and combustible liquids operations. Prerequisite: FRP052. Class fee $\$ 15$. Offered as needed.

## FRP054 Water Supply Operations

## 3 class hrs/wk, 3 cr.

Covers water supply operations in fire service, including pre-fire planning operations, water quantity calculations, water source options, delivery systems and options, and hydraulic calculations. Designed to meet the competencies as set forth by the Fire Standards and Accreditation Board in Firefighter II, Apparatus Operator I and II. Prerequisite: MTH070, FRP052, or consent of instructor. Offered as needed.

## FRP056 Fire Service Rescue Practices <br> 2 class and 4 lab hrs/wk, 4 cr.

Presents elementary procedures of rescue practices, systems, components, support, and control of rescue operations. Introduces basic ladder procedures, ropes/knots, and basic rescue tools and equipment. Applies techniques and tools of extrication, emphasizing applications to traffic accidents. Prerequisite: FRP051, FRP052, or consent of instructor. Class fee $\$ 5$. Offered as needed.

## FRP058 Fire Pump Construction and Operation

2 class and 2 lab hrs/wk, 3 cr
Theory of pump operation, types and features of various pumps, and practical operation of fire pumps and accessories. Includes drafting, hydrant and tanker operations, and rule-ofthumb fire ground hydraulic calculations. Prerequisite: FRP051, FRP052, or consent of instructor. Offered as needed.

## FRP059 Major Emergency Strategy and Tactics

3 class hrs/wk, 3 cr.
Covers major emergencies and applies principles relating to incident priorities, resource management, and tactical operations to make judgments about the management of major emergencies. Prerequisite: FRP050, FRP051, FRP052, FRP053, FRP070, or consent of instructor. Offered as needed.

## FRP060 Fundamentals of Fire Prevention

## 3 class hrs/wk, 3 cr.

History and philosophy of fire protection, through review of life and property loss statistics, case studies of fire protection agencies, current and future fire protection problems, and fire prevention laws and regulations. Students develop an awareness of and positive attitude toward fire prevention as a method of accomplishing the fire department mission. Offered as needed.

## FRP061H, 062H, 063H Fire Incident Related Experience Honors <br> 9 lab hrs/wk, 3 cr. each

Provides the student officer with practice in supervision of a shift of firefighters during a 24-hour period. Covers assisting staff with training cadet firefighters and apparatus operators during drill sessions and supervising and directing cadet crews during emergency responses and operations. Students taking this course will act as a liaison to staff in regard to Fire Incident Related Experience and complete special projects and assignments given by staff. Prerequisite: FRP053 and consent of instructor. Class fee $\$ 15$ each. Offered as needed.

## FRP061 Fire Incident Related Experience

9 lab hrs/wk, 3 cr.
Introduces annual performance evaluations conducted within fire departments, and continues progress towards the Board on Public Safety Standards and Training standard Firefighter I status. Also provides practicum for Driver and Apparatus Operator I and II status. Prerequisite: FRP053. Class fee $\$ 15$. Offered as needed.

## FRP062 Fire Incident Related Experience

9 lab hrs/wk, 3 cr.
Continues progress towards the standard Firefighter I from the Board on Public Safety Standards and Training. Also provides practicum for Driver and Apparatus Operator I and II status. Prerequisite: FRP061. Class fee $\$ 15$. Offered as needed.

## FRP063 Fire Incident Related Experience

 9 lab hrs/wk, 3 cr.Prepares the student for entering the job market and assists them in becoming more successful in fire service entry processes. Continues progress towards the standard Firefighter I from the Board on Public Safety Standards and Training, and provides practicum for Driver and Apparatus Operator I and II status. Prerequisite: FRP062. Class fee $\$ 15$. Offered as needed.

## FRP064 Hazardous Materials Operations

3 class hrs/wk, 3 cr.
Provides knowledge and skills necessary to safely respond to and manage the defensive operations involved in a chemical emergency. Prerequisite: Concurrent enrollment in FRP050. Offered as needed.

## FRP065 Interface Fire Prevention and Mitigation

2 class hrs/wk, 2 cr.
Provides instruction in analyzing conflagration potential and employing strategies to improve the survival of structures located in grassland, brush, and light timber. Prerequisite: FRP060 or consent of instructor. Offered as needed.

## FRP066 Building Construction for Fire

 Suppression
## 3 class hrs/wk, 3 cr.

Focuses on fire problems inherent in structural elements of buildings. Includes inspection of various building types as a basis for applying effective extinguishment practices with adequate safeguards for personnel. Offered as needed

## FRP067 Hazardous Materials Regulations

3 class hrs/wk, 3 cr.
Provides an overview of the numerous federal, state, and local laws, codes, and regulations governing hazardous materials. This course is confined to the storage, handling, and release of hazardous materials. Describes the legal limitations and liabilities of responders, as well as business owners. Gives an in-depth profile of dealing with the disposal of hazardous waste. Prerequisite: Consent of instructor. Offered as needed.

## FRP068 Law Enforcement Procedures for Fire Prevention

2 class and 2 lab hrs/wk, 3 cr.
Deals with the enforcement of fire laws. Covers the preparation of cases for prosecution. Prerequisite: FRP072, FRP073, FRP074, or consent of instructor. Offered as needed.

## FRP069 Fire Department Leadership

3 class hrs/wk, 3 cr.
Emphasizes the role of fire service leaders in managing the daily operations of a fire company. Covers leadership concepts such as types of supervisors, including attitudes, cooperation, individual differences, motivation, communications, and counseling as part of the management cycle. Prerequisite: FRP050. Offered as needed.

## FRP070 Fire Fighting Tactics and Strategy

3 class hrs/wk, 3 cr.
Covers the development of systematic action plans for emergency situations. Includes recognizing and prioritizing emergency scene needs and developing related strategies, tactics, and contingencies. Describes how resources should be deployed to implement those plans. Offered as needed.

## FRP071 Fire Protection Systems and Extinguishers <br> 3 class hrs/wk, 3 cr.

Covers types and uses of portable fire extinguishers, as well as care, inspection, and recharging procedures. Includes various types of sprinklers and special extinguishing systems, standpipe systems, and systems designed to detect and report fires. Offered as needed.

## FRP072 Fire Codes and Ordinances 1

3 class hrs/wk, 3 cr.
Interprets the Uniform Building Code, Uniform Fire Code, State Fire Marshal Fire Safety Regulations, and related Oregon Revised Statutes, N.F.P.A., and other codes relating to fire prevention and life safety. Offered as needed.

## FRP073 Law for Emergency Services

3 class hrs/wk, 3 cr.
Covers Emergency Services' legal responsibilities related to driving, inspections, emergency operations, communications, fire prevention, and provision of ambulance services. Includes employee and member's rights, duties, liabilities, and preparation for presentations in court. Offered as needed.

## FRP074 Fire Investigation

3 class and 2 lab hrs/wk, 4 cr .
Emphasizes the importance of determining the cause of fire. Studies the burning characteristics of combustibles and the effects of fire on materials, interpreting burn patterns and isolating the area and point of origin, identifying incendiary indications, sources of ignition and materials ignited and preservation of fire scene and evidence. Prerequisite: FRP050 or consent of instructor. Offered as needed.

## FRP075 Aircraft Crash/Fire Rescue

1 class and 3 lab hrs/for 4 weeks, 1 cr.
Pre-planning activities for on- and off-airport emergencies. Approach, positioning, rescue procedures, and application of control techniques. Offered as needed.

## FRP077 Fire Service Instructor Training 1

2 class hrs/wk, 2 cr.
Introduces the beginning fire service instructor to the knowledge and skills needed to conduct instruction from prepared materials. Offered as needed.

## FRP078 Fire Service Instructor Training 2

2 class hrs/wk, 2 cr.
Prepares fire service instructors to develop class outlines and basic instructional materials to teach the service. Prerequisite: FRP077. Offered as needed.

## FRP079 Wildland Urban Interface

3 class hrs/wk, 3 cr.
Studies causes and prevention of natural cover fires, ground cover fire behavior, standard firefighting orders, urban interface problems, fire suppression methods, and fireground management. Offered as needed.

FRP080 Hazardous Materials for Inspectors 3 class hrs/wk, 3 cr.
How to handle inspections involving hazardous materials. Covers the requirements for handling, storing, and reporting on various hazardous materials. Prerequisite: Consent of instructor. Offered as needed.

## FRP081 Fire Prevention Inspection

3 class hrs/wk, 3 cr.
Methods of contemporary fire prevention inspection practices. Includes preparation, preapproach information, written inspection notices, relations with owners and occupants, and compliances. Prerequisite: FRP060, FRP066, FRP072, or consent of instructor. Offered as needed.

## FRP083 Incident Report Writing

2 class hrs/wk, 2 cr.
Methods of contemporary fire prevention inspection practices, including preparation, pre-approach information, written inspection notices, relations with owners and occupants, and compliances. Prerequisite: FRP073, FRP074, WR121, or consent of instructor. Offered as needed.
FRP084 Public Information for the Fire Service 1 class and 3 lab hrs/wk, 2 cr.
Presents skills to help participants identify public and proprietary information, as well as instruction and practice in forming medical releases and developing and maintaining positive relations with media representatives. Prerequisite: FRP073, FRP074, or consent of instructor. Offered as needed.

## FRP086 Advanced Detection and Protection

 Systems3 class hrs/wk, 3 cr.
Provides training in the design of fire protection systems and the evaluation of existing systems with regard to fire codes, fire code standards, and National Fire Protection Standards. Prerequisite: FRP071 or consent of instructor. Offered as needed.

## FRP087 Fire Insurance Fundamentals

## 3 class hrs/wk, 3 cr.

The relationship of fire defenses and fire losses to insurance rates, basic insurance principles, fire loss experience and loss ratio applying the ISO grading schedule and state regulations of fire insurance. Prerequisite: FRP060 or consent of instructor. Offered as needed.

## FRP088 Fire Prevention Education Programs

## 1 class and $4 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.

Participants will demonstrate their ability to unitize fire data, analyze the prevention needs in a community, and design one public fire education program directed toward preventing or mitigating certain fires in that community.

Prerequisite: FRP060 or consent of instructor. Offered as needed.

## FRP089 Fire Codes and Ordinances 2

3 class hrs/wk, 3 cr.
Study of the Uniform Fire Code, State Fire Marshal Fire Safety Regulations and related Oregon revised statutes, N.F.P.A., and other codes relating to fire prevention and life safety. Offered as needed.

## FRP160 Incident Safety Officer

1 class hr/wk, 1 cr.
Covers N.F.P.A. 1521 and OSHA regulations regarding utilization of an on-scene safety officer. Prepares officers and firefighters to work together to promote safety at every emergency scene. Offered as needed.

## FRP161 Fire Management Practices

1 class hr/wk, 1 cr.
Covers the concept of fire management including the role of departments and districts in local government, funding, and selection methods for providing fire protection. Offered as needed.

## FRP162 Managing Fire Personnel

1 class hr/wk, 1 cr.
Introduces fire department human resource management techniques. Includes hiring, supervision, and performance review procedures. Offered as needed.

## FRP163 Planning Fire Protection

## 1 class hr/wk, 1 cr.

Covers the tools needed to plan a community's fire protection system. Includes analyzing a community's fire risk, establishing types of protection, and developing implementation and evaluation plans. Offered as needed.

## FRP164 Fire Department Budgets

1 class hr/wk, 1 cr.
Covers the preparation, adoption and filing of public law, and management of a fire district budget. Includes district budget analysis methods, use of levies, budget management, and appropriation of expenditures. Offered as needed.

## FRP165 Public Relations, Public Information, and Public Education

2 class hrs/wk, 2 cr.
Introduces the role of public relations, public information, and public education as tools to provide and enhance awareness of public safety. Offered as needed.

## FRP166 Firefighter's Law

## 1 class hr/wk, 1 cr.

Covers the legal responsibilities of firefighters in driving, inspection, emergency operations, communication, fire prevention, and rights. Includes a firefighter's rights as a civil service employee. Offered as needed.

## FRP280 Cooperative Work Experience see AUM280.

## FS

Food Service
see Hospitality and Tourism Management

## Forest Resources Technology

## FT101 Fire Suppression Skills

1 class and 3 lab hrs/wk, 2 cr.
Provides a hands-on practice of various wildfire suppression and control techniques combined with an introduction to and analysis of fire behavior and crew-building methods. Includes on-site class visits in the forested mountain areas of western or eastern Oregon. $\mathrm{Sp}, \mathrm{Su}$

## FT111 Introduction to Forest Resources <br> 3 class and 6 lab hrs/wk, 5 cr .

Introduces the functions, structure, and management of America's forests. Includes multiple field labs that will focus on landowner goals and objectives of forests in northwest Oregon. Class fee $\$ 10$. F

## FT120 Principles of Supervision

3 class hrs/wk, 3 cr .
Analyzes the changing job environment in forestry including an introductory study of the roles of attitude, goal setting, teamwork, and self-improvement in being a good employee, and the elements necessary to be an effective manager. W

## FT130 Forest Insect and Disease Management

2 class and 3 lab hrs/wk, 3 cr .
Studies of important pathogens and insects, their role in forest ecology, and the damage they cause in the forested lands of the northwest. Prerequisite: FT111, FT141B, and BI132. Class fee $\$ 10$. F

## FT141A Oregon Tree and Shrub Identification I

 2 class and 3 lab hrs/wk, 3 cr .Focuses on identification of 29 species of evergreen trees and 12 species of evergreen shrubs in the field using the common and scientific names of each species. Class fee $\$ 10$. F

## FT141B Oregon Tree and Shrub Identification II

 2 class and 3 lab hrs/wk, 3 cr .Covers identification of 11 species of hardwood trees, 27 species of deciduous shrubs and 12 species of forbs and grasses. Uses both common and scientific names of each species to aid in forest management. Class fee $\$ 10 . \mathbf{S p}$

## FT150 Forest Seminar

1 class hr/wk, 1 cr.
Covers the basic steps in organizing and presenting forestry career and work experience. Presents informative elements of career/work experience in an audio/visual presentation. Focuses on use of audio/visual techniques including computer generated graphics and text. Prerequisite: FT280 and CS101. W

## FT200 Forest Contracts

3 class hrs/wk, 3 cr.
Covers the principles and specifics of preparing a forest contract, from providing the specifications to the actual writing of a legal contract. Prerequisite: FT223 and WR227. Sp

## FT210A Forest Surveying I

2 class and 3 lab hrs/wk, 3 cr.
Covers basic forest surveying techniques including fundamentals of horizontal and vertical measurements. Provides field and office procedures for forest mapping. Prerequisite: MTH070 or concurrent enrollment. Class fee \$10. W

## FT210B Forest Surveying II

3 class and 6 lab hrs/wk, 5 cr .
Continues Forest Surveying I. Studies distance and direction measurement, employing transit, theodolites, electronic distance measuring (EDM), and Global Positioning Systems (GPS). Prerequisite: FT210A and MTH082. Class fee $\$ 10$. F

## FT220 Forest Photo Interpretation

2 class and 3 lab hrs/wk, 3 cr.
Introduces the basic principles of photogrammetry and photo interpretation, with particular emphasis on the uses of vertical aerial photographs in forest resources management. Prerequisite: MTH070 or concurrent enrollment. Class fee $\$ 5$. W

## FT221 Forest Inventory

3 class and 4 lab hrs/wk, 5 cr .
Introduces the basic principles of forest sampling. Includes use of survey, measurement, and statistical analysis. Prerequisite: FT210A, FT220, FT141B or concurrent enrollment, and MTH082 or current enrollment. Class fee $\$ 10$. Sp

## FT223 Timber Cruising/Log Scaling

3 class and 4 lab hrs/wk, 5 cr .
Introduces measurement and appraisal of individual trees, stands, and forest sites for volume and value. Introduces the theory and principles of $\log$ scaling. Prerequisite: FT210B, FT221, and CS101. Class fee $\$ 10$. F

## FT230 Forest Policy

3 class and 3 lab hrs/wk, 4 cr.
Studies the acts, regulations, orders, and court decisions that define and constrain natural resource management plans. Prerequisite: FT111 and FT141B. Class fee $\$ 10$. Sp

## FT270A Silviculture I

1 class and 3 lab hrs/wk, 2 cr.
Provides an initial analysis of forest ecology, tree growth, and silvicultural practices in the management of forest lands in the Pacific Northwest. Focuses on overviews of even-aged silvicultural systems, harvesting methods, and the application of uneven-aged silvicultural systems. Prerequisite: FT141B, FT221. Class fee $\$ 10$. F

## FT270B Silviculture II

## 2 class and 3 lab hrs/wk, 3 cr.

Analyzes forest ecology, tree growth, and silvicultural practices in the management of forest lands in the Pacific Northwest. Focuses on detailed analysis of traditional even-aged management practices and the associated thinning regimes. Prerequisite: FT270A. Class fee $\$ 10$. W

FT290 Forest Management Problem Solving
2 class and 6 lab hrs/wk, 4 cr.
Provides capstone experience for forestry students. Designed to offer real-world forest management problems in an environment of uncertainty and to build problem-solving skills based on management alternatives presented in previous classes. Prerequisite: FT120, FT223, FT270, and WR227. Class fee $\$ 10$. Sp

FT280 Cooperative Work Experience see AUM280.

## ${ }_{G}$

## Geology

## G130 Dinosaurs and Life of the Mesozoic

3 class hrs/wk, 3 cr.
Describes the dinosaurs and other animal and plant groups of the Mesozoic era. Covers their origins, mode of life, evolution, and theories concerning their extinction within a plate tectonics setting. Offered as needed.
G142 The Geology of Pacific Northwest
Volcanoes, Mountains, and Glaciers
3 class and 2 lab hrs/wk, 4 cr.
Studies the nature and origin of Northwest mountains and mountain ranges. Includes volcanoes, mountain building, and glacial sculpture. Includes lecture, laboratory, and field trip. Class fee $\$ 8$. Offered as needed.

## G143 Pacific Northwest Rocks and Minerals

 3 class and 2 lab hrs/wk, 4 cr.Studies identification, occurrence, and origin of common Northwest rocks and minerals and properties of precious, semiprecious, and ornamental stones, and economically important rocks and minerals. Class fee $\$ 8$. Offered as needed.
G144 The Geology of Pacific Northwest Rivers, Streams and Deserts
3 class and 2 lab hrs/wk, 4 cr .
Studies the geomorphology of Pacific Northwest rivers, lakes, and deserts, especially those in Oregon. Also studies the ancient landscapes and environments as indicated by the extensive Northwest fossil record. Includes lecture, lab, and field trips. Class fee $\$ 8$. Offered as needed.

## G201 Geology

3 class and 3 lab hrs/wk, 4 cr.
A systematic study of the nature and origin of common rocks and minerals. Identification techniques applied in laboratory and on field trips. Class fee $\$ 12$. F

## G202 Geology

3 class and 3 lab hrs/wk, 4 cr .
A broad non-quantitative, descriptive survey of geologic landforms. Map interpretation activities applied in laboratory and on field trips. Class fee $\$ 12$. W

## G203 Geology

## 3 class and 3 lab hrs/wk, 4 cr .

A geophysical study of earth history, interpreted through geophysics and plate tectonics, coupled with laboratory field study of paleontology. Class fee $\$ 12$. Sp

## GE

## General Engineering

## see also Engineering

## GE101 Engineering Orientation

2 class and 2 lab hrs/wk, 3 cr.
An introduction to the engineering profession and engineering problem-solving strategies. Prerequisite: MTH111. F

## GE102 Engineering Computations

2 class and 2 lab hrs/wk, 3 cr .
Acquaints engineering students with the use and operation of the micro computer. Programs will be developed and used by students in the solution of typical engineering problems. Structured programming techniques will be emphasized. Prerequisite: MTH111. W

## GE103 Engineering Computations

2 class and $2 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 3 \mathrm{cr}$.
Systematic approach to engineering problem solving using computers. Includes applications in computer analysis, graphing, and database operations using spreadsheet software. Prerequisite: GE102, CS101, or consent of instructor. $\mathbf{S p}$

## GE115 Engineering Graphics

2 class and 3 lab hrs/wk, 3 cr .
Graphic communication, multiview and pictorial representation, graphical analysis and solutions, and computer-aided drafting. Prerequisite: DRF072. Offered as needed.

## GEOG

## Geography

## GEOG105 Physical Geography

3 class and 2 lab hrs/wk, 4 cr.
Introduces the physical elements of geography and the environment in which we live. Focuses on the planet earth's geodesy, hydrographic, landforms, atmosphere, vegetation, and soils. F, $\mathrm{W}, \mathrm{Su}$

## GEOG106 Cultural Geography

3 class hrs/wk, 3 cr.
Introduces the cultural elements of geography, including the study of human population, migration, language, religion, cultural landscapes, and geopolitics. W, Sp

## GEOG107 Economic Geography

3 class hrs/wk, 3 cr.
Introduces economic geography, including the study of development and underdevelopment, agriculture, industry, settlement, urban landscapes, and natural resource issues. F, Sp

## GEOG190 Geography of Natural Hazards

3 class hrs/wk, 3 cr.
Studies the causes, characteristics, and geographic distribution of natural hazards, as well as various means of preparing for and minimizing the negative effects of hazards affecting the Pacific Northwest including: earthquakes, volcanoes, debris flows, floods, forest fires, and drought. Offered as needed.

## GEOG201 World Regional Geography: The Developed World <br> 3 class hrs/wk, 3 cr

An introduction to the human elements of geography in technically-advanced societies, including regional populations, environments, ways-of-life, and a place-name location study of Europe, North America, the former Soviet Union, Japan, and modern Oceania. Offered as needed.

## GEOG202 World Regional Geography: The Developing World <br> 3 class hrs/wk, 3 cr .

An introduction to the physical and cultural geography of the developing world with a regional survey of the geography of developing countries. Each region is examined as a case study illustrating particular geographic themes and concepts, including population change, natural resource use, environmental degradation, economic development, geopolitical conflict, and cultural perceptions. Offered as needed.

## GEOG206 Geography of Oregon

3 class hrs/wk, 3 cr.
Examines the geography of Oregon, including its settlement by Europeans, various geographic regions, diverse physical environments, important natural resources, and varied population and economy. Offered as needed.

## GEOG207 Geography of U.S. and Canada

3 class hrs/wk, 3 cr.
Examines the natural and cultural environments of the U.S. and Canada including: climate, vegetation, landform regions, natural resource issues, and population and settlement patterns. Offered as needed.

## GER

## GERMAN

GER101, 102, 103 First Year German I, II, III 4 class hrs/wk, 4 cr. each
Introduction to the German language (including listening, speaking, reading and writing) and Germanic culture (including geography, customs, daily life, heritage and literature), facilitated by the study of vocabulary, grammar, short readings and guided conversation. Prerequisite: These classes are to be taken sequentially. GER101: None; GER102: GER101, one year of high school German, or consent of instructor; GER103: GER102, two years of high school German, or consent of instructor. Class fee $\$ 2$ each. GER101: F; GER102: W; GER103: Sp

GER201, 202, 203 Second Year German I, II, III 4 class hrs/wk, 4 cr. each
Extensive practice in all four language skills (reading, writing, speaking, and listening). Included are cultural and literary readings and an in-depth review and expansion of basic German grammar and vocabulary, as well as a broadening of the student understanding of Germanic culture. Prerequisite: These classes are to be taken sequentially. GER201: GER103, three years of high school German, or consent of instructor; GER202: GER201 or
consent of instructor; GER203: GER202 or consent of instructor. Class fee $\$ 2$ each. GER201: F; GER202: W; GER203: Sp

## GS

## General Sciences

## GS104 Physical Science

3 class and 3 lab hrs/wk, 4 cr.
An integrated study of forces and motions in the physical world. Class fee $\$ 12$. F

## GS105 Physical Science

## 3 class and 3 lab hrs/wk, 4 cr.

A broad, nonquantitative, descriptive survey of chemical principles which are relevant to everyday life. Class fee $\$ 12$. W

## GS106 Physical Science

3 class and 3 lab hrs/wk, 4 cr .
Introduces various branches of earth sciences. Includes basic terminology, fundamental processes, and respective interrelations. Class fee $\$ 12$. Sp

## GS107 Introduction to Astronomy

3 class and 3 lab hr/wk, 4 cr .
Surveys the physical properties of planets, stars, and galaxies. Emphasizes the size of the universe and the objects within. Examines the process astronomers use to gather data and form models. Class fee $\$ 23$. F, offered as needed.

## GS120 Rudiments of Meteorology 3 class hrs/wk, 3 cr.

A descriptive treatment of contents of the atmosphere, cloud and precipitation types, weather instruments, thunderstorms, cyclones, hurricanes, air masses, fronts, and weather forecasting. Offered as needed.

GS141 Earth, Our Planet
3 class and 3 lab hrs/wk, 4 cr .
A telecourse which investigates geoscience topics by introducing students to internationally recognized experts who share their theories, models, and opinions. On-location film footage will take students to places and events they might not otherwise see. Includes video viewing, written worksheet lessons, at-home quizzes, topical outside reading summaries, and an on-campus exam. Class fee $\$ 8$. F

## GS142 Earth Revealed

3 class and 3 lab hrs/wk, 4 cr .
An introductory telecourse or modem geology course. This Geoscience course studies Earth as a system. A textbook, study packet, and lab component are closely integrated with video components. Class fee $\$ 8$. W

## GS143 The Earth's Oceans

3 class and 3 lab hrs/wk, 4 cr .
A telecourse which focuses on the marine environment as a unique feature of Planet Earth. Includes video viewing, journal writing, class projects, and site-based labs. Class fee $\$ 8 . \mathbf{S p}$

## H

Health Services Management
see also Allied Health and Medical Assisting

## H101 Medical Law and Ethics

3 class hrs/wk, 3 cr.
An exploration of the relationships between the law, ethics, and bioethics and the health care professional. An interactive class using case studies, independent and group projects, and personal reflection to identify common legal and ethical problems. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## H102, 103, 104 Professional Development

1 class hr/wk, 1 cr. each
Designed to develop students leadership qualities, and present opportunities for student-community participation. Provides a setting for self-improvement in conjunction with health occupations student organizations. H102: F; H103: W; H104: Sp

## H110 Health Information Systems Procedures 1

 2 class and 4 lab hrs/wk, 4 cr .Designed to provide the student with a fundamental knowledge of medical clinics and health-related organizations. Covers procedures used to keep any kind of medical office running efficiently. Provides entry-level skills for the Health Information Technician/Medical Transcriptionist and other students in Health Services Management and other programs to become proficient in a number of skills that are required of a professional office worker dedicated to assisting in the care of health care consumers. Class fee $\$ 12$. F,

H112 Health Information Systems Procedures 2 3 class 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. Provides entry-level skills for the health record technician/medical transcription students and others in the Health Services Management programs. Prerequisite: H110. Class fee $\$ 5$. W

## H113 Medical Insurance Billing

3 class hrs/wk, 3 cr.
Designed to provide the skills needed in insurance billing. Presents a practical approach to processing medical insurance billing and understanding insurance programs. Prerequisite: H120 and H121, or consent of instructor. Class fee $\$ 15$. Offered as needed.

## H114 CPT-IV Coding/Reimbursement

3 class hrs/wk, 3 cr.
Introduces the use of Current Procedural Terminology (CPT) coding system, insurance terminology and abbreviations, and basic health insurance systems. Prerequisite: H120, concurrent enrollment in H121, or consent of instructor. W

## H115 ICD-9-CM Coding/Reimbursement <br> 3 class hrs/wk, 3 cr.

Introduces basic differences between nomenclature and classification systems, as well as basic coding systems, including C.P.T. (Current Procedure Terminology) and I.C.D. 9-C.M. Covers basic abbreviation and description of coding manual format, and presents fundamen-
tal application of coding in basic forms, computerized billing, and state and federal agencies. Prerequisite: H120, H121, or consent of instructor. $\mathbf{S p}$

## H116 Introduction to Allied Health Data 3 class hrs/wk, 3 cr.

Introduces the basic data sets and statistics used every day in health care organizations. Emphasizes the case-based and experiential learning process to facilitate familiarity with occupancy and discharge rates, disease incidence and prevalence, and minimum and universal data sets used in all accredited organizations. W

## H120 Medical Terminology/Systems 1

3 class hrs/wk, 3 cr.
Emphasizes the terminology related to the health care professions and specialities, equipment, drugs, symbols, and abbreviations, and the anatomy, physiology and pathophysiology of the musculoskeletal, integumentary, nervous systems as well as the sensory organs. The approach is one of practical application in the workplace using case studies and operative, autopsy, diagnostic, and laboratory reports. F, W, Sp, Su

## H121 Medical Terminology/Systems 2 <br> 3 class hrs/wk, 3 cr.

A continuation of H120. Focuses on the digestive, cardiovascular, respiratory, blood, lymphatic, genitourinary, female reproductive, and endocrine systems. Explores the origin of terms and the use of anatomical, general, operative and symptomatic terms using a variety of casebased and experiential learning techniques. Prerequisite: H120 or consent of instructor. F, W, Sp, Su

## H122 Advanced Topics in the Language of Medicine

3 class hrs/wk, 3 cr.
An advanced course dealing with the language of clinical medicine in a variety of settings, including oncology, diagnostic radiology, the clinical laboratory, and pharmacology. Focuses on the reading, analyzation, and use of clinical research and literature to explore advanced topics. Emphasizes written and verbal presentation of the findings of individual and group student research projects. Prerequisite: H120 and H121 or consent of instructor. $\mathbf{S p}$

## H130 Health Information Systems Office Practice

16 lab hrs/wk, 5 cr .
Practice in clinical situations of health information methods and techniques. Prerequisite: Third-term standing in the Health Information Technician program with a grade C or higher in all required courses in the first two terms of the program. Class fee $\$ 20$. Sp

## H131 Health Information Systems Seminar 1 class hr/wk, 1 cr.

Study of the relationship of practicum in a health care setting with theoretical course content, as well as its application to career and personal goals. Prerequisite: H130. Sp

## H140 Medical Transcription

2 class and 2 lab hrs/wk, 3 cr.
An introduction to the techniques of transcribing from the recorded voice to the computer, and operation of the transcriber. Includes transcribing letters, case histories, pathological reports, and other medical reports. Prerequisite: H120, keyboarding at 40 words per minute or consent of instructor. Class fee \$10. W

## H141 Advanced Medical Transcription 1

1 class and 4 lab hrs/wk, 3 cr .
Introduction to in-depth transcription in all fields of medicine. Spelling, grammar, punctuation, and formatting will be emphasized. Production goals will be set and assessed regularly with timed tests. Prerequisite: H140, H120, concurrent enrollment in H121, or consent of instructor. Class fee $\$ 10$. F, W, Sp

## H142 Advanced Medical Transcription 2

1 class and 4 lab hrs/wk, 3 cr.
Continuation of H141. Includes transcription of comprehensive dictation in medical specialty areas including radiology, pathology, and cardiology using American Association of Medical Transcriptionist course tapes. Prerequisite: H120, H121, H140, H141, enrollment in the Medical Transcription program, touch typing ability of 55 words per minute, or equivalent as determined by instructor. Class fee $\$ 10 . \mathbf{F}, \mathbf{S p}$

## H143 Advanced Medical Transcription 3

1 class and 4 lab hrs/wk, 3 cr.
Continuation of H142. Includes transcription of 20 advanced tapes in all fields. Prerequisite: H120, H121, H140, H141, H142, enrollment in the Medical Transcription program, and touch typing ability of 65 words per minute or proficiency in WordPerfect at an intermediate level. Class fee $\$ 25$. F, W, Sp

## H144 Medical Transcription Seminar

1 class hr/wk, 1 cr.
Designed to assist the student in relating classroom theory to practical experience and to discuss self-evaluations of work environment experiences. Prerequisite: Concurrent enrollment in H280. Sp

## H210 Introduction to Health Services

3 class hrs/wk, 3 cr.
Provides an overview of the nation's health system. Includes use of health services, history of the health care system, and hospitals and other health service providers and their relationship to the system as a whole. Explores the financial, legal, political, and ethical aspects of the health care system in the United States. F

## H215 Advanced ICD-9-CM Coding

3 class hrs/wk, 3 cr.
Focuses on advanced ICD-9-CM coding practices and principles as well as resources for future coding problem solving. Prerequisite: H115 or basic coding experience on the job, H120, and H121 or basic knowledge of medical terminology. Class fee $\$ 10$. W

H216 Health Care Data and Statistics
3 class hrs/wk, 3 cr.
Provides the student with a working knowledge of basic statistical techniques and their application to various health care literature and clinical environments. Uses the concepts of experiential and case-based-learning to facilitate the learning process. Prerequisite: MTH095 or BA211, and H116 or consent of instructor. Sp

## H230 Health Services Externship

16 lab hrs/wk, 6 cr.
One hundred sixty hours of workplace experience in a health care or related setting. Prerequisite: H210, H250 and H251, or consent of instructor, and concurrent enrollment in H231. Class fee $\$ 27$. F, W, Sp

## H231 Health Services Seminar

1 class hr/wk, 1 cr.
Study of the relationship between clinical practicum in health care or related setting with theoretical course content and application to career and personal goals. Prerequisite: Concurrent enrollment in H230, or consent of instructor. F, W, Sp

## H250 Health Services Management I

3 class hrs/wk, 3 cr .
Introduces the student to management functions, concepts, and principles as well as managerial roles in the context of the health services organization and the health services delivery system. F

## H251 Health Services Management II

3 class hrs/wk, 3 cr.
Continuation of H250. Emphasizes the area of human resource management in health services organizations. Explores the concepts of motivation, leadership, communication, dynamics of change, personnel administration, labor relations, and new trends within the context of the health service organization and delivery system in the United States. Prerequisite: H250. W

## H280 Cooperative Work Experience see AUM280.

## HD

## Human Development

## HD101 Creating College Success

3 class hrs/wk, 3 cr.
Presents strategies which contribute to success at Chemeketa Community College. Students will create a personal and academic plan and learn how to maintain motivation, form a support system, and manage time. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## HD112 Study Skills

3 class hrs/wk, 3 cr.
Designed to develop practical and efficient study strategies in order to succeed in college. Includes note-taking, listening, textbook study reading, time management, improving objective and essay test-taking skills, reducing test anxiety, increasing concentration, and improving memory. An orientation to campus resources and a discussion of different learning styles also included. Prerequisite: College
placement score at or above RD090 or consent of instructor. F, W, Sp, Su

## HD200 Applied Learning Strategies

## 3 class hrs/wk, 3 cr.

In conjunction with a linked course, helps students strengthen their study, reading, and vocabulary skills. Emphasizes the development of higher-level critical thinking skills. Prerequisite: Enrollment in linked course or consent of instructor. Offered as needed.

## HD220 Life Skills Seminar I

3 class hrs/wk, 3 cr.
Helps adults identify their abilities, interests, and values. Includes career exploration, removal of barriers to career success, effective job search strategies, and development of an individual career plan. F, W, Sp, Su

## HD221 Life Skills Seminar II

## 3 class hrs/wk, 3 cr.

Helps adults develop goals, skills and support systems that promote success in education and careers. Topics include building self-confidence, assertiveness, balancing work and family, communication skills, stress and time management, and development of an individual action plan. F, W, Sp, Su

## HDF and HDFS

## Human Development

## and Family Studies

## HDF050 Parent/Infant

1 class hr/wk, 1 cr.
Covers infant growth, learning, behavior, guidance, health, and nutrition; expectations of parenthood; and activities with infants. Parents and children attend class together. Course may be repeated for a maximum of six credits. $\mathbf{F}, \mathbf{W}, \mathbf{S}$

## HDF051 Parent/Toddler

1 class hr/wk, 1 cr.
Covers toddler growth, learning, behavior, guidance, health, and nutrition; expectations of parenthood; and activities with toddlers. Parents and children attend class together. Course may be repeated for a maximum of six credits. F, W, Sp

## HDF052 Parent/Preschooler

1 class hr/wk, 1 cr.
Covers preschooler growth, learning, behavior, guidance, health, and nutrition; expectations of parenthood; and activities with preschoolers. Parents and children attend class together. Course may be repeated for a maximum of six credits. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## HDF065 Parenting and Cooperative Child Care

 1 class and 3 lab hrs/wk, 2 cr.Emphasizes working with young children by active participation in the campus Cooperative Child Care Center. Covers child development and basic guidance techniques by working with and observing children. Selected topics related to parent education will be presented at required parent seminars. Course may be repeated without limitation of credits. F, W, Sp

HDFS222 Family Relationships
3 class hrs/wk, 3 cr.
Examines communication patterns and relationships between adults, adults and children, and within intimate personal relations (marriage, families, and couple relations). Emphasis is placed on understanding the role of the family and its consequent role in the development of the individual. $\mathbf{F}$

## HDFS225 Prenatal, Infant and Toddler Development

3 class hrs/wk, 3 cr .
Study of the basic principles of development, prenatal through two years of age. Emphasizes physical, intellectual, emotional, and social growth and development of young children. $\mathbf{F}$

## HDFS226 A Time to Grow

3 class hrs/wk, 3 cr.
Designed to look at children, ages birth through adolescence, from a developmental perspective, reflecting how children change as a result of age and experience. Looks at the interplay of biology and experience as well as the child s current stage of development. F, Sp

## HDFS227 The Whole Child Telecourse

3 class hrs/wk, 3 cr.
Gives students, parents, teachers, and professional child care providers the tools they need to foster the growth and well-being of children in their care. Features real child care givers, working and playing together with children in ways that facilitate learning and development. Locations used during the filming include a suburban preschool, an urban infant center and preschool, an in-home family child care program, two university child care centers and Head Start classrooms. Offered as needed.

## HDFS229 Development in Middle Childhood

3 class hrs/wk, 3 cr.
Study of growth and development in 6- through 12 -year-old children. Emphasis placed on physical, intellectual, emotional, and social growth of the school-aged child. $\mathbf{S p}$
HDFS242 Balancing School, Work, and Family 1 class hr/wk, 1 cr.
Presents information on balancing the demands of school, work, and family. Covers the workfamily lifestyle, handling stress, communication skills, and time and money management. $\mathbf{F}$, W, Sp

## HDFS247 Preschool Child Development

3 class hrs/wk, 3 cr.
Covers the principles of development as they apply to the young child, primarily ages $21 / 2$ through 5. Emphasizes physical, intellectual, emotional, and social growth in children. W

## HDFS248 Learning Experiences for Young Children

4 class hrs/wk, 4 cr .
Focuses on planning and implementing preschool curriculum based on development theory. Involves weekly lectures and experiences covering presentation, development, analysis, and evaluation of materials and concepts which facilitate development of the whole child (physical, social, emotional, and cognitive develop-
ment). Prerequisite: HDFS225 and HDFS247 or consent of instructor. Class fee $\$ 5$. Sp

## HDFS249 Introduction to Working with Infants and Toddlers

3 class hrs/wk, 3 cr.
Assists practitioners in child development centers and home settings working with infants and toddlers. Focuses on understanding, facilitating, and respecting the development of children. Appropriate environmental planning, activities, and observation skills will be discussed, demonstrated, and practiced. F

## HDFS257 Home, School and Community

3 class hrs/wk, 3 cr.
Designed to help future teachers and child care workers recognize and understand their unique position as resource coordinator and facilitator for parents. In addition to lectures and reading, the course requires active participation in discussion, oral and written exercises, parent interviews and simulated conferences, parent education programs, community resources, and other activities designed to help the student integrate skills to become more effective in working with families. Prerequisite: Second-year standing in the Early Childhood Education program or consent of instructor. W

## HDFS260 Child Abuse and Neglect

3 class hrs/wk, 3 cr.
Problems of child abuse. For persons 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 assist abused children and abusive parents. $\mathbf{F}, \mathbf{S p}$

## HDFS285 Professional Issues in Early Childhood Education <br> 3 class hrs/wk, 3 cr.

Prepares early childhood educators to fill many professional roles that require knowledge of ethics, conflict resolution, and advocacy. Also covers how to influence governmental processes and develop an anti-biased professional attitude. Includes historical perspectives relating to early childhood education. Prerequisite: Second-year standing in the Early Childhood Education program or consent of instructor. $\mathbf{F}$

## HE

## Health Education

## see also Health Services Management

## HE151 Alcohol and Other Drugs

3 class hrs/wk, 3 cr.
Presents basic information concerning alcohol and other drugs. Covers mental, physical, emotional, and environmental aspects of alcohol and other drugs. Focuses on a decision-making approach to drug use and abuse. F, W, Sp

## HE204 Nutrition, Weight Control, and Physical Fitness

3 class hrs/wk, 3 cr.
Methods of maintaining or improving fitness by considering diets and dieting, obesity, types of exercise, physical testing, cardiovascular fitness, and nutritional concepts. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## HE209 Human Sexuality

3 class hrs/wk, 3 cr.
Covers mental, physical, and social aspects of human sexuality. Emphasizes development of a decision-making model that enables a person to make personal choices. Class discussion will be a vital part of the course. F, W, Sp

HE210 H.I.V., A.I.D.S. and other S.T.D. s
(Human Immunodeficiency Virus, Acquired Immunodeficiency Syndrome and other Sexually Transmitted Diseases/Infections) 1 class hrs/wk, 1 cr.
Presents basic information about H.I.V., A.I.D.S., and other sexually transmitted diseases/infections. Explores newest research available. Focuses on decision-making and behaviors which help prevent contracting sexually transmitted diseases/ infections. F, W, Sp

## HE222 Consumer's Guide to Health

3 class hrs/wk, 3 cr.
Looks at health resources available to consumers: medical doctors, naturopaths, chiropractors, types of insurance, drugs, hospitals, nutrition, and other alternatives. Explores how to choose and use a care provider, and how to stay as healthy as possible. Offered as needed.

## HE250 Personal Health <br> 3 class hrs/wk, 3 cr.

Presents basic information concerning the social, emotional, intellectual, physical, spiritual, and environmental aspects of personal health and wellness. Emphasizes healthenhancing skills and behaviors. Provides an opportunity for students to apply and practice decision-making models regarding their own personal health issues. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## HE262 Cardiopulmonary Resuscitation Instruction

## 2 lab hrs/wk, 2 cr.

Reviews theory and application of basic life support, instructional materials, and methods of use in CPR courses. Successful completion provides instructor certification or recertification by the Oregon Heart Association. Prerequisite: Certification in CPR by the Oregon Heart Association. Class fee $\$ 5$. W

## HPE

Health and Physical Education
see also Physical Education
HPE295 Health and Fitness for Life
3 class hrs/wk, 3 cr.
Provides information on the effects of exercise on the human body. F, W, $\mathbf{S p}, \mathbf{S u}$

## High School Completion

see page 29

## $H R$

## Human Resources

HR050 Human Resources Foundation

## 6 class hrs/wk, 6 cr.

Designed for students who have not completed the Certificate of Advanced Mastery in Human

Resources, this course surveys human resource careers and the necessary knowledge and skills needed to succeed in human resource programs. Includes the integration of reading, writing, technology, interpersonal communication, reasoning, and study skills as they pertain to the human resource professions: Fire Science, Criminal Justice, Early Childhood Education, Education, and Human Services. Prerequisite: Designated placement procedure. F, Sp, Su

## HS

## Human Services

## HS101 Addiction Pharmacology and Physiology

 4 class hrs/wk, 4 cr.How alcohol and other drugs are processed in the body and the brain (pharmacology). Includes information on the physiological effects of alcohol and other drugs (AOD) on the human body and the possible implications for the treatment and prevention of problems that arise from their use. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## HS103 Ethics for Human Service Workers <br> 2 class hrs/wk, 2 cr.

Introduces professional issues associated with the helping relationship. Examines how personal characteristics and values affect the helping relationship and the issues faced by helpers-intraining. Explores the issues of client rights, confidentiality competence, and dual relationships. Emphasizes development of an intercultural helping perspective. Prerequisite: Enrollment in the Human Services program. Offered as needed.

## HS104 Terminology for Human Services Workers

1 class hr/wk, 1 cr.
Familiarizes students with case management terminology. Emphasizes communications with service providers, including a demonstration of knowledge and an understanding of specific terminology. Prerequisite: Enrollment in the Human Services program. Offered as needed.

## HS120 Alzheimer's Disease: Coping and Caring

 3 class hrs/wk, 3 cr.This telecourse presents information about the physical disease process and stages in persons with Alzheimer's and other dementias. Explores creative and compassionate approaches to a variety of problem behaviors. Identifies underlying needs which can precipitate certain behaviors. Describes communication techniques and legal and financial planning strategies for families, caregivers, and case managers. Class fee $\$ 15$. W

## HS140 Handling the Violent Client

1 class hr/wk, 1 cr.
An introduction to the recognition, prevention, and control of aggressive behavior. Stresses prevention of violence through early intervention and includes information on pre-aggression warning signs, as well as practice in defusing aggression and the use of physical defense responses. F, W, Sp, Su

## HS150 Personal Effectiveness for Human

Service Workers
3 class hrs/wk, 3 cr .
An introduction to the elements of personal effectiveness. Uses individual and small group exercises to improve skills in self-awareness, communication, values clarification, problem solving, learning strategies, and conflict management. Prerequisite: Admission to Human Services program and concurrent enrollment in HS154, HS170. F, W

## HS152 Stress Management

1 class $\mathrm{hr} / \mathrm{wk}, 1 \mathrm{cr}$.
Introduces stress management, relaxation techniques, and their impact on health and wellbeing. Covers a variety of major relaxation techniques and emphasizes the analysis of life stressors and the development of a personalized stress management plan. Class fee $\$ 2$. F, W, Sp

## HS154 Community Resources

3 class hrs/wk, 3 cr .
Explores the history and values of community resources for people with specific disadvantages or disabilities. Acquaints students with local social service agencies and organizations and how to refer clients to them. Prerequisite: Admission to Human Services program and concurrent enrollment in HS150 and HS170, or pre-program students. F, W

## HS155 Interviewing Theory and Techniques

3 class hrs/wk, 3 cr.
Provides theory and specific techniques required for entry level interviewing in human service settings. Students practice skills and receive peer and professional evaluation. Prerequisite: HS150. Sp

## HS165 Activity Director Training/Long-Term

Care
3 class hrs/wk, 3 cr.
Meets training requirements of activity directors in long-term care facilities. Focuses on therapeutic activities and appropriate use of people and material resources in meeting patient needs. Promotes continual growth and development of long-term care residents. $\mathbf{F ,} \mathbf{S p}$

## HS170 Introduction to Practicum

3 class hrs/wk, 3 cr.
Provides the background and specific skills needed to select and succeed in a Human Services practicum placement. Designed to be taken during the first term of the Human Services program. A prerequisite for Human Services courses HS284-288A, S. Prerequisite: Admission to Human Services program and concurrent enrollment in HS150 and HS154. F, W

## HS201 Family Addiction

3 class hrs/wk, 3 cr.
Chemical dependency and how it affects a family. Focuses on family dynamics and treatment for alcoholic/addictive families. Prerequisite: HS101. Sp
HS202 Foundations for Addiction Professionals 4 class hrs/wk, 4 cr.
First in a three-course sequence. Presents the basic skills needed to provide services to clients in addiction treatment. Includes basic counsel-
ing theories, clinical evaluation techniques, criteria for treatment placement, and effective counselor characteristics, ethics, and self-care. Prerequisite: HS101, HS150, and HS155, or consent of instructor. Students should be currently enrolled in Human Services program practicum seminar or have practicum experience prior to enrolling in this class. $\mathbf{F}$

## HS203 Practice of Addiction Treatment

4 class hrs/wk, 4 cr.
Second in a three-course sequence. Presents skills needed to successfully complete clinical evaluations, identify client problems, and develop individualized treatment plans. Includes case management skills and group facilitation techniques. Prerequisite: HS101, HS150, HS155, and HS202 or consent of instructor. Students should be currently enrolled in Human Services program practicum seminar or have practicum experience prior to enrolling in HS203. W

## HS204 Readiness for Addiction Professionals

## 4 class hrs/wk, 4 cr

Third in a three-course sequence. Presents expanded skills necessary for working with an addicted population. Explains various treatment techniques used in working with families, teens, the elderly, homeless, and abused. Continues the development of case management skills as they relate to discharge planning, recovery/aftercare plans, and relapse prevention. Prerequisite: HS101, HS150, HS155, HS202, and HS203, or consent of instructor. Students should be currently enrolled in Human Services program practicum seminar or have practicum experience prior to enrolling in HS204. Sp

## HS205 Youth Addiction

## 3 class hrs/wk, 3 cr.

Assists students in working with chemicallydependent youth. Includes prevention, intervention, assessment, and continuing recovery techniques for individuals and groups. Prerequisite: HS101. Offered as needed.

## HS206 The Addicted Criminal

3 class hrs/wk, 3 cr.
Assists students in developing skills with chemically-dependent clients who are convicted criminals. Includes information on recognizing, confronting, and treating the addicted criminal. Prerequisite: HS101. Offered as needed.

## HS207 Adult Children of Alcoholics/Addicts 1 class hr/wk, 1 cr.

Explores the relationship between growing up in a chemically-dependent or dysfunctional family and problems which surface in adulthood. Includes discussion of family dynamics, denial, relationships, work, social skills, and feelings. $\mathbf{S u}, \mathbf{F}, \mathbf{W}, \mathbf{S p}$

## HS209 Dual Diagnosis Clients in Treatment

## 1 class hr/wk, 1 cr.

Covers basic information about simultaneous diagnosis of addiction and chronic mental illness in the same patient/client. Stresses the
importance of assessing and treating both areas equally. $\mathbf{F}$

## HS215 Conflict Resolution

3 class hrs/wk, 3 cr.
Explores the sources and dynamics of conflict in interpersonal, family, and work settings. Participants will develop an awareness of their own style in conflict situations and learn effective strategies for resolving conflict. Offered as needed.

## HS220 Aging and Society

## 3 class hrs/wk, 3 cr.

Introduces the field of social gerontology and explores the relationship between the aging individual and society. The first course in a three-course sequence emphasizing the social, biological, and psychological aspects of aging. This course may, however, stand alone for those wishing an introduction to the field of gerontology. Class fee $\$ 15$. F

## HS221 Physical Aging

3 class hrs/wk, 3 cr.
Surveys the physical aspects and theories of aging, changes in body systems, and effects of lifestyle on the aging process. Second of a threecourse sequence emphasizing the social, biological, and psychological aspects of aging. W

## HS222 Aging and Behavior

## 3 class hrs/wk, 3 cr.

Presents information about behavioral responses in the normal aging process, including coping, cognition and memory, personality, and adjustment. Emphasizes healthy adaptation to aging and promotion of ego integrity in old age. Also covers the description, diagnosis, assessment, and treatment of common organic and functional mental disorders. Third of a threecourse sequence emphasizing the social, biological, and psychological aspects of aging. $\mathbf{S p}$

## HS230 Physical, Sexual and Emotional Abuse

3 class hrs/wk, 3 cr.
An overview of the effects of physical, sexual, and emotional abuse on individuals and families. Explores cultural and political implications of abuse and provides a basic working knowledge of the issues related to abuse. Offered as needed.

## HS260 Group Dynamics

3 class hrs/wk, 3 cr.
Provides students with theory and skills applicable to small group dynamics. Focuses on group formation, development of norms, conflicts, controversy, and leadership. Prerequisite: HS150. W, Sp

## HS262 Misuse and Abuse of Alcohol and Drugs

 Among the Elderly1 class hr/wk, 1 cr.
Addresses problems of drug and alcohol misuse and abuse among older adults. Focuses on prescription drugs, over-the-counter drugs, and alcohol used either alone or in combination. Prerequisite: HS101. Sp

## HS265 Casework Interviewing

## 3 class hrs/wk, 3 cr.

Provides training in the casework interviewing skills needed for human services work. Includes interviewing, problem solving, assessment, and case management. Prerequisite: HS150, HS155, and HS284-288 or concurrent enrollment. F

## HS266 Case Management

3 class hrs/wk, 3 cr.
Provides theory and application in casework and interviewing applied to diverse populations and cultures in human services. Includes interviewing for assessment, problem solving, planning, monitoring and crisis intervention. Prerequisite: HS150, HS155, HS265, HS284288 or concurrent enrollment. W

## HS267 Systems Strategies

## 3 class hrs/wk, 3 cr.

Provides students with the intervention strategies needed for human service work. Includes theory and practice in family, group, and community intervention strategies. Prerequisite: HS150, HS155, and HS265 or HS202. Sp

## HS284-288A, S Practicum-Human Services 12-24 lab hrs/wk, $4-8$ cr.

On-site experience working in a human service agency. Seminars assist students in the integration of field and classroom experiences. Students will have two different practicum sites, each at least two terms in length, during the two years. The second year practicum will be more comprehensive and will provide an opportunity to develop more advanced skills. Prerequisite: HS150 and HS170. Class fee varies, $\$ 3$ each. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$ ( $\mathbf{S u}$ as needed).

## HSM and HTM

## Hospitality and Tourism Management

## HSM071 Travel Agency Sales and Marketing 3 class hrs/wk, 3 cr.

An overview of the travel marketing process as well as tips on how to market and sell travel effectively. Covers developing and marketing a travel product, identifying target audiences, using effective advertising techniques, and converting marketing strategies into sales techniques. Emphasis placed on customer service training. F, W, Sp

## HSM072 Travel Agency Management

## 3 class hrs/wk, 3 cr.

An in-depth study of the methods and techniques necessary to successfully operate a travel agency. Includes discussion of management theory, systems, decision making and leadership relevant to the travel agency business, while emphasizing the development of effective communication skills. Covers the business systems of human resource management, finance, ethics, and marketing. Students will develop and operate a simulated travel agency as a class project. $\mathbf{S p}$

## HSM074 Computer Reservation Systems

3 class hrs/wk, 3 cr.
This course uses simulations of various computer reservation systems (CRS) including the APOLLO (United), SABRE (American), and WORLDSPAN (PARS and DATAS II) systems in a microcomputer laboratory, to train students with the skills necessary for successful employment in a travel agency. Identifies the distinguishing features of each CRS. Students will learn to display available flights, auto rentals, lodging and accommodations, and other related travel information necessary for client satisfaction. Emphasis will be placed on solving practical problems that travel agents encounter in the workplace. Class fee $\$ 25$. F, $\mathbf{W}$, Sp

## HTM100 Introduction to the Hospitality Industry

3 class hrs/wk, 3 cr.
Defines hospitality industry as a single, interrelated industry comprised of food and beverage service, travel and tourism, lodging, meeting and planning, leisure and recreation, recreational entertainment, and heritage and eco-tourism. Emphasizes understanding industry components and their current issues and future trends. Assesses the impact of North America's rapidly changing demographics and lifestyle changes on the hospitality industry, as well as the impact of the hospitality industry on the U.S. economy. Career opportunities and the service ethics are discussed. F

## HTM101 Hospitality and Tourism Management

 3 class hrs/wk, 3 cr.An in-depth study of the methods and techniques employed by the hospitality and tourism industry to accomplish effective and efficient operations. Includes discussions of management theory, systems, decision-making and leadership as they relate to the hospitality profession. Covers human resource management, finance, ethics, and marketing within the hospitality environment. $\mathbf{S p}$

## HTM102 Hotel, Restaurant, and Travel Law

## 3 class hrs/wk, 3 cr.

Presents the legal aspects of the hospitality and tourism industry. Stresses critical thinking skills to teach students to communicate with their attorneys and recognize the ramifications of the policies and practices of their businesses. Discusses the Americans With Disabilities Act, sexual discrimination, civil rights issues, basic court procedures, contract law negligence, guest relationship obligations, alcohol liability, travel agent relationships, and licensing and regulations. W

## HTM103 Marketing in the Hospitality Industry

3 class hrs/wk, 3 cr.
Introduces marketing concepts and techniques in the hospitality industry. Covers the variety of products, services, and sales conditions within the industry. Through field study, students analyze industry marketing strategies. Sp

## HTM104 Introduction to the Travel and Tourism Industry

3 class hrs/wk, 3 cr.
Explores the major concepts in tourism, what makes tourism possible, and how tourism can become an important factor in the economics of any nation, state, regional, or local area. Discusses fundamentals of the tourism system and the need for accurate research data. Promotes understanding and knowledge of the diverse elements that comprise the travel and tourism industry and the factors that influence growth and development. F

## HTM105 Introduction to the Food Beverage Industry

3 class hrs/wk, 3 cr.
An overview of the food service industry, its structure, organization, size, economic impact, regulatory industries and peripheral industries; managerial problems and practices; and trade journals and resources, with a broad review of the various food service segments. Discusses topics of current concern for the industry. Guest speakers representing various segments of the industry will provide an introduction to career opportunities and a view of real-world activities. W

## HTM106 Introduction to the Lodging Industry

3 class hrs/wk, 3 cr.
An overview of the lodging industry's structure, size, and scope; managerial problems and practices; and structure and organization within individual firms. Studies front office procedures and explores career opportunities. Sp

## HTM107 Sanitation and Safety for Managers

3 class hrs/wk, 3 cr.
Designed for hospitality and tourism industry members. This course is based on the National Restaurant Association's ServSafe training and certification coursework. Informs, strengthens, and updates supervisors and managers on current principles and practices of sanitation and safety. Covers Oregon's recent enactment of statewide food handler training, the Hazard Analysis Critical Control Point (HACCP) system, as well as potable water systems, waste treatment, lodging facilities, recreational facilities, swimming pool and spa regulations, and hazardous materials. Upon successful completion of this course, a certificate of completion will be issued by the National Restaurant Association. Sp

## HTM108 Introduction to the Leisure and Recreation Industry

3 class hrs/wk, 3 cr.
An overview of the role of leisure in America. Examines factors influencing leisure; the relationship of leisure to demographics, personality development, and health; and the changing lifestyles in American society. Covers how the leisure industries play a critical role in our economy and how the development of young children, the success of marriages, the maintenance of intellectual capacity among older people are all critically linked to play, recreation and leisure. $\mathbf{F}$

## HTM109 Front Desk Operations

3 class hrs/wk, 3 cr.
Designed to cover the functions of the front desk operation at a hotel or motel. Includes reservations, registration, room and rate assignment, guest services, room status, maintenance and settlement of guest accounts, and creation of guest history records. Covers the development and maintenance of comprehensive databases of guest information, coordination of guest services, and ensuring guest satisfaction. Local area hotels will be used as resources and field trips will be scheduled. Current computerized reservations systems will be featured. $\mathbf{F}$

## HTM110 Hotel Operations/Guest Service

## 3 class hrs/wk, 3 cr.

Surveys the scope of the lodging industry, including history, organizational structure, and career opportunities. Introduces traditional front office functions, including reservations, registration, room and rate assignment, guest services, room status, account maintenance, cash handling, and methods of settlement. Also covers housekeeping operations, security, safety and sanitation guidelines as well as OSHA regulations. Current computerized reservation and property management systems will be featured. Local area hotels will be used for field trips. Offered as needed.

## HTM111 Cultural Heritage Tourism

## 3 class hrs/wk, 3 cr.

Surveys the subject of cultural heritage tourism and the value of this niche market. W

## HTM112 Bed and Breakfast Operations

3 class hrs/wk, 3 cr.
An overview of the bed and breakfast and innkeeping industry. Discusses the realities of purchasing, owning, and operating a successful inn. Explores financing, operations, food service and sanitation, marketing, and governmental regulations. Class fee $\$ 25$. F

## HTM113 Club Management

## 3 class hrs/wk, 3 cr.

Overviews club operations and leisure recreation as an essential sector of the tourism economy. Discusses the history of clubs and their organization and systems. Emphasizes organizational skills, club operations; including marketing, human resources and retail outlet operation and computers. Discusses career opportunities, current issues and future trends. Designed to promote advancement in the club industry. Class fee $\$ 25$. Sp

## HTM114 Travel Destination Geography 1

## 3 class hrs/wk, 3 cr.

Provides in-depth geographical, political, and cultural data on the countries of the world and encourages thoughtful planning of travel itineraries incorporating this information. Uses a combination of workbook exercises, maps, and reference materials highlighting location, climate, currency, ports of entry, and forms of government in countries around the world. $\mathbf{F}$, W, Sp

## HTM115 Travel Destination Geography 2

3 class hrs/wk, 3 cr .
Focuses on the geography of Europe with emphasis on the United Kingdom and Ireland. Provides in-depth geographical, political, and cultural data on the countries emphasized. Class fee $\$ 25$. Sp

HTM116 Travel Destination Geography 3
3 class hrs/wk, 3 cr.
Focuses on the geography of Africa, the Middle East, India, and the South Pacific. Provides indepth geographical, political, and cultural data on the countries emphasized. $\mathbf{S p}$

## HTM117 Travel Agency Basics

3 class hrs/wk, 3 cr.
Provides a systematic and comprehensive overview of the travel industry with the focus on travel agencies. Covers the pivotal role of the travel agent and the nature of the relationship between agents and supplier and between agents and their client. Presents critical information on travel products and destinations, important business issues, and the technical and personal skills necessary to begin a successful travel industry career. Career opportunities will be discussed, and current issues and future trends identified. W

## HTM118 Ski Area Management

3 class hrs/wk, 3 cr.
Covers ski area management and operations. Includes systems and environmental issues that impact the ski industry. Discusses current issues, future trends and career opportunities. Designed to develop competent ski industry professionals. W

## HTM119 Introduction to Casino Management

 3 class hrs/wk, 3 cr .Provides an overview of casino management and casino hotel operations. Includes the history and culture of gaming, gaming trends in the United States, casino hotel organizational structure, government regulation, and casino games and Indian casinos. Covers the practices and problems associated with casino management including staffing, controls, credit, security, marketing, and entertainment. $\mathbf{S p}$

## HTM120 Coaching Skills for Casino <br> Supervisors

## 4 class hrs/wk, 4 cr .

Examines the practical aspects of supervision in the casino environment, and helps students identify their strengths and weaknesses as supervisors. Covers customer service, the casino environment, leadership, teamwork, on-thejob training, employee relations, performance improvement, and other organizational issues. Offered as needed.

## HTM126 Meeting and Event Planning <br> 3 class hrs/wk, 3 cr.

Covers the management and operations of the convention and meetings market of the hospitality and tourism industry. Includes an introduction to the meetings industry, promotional activities, negotiations for meeting services, convention market salesmanship, customer
service, and convention servicing. Facilities, technology and media are discussed. W
HTM280A-L Cooperative Work Experience see AUM280.

## HST

## History

## HST110, 111, 112 History of World Civilization

3 class hrs/wk, 3 cr.
A survey of human cultural, social, economic, and political development of world civilizations. HST110 covers ancient times to 1500 C.E.; HST111 covers 1500 to 1870; HST112 covers 1870 to the present. HST110: F, W; HST111: W; HST112: Sp

## HST157 History of the Middle East and North Africa

3 class hrs/wk, 3 cr .
A survey of cultural, social, economic, and political development in the Middle East and Africa. Offered as needed.

## HST158 History of Latin America

3 class hrs/wk, 3 cr.
A survey of cultural, social, economic, and political development in Latin America. Offered as needed.

## HST159 History of Asia

3 class hrs/wk, 3 cr.
A survey of cultural, social, economic, and political development in Asia. Offered as needed.

## HST201, 202, 203 History of the United States

3 class hrs/wk, 3 cr. each
A study of the cultural, economic, social, and political development of the United States. HST201: 1492 to 1840; HST202: 1840 (Jacksonian era) to 1900; HST203: 1900 to the present. HST201: F, W; 202: W; 203: Sp

## HST228 History of Modern Europe

3 class hrs/wk, 3 cr.
Introduces the history and culture of Europe during the twentieth century. Covers the impact of war and revolution, the end of colonialism and decline of European empires, and the search for European unification. Offered as needed.

## HST257 Native American History

## 3 class hrs/wk, 3 cr.

Focuses on the history of native peoples in the United States, from prehistory to the present. Examines how a diversity of Native American societies has adapted themselves over time to a constantly changing world. Emphasizes the relationship between European Americans and Native Americans after 1492. Offered as needed.

## HST258 African American History

3 class hrs/wk, 3 cr .
Recounts and explains experiences which lie at the heart of America's struggle to deal with its racial composition. Examines historical forces which denied African Americans the opportunity to secure meaningful first-class citizenship. Focuses on the political decisions and social institutions that determined public policy
regarding Americans of African descent. Offered as needed.

## HST259 Latino American History

3 class hrs/wk, 3 cr.
Covers the aspects of the life and society of Latino Americans and recent immigrants from Latin America. Focuses on the racial, cultural, educational, economic, and political development of Latino Americans in the United States. Offered as needed.

## HST293 Modern Japanese History

3 class hrs/wk, 3 cr.
Covers modern Japanese history from the mid19th century to the present. Provides an overview of modern industrialization, military ventures, U.S. occupation, and reforms leading to Japan's role as a modern-world economic power. Offered as needed.

## HUM

## Humanities

## HUM251 The Art of Discovery

3 class hrs/wk, 3 cr.
Focuses on classical Greek culture, including its science, philosophy, religion, art, and architecture. Considers their impact upon life patterns and scientific and humanistic thoughts of the day. $\mathbf{F}$

## HUM252 The Art of Discovery

3 class hrs/wk, 3 cr.
An exploration of Renaissance culture in Western Europe its history, literature, philosophy, and art with a goal of gaining an understanding of the common, shared experience of people who lived in that era. W

## HUM253 The Art of Discovery

3 class hrs/wk, 3 cr.
An exploration of early Twentieth Century Europe, its troubled history, literature, philosophy, and art, with a goal of gaining an understanding of the common, shared experience of people who lived in that era. $\mathbf{S p}$

## HUM259 Death and Dying

3 class hrs/wk, 3 cr.
An introduction to the study of death and dying. Students will compare and contrast historical and modern attitudes toward death and dying found in literature, rituals, religion, philosophy, film, medico-legal issues, and in the process clarify their attitudes and values. Offered as needed.

## I <br> Journalism <br> J198 Independent Study: Editorial Writing 1 class hr/wk, 1 cr.

Emphasizes writing to persuade readers to a point of view or an editorial stand. Includes a thorough discussion of writing techniques and an examination of in-depth and investigative reporting techniques that produce stories worthy of commentary. Work produced during this class will be considered for publication in the student newspaper. Prerequisite: J216 or con-
sent of instructor. Ability to type and a basic understanding of English grammar and syntax are essential. F, W, Sp

## 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. Course may be repeated for a maximum of 12 credits. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## J216 Newswriting

3 class hrs/wk, 3 cr .
Gathering and processing news. Includes lead format, straight news style, and some feature writing. Considerable time devoted to writing. Prerequisite: Knowledge of typing. F

## J217 Feature Writing

## 3 class hrs/wk, 3 cr .

Emphasizes feature, in-depth, and investigative reporting skills. Students are required to present material weekly for publication. Prerequisite: J216 or consent of instructor. Knowledge of typing required. W

## J224 Introduction to Mass Communications

## 3 class hrs/wk, 3 cr.

Survey of communication media with emphasis on historical, social, technological, and economic considerations in mass media in the United States. Examines important current legal and ethical dilemmas facing journalists. Recommended for journalism majors; open to others. F, Sp

## J225 Media Ethics

## 3 class hrs/wk, 3 cr.

Communications and production aspects of advertising and public relations. Criticism and analysis combined with assignments in copywriting, design, and marketing strategy. W

## J226 Editing/Design

3 class hrs/wk, 3 cr.
Provides a working example of newspaper management in relation to editing, production, and design procedures. Surveys printing processes, typography, page design, style, photo editing, and headline writing. Prerequisite: J224 or consent of instructor. The ability to type and a basic understanding of English grammar and syntax also are strongly recommended. Sp

## J227 Journalism Ethics

3 class hrs/wk, 3 cr.
Provides an introduction to journalism ethics, emphasizing the First Amendment, the philosophical framework, corporate social responsibility, the legal system, the changing face of the media, editors and readers in the debate process, and issues of taste vs. responsibility. Examines important dilemmas facing print and broadcast journalists, using real-life examples of legal challenges to the system by the courts and various state and federal law-making bodies, and the changing standards of the public at large. W

## J298A-E Independent Studies

22-110 hours/1-5 cr
Uses learning contract to provide student and instructor with a vehicle to allow independent study in an area of student interest.

## IPN

## Japanese

JPN101, 102, 103 First Year Japanese I, II, III 4 class hrs/wk, 4 cr. each
Introduction to the Japanese language (including listening, speaking, reading and writing) and Japanese culture (including geography, customs, daily life, heritage and literature), facilitated by the study of vocabulary, grammar, short readings and guided conversation. Prerequisite: These classes are to be taken sequentially. JPN101: None; JPN102: JPN101, one year of high school Japanese, or consent of instructor; JPN103: JPN102, two years of high school Japanese, or consent of instructor. Class fee \$2 each. JPN101: F; JPN102: W; JPN103: Sp

## Job Search

see Field Experience


## Library Studies

## LIB125 Internet Research Literacy <br> 1 class hr/wk, 1 cr.

Introduces students to the use of the Internet as a research tool. Includes developing a search strategy, limitations of the Internet, types of Internet information resources, Internet search tools and searching techniques, and evaluating Internet information resources. No prior Internet experience required. W


## MED

## Medical Office Assisting

see also Allied Health and Health Services Management
MED120 Medical Office Procedures
4 class and 3 lab hrs/wk, 5 cr.
Procedures and principles used in medical clinics and offices in administrative and front office duties, including patient reception, appointment scheduling, telephone techniques, correspondence and mail processing, medical records management, dictation and transcrip-
tion, medicine and the law, professional fees and credits, health and accident insurance, and editorial duties. Class fee $\$ 10$. F

## MED124 Medical Assisting, Basic Procedures

## 3 class and $3 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 4 \mathrm{cr}$.

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, patient teaching principles and considerations, and legal and ethical implications in a medical caregiving setting. Prerequisite: High school graduate or equivalent. Admission to the Medical Office Assisting program. Class fee $\$ 20$. F

## MED125 Medical Assisting, Advanced Procedures

4 class and 4 lab hrs/wk, 6 cr .
A survey of advanced clinical/laboratory knowledge and skills required of the medical office assistant. Heavy emphasis is placed on electrocardiography, hematology, urinalysis, microbiology, clinical pharmacology, as well as administration of medications and assisting the physician with minor surgery. Covers diet modification, radiology, principles of heat and cold application, and common emergencies. This course is designed to provide individual and small group assistance to students for skill development. Prerequisite: Second-term standing in the Medical Office Assisting program with a grade C or higher in all required courses. Class fee $\$ 20$. W

## MED128 Introduction to Medical Science

3 class hrs/wk, 3 cr.
A survey of the disease processes that lead to specific impairments of the human body. Prerequisite: H120, H121. Sp

## MED130 Medical Assisting Practice

16 lab hrs/wk, 5 cr .
Students are assigned to health care agencies to apply learned medical assisting methods, procedures, and techniques in a health care setting. Prerequisite: Successful completion of term one and term two of the Medical Assisting program with a grade C or higher in all required courses. Current Standard First Aid card and Healthcare Provider CPR card on file with the instructor. Class fee $\$ 27$. $\mathbf{S p}$

## MED131 Medical Assisting Seminar

## 1 class hr/wk, 1 cr.

Study of the relationship of practicum in a health care setting with theoretical course content, as well as its application to career and personal goals. Prerequisite: Concurrent enrollment in MED130. Sp

## MED280 Cooperative Work Experience

 see AUM280.MFG

## Manufacturing Engineering

## Technologies

## MFG053 Manufacturing Processes

2 class and 3 lab hrs/wk, 3 cr.
Provides basic knowledge of various manufacturing processes and materials. Includes processes involving machine tools, tooling, work holding, measuring, inspection, fabrication, forging, casting and manufacturing procedures. Class fee $\$ 16$. W

## MFG061 Practical Applications 1

## 3 lab hrs/wk, 1 cr.

Provides an open lab format to refine previously learned manufacturing skills. Class fee $\$ 10$.
Prerequisite: Consent of instructor. F, W, Sp

## MFG062 Practical Applications 2

6 lab hrs/wk, 2 cr.
Continues an open lab format to refine previously learned manufacturing skills. Class fee $\$ 10$.
Prerequisite: Consent of instructor. F, W, Sp

## MFG088A Intermediate Hydraulics

3 class hrs/wk, 3 cr.
An intermediate course covering the symbols, systems, and trouble shooting procedures of fluid power. Prerequisite: MFG231 or completion of a basic hydraulics course. $\mathbf{S p}$

## MFG099 Machinist Apprentice Evaluation

 24 lab hrs/wk, 1 cr.Provides the review and final examination for individuals working in the machinist trade who have never formally completed an apprenticeship program or received a journeyman card. Prerequisite: Machinists working at journeyman level who have been referred by MidValley JATC for testing for official journeyman standing. Class fee $\$ 6$. Offered as needed.

## MFG100 Fundamentals Lab Practice

## 3 lab hrs/wk, 1 cr.

Provides independent lab practice for students concurrently enrolled in MFG101. Includes benchwork related projects. Prerequisite: Concurrent enrollment in MFG101. Class fee \$10. F

## MFG101 Machining Fundamentals

## 2 class and 3 lab hrs/wk, 3 cr.

Introduces the fundamentals of benchwork processes. Covers the use of basic hand tools, drill presses, power saws, pedestal and angle head grinders, arbor presses, and basic layout and benchwork tools. Includes use of appropriate charts and tables including decimal equivalent and drill and tap selection with speed and feed calculations. Provides orientation to machine shop manufacturing. Prerequisite: Second-year standing in the Manufacturing Technology program and consent of instructor. Class fee $\$ 20$. $\mathbf{F}$

## MFG111 Industrial Safety Seminar

## 1 class hr/wk, 1 cr.

Details the joint responsibility of the company and employee in complying with federal and state regulations pertaining to business and industry. Class fee $\$ 6$. F, Sp

MFG120 Metrology
2 class and 3 lab hrs/wk, 3 cr .
Covers the selection and application of linear English and Metric measuring and inspection tools and equipment used in manufacturing. Class fee $\$ 20$. F

## MFG124 Interpreting Engineering Drawings

3 class and 2 lab hrs/wk, 4 cr .
Instruction and skill development in blueprint reading, sketching, basic drawing techniques, and geometric constructions. Class fee $\$ 5$. $\mathbf{F}$

## MFG130 CNC Machine Setup/Operation

2 class and 3 lab hrs/wk, 3 cr.
Provides fundamental information about the operation of computer numerical control (CNC) systems used in today s manufacturing environment. Includes hands-on experiences with both personal and manufacturing-specific computers to establish basic operational skills. Class fee $\$ 5$. F

## MFG131 Lathe Fundamentals

2 class and 3 lab hrs/wk, 3 cr .
Introduces turning operations with emphasis on work and tool holding methods. Covers related hole-making process, facing, tapping, knurling, grooving, and parting. Class fee $\$ 20$. W

MFG136 Geometric Dimensioning/Tolerancing 2 class hrs/wk, 2 cr.
Practical application of geometric concepts and practices related to surface plate and coordinates measuring machine technology. Emphasis placed on the correct interpretation of geometric dimensioned engineering drawings and recognition of the correct setup method and procedure necessary to manufacture and inspect parts according to functional requirements. $\mathbf{F}$

## MFG145A CMM/QA Applications

2 class hrs/wk, 2 cr.
Focuses on the theory and application of Quality Assurance tools including use of X-bar and R-charts, pareto charts, histograms, cause and effect diagrams and other related graphical data analysis. Includes conducting process capability studies. Discusses the theory of Coordinate Measuring Machine application and operation. Class fee $\$ 10$. W

## MFG145B CMM/QA Applications-Lab

## 3 lab hrs/wk, 1 cr.

Provides practical applications with hands-on measuring techniques including creation of Xbar and R -charts using the coordinate measuring machine. Emphasizes techniques in Geometric Dimensioning and Tolerancing (GDT) verification. Stresses applications to meet the demands of quality in today's manufacturing environment. Prerequisite: Concurrent with MFG145A, and MFG160. Class fee $\$ 10$. W

## MFG151 Milling Machine Processes

2 class and 3 lab hrs/wk, 3 cr.
Covers basic milling, work holding methods, cutter identification, selection and use, speeds and feeds, adapters, tool holders, and application. Includes operation of vertical and horizontal milling machines, applying related operational theory. Class fee $\$ 20$. W

## MFG160 Programming CNC Mills

2 class and 3 lab hrs/wk, 3 cr.
Introduces computer numerical control (CNC) programming for milling applications and operations related to manufacturing. Prerequisite: MFG130 or consent of instructor. Class fee \$15. W

## MFG161 Lathe Processes

2 class and 3 lab hrs/wk, 3 cr .
Designed to provide students with advanced lathe theory and operation skills. Covers lathe settings, boring, single-point threading, calculations, controls, taper attachments, follower rests, steady rests, and advanced tooling and work holding applications. Prerequisite: MFG131 or consent of instructor. Class fee $\$ 20$. Sp

## MFG170 Total Quality Manufacturing (TQM)

2 class and 3 lab hrs/wk, 3 cr.
Total quality manufacturing's (TQM) origin, function, and application in today's working environment. Explores quality planning and systems, problem solving, management systems, data collection, continuous quality improvement, people, and teams. Statistical Process Control (SPC) concepts and practical applications are applied to give the student a working knowledge of TQM tools. Class fee \$5. Sp

## MFG176 Manufacturing Materials and Cutting

 Tools2 class and 3 lab hrs/wk, 3 cr .
Provides knowledge and skill development in the selection and application of product materials, tool coatings, and cutting tool materials used in manufacturing. Prerequisite: MFG131, MFG151, or consent of instructor. Class fee \$20. Sp

## MFG190 Programming CNC Lathes

2 class and 3 lab hrs/wk, 3 cr.
Introduces computer numerical control (CNC) programming for lathe applications and operations related to manufacturing. Prerequisite: MFG130 or consent of instructor. Class fee $\$ 10$. Sp

## MFG200 Advanced Lab Practice

6 lab hrs/wk, 2 cr.
Provides advanced lab practice to home manufacturing technology skills. Prerequisite: Second year standing in the Manufacturing Technology program and consent of instructor. Class fee $\$ 10$. W

## MFG205 CAD for CAM

2 class and 3 lab hrs/wk, 3 cr .
Incorporates hands-on experience with the AutoCAD PC-based computer-aided drafting program. Includes necessary factors for successful CAD/CAM integration to meet CNC manufacturing requirements. Class fee $\$ 5$. $\mathbf{F}$

## MFG210A Manufacturing Process Planning

2 class hrs/wk, 2 cr.
Emphasizes planning of manufacturing processes, including safety considerations, materials, blueprints, tooling, machining software programs, machine capability, capacity and operational readiness, production require-
ments, scheduling considerations, in-process inspection, customer expectations, and other criteria influencing the quality of the finished product. Prerequisite: MFG131, MFG151, MFG161 or consent of instructor. F

## MFG210B Manufacturing Process Planning-

 Lab6 lab hrs/wk, 2 cr.
Uses computers and manufacturing equipment to plan for and carry out assigned projects. Provides advanced instruction in the setup, care, and use of manufacturing equipment, such as lathes, mills, grinders, inspection equipment, and peripherals. Prerequisite: Concurrent enrollment in MFG210A or consent of instructor. Class fee $\$ 30$. F

## MFG223 Industrial Systems

2 class and 3 lab hrs/wk, 3 cr.
An introduction to the methods and application of transmitting power used in the manufacturing industry. Class fee $\$ 20$. F

## MFG230 CAM Applications/Mills

2 class and 3 lab hrs/wk, 3 cr .
Introduces students to the concepts and application of computer aided manufacturing (CAM) software programs for creating CNC milling machine part programs. Prerequisite: MFG130, MFG160 or MFG190 or consent of instructor. Class fee \$20. F

## MFG231 Hydraulics

3 class hrs/wk, 3 cr.
Covers the theory, symbols, components, systems, and trouble shooting procedures related to fluid power technology. Includes lecture and hands on instruction. W

## MFG245A Fixture Design and Manufacturing

## 2 class hrs/wk, 2 cr.

Introduces the theory and key concepts of jig, fixture, and gauge design, use, and manufacture. Prerequisite: MFG130, MFG131, MFG151 or consent of instructor. W
MFG245B Fixture Design and ManufacturingLab
6 lab hrs/wk, 2 cr.
Applies theory and concepts of jig, fixture and gage design used in building functional workholding and gaging devices for students concurrently enrolled in MFG245A. Prerequisite: Concurrent with MFG245A. Class fee $\$ 30$. W

## MFG260 CAM Applications/Lathes

2 class and 3 lab hrs/wk, 3 cr.
Introduces students to the concepts and application of computer aided manufacturing (CAM) software programs for creating CNC lathe part programs. Prerequisite: MFG130, MFG160 or MFG190, or consent of instructor. Class fee $\$ 20$. W

## MFG265 Machinery's Handbook

2 class hrs/wk, 2 cr.
Solves practical machine shop and mechanical design problems using tables, charts, and formulas from the Machinery's Handbook. Includes powers and roots of numbers, segments of circles, transposition and various formulae, geometrical figures, figuring tapers, tol-
erances and allowances, gearing problems, bearing fits, strength of materials, and pipe and pipe fittings. $\mathbf{S p}$

## MFG270A Production/Assembly/Control

## Methods

2 class hrs/wk, 2 cr.
Emphasizes basic skills in computerized shop floor data collection. Incorporates advanced grinding theory and the use of diamond and cubic boron nitride cutting tools, assembly requirements, and function analysis. Prerequisite: MFG130, MFG131, MFG151 or consent of instructor. $\mathbf{S p}$

## MFG270B Production/Assembly/Control <br> Methods-Lab

6 lab hrs/wk, 2 cr.
Provides experience in compiling and executing production plans and process sequencing. Applies techniques in data collection, scheduling, manufacturing, assembling, and testing. Brings together knowledge and skills gained from previous course work or experience to manufacture, assemble, test, and evaluate a project. Prerequisite: MFG130, MFG131, MFG151 or consent of instructor. Class fee \$30. W

## MFG280 Cooperative Work Experience see AUM280.

## MFG290 CAD/CAM Integrations

2 class and 6 lab hrs/wk, 4 cr.
Introduces projects that demonstrate practical applications of computer integrated manufacturing. Includes 3-D generated parts and transfer of computer aided design (CAD) generated 2-D and 3-D drawings to a computer aided manufacturing (CAM) system for manufacturing purposes. Prerequisite: MFG230 or MFG235, or consent of instructor. Class fee $\$ 20 . \mathbf{S p}$

## VS

## Military Science

## MS111 Military Science I: Leadership <br> Development <br> 1 class hr/wk, 1 cr.

Introduction to ROTC and its relationship to the U.S. Army. Covers the role of the army officer, including leadership and management fundamentals. Offered as needed.

## MS112 Military Science I: Military Skills

1 class hr/wk, 1 cr.
Covers basic rifle marksmanship, military first aid, customs and traditions of the U.S. Army, unit organization, and missions. Offered as needed.

## MS113 Military Science I: Land Navigation

1 class hr/wk, 1 cr.
How to read a topographic map and use a magnetic compass. Includes a practical exercise.
Offered as needed.

## MS211 Military Science II: Effective Team

 Building2 class hr/wk, 2 cr.
An examination of effective leadership, including the development of interpersonal skills
using practical exercises and case studies. Offered as needed.

## MS212 Military Science II: American Military History

2 class hr/wk, 2 cr.
History of the American soldier from 1775 to 1919, including weaponry and tactics of U.S. Army. Covers use of battle analysis and wargaming. Offered as needed.

## MS213 Military Science II: Fundamentals of

## Military Operations

2 class hr/wk, 2 cr.
Presents basic U.S. Army tactics at the individual, team, and squad levels. Includes integration of military skills in offensive and defensive operations. Offered as needed.

## MS214 Summer Camp: Camp Challenge

6 class hr/wk, 6 cr.
Six weeks of leadership training at Fort Knox, Kentucky. Can be substituted for the first two years of the ROTC program. Offered as needed.

## MS215 Fundamentals of Military Science II

3 class $\mathrm{hr} / \mathrm{wk}, 3 \mathrm{cr}$.
Examines leadership and management fundamentals, and the role of the Army ROTC and the Army officer. Presents individual military skills and their incorporation into tactical operations at the squad level and land navigation using map and compass. Offered as needed.

## MS216A-F Basic Military Science

$1-6$ class $\mathrm{hr} / \mathrm{wk}$, variable $1-6 \mathrm{cr}$.
Covers an introduction to leadership and management skills, organization of the Army and ROTC, the Army as a profession, map reading and land navigation, military tactics, and the role of the Army officer. Offered as needed.

## VT

## Microelectronics/Industrial

## MT100 Electronics Fundamentals for Non-Majors

3 class and 2 lab hrs/wk, 4 cr.
Introduces the fundamental theories, circuits, and devices used in electronics. Covers direct and alternating current theory, test equipment, semiconductor devices, motors, and generators. Emphasizes practical concepts in both lectures and laboratories. Suitable for those desiring a general knowledge of electronics or exploring electronics as a career. Prerequisite: MTH070, or high school algebra, or consent of instructor. Class fee $\$ 8$. $\mathbf{F}, \mathbf{W}$

## MT110 Microelectronics

## 3 class hrs/wk, 3 cr.

Covers development of and trends in the microelectronics industry and introduces the subjects of chemistry, physics, and material science as they relate to integrated circuit manufacturing. Prerequisite: MTH070, or high school algebra, or consent of instructor. F

## MT223 High Vacuum Technology

## 3 class hrs/wk, 3 cr.

Addresses high vacuum concepts, theory, and the various types of vacuum systems. Includes
vacuum pumps, seals, gauges, valves, power supplies, leak detecting equipment, and related hardware. Examines the set up, operation, troubleshooting and monitoring of vacuum systems. Prerequisite: MTH070, or high school algebra, or consent of instructor. $\mathbf{S p}$

## MT227A Introduction to Hydraulics/ Pneumatics

2 class and 2 lab hrs/wk, 3 cr .
Provides instruction in the theory, operation, and application of hydraulic and pneumatic systems. Includes diagnosis, service, maintenance, and repair of pneumatic components and systems. Prerequisite: MTH070. Class fee \$15. Sp

## MTH

## Mathematics

## MTH020 Basic Mathematics

3 class hrs/wk, 3 cr.
Includes fundamentals of addition, subtraction, multiplication, and division in problems involving whole numbers, fractions, decimals, ratios, percentages, and geometric measurements and formulas. Emphasizes analysis and solution of application problems. F, W, Sp, Su

## MTH052 Introduction to Algebra and Geometry

3 class hrs/wk, 3 cr.
Introduces basic algebraic and geometric techniques and applications. Includes signed numbers, elements of algebra, simple equations and formulas, measurements and conversions, angles, perimeters, and areas of common geometric figures. Prerequisite: Grade C or higher in MTH020 or equivalent as determined by the instructor. F, W, Sp, Su

## MTH053 Introduction to Trigonometry with Geometry <br> 3 class hrs/wk, 3 cr.

Introduces basic trigonometric and geometric techniques beyond those covered in MTH052 as well as applications of these techniques. Includes Pythagorean theorem, similar triangles, volumes of common geometric figures, and right and oblique triangle trigonometry. Prerequisite: Grade C or higher in MTH052 or equivalent as determined by the instructor. $\mathbf{F}$, $\mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## MTH060 Introductory Algebra

4 class hrs/wk, 4 cr.
Entry-level course for students with no algebra background. Student gains a strong, fundamental background in beginning algebra through directed group activities and varied presentation styles. Covers signed numbers, elementary algebraic expression manipulation, and equation solving. Describes concepts using verbal, numerical, graphic, and symbolic forms. Scientific calculator required. Prerequisite: Grade of C or higher in MTH020 or equivalent as determined by instructor. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## MTH062 Business Applications Using

 Mathematics
## 4 class hrs/wk, 4 cr.

Presents mathematical business applications. Includes applications involving securities, profit distribution, business statistics, simple and compound interest, notes and bank discounts, multiple payment plans, annuities, depreciation, inventory valuation, and financial statement analysis with ratios. Prerequisite: MTH060 or equivalent as determined by the instructor. F, W

## MTH070 Elementary Algebra

4 class hrs/wk, 4 cr.
Covers linear equations, linear systems, linear inequalities, quadratic equations, and square root equations in verbal, numerical, graphical, and symbolic forms for students with linear equation solving and elementary graphing background. Explores topics using a graphic calculator as well as traditional approaches. Prerequisite: Grade of C or higher in MTH060 or equivalent as determined by instructor. $\mathbf{F}, \mathbf{W}$, $\mathrm{Sp}, \mathrm{Su}$

## MTH075 Applied Geometry

1 class hr/wk, 1 cr.
Individualized course which students may start and complete any time during the term. Covers basic concepts of points, lines, planes, angles, triangles, congruence, similarity, and polygons, all from an intuitive point of view. Includes applied problems involving these concepts. Prerequisite: Grade of C or higher in MTH060 or equivalent. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## MTH076 Applied Geometry

## 1 class hr/wk, 1 cr

Individualized course which students may start and complete any time during the term. Presents basic concepts of perimeter, circumference, arc length, central and inscribed angles, areas of polygons, areas of circles and sectors, surface area of solids, and volumes of various solids are studied. Includes applied problems involving these figures. Prerequisite: Grade of C or higher in MTH075 or equivalent. F, W, Sp, Su

## MTH078 Applied Trigonometry

1 class hr/wk, 1 cr.
This individualized course may be started and completed at any time during the term. Covers definitions of the trigonometric ratios of sine, cosine, and tangent and how they apply to right triangles. Includes applications involving right triangles. Reviews the concepts of angles, triangle similarity, and the Pythagorean Theorem. Prerequisite: Grade of C or higher in MTH070, MTH075, and MTH076 or equivalent. F, W, Sp, Su

## MTH079 Applied Trigonometry

1 class hr/wk, 1 cr.
This individualized course may be started and completed at any time during the term. Covers trigonometric ratios of obtuse angles, law of sines, law of cosines, vectors and radian measure. Includes applied problems involving these concepts. Prerequisite: Grade of C or higher in MTH078 or equivalent. F, W, Sp, Su

## MTH081 Technical Mathematics I

4 class hrs/wk, 4 cr.
First course of a two-term sequence. Designed to train technicians to work in technical fields and engineering, drafting, mechanical design, and electronics. Covers fundamental algebra concepts, graphing, ratio and proportion, basic rightangle trigonometry, solution of linear equations, work problems, factoring, and operations with algebraic expressions. Prerequisite: Grade C or higher in MTH070 or equivalent as determined by the instructor. $\mathbf{F}, \mathbf{W}$

## MTH082 Technical Mathematics II

## 4 class hrs/wk, 4 cr.

Second term in a sequence. Covers mathematical skills necessary for technicians in civilstructural engineering, mechanical design, or electronics. Includes trigonometric functions, oblique triangle solutions and applications, exponents and radicals, logarithms, solution of logarithm equations, trigonometric identities, solution of trigonometric equations, vectors, complex numbers, and graphs of trigonometric functions. Prerequisite: Grade C or higher in MTH081. W, Sp

## MTH095 Intermediate Algebra

## 4 class hrs/wk, 4 cr.

Students actively participate in the study and applications of linear, quadratic, rational and exponential functions. Prerequisite: Grade of C or higher in MTH070 or equivalent. F, W, $\mathrm{Sp}, \mathrm{Su}$

## MTH105 Introduction to Contemporary Mathematics

## 4 class hrs/wk, 4 cr.

Surveys the application of mathematics as a problem-solving tool in the real world. Includes business, consumer, ecology, and city planning applications using probability, statistics, geometry, graph theory, linear programming, and game theory. Prerequisite: Grade C or higher in MTH095 or equivalent as determined by the instructor. F, W, Sp, Su

## MTH111 College Algebra

5 class hrs/wk, 5 cr.
Studies functions and related inequalities using a graphing calculator. Focuses on polynomial, rational, exponential, logarithmic, and related piecewise defined functions. Includes a study of the complex number system, the algebra of functions, the applications of functions in sequences and series. High-order linear systems will be solved using a calculator. Prerequisite: Grade of C or higher in High School Algebra 2 or MTH095. F, W, Sp, Su

## MTH112 Trigonometry

5 class hrs/wk, 5 cr.
A pre-calculus course covering quadratic relations, circular functions, and trigonometric functions. Applications and the use of a graphing calculator are emphasized throughout the course. Group activities, writing assignments, and laboratory activities may be required. Graphing calculator required. Prerequisite: Grade of C or higher in MTH111 and MTH075 or equivalent as determined by the instructor. $\mathbf{F}$, W,Sp, Su

## MTH116 Precalculus Review

5 class hrs/wk, 5 cr.
Designed for students needing review of precalculus functions and related inequalities. Includes polynomial, rational, exponential, logarithmic sequences and series, related piecewise defined functions, quadratic relations, circular and trigonometric functions, and vectors. Graphing calculator required. Prerequisite: Grade C or higher in MTH112 or equivalent as determined by the instructor. $\mathbf{F}$

## MTH211 Foundations of Elementary Mathematics

3 class hrs/wk, 3 cr .
First course of a three-term sequence for liberal arts students, especially prospective elementary teachers. Emphasizes problem solving and basic concepts about whole numbers, integers, sets, and number theory. Uses manipulatives to deepen understanding. Prerequisite: Grade C or higher in MTH095 or equivalent as determined by the instructor. $\mathbf{F}, \mathbf{W}$

## MTH212 Foundations of Elementary

Mathematics

## 3 class hrs/wk, 3 cr .

Second term of liberal arts mathematics sequence. Covers basic concepts about rational and real numbers and consumer mathematics. Uses computers and manipulatives. Prerequisite: Grade C or higher in MTH095 or equivalent as determined by the instructor. $\mathbf{W}, \mathbf{S p}$

## MTH213 Foundations of Elementary Mathematics

## 3 class hrs/wk, 3 cr.

Third term of liberal arts mathematics sequence. Covers topics in geometry. Uses computers and manipulatives. Prerequisite: Grade C or higher in MTH095 or equivalent as determined by the instructor. $\mathbf{S p}, \mathbf{S u}$

## MTH231 Discrete Mathematics

4 class hrs/wk, 4 cr .
Introductory course for computer science and mathematics majors. Introduces logic, sets, functions, algorithms, matrices, graph theory, and trees, with applications. Prerequisite: Grade C or higher in MTH111 or equivalent as determined by instructor. W

## MTH232 Discrete Mathematics

4 class hrs/wk, 4 cr.
A second course for computer science and mathematics majors. Applies fundamentals from MTH231 to number theory, counting techniques, relations, and boolean algebra. Prerequisite: Grade C or higher in MTH231 or equivalent as determined by instructor. $\mathbf{S p}$

## MTH241 Elementary Calculus

4 class hrs/wk, 4 cr.
A one-term terminal course with an intuitive approach to differential and integral calculus. Emphasizes techniques of calculus in applied problem solving. The course is primarily for non-math majors. Prerequisite: Grade C or higher in MTH111 or equivalent as determined by the instructor. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## MTH243 Probability and Statistics I

## 4 class hrs/wk, 4 cr.

A first course in descriptive statistics open to all majors covering data analysis, counting and probability, common probability distributions, confidence intervals, and sample size and onesample hypothesis testing. Prerequisite: Grade C or higher in MTH111 or equivalent. F, W, $\mathrm{Sp}, \mathrm{Su}$

## MTH244 Probability and Statistics II

4 class hrs/wk, 4 cr.
A second course in descriptive statistics covering testing two-sample problems, linear regression and correlation, chi-squared goodness-offit tests, one-way and two-way Analysis of Variance. Prerequisite: Grade C or higher in MTH243 or equivalent. Sp

## MTH251 Differential Calculus

5 class hrs/wk, 5 cr.
First of a four-term sequence. Prepares students for further study in mathematics, sciences, engineering, and other technical areas. Covers rates of change and derivatives with applications; the definite integral used to model sums of products such as distance, area, and average; and an intuitive development of the Fundamental Theorem of Calculus. Graphing calculator required. Prerequisite: Grade C or higher in MTH112 or equivalent as determined by instructor. F, W, Sp, Su

## MTH252 Integral Calculus

5 class hrs/wk, 5 cr.
Continuation of MTH251. Covers applications of definite integral, constructing functions from their rates of change, techniques of integration, and an introduction to differential equations. Graphing calculator required. Prerequisite: Grade C or higher in MTH251 or equivalent as determined by instructor. F, W, Sp

## MTH253 Series Calculus and Linear Algebra

4 class hrs/wk, 4 cr.
Combines topics from linear algebra and infinite series. Includes Taylor and Fourier Series with applications and systems applications using determinants and matrices. Graphing calculator required. Prerequisite: Grade C or higher in MTH252 or equivalent as determined by the instructor. $\mathbf{S p}, \mathbf{S u}$

## MTH254 Vector Calculus I

## 4 class hrs/wk, 4 cr.

First of two courses in multivariable calculus. Explores functions of many variables such as curves and surfaces in three-dimensional space, vectors, rates of change of functions of several variables, and optimization in multivariable models. Prerequisite: Grade C or higher in MTH253 or equivalent as determined by the instructor. $\mathbf{F}$

## MTH255 Vector Calculus II

4 class hrs/wk, 4 cr.
Second course in multivariable calculus. Explores integration of functions of many variables; descriptions in parametric, polar, cylindrical, spherical, and vector forms; motion in space; introduction to vector fields; and line and surface integral. Prerequisite: Grade C or
higher in MTH254, or equivalent as determined by the instructor. W

## MTH256 Applied Differential Equations

4 class hrs/wk, 4 cr.
Covers solutions of linear and first order nonlinear differential equations. Includes Laplace transforms and convolutions. Graphing calculator required. Prerequisite: Grade C or higher in MTH254 or equivalent as determined by the instructor. $\mathbf{S p}$

## MUP and MUS

## Music

## MUP100 Individual Lessons

## 10 class hr/wk, 1 cr.

Covers pedagogy of the instrument being studied, including fundamentals of music, reading and theory, beneficial practice habits, repertoire for the instrument, interpretation, and performance techniques. Course may be repeated for a maximum of nine credits per instrument. F, W, $\mathrm{Sp}, \mathrm{Su}$

## MUP105 Jazz Ensemble

3 lab hrs/wk, 1 cr.
A performance course which offers applied study and performance on musical instruments played in ensemble or solo formats. May be repeated for a maximum of nine credits. Prerequisite: Two years instruction on an instrument and/or audition. Class fee $\$ 12$. F, Su

## 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 of all levels and interests. May be repeated for a maximum of nine credits. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## MUS105 Music Appreciation: Introduction to Rock Music

## 3 class hrs/wk, 3 cr.

Examines the relationship between rock music and society, and emphasizes the musical and lyrical significance of rock music as contemporary social commentary. Class fee $\$ 15$. Offered as needed.

## MUS161 Music Appreciation

3 class hrs/wk, 3 cr.
Highlights 17th-20th century instrumental and vocal music, the growth of the orchestra, and such acknowledged masters as Mozart, Haydn, and Beethoven. Offered as needed.

## MUS197 Chorus

## 4 lab hrs/wk, 2 cr.

Rehearsal and performance of many types of styles of choral literature. Prerequisite: Consent of instructor and previous experience singing with school, civic, or church choirs is helpful but not mandatory. Course may be repeated for a maximum of eight credits. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## MUS201 Introduction to Music and Its

## Literature

3 class hrs/wk, 3 cr.
Focuses on the music of the 17th and 18th centuries, including early vocal music, the origins of opera and sacred music, and the early instrumental forms of music that led to the classical symphonies of Hayden, Mozart, and Beethoven. F

## MUS202 Introduction to Music and Its <br> Literature

3 class hrs/wk, 3 cr.
Focuses on the 18th and 19th centuries, including late Beethoven and his Ninth Symphony, the growth of the orchestra and the music written for it, the emergence of the piano as important musical and sociological factor, and the new dimensions of song and opera. W

## MUS203 Introduction to Music and Its <br> Literature <br> 3 class hrs/wk, 3 cr.

Focuses on the music of the 20th century, including the Impressionism, Expressionism, Neo-classicism, and Minimalism movements. Covers popular music traditions of the 20th century, including musical theater, jazz, and rock n roll. Sp

## MUS205 Introduction to Jazz History

## 3 class hrs/wk, 3 cr.

An exploration of jazz music with an emphasis on the historical and social perspectives of jazz as an American cultural phenomenon. Offered as needed.

## NUR

Nursing

## NUR060 Nursing Success Strategies

3 class hrs/wk, 3 cr.
Introduces students to basic skills that are built upon in the nursing curriculum. Includes an overview of the Nursing Program, development of study skills, math and writing for nursing, learning styles, coping strategies, and workplace skills as related to the nursing curriculum. Note: Students may repeat this course once without requiring instructor approval. Prerequisite: Consent of instructor. Class fee \$5. W, Sp; offered fall as needed

## NUR106 Nursing

5 class and 12 lab hrs/wk, 9 cr.
Beginning concepts and skills develop the foundation for socialization into the nursing profession and for providing safe basic nursing care. Nursing process is introduced with an emphasis upon assessing the basic human needs of patients. Prerequisite: Admission to the Nursing program. Co-requisite: BI232 and PSY201. Clinical: Registration must be completed, and TB test results and proof of current immunizations submitted before a student is permitted in the clinical area. Current CPR certification is required. Class fee $\$ 40$. F

## NUR108 Nursing

## 5 class and 12 lab hrs/wk, 9 cr.

Concepts and skills integrate growth and development, psycho-social coping responses to ill-
ness, and alterations in health status in children and adults. Nursing process is applied to meet basic human needs of individual patients. Prerequisite: NUR106. Co-requisite: BI233 and PSY237. Clinical: Registration must be completed, and TB test results and proof of current immunizations submitted before a student is permitted in the clinical area. Current CPR certification is required. Class fee $\$ 30$. W

## NUR109 Nursing

5 class and 15 lab hrs/wk, 10 cr.
Concepts and skills are related to nursing care of medical/surgical and childbearing patients and families. Nursing process is applied to meet basic human needs of patients and families at the practical nurse level. Prerequisite: NUR108. Co-requisite: BI234 and WR121. Clinical: Registration must be completed and TB test results and proof of current immunizations submitted before a student is permitted in the clinical area. Current CPR certification is required. Class fee $\$ 30$. Sp

## NUR206 Nursing

## 5 class and 16 lab hrs/wk, 10 cr.

Concepts and skills are related to nursing care of medical/surgical patients and families, and mentally ill clients. Standards of nursing care are adopted to meet the basic human needs of individual patients. Patient/client teaching is emphasized. Prerequisite: NUR109. Co-requisite: CS101. Clinical: Registration must be completed and TB test results and proof of current immunizations submitted before a student is permitted in the clinical area. Current CPR certification is required. Class fee $\$ 30$. F

## NUR208 Nursing

6 class and 13 lab hrs/wk, 10 cr.
Concepts and skills are related to nursing care of medical/surgical patients and families with ambulatory, acute, and critical needs. Discharge planning is emphasized. Multiple standards of nursing care are synthesized to meet the basic human needs of individual patients. Prerequisite: NUR206. Clinical: Registration must be completed, and TB test results and proof of current immunizations submitted before a student is permitted in the clinical area. Current CPR certification is required. Class fee \$20. W

## NUR209 Nursing

3 class and 16 lab hrs/wk, 8 cr.
Leadership and management concepts and skills are emphasized in providing nursing care at the associate degree nurse level for groups of patients. Prerequisite: NUR208. Clinical: Registration must be completed, and TB test results and proof of current immunizations submitted before a student is permitted in the clinical area. Current CPR certification is required. Class fee $\$ 5 . \mathbf{S p}$

## NUR268 Drug Therapy and Nursing Implications

3 class hrs/wk, 3 cr.
Knowledge and principles required for safe administration of medications in caring for patients. Provides comprehensive base for clinical application, with specific considerations
for pediatrics, maternity, and geriatric patients. Prerequisite: RN, currently enrolled nursing student, LPN. Offered as needed.

## OC

Oceanography

## 0C133 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.

## Photography

see Art and Visual Communications

## PE

## Physical Education

## PE131 Introduction to Physical Education 3 class hrs/wk, 3 cr.

Human movement as a scientific and humanistic field of study, including historical development, professional opportunities and qualifications, and leaders and major organizations in physical education and athletics. $\mathbf{S p}$
PE185AA, AB,AC Sports ConditioningBeginning, Intermediate, Advanced 3 lab hrs/wk, 1 cr. each
Students will develop and execute conditioning programs for specific athletic activities. Class fee $\$ 5$. F, W, Sp

## PE185AD,AE,AF Back Care and ConditioningBeginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
Uses physical exercises, education, and encouragement from a support group to improve unhealthy backs and maintain healthy backs. Special care will be given to begin exercise program slowly and make personal adjustments to prevent injury. Class fee $\$ 5 . \mathbf{F}, \mathbf{W}, \mathbf{S p}$

PE185BE,BF,BG Baseball-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Designed to introduce the student to the fundamentals of baseball. Class fee $\$ 5$. F, W, Sp

PE185BJ,BK,BL Basketball-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Emphasis on fundamental skills, team play, and a knowledge of the sport. Class fee $\$ 5$. F, W, Sp

## PE185BO Basketball Officiate

3 lab hrs/wk, 1 cr.
Officiating techniques for beginning and novice referees. Class fee $\$ 5$. Offered as needed.

## PE185BS,BT,BU Body Building-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
Students will develop a strength and body building program to fit particular needs. Class fee $\$ 5$. F, W, Sp

PE185BV,BW,BX Bowling-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Designed to familiarize students with the fundamentals, rules, and etiquette of bowling. Develops specific skills necessary for successful recreation or lifetime sports activity. F, W, Sp
PE185CA,CB,CC Conditioning-Beginning, Intermediate, Advanced
3 lab hrs, 1 cr. each
Combines cardiovascular and strength training. Students set individual fitness goals and monitor progress throughout the term. Class fee $\$ 10$ each. F, W, Sp, Su

PE185CD,CE,CF Correctives-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Designed to provide the setting, assistance, and instruction for improving the fitness level of students with a physical injury or disability. Prerequisite: Completion of Health Information form by physician, registered therapist, or self. Class fee $\$ 5$ each. F, W, Sp

PE185CM,CN,CP Cross Country SkiingBeginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
An activity course designed to give the student the opportunity to learn to cross country ski on tracked and untracked terrain. W

## PE185CW,CX,CY Cycling: Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr.
Designed to maintain or improve fitness through participation in a regular schedule of bicycle riding. Examines cycling techniques, basic bicycle maintenance, and safety factors. Class fee $\$ 5$ each. Offered as needed.

PE185DA,DB,DC Aerobics, Low ImpactBeginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Designed to obtain cardiovascular and health benefits. Class activities may include any one of the following: power aerobics, step aerobics, jazz aerobics, line dancing, yoga aerobics, body sculpt, and hi/lo aerobics. Class fee $\$ 5$ each. $\mathbf{F}$, $\mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## PE185DE,DF,DG Dance, Folk-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
Basic steps, skills, and training in dances reflecting cultural tradition such as Schottische and Polka. Class fee $\$ 5$ each. Offered as needed.

## PE185DJ,DK,DL Dance Modern-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
Presents a variety of modern dance styles. Introduces the concepts of space, time, and force and explores how each of these elements plays a part in movement and dance technique. Focuses on correct alignment as well as efficient and proper use of the body. Class fee $\$ 5$ each. F, W, Sp

PE185DM,DN,DO Aerobics-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Designed to increase cardiovascular and muscular endurance through dance routines or step movements and to develop muscular strength and flexibility through stretching, isometric, and isotonic routines. Includes information on proper nutrition. Class fee $\$ 5$ each. F, W, Sp, Su

## PE185DR,DS,DT Ballroom Dance-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
Prepares students to perform basic dance steps and common variations of the Swing, Foxtrot, Waltz, and Cha Cha. Beginning class covers basics. Intermediate and advanced classes cover progressively more difficult variations. Class fee $\$ 5$ each. Offered as needed.

## PE185DV Square Dance Basic I <br> PE185DW Square Dance Mainstream II PE185DX Square Dance Plus

3 lab hrs/wk, 1 cr.
Contemporary dances. Includes history, etiquette, and dances by International Association of Square Dance Callers. Prerequisite: PE185DW: PE185DV; PE185DX: PE185DV and PE185DW. Class fee $\$ 5$ each. Offered as needed.

## PE185DY Dance/Tap, Beginning

3 lab hrs/wk, 1 cr.
Presents tap dance techniques. Introduces basic tap steps and rhythmical combinations of tap steps in varying degrees of difficulty. Class fee $\$ 5$. Offered as needed.

## PE185FD,FE,FF Soccer-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
Covers the fundamentals of soccer and basic conditioning. Class fee $\$ 5$ each. F, W, Sp

PE185GJ,GK,GL Golf-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Designed for the beginning to advanced golfer. Emphasizes the development of basic swing fundamentals. In the latter stages of the class, students who have mastered the fundamentals will be allowed optional playing days. Proper golf etiquette, rules, and playing procedures emphasized throughout. $\mathbf{F ,} \mathbf{S p}, \mathbf{S u}$

PE185JA,JB,JC Dance, Jazz-Beginning,
Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Development of basic warmups at the barre, stretching, isolations, and floor movement with emphasis on technique, alignment, and contemporary jazz style. Class fee $\$ 5$ each. F, W, Sp

## PE185JJ,JK,JL Jogging-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
Jogging to gain and maintain cardiovascular fitness. Class fee $\$ 5$ each. $\mathbf{F}, \mathbf{S p}$

## PE185KA,KB,KC Karate-Beginning, <br> Intermediate, Advanced <br> 3 lab hrs/wk, 1 cr. each <br> Development of the basic language and movements of martial arts. Class fee $\$ 5$ each. F, W, $\mathrm{Sp}, \mathrm{Su}$

## PE185LA,LB,LC Ballet-Beginning, <br> Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
Addresses correct alignment, basic stretching, and warmups at the barre. Includes body and arm positions. Emphasizes techniques and technical terms. Class fee $\$ 5$ each. Offered as needed.

## PE185PA,PB,PC Personal Defense-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
An activity course designed to introduce the student to preventive measures and basic moves relating to personal defense. Class fee $\$ 5$ each. Offered as needed.

## PE185RA,RB,RC Racquetball-Beginning, <br> Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
An activity course to familiarize students with racquetball fundamentals, including grip, swing mechanics, rules, strategy and etiquette. Class fee $\$ 5$. F, W, Sp, Su

PE185RG,RH,RJ Roller Skating-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Covers fundamentals, including stroking, turns, figures, dance steps, and entry-level free-style moves. Promotes and encourages techniques of safety while practicing various skating activities. Offered as needed.

## PE185SA,SB,SC Scuba Diving-Beginning, <br> Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
An activity course designed to promote and encourage the safe enjoyment of underwater activities, as well as increase awareness of environmental sensitivity, while developing social, emotional, physical, and nutritional wellness skills. Prerequisite: PE185SB, SC: PE185SA. F, W, Sp, Su

## PE185SD,SE,SF Swim for Fitness-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
Designed to increase cardiovascular endurance through swimming. Stroke technique, interval training, and lap swimming are covered. Prerequisite: Beginning swimming. Class fee $\$ 5$ each. F, W, Sp

## PE185SH,SJ,SK Skiing-Beginning,

Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Presents fundamental downhill skiing techniques through instruction and skill application. W

## PE185SL,SM,SN Fitness: Get in Shape

3 lab hrs/wk, 1 cr. each
Designed to increase cardiovascular and muscular endurance through aerobic activity, as well as to develop muscular strength and flexibility through stretching, and isometric and iso-
tonic routines. Includes fitness assessment and nutritional evaluation. Class fee $\$ 5$ each. Offered as needed.

PE185SP,SQ,SR Softball-Beginning, Intermediate, Advanced

## 3 lab hrs/wk, 1 cr. each

Fundamentals, rules, and strategy of softball. Presents specific skills necessary for successful recreational and/or competitive experience in softball. Incorporates wellness in the areas of physical, social, emotional, and nutritional health; stress management; and student support systems. Class fee $\$ 5$ each. $\mathbf{F}$

## PE185SS,ST,SU Swimming-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
Designed to develop and improve swimming skills and fitness levels through a pool workout. Covers stroke improvement and swim conditioning. Class fee $\$ 5$ each. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$
PE185TF,TG,TH Tennis-Beginning, Intermediate, Advanced

## 3 lab hrs/wk, 1 cr. each

Deals with tennis fundamentals, including stroke production, rules, scoring, strategy, and court etiquette. Class fee $\$ 5$ each. $\mathbf{F}, \mathbf{S p}, \mathbf{S u}$

PE185TI,TJ,TK Tai Ji-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
A classic Chinese form of exercise comprised of slow, fluid movements which are imitations of animals in nature. Benefits various parts of the body, including the nervous system and the heart and circulation, and disciplines both the body and mind on a meditative level. Class fee $\$ 5$ each. F, W, Sp

## PE185TL,TM,TN Track and Field-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
Incorporates the fundamentals, rules, and training techniques in track and field events. Class fee $\$ 5$ each. F, W

## PE185VJ,VK,VL Volleyball-Beginning,

 Intermediate, Advanced3 lab hrs/wk, 1 cr. each
Fundamentals, rules, and strategy of volleyball. Develops specific skills necessary for successful recreational and/or competitive experience in volleyball. Incorporates wellness in the areas of physical, social, emotional and nutritional health; stress management; and student support systems. Class fee $\$ 5$ each. F, W, Sp

## PE185WA,WB,WC Weight Management-

Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
A class to educate, support, and motivate individuals interested in managing their weight. Includes nutrition information, weigh-in, class discussion, and daily exercise management. Class fee $\$ 5$ each. F, W, Sp, Su

PE185WD,WE,WF Weight Training-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each
Develop and execute a strength-improvement program to meet individual goals. Class fee $\$ 5$ each. F, W, Sp, Su

## PE185WG Osteoporosis Risk Reduction <br> \section*{3 lab hrs/wk, 1 cr.}

Covers dietary, physical exercise, and lifestyle strategies to prevent osteoporosis and osteoporotic fractures. Focuses on activities to maintain or increase muscle strength, improve balance and coordination, decrease rate of bone loss, and reduce the incidence and severity of falls. Class fee $\$ 5$. F, W, $\mathbf{S p}$

## PE185WK,WL,WM Walking Fitness

## 3 lab hrs/wk, 1 cr. each

Helps students develop a lifelong plan for walking fitness. Includes goal setting, group and individualized recommendations for walking intensity, and pre-and post-cardiovascular assessment. Class fee $\$ 5$ each. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

PE185WN, WO, WP Water Exercise-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr . each
For non-swimmers and swimmers. Includes warm-up, stretching, strength, aerobic, and cool down periods so that students may improve flexibility, muscular strength, endurance, and cardiovascular fitness. Emphasizes safe exercise for each individual. Class fee $\$ 5$ each. Offered as needed.

## PE185YA,YB,YC Yoga-Beginning,

## Intermediate, Advanced

3 lab hrs/wk, 1 cr. each
An introduction to Hatha physical yoga. Includes the background, safety precautions, and value of yoga. Stretching postures, proper breathing techniques, and stress reduction will be emphasized. Class fee $\$ 5$. F, W, Sp

## Professional Physical Education

## PE194RA Racquetball-Professional

1 class and 2 lab hrs/wk, 2 cr .
Covers skill progression, knowledge, strategy, practice, conditioning, rule interpretation, and teaching and coaching techniques. Class fee $\$ 5$.
Offered as needed.

## PE194TF Tennis-Professional

1 class and 2 lab hrs/wk, 2 cr.
Designed to teach students how to teach tennis. For physical education majors. Class fee $\$ 5$. Offered as needed.

## PE200 Coaching Youth

## 3 class hrs/wk, 3 cr.

Focuses on the communication, organization, and motivation skills needed for coaching youth. Emphasizes planning, teaching sports skills, training, and team management basics. Offered as needed.

## PE266 Basketball Coaching Theory

## 2 class hrs/wk, 2 cr.

An introduction to the coaching profession. Provides information, techniques, and strategies necessary to make a better coach.

Addresses the fundamentals of organizing a basketball program using available resources, leadership strategies, and interpersonal communications. $\mathbf{F , S p}$

## PE294BP Professional Activities-Basketball

1 class and 2 lab hrs/wk, 2 cr.
Includes skill progression, knowledge, strategy, teaching and coaching techniques, practice, rules interpretation, and conditioning for safety. Class fee $\$ 5$. F

## PE294TR Track and Field-Professional

1 class and 2 lab hrs/wk, 2 cr.
For physical education majors. Class fee $\$ 5$. Offered as needed.

## PE294VP Professional Activities-Volleyball

1 class and 2 lab hrs/wk, 2 cr.
Covers skill progressions, knowledge, strategy, practice, and conditioning; rules interpretation; and teaching and coaching techniques, as well as physical, social, emotional, and nutritional health; student support systems; and stress management. Class fee $\$ 5$. F

## PE294WP Professional Activities-Weight Training

1 class and 2 lab hrs/wk, 2 cr.
Course designed to prepare students how to teach or coach weight training. Emphasizes safe lifting techniques. Prerequisite: PE185WD or consent of instructor. Class fee $\$ 5$. Offered as needed.

## PH

## Physics

## PH060 Applied Physical Science

2 class and 3 lab hrs/wk, 3 cr.
Provides the necessary physical science concepts and skills required to enter Industrial and Engineering Systems programs. Prerequisite: Program instructor's consent based on math placement score. $\mathbf{F ,} \mathbf{S p}$

## PH081 Applied Physics

3 class 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. Laboratory time provides demonstrations and experiments to clarify principles and procedures covered in lectures. Prerequisite: Concurrent enrollment in MTH082 or MTH053, or consent of instructor. Class fee $\$ 8$. F, W

## PH082 Applied Physics

## 3 class 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, light, and nuclear physics. Laboratory time provides demonstrations and experiments to clarify principles and procedures covered in lectures. Prerequisite: PH081 or consent of instructor. Class fee $\$ 8$. W

## PH106 Physics for Non-Science Students

3 class hrs/wk, 2 lab hrs/wk, 4 cr.
A non-mathematical approach to the study of physics, including the philosophy, history, and modern achievements of this discipline. Class fee $\$ 12$. Offered as needed.

## PH111 Physical Science for Fire Science and Emergency Services

4 class and 2 lab hrs/wk, 5 cr .
A general science course covering matter, laws of motion and force, and machines and mechanics of liquids. Laboratory time is provided to help clarify the principles and procedures covered in class. Prerequisite: MTH070 or equivalent as determined by instructor, or consent of instructor. Class fee $\$ 5$. Offered as needed.

## PH201 General Physics

3 class and 3 lab hrs/wk, 4 cr .
Develops strategies for analyzing the motion of objects. Applications range from the motion of planets to the motion of molecules. Prerequisite: MTH111 and MTH112. Class fee $\$ 12$. F

## PH202 General Physics

3 class and 3 lab hrs/wk, 4 cr .
Describes wave motion, electrical forces, magnetic forces, induction, and light waves.
Prerequisite: PH201. Class fee $\$ 12$. W

## PH203 General Physics

3 class and 3 lab hrs/wk, 4 cr .
Describes reflection and refraction of light, optical instruments, sound, thermodynamics, and fluid dynamics. Prerequisite: PH202. Class fee $\$ 12$. Sp

## PH207 Astronomy

3 class and 2 lab hrs/wk, 4 cr .
A descriptive treatment of Earth's coordinate system, observational astronomy, the moon and the planets, evolution of the solar system, and the sun. Lab demonstrations illustrate principles of our solar system. Prerequisite: Grade of $\mathbf{C}$ or higher in MTH070. Class fee $\$ 8$. F

## PH208 Astronomy

3 class and 2 lab hrs/wk, 4 cr.
A descriptive treatment of stellar coordinates and sidereal time, the nature of light and the spectroscope, and the birth and death of stars. Prerequisite: Grade C or higher in MTH070. Class fee $\$ 8$. W

## PH209 Astronomy

3 class and 2 lab hrs/wk, 4 cr .
A descriptive treatment of astronomical, optical, and radio telescopes; the Milky Way galaxies; the universe of galaxies; the origin of the universe and life in the universe. Laboratory demonstrations illustrate physical principles of the galactic system. Prerequisite: Grade C or higher in MTH070. Class fee $\$ 8$. $\mathbf{S p}$

## PH211 Physics for Engineers

and Scientists
4 class and 3 lab hrs/wk, 5 cr.
Covers motion, force, work, energy, and field interactions in one-, two-, and three-dimensional space. Prerequisite: MTH251. Class fee \$12. F

## PH212 Physics for Engineers

 and Scientists4 class and 3 lab hrs/wk, 5 cr.
Describes electricity, magnetism, induction, and lightwave theory. Prerequisite: MTH252 and PH211. Class fee $\$ 12$. W

## PH213 Physics for Engineers

## and Scientists

4 class and 3 lab hrs/wk, 5 cr .
Geometric optics, physical optics and image formation, sound, thermodynamics, and fluid dynamics. Prerequisite: PH212. Class fee $\$ 12$. Sp

## PHL

## Philosophy

## PHL201 Philosophical Problems: Metaphysics

## 3 class hrs/wk, 3 cr.

Offers a general survey of metaphysics, the study of the ultimate nature of reality. Emphasizes terms, theories, and an analysis of arguments in metaphysics. Serves as a foundation for other classes in philosophy, specifically Critical Thinking and Logic, Theory of Knowledge, and Elementary Ethics. F

## PHL202 Philosophical Problems: Theory of Knowledge

3 class hrs/wk, 3 cr.
Focuses on the theory of knowledge, a central area in philosophy. Emphasizes terms, theories and the analysis of arguments. Introduces the nature of belief, the nature of truth, and the nature of justification. W

## PHL203 Elementary Ethics

## 3 class hrs/wk, 3 cr.

Introduces ancient and modern theories of ethics with application to contemporary moral problems. Includes and applies theories to various social and personal dilemmas, and examines the strengths and weaknesses of standard arguments supporting them. Enables student to present personal philosophical and ethical views in an informed, passionate, and compassionate manner. $\mathbf{S p}$

## PHL204 Critical Thinking and Logic <br> 3 class hrs/wk, 3 cr .

Develops critical thinking to determine one's own and others' reasons for believing things and assessing those reasons. Provides the ability to sympathetically understand beliefs one does not share and the courage to subject one's own beliefs to scrutiny. Uses logic as the technique for the rational assessment of argument. Relates the formal reasons for the success or failure of arguments. Offered as needed.

## PHL205 Biomedical Ethics

3 class hrs/wk, 3 cr.
Covers ethical decision-making in Western, Eastern, and non-traditional settings. Explores real-world health problems in light of historical and contemporary ethical theories. Analyzes professional ethical codes and obligations in order to identify the health care professional's special responsibilities in arriving at decisions which often have profound consequences. Offered as needed.

## PS

## Political Science

## PS151 Introduction to State of Oregon <br> Legislative Process

1 class hr/wk, 1 cr.
An overview of the Oregon legislative process. Examines organization, legislative participation, legislative enactment, lobbying, and the electoral process. In addition, constituent, institutional, and organizational influences in legislative decision making will be discussed, and the influence of political parties and lobbyists will be analyzed. Offered as needed.

## PS201 American Government

3 class hrs/wk, 3 cr.
An introduction to American government and its attendant political culture. Focuses on the inner dynamics of American political ideologies, the nature of political socialization, and the political philosophy imbedded in the United States Constitution. Entails a study of the relationship between the American political system and its capitalist economic system. Provides an analysis of democratic theory and process, and the role of education and the mass media in shaping American politics. F

## PS202 American Government

3 class hrs/wk, 3 cr.
Continuation of PS201. Examines the three branches of government, Executive, Legislative and Judicial. Includes the study of the relationship of corporate America and government, and the making and execution of domestic and foreign policy. PS201 recommended but not required. $\mathbf{W}$

## PS203 State and Local Government

 3 class hrs/wk, 3 cr.Introduces U.S. state and local governments with emphasis on comparative political behavior in states and communities. Covers the political and institutional processes by which state and local governments make policy as well as the policy outputs themselves. Offered alternate spring terms and as needed.

## PS205 International Relations

3 class hrs/wk, 3 cr.
An introduction to world politics. Deals with the nature of global conflict, nationalism, U.S. foreign policy, the role of multinational corporations in international decision making, NorthSouth relations, and the mechanisms of conflict resolutions. Examines current global issues facing nation-states. Offered alternate spring terms and as needed.

## PSY

## Psychology

## PSY100 Introduction to Psychology <br> 3 class hrs/wk, 3 cr.

Introduction to psychology. Includes perspectives in psychology; scientific methods of inquiry; biological foundations; sensation and perception; consciousness, learning, emotion, and motivation; personality theory; abnormal behavior; and therapeutic interventions. F, W, Sp

## PSY101 Psychology of Human Relations

3 class hrs/wk, 3 cr.
Explores basic principles of psychology necessary for enhancing self-understanding, effective communication, and development of positive interpersonal relationships. Covers developing emotional well being, determining values and setting goals, and dealing with problems and changes in interpersonal relations resulting from an individual's growth and development. F, W, Sp

## PSY102 Assertiveness Training

3 class hrs/wk, 3 cr.
Theoretical background, behavioral skills, and techniques of assertion. Particularly valuable to those anxious about situations which require they stand up for their personal rights. Explores internal and external blocks to assertion as a method for learning self-management skills. Offered as needed.

## PSY104 Psychology in the Workplace

4 class hrs/wk, 4 cr.
Integrates documented principles from psychology and human relations and applies them to the workplace of the 21st century, including recognition and analysis of personal strengths, enhancement of personal effectiveness, development of team work skills, and mastery of conflict mediation techniques, with emphasis on taking personal responsibility for change and problem solving. $\mathbf{S p}$

## PSY119 Human Potential Seminar

## 3 class hrs/wk, 3 cr.

Assists participants in becoming more selfdetermining, self-motivating, and self-affirming individuals. Participants will learn to identify personal strengths and to explore the values, attitudes, and beliefs which support healthy interpersonal relationships. Offered as needed.

## PSY201 General Psychology-Biological <br> Emphasis

3 class hrs/wk, 3 cr.
Focuses on psychology as a science stressing history, methodology, the biological foundations of behavior, human development, sensation, and perception. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## PSY202 General Psychology-Cognitive

## Emphasis

3 class hrs/wk, 3 cr.
Second of three introductory courses in psychology. Includes learning, memory, cognition, motivation, emotion, and stress. Recommended that students take PSY201 prior to this course. F, W, Sp, Su

## PSY203 General Psychology-Clinical/Social

## Emphasis

3 class hrs/wk, 3 cr .
Third of three introductory courses in psychology. Includes personality, psychological disorders, psychotherapy, social influence, and stress. Recommended that students take PSY201 prior to this course. F, W, Sp, Su

## PSY206 Introduction to Social Psychology

3 class hrs/wk, 3 cr.
Problems, theories, and methods of social psychology. Emphasizes 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 war, sexuality, discrimination, violence, and interpersonal attraction. Recommended that students take PSY201 prior to this course. Offered as needed.

## PSY237 Life Span Development

3 class hrs/wk, 3 cr.
An introductory course in human growth and development from genetics and conception to death. Recommended that students take PSY201 prior to this course. F, W, Sp

PSY239 Introduction to Abnormal Behavior 3 class hrs/wk, 3 cr.
Covers perspectives on psychopathology, diagnosis and treatment, and major categories of disorders including: anxiety, mood, personality, and sexual and gender identity disorders, and schizophrenia. Recommended that students take PSY201 prior to this course. F, W, Sp

## OS

## Quality Science

## QS062A Foundations for Quality, Overview (Partnerships for Quality)

10 class hrs/1 cr.
Provides an orientation to a system of approaches for integrating continuous improvement into a business or organization. Offered as needed.

## QS062B Foundations of Quality (Partnerships

 for Quality)20 class hrs/2 cr.
Introduces a system of approaches for integrating continuous improvement into a business or organization. Offered as needed.

## QS062C Managing Customer Expectations (Partnerships for Quality) <br> 10 class hrs/1 cr.

Guides participants through an examination of who their customers are, how to serve them, what value is, and how it evolves. Offered as needed.

## QS062D Continuous Process Improvement (Partnerships for Quality)

20 class hrs/2 cr.
Provides participants with information and practice in process management and improvement. Uses a comprehensive simulation for practicing the quality tools of CPI. Offered as needed.

## QS062E Simulation for Continuous Process Improvement (Partnerships for Quality)

 10 class hrs/ 1 cr .Simulation designed to provide practice applying the key tools of process improvement. Participants assume jobs in a fictional company and experience the problems of a traditional workplace first-hand while collaboratively redesigning the system to increase productivity,
employee morale, and quality. Offered as needed.

## QS062F ISO 9000 Overview (Partnerships for

 Quality)10 class hrs/ 1 cr .
Provides an overview to the ISO 9000 series, a set of international standards that have been developed to provide direction in the design, assessment, and maintenance of quality systems. Includes history, standards, and the resources required of an organization desiring to implement them. Offered as needed.

## QS062G Understanding ISO 9000 (Partnerships

 for Quality)10 class hrs/ 1 cr.
Prepares participants in companies that will undergo ISO 9000 registration. Offered as needed.

## QS062H Quality Auditing (Partnerships for Quality) <br> 10 class hrs/1 cr.

Provides an understanding of the quality auditing process, with particular focus and application on internal quality auditing and associated role of corrective action. Offered as needed.

QS062I Effective Team Skills (Partnerships for Quality)
24 class hrs/2 cr.
Provides an opportunity to learn and practice effective team skills using a variety of learning modules, including team activities, simulation, role-play, meeting practice, presentations, selfassessments, surveys, and discussion. Offered as needed.

## QS062J Facilitating Effective Teams

## (Partnerships for Quality)

## 20 class hrs/2 cr.

Presents team facilitator and team facilitation skills through a variety of learning modules, including team activities, videotaping, simulation, role-play, meeting practice, presentations, self-assessments, surveys, process analysis, and discussion. Offered as needed.

## QS062K Putting Teams to Work (Partnerships for Quality)

10 class hrs/ 1 cr .
Examines the merit of teams and how teams might support their organization's business strategy through team activities, simulation, role-play, meeting practice, presentations, selfassessments, surveys, individual exercises, and discussion. Offered as needed.

## QS062L Statistical Process Control (SPC)

(Partnerships for Quality)
32 class hrs/3 cr.
Prepares participants for developing and implementing Statistic Process Control (SPC) in their organizations. Offered as needed.

## QS062M Gauge Capability (Partnerships for Quality)

12 class hrs/ 1 cr .
Continuous improvement of product and service quality has become the primary driver for increasing productivity, customer satisfaction and employee involvement. This training mod-
ule covers the use and interpretation of gauge capability studies and statistical control of a gauge setup. Offered as needed.
QS062N Just-In-Time (Partnerships for Quality)
12 class hrs/1 cr.
Introduces JIT core techniques for manufacturing organizations using simulation exercises. Offered as needed.

## QS0620 Cycle Time Reduction (Partnerships for Quality)

## 10 class hrs/1 cr.

Provides practical ideas and tools for reducing cycle time in a manufacturing or service setting. Offered as needed.

## QS062P Strategic Planning for Change (Partnerships for Quality) <br> 20 class hrs/2 cr.

Presents a process for organizational change and growth by facilitating the organizational strategy decision-making process for managers and other leaders. Participants will complete an action plan to take back to their workplace to initiate a change process or strengthen the strategic plan for their organization. Offered as needed.

## QS062Q Leadership for Change (Partnerships for Quality)

## 20 class hrs/2 cr.

Assists in understanding the changing role of leadership. Participants will examine the skills, roles, and styles that leaders must understand and encourage in others to improve organization effectiveness. Offered as needed.

## R

## Religion

## R201 Primitive and Far Eastern Religions

3 class hrs/wk, 3 cr.
Introduces the principal components of the dominant religions in the Far East - Hinduism, Buddhism, and Taoism. Traces the historical development, fundamental beliefs and practices, and recommended lifestyle of each. Includes how to study a religion. $\mathbf{F}$

## R202 Near Eastern Religions

3 class hrs/wk, 3 cr.
Explores the principal components of the dominant monotheistic religions of the Near East Judaism, Christianity, and Islam. Traces the historical development and fundamental beliefs and practices of each religion. W

## R203 American Religions

3 class hrs/wk, 3 cr.
Focuses on the dominant religions of America, both contemporary and historical. Examines the dynamic relation between American history and American faith traditions. $\mathbf{S p}$

## RD

## Reading

see also Communication Skills, Skills Development

## RD090 College Textbook Reading

3 class hrs/wk, 3 cr.
Prepares students to comprehend and apply information from college-level textbooks. Encourages active reading by teaching students how to ask and look for answers to questions about author's purposes and strategies. Includes application of active reading skills to specific academic disciplines and career fields. Prerequisite: Recommendation of college placement test or consent of instructor. F, W, $\mathrm{Sp}, \mathrm{Su}$

## RD115 Accelerated Reading Tactics I

3 class hrs/wk, 3 cr.
Prepares students to become active participants in the process of reading more sophisticated college-level materials. Encourages students to build and transfer a repertoire of reading skills. Applies selected reading/study strategies to meet the reading demands in an academic setting. Prerequisite: Grade C or higher in RD090; recommendation of college placement test or consent of instructor. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## RD116 Accelerated Reading Tactics II

## 3 class hrs/wk, 3 cr .

Prepares students to become better critical readers and critical/creative thinkers. Focuses on reading discipline-specific materials with complex vocabulary, ideas, and structure. Includes use of online, traditional library, and computerized sources. Stresses synthesizing information to offer new perspectives, implications, insights, or consequences. Prerequisite: Grade of C or higher in RD115; recommendation of college placement test or consent of instructor. Offered as needed.

## RD117A,B,C Reading for Professionals, Managers and Technicians

1 class hr/wk, 1 cr . each
Focuses on reading techniques using personal job-related materials. The enhancement of reading skills and speed will help participants to read more efficiently with increased understanding as well as help to better manage the information flow. Offered as needed.

## RD120 Critical Thinking and Reading

3 class hrs/wk, 3 cr.
Assists students in analyzing and improving both their critical and creative thinking skills and problem-solving techniques. Students will practice metacognitive techniques to analyze their own thinking processes and learn how to examine and evaluate thinking processes. Critical reading skills will analyze the structure of arguments and their fallacies. Prerequisite: College placement score at or above RD115 or consent of instructor. F, W, Sp

## RE

## Real Estate

## RE156 Escrow Procedures

3 class hrs/wk, 3 cr.
Covers typical worksheets, forms, and procedures used by agents to conduct escrow procedures. Emphasizes the significance of the third party to real estate transactions. Includes prepa-
ration of documents required to be held on deposit between the seller and buyer until the terms of the contract are completely executed. Prerequisite: BA260, BA262. Offered as needed.

## RE161 Basic Appraisal Principles and Practices 3 class hrs/wk, 3 cr.

Covers the theories, functions, and purposes of appraisal principles of valuation. Emphasizes cost factors, market and income approach techniques for determining condemnation, and insurance, loan, purchase, and sales values. Includes preparation of a residential property report. Satisfies the State of Oregon broker's license requirement for appraising. Prerequisite: BA260 or consent of instructor. Offered as needed.

## RE162 Applied Residential Appraisal

## 3 class hrs/wk, 3 cr.

Focuses on the knowledgeable and professional use of U.R.A.R. forms. Presents and explains the appraisal products, techniques, and requirements demanded by institutional lenders and the secondary mortgage market. Prerequisite: RE161 and CS101. Offered as needed.

## RE164 Income Property Appraisal Principles and Methodology <br> 3 class hrs/wk, 3 cr.

Covers the methods and application of income property appraisal techniques using approaches to value determination, income capitalization, and reporting requirements. Prerequisite: RE161. Offered as needed.

## RE168 Mass Appraising of Real Estate

3 class hrs/wk, 3 cr.
Focuses on Oregon's assessment program and appraisal standards. Includes the responsibilities of the county assessor and how mass appraisals are planned, organized, conducted, and evaluated. Meets the educational requirements for state registration. Prerequisite: RE161 or qualified appraisal experience. Offered as needed.

## RE169 Elements of Design and Construction

2 class hrs and 3 lab hrs/wk, 3 cr .
Focuses on real estate design and construction terminology, architectural styles and building designs, material and labor requirements, building codes, and approximate cost estimating. Emphasizes application, labor methods, costs for representative types of construction, and site requirements. Covers the unit-in-place method of estimating. Offered as needed.

## RE170 Zoning, Subdividing, and Community Planning <br> 3 class hrs/wk, 3 cr.

Covers the zoning regulations, codes, restrictions, and procedures required in order to subdivide, upgrade, or change land use in the state of Oregon, county of Marion and city of Salem. Includes the cost related to developing property. Prerequisite: Second-year standing in Real Estate program or consent of instructor. Offered as needed.

## RE171 Property Management

3 class hrs/wk, 3 cr.
Emphasizes residential landlord-tenant relationships, proper conduct of the firm under Oregon's property management license, owner/tenant relations, leasing procedures, and marketing and record keeping. Covers commercial and industrial leasing techniques, requirements, and expectations. Offered as needed.

## RE263 Appraisal Report Writing

3 class hrs/wk, 3 cr.
Emphasizes methods of conveying written real estate appraisal information to the client and/or designated representative. Focuses on narrative forms of appraisal reports. Includes technical terminology, property descriptions, and estimates of value. Prerequisite: RE161, RE164, or consent of instructor. Offered as needed.

## RE265 Applied Income Property Appraisal

 3 class hrs/wk, 3 cr.Focuses on methods and theories of income property appraisal techniques using indicators of value including GRM's, capitalization, and yields' rates to develop an income property report. Prerequisite: RE164 or qualified appraisal experience. Offered as needed.

## RE266 Uniform Standards of Professional Appraisal Practice (USPAP)

2 class hrs/wk, 2 cr.
Examines the Uniform Standards of Professional Appraisal Practice (USPAP) accepted by government, the public, and the appraisal industry. Prerequisite: RE161. Offered as needed.

## RE267 Real Estate Investment Analysis 3 class hrs/wk, 3 cr.

Emphasizes analyzing commercial property to determine income and return on investment. Covers cash flow before and after taxes, mortgage retirement, and internal rate of return. Prerequisite: BA264. Offered as needed.

## RE280 Cooperative Work Experience

 see AUM280.
## RUS

Russian
RUS101, 102, 103 First Year Russian I, II, III 4 class hrs/wk, 4 cr. each
Introduction to the Russian language (including listening, speaking, reading and writing) and Russian culture (including geography, customs, daily life, heritage and literature), facilitated by the study of vocabulary, grammar, short readings and guided conversation. Prerequisite: These classes are to be taken sequentially. RUS101: None; RUS102: RUS101, one year of high school Russian, or consent of instructor; RUS103: RUS102, two years of high school Russian, or consent of instructor. Class fee \$2 each. RUS101: F; RUS102: W; RUS103: Sp

RUS201, 202, 203 Second Year Russian I, II, III 4 class hrs/wk, 4 cr. each
Extensive practice in all four language skills (reading, writing, speaking, and listening). Included are cultural and literary readings and an in-depth review and expansion of basic Russian grammar and vocabulary, as well as a broadening of the student understanding of Russian culture. Prerequisite: These classes are to be taken sequentially. RUS201: RUS103, three years of high school Russian, or consent of instructor; RUS202: RUS201 or consent of instructor; RUS203: RUS202 or consent of instructor. Class fee $\$ 2$ each. Offered as needed.

## Secretarial

see Business Technology

## SKD

## Skills Development

see also Human Development, Mathematics, Reading
SKD003 College Orientation For Deaf Students 1 class hr/wk, 1 cr .
Presents deaf and hard-of-hearing students with communication and study skills and habits which promote college success. Explores typical resources found in two-year as well as fouryear colleges. Offered as needed.

## SKD013A,B,C Phonics for Spelling

3 class hrs/4 wks, 1 cr. each
Course provides instruction in phonics principles and syllabication as an aid to spelling. In addition, students will develop a personal spelling log. F, W, Sp, Su

## SKD014A,B,C Spelling Rules

3 class hrs/4 wks, 1 cr. each
Individualized instruction includes patterns of spelling and exceptions to the rules, as well as practice in pronunciation and development of a personal spelling log. Prerequisite: Score 27 or above on the 36 -word college placement test or consent of instructor. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## SKD015A,B,C Vocabulary Building

## 3 class hrs/4 wks, 1 cr. each

Improve vocabulary by learning strategies for remembering new words using clues such as prefix, suffix, context, and word history. These techniques are then applied to college textbook terminology. Prerequisite: College placement score at or above RD090 or consent of instructor. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## SKD030A,B,C Advanced Vocabulary Building

3 class hrs/4 wks, 1 cr. each
Provides instruction in vocabulary analysis. Students will apply this analysis to increase their general and/or technical vocabulary. A one-credit option applies vocabulary strategies in medical terminology. Prerequisite: SKD015A,B,C or consent of instructor. F, W, Sp, Su

SKD050A,B,C Technical Learning Skills
1 class hr/1 cr. each
Designed to link with a content-area course. All skills in this course will be practiced with or applied to the materials, expectations, and assignments of the content course. Emphasizes improvement in reading and learning skills necessary for success in the content-area programs. Offered as needed.

## SKD051 Studying for College <br> 3 class hrs/wk, 3 cr.

Designed for students who feel challenged in getting organized and studying effectively. Student will develop strategies for learning effectively in a college setting. Prerequisite: None. SKD051 cannot be taken if SKD031A,B,C have already been taken. F, W, Sp

## SOC

## Sociology

## SOC204 General Sociology-Introduction

3 class hrs/wk, 3 cr.
Basic issues and findings regarding the biological, symbolic, and social nature of humankind. 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

## SOC205 General Sociology-Institutions

3 class hrs/wk, 3 cr.
An analysis of social institutions with special emphasis on family, religion, education, economy, and politics. Identifies factors contributing to institutional stability and change. It is recommended that students take SOC204 prior to this course. $\mathbf{W}, \mathbf{S p}$

## SOC206 General Sociology-Social Problems

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. It is recommended that students take SOC204 prior to this course. $\mathbf{S p}$

## SOC210 Marriage and Family Relationships <br> 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. 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. Offered as needed.

## SOC235 Society and Forestry

3 class hrs/wk, 3 cr.
An analysis of some of the classical sociological theories and their relevance in understand-
ing the management of forests and natural resources by a society. W

## SOC291 Introduction to Data Collection and Interpretation

3 class hr/wk, 3 cr .
Survey of concepts, techniques, and approaches used in the social sciences for collecting and analyzing information scientifically. Covers a variety of procedures and strategies used in decision making and reporting information. Offered as needed.

## SP

## Speech

## SP100 Introduction to Communication

 3 class hrs/wk, 3 cr.Surveys the areas of communication with emphasis on intrapersonal, interpersonal, group, and mass communication modes. $\mathbf{F}, \mathbf{W}, \mathbf{S p}$

## SP111 Fundamentals of Public Speaking

3 class hrs/wk, 3 cr.
Covers preparation and delivery of public speeches with an emphasis on informative speaking. F, W, Sp

## SP112 Fundamentals of Persuasion

3 class hrs/wk, 3 cr.
Introduces public speaking on a persuasive level. Includes discussion of the verbal and nonverbal levels of persuasion and concentrates on effective delivery, theories of persuasion, and use of support in effective persuasive speeches. Activities allow students to use theories in public speaking situations. F, W, Sp, Su

## SP115 Introduction to Intercultural Communication

3 class hrs/wk, 3 cr .
Explores impact of culture on communication. Investigates the areas of language, non-verbal communication, values, cultural systems, sex roles, belief systems, and culture shock. Offered as needed.

## SP130 Business and Professional Speaking <br> 3 class hrs/wk, 3 cr.

Designed to improve speech efficiency, selfconfidence, and skill in planning, organizing, and delivering the kinds of presentations encountered in business organizations through practical experiences in designed communication situations. Offered as needed.

## SP218 Interpersonal Communication

3 class hrs/wk, 3 cr .
Introductory course in interpersonal, dyadic communication. Emphasizes increasing communication skills within personal and work settings. F, W, Sp, Su

## SP219 Fundamentals of Small Group Communication

3 class hrs/wk, 3 cr.
Emphasizes communication skills to participate in team settings. Covers the characteristics of small groups, leadership and conflict management skills. F, W, Sp

## SPAN

## Spanish

SPAN101, 102, 103 First Year Spanish I, II, III
4 class hrs/wk, 4 cr. each
Introduction to the Spanish language (including listening, speaking, reading and writing) and Hispanic culture (including geography, customs, daily life, heritage and literature), facilitated by the study of vocabulary, grammar, short readings and guided conversation. Prerequisite: These classes are to be taken sequentially. SPAN101: None; SPAN102: SPAN101, one year of high school Spanish, or consent of instructor; SPAN103: SPAN102, two years of high school Spanish, or consent of instructor. Class fee: $\$ 2$ each. F, W, Sp, Su

## SPAN111, 112, 113 Beginning Spanish

Conversation I, II, III

## 3 class hrs/wk, 3 cr. each

Spanish for beginners whose primary goal is basic communication in the language and an understanding of Hispanic culture. Listening, speaking, reading and writing skills are developed with an emphasis on conversation, facilitated by the study of vocabulary and structure. Prerequisite: These classes are to be taken sequentially. SPAN111: None; SPAN112: SPAN111 or consent of instructor; SPAN113: SPAN112 or consent of instructor. Class fee $\$ 2$ each. SPAN111: F; SPAN112: W; SPAN113: Sp

SPAN121, 122, 123 Espanol para nativos
(Spanish for Native Speakers) I, II, III
4 class hrs/wk, 4 cr. each
Taught in Spanish, this series is designed to help native speakers of Spanish develop reading, writing and grammar skills in their native language, and to appreciate the depth and diversity of Hispanic culture in the United States and abroad. These classes emphasize spelling, accents, vocabulary, punctuation and sentence grammar of standard Spanish, and consist of daily readings, dictations and composition. Prerequisite: These classes are to be taken sequentially. SPAN121: Native Spanish speaker. No previous college coursework in Spanish is required. However, students are expected to have had some contact with the written language; SPAN122: SPAN121 or consent of instructor; SPAN123: SPAN122 or consent of instructor. Class fee: \$2 each. SPAN121: F; SPAN122: W; SPAN123: Sp

## SPAN150, 151 First Year Spanish, <br> Accelerated- I, II

6 class hrs/wk, 6 cr. each
Introduction to the Spanish language (including listening, speaking, reading and writing) and Hispanic culture (including geography, customs, daily life, heritage and literature), facilitated by the study of vocabulary, grammar, short readings and guided conversation. This two-quarter sequence is equivalent to the three quarters of SPAN101, 102, 103. Prerequisite: SPAN150: None. It is recommended that the student have had some experience studying a foreign language; SPAN151: SPAN150, one year of high school Spanish, or consent of
instructor. Class fee $\$ 3$ each. SPAN150: W; SPAN151: Sp

## SPAN201, 202, 203 Second Year Spanish

I, II, III
4 class hrs/wk, 4 cr. each
Extensive practice in all four language skills (reading, writing, speaking, and listening). Included are cultural and literary readings and an in-depth review and expansion of basic Spanish grammar and vocabulary, as well as a broadening of the student understanding of Hispanic culture. Prerequisite: These classes are to be taken sequentially. SPAN201: SPAN103, SPAN123, three years of high school Spanish, or consent of instructor; SPAN202: SPAN201 or consent of instructor; SPAN203: SPAN202 or consent of instructor. Class fee \$2. SPAN201: F; SPAN202: W; SPAN203: Sp or SPAN201-203: Summer Program in Ecuador.

## SPAN211, 212, 213 Intermediate Spanish <br> Conversation I, II, III <br> 3 class hrs/wk, 3 cr. each

Spanish for intermediate learners whose primary goal is increased basic communication in the language and an expanded understanding of Hispanic culture. Listening, speaking, reading and writing skills continue to be developed with an emphasis on conversation, facilitated by the study of vocabulary and structure. Prerequisite: These classes are to be taken sequentially. SPAN211: SPAN113, SPAN102 or consent of instructor; SPAN212: SPAN211 or consent of instructor. SPAN213: SPAN212 or consent of instructor. Class fee $\$ 2$ each. SPAN211: F; SPAN212: W; SPAN213: Sp

## SSC

## Social Science

## SSC150 Ethnic Cultures of the Northwest United States

## 3 class hrs/wk, 3 cr.

Provides an introductory study of the major ethnic groups currently residing in the northwest United States. Class lectures, audio-visual resources, discussions, group assignments, and field studies will be used to provide a variety of experiences. Members of the cultural groups being studied will be asked to serve as resource persons to the class, and independent study will be encouraged. Offered as needed.

## SSC206 Dealing with Diversity

3 class hrs/wk, 3 cr.
Provides lessons in social interaction; the concepts of race, social class, age, gender, and sexual orientation; the sociology of minorities; global and national demographic trends; and U.S. immigration policy. Offered as needed.

## ST <br> Occupational Skills Training <br> ST050A-P Occupational Skills Training <br> 40-180 lab hrs/term, variable $1-15 \mathrm{cr}$. per term

This course is the primary component of a sitebased, short-term training program for eligible students. Students receive instruction at the job
site based on individualized curricula developed to meet the needs of the student and the chosen occupation. Students must meet screening criteria for admission to program. Variable class fee. See information in the Programs of Study section of this catalog for costs and various non-credit courses available through this program. F, W, Sp, Su

## TA

## Theater Arts

## TA110 Introduction to Theater

3 class hrs/wk, 3 cr.
Covers performance interpretation using a range of mediums for presenting plays. The focus is on the student identification of dramatic conflict and on their interpretation using the current and historic symbolic language of the stage. Offered as needed.

## TA121 Fundamentals of Acting

## 3 class hrs/wk, 3 cr.

The first of a three-term sequence provides a general introduction to the basic skills of acting. Defines the common terminology used in acting and demonstrates the similarities between different systems of acting and uses theater games to promote creativity and improve group dynamics. Presents an overview of the ancient history of western acting. F, W, Sp

## TA122 Fundamentals of Acting

3 class hrs/wk, 3 cr.
The second of a three-term sequence emphasizes movement systems and improvisations. Reinforces ideas and systems first learned in TA121. Prerequisite: TA121 or consent of instructor. F, W, Sp

## TA123 Fundamentals of Acting

## 3 class hrs/wk, 3 cr.

The third of a three-term sequence exposes students to specific genre work such as the development of a variety of comic or dramatic skills. An overview on acting for the camera includes a videotaping or video simulation of the final acting project. Prerequisite: TA122 or consent of instructor. F, W, Sp

TA285A,B,C, Theater Production Workshop $3-9$ class hrs/wk, $1-3 \mathrm{cr}$.
Emphasizes participation on a production team for the creation, development, rehearsal, construction and performance of a theatrical production. Course may be repeated for a maximum of 10 credits. Course hours to be determined by instructor. Offered as needed.

## TA286 Technical Theater

1 class and 6 lab hrs/wk, 3 cr .
Introduces the fundamental skills in stagecraft to mount small productions and events. Covers scenery construction, safe operation of theatrical rigging, and the care, handling, and operation of lighting and sound equipment. Incorporates the skills needed for crew and house- management work. Course may be repeated for a maximum of six credits. Offered as needed.

## TA287 Technical Theater Production

 $6 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 2 \mathrm{cr}$.Prepares students to function as members of the technical production and event crews for the auditorium and to continue to develop the skills and abilities learned in TA286. Course may be repeated for a maximum of six credits. Prerequisite: TA286 or consent of instructor. $\mathbf{W}, \mathbf{S p}$

## VC

Visual Communications
see also Art

## VC080A Introduction to Visual

Communications
1 class hr/wk, 1 cr .
Overview of the graphic arts and the Visual Communications Program. Required for all Visual Communication students. Prerequisite: Assessment for the Visual Communications program; enrolled as Visual Communications pre-program student. Offered as needed.

## VC080B Introduction to Graphic Processes

1 class hr/wk, 1 cr.
Overview of the traditional graphic arts processes. Prerequisite: Assessment for the Visual Communications program; enrolled as Visual Communications pre-program student. Class fee $\$ 5$. Offered as needed.

## VC080C Introduction to Macintosh Graphics

1 class hr/wk, 1 cr.
Overview of the Macintosh Operating System for those familiar with a PC environment or for those whose knowledge of the Macintosh is self-taught or incomplete. Prerequisite: Assessment for the Visual Communications program; enrolled as Visual Communications pre-program student. Class fee $\$ 5$. Offered as needed.

## VC100 Special Topics in Visual

Communications
1 class hr/wk, 1 cr.
Topics will change each term and may include graphics software, papers and inks, and web page design. Course may be repeated for a maximum of six credits. Class fee $\$ 5$. Offered as needed.

## VC111 Survey of the Graphic Arts

3 class hrs/wk, 3 cr.
An overview of the graphic arts. Includes the history of printing and publishing; the evolution of graphic design, digital graphics, typesetting and related fields of applied arts, future trends, and career opportunities. Class fee $\$ 10$. $F$, offered as needed.

## VC114 Introduction to Computers for Graphics

 2 class and 2 lab hrs/wk, 3 cr.An introduction to software for the graphics arts. Includes page layout, illustration and photo manipulation software, file formats, linked and exported files, scanned images, memory, hardware and software, and high resolution imagesetting. Prerequisite: CA100 or equivalent and touch keyboard ability 25 words per minute and enrollment in the Visual

Communications program. Class fee $\$ 15$. F, offered as needed.

VC121 Layout and Design 1
2 class and 3 lab hrs/wk, 3 cr.
Introduces the basic skills required in the layout and design process of the graphic arts, including electronic page layout with type, photographs and other graphic elements. Prerequisite: Enrollment in the Visual Communications program and completion of VC111 and VC114. Class fee $\$ 15$. W, offered as needed.

## VC122 Layout and Design 2

2 class and 3 lab hrs/wk, 3 cr .
Continuation of VC121. Prerequisite: Enrollment in the Visual Communications program and completion of VC121.Class fee $\$ 15$. $\mathbf{S p}$, offered as needed.

## VC130 Beginning Photoshop

1 class and 2 lab hrs/wk, 2 cr.
Introduces the concepts and techniques of scanning, digital imaging, and image manipulation. Prerequisite: Macintosh (or compatible) computer experience, or VC114. Class fee $\$ 10$. Offered as needed.

## VC131 Advanced Photoshop

1 class and 2 lab hrs/wk, 2 cr .
Refines and expands the concepts and techniques of digital imaging with an emphasis on electronic media. Prerequisite: VC130 or working knowledge of all basic scanning and image manipulation techniques, computer experience. Class fee $\$ 10$. Offered as needed.

## VC133 Page Layout with QuarkXPress

1 class and 2 lab hrs/wk, 2 cr.
Uses QuarkXPress to produce basic page layouts to industry standards. Prerequisite: VC114 or computer experience. Class fee $\$ 10$. Offered as needed.

## VC137 Web Graphics 1

1 class and 2 lab hrs/wk, 2 cr.
Develops the techniques and skills needed to create, edit, save, and post images on the World Wide Web. Investigates reasons for using graphics on a web page and explores the various types of usage. Prerequisite: 1. Previous computer experience; 2. Basic Internet browsing experience; 3 . VC130 or equivalent experience. Class fee $\$ 10$. Offered as needed.

## VC138 Web Graphics 2

1 class and 2 lab hrs/wk, 2 cr.
Further develops the techniques and skills needed to create, edit, save, and post images on the World Wide Web. Introduces Flash as a web authoring tool. Prerequisite: 1. VC137 or consent of instructor; 2. Photoshop software experience. Class fee $\$ 10$. Offered as needed.

## VC139 Beginning Freehand

1 class and 2 lab hrs/wk, 2 cr.
Introduces the use of illustration software for graphic arts. Prerequisite: Macintosh (or compatible) computer experience. Class fee $\$ 10$. Offered as needed.

## VC145 Print Production 1

## 2 class and 3 lab hrs/wk, 3 cr .

Introduces prepress and press production methods including image assembly, proofing, platemaking, and press and bindery operations.
Prerequisite: 1. Admission into the Visual Communications program; 2. Successful completion of VC111 and VC114. Class fee $\$ 35$. Offered as needed.

## VC151 Electronic Imaging 1

2 class and 3 lab hrs/wk, 3 cr .
Introduces digital photography, black and white scanning and photo manipulation on the Macintosh. Work includes electronic imagesetting and operating a film processor. Prerequisite: VC111, VC114, ART261 or concurrent enrollment and enrollment in the Visual Communications program. Class fee $\$ 25$. Sp, offered as needed.

## VC171-174

Special Projects
variable hours and 1-4 cr.
Students have the opportunity to work with an instructor on special projects defined by a contract between student and instructor. Prerequisite: Enrollment in the Visual Communications program or consent of instructor. Course may be repeated. Class fee VC171: \$5; VC172: \$10; VC173: \$15; VC174: \$20. F, W, Sp

## VC183 Business of Graphic Arts

## 2 class and 2 lab hr/wk, 3 cr.

Covers industry trade practices, production schedules, job estimation, cost centers, working with clients, markups, establishing hourly rates, record keeping and billing procedures. Prerequisite: Second-year standing in the Visual Communications program. Class fee $\$ 5$. $\mathbf{W}$, offered as needed.

## VC184 Portfolio Preparation

2 class and 2 lab hrs/wk, 3 cr .
Sixth-term course for students enrolled in the Visual Communications program. Covers building a portfolio of work, evaluating job markets, designing resumes and business stationery. Includes participation in portfolio show. Prerequisite: Second-year standing in the Visual Communications program or consent of instructor. Class fee $\$ 40$. $\mathbf{S p}$

## VC200 Advanced Topics in Visual Communications

1 class hr/wk, 1 cr.
Offers a variable format discussion and demonstration class for students enrolled in the Visual Communications program. Different topics each term, for example: trapping, freelance work, preflighting, graphics software, papers and inks, web page design, or the exploration of new software. Course may be repeated for a maximum of six credits. Prerequisite: Second year standing in the Visual Communications Program or equivalent experience required by topic. Class fee $\$ 10$. Offered as needed.

## VC221 Layout and Design 3

2 class and 3 lab hrs/wk, 3 cr.
Develops the concepts and skills required in the design and layout process. Includes page layout and production with an emphasis on the use of multiple colors. Projects may include work on live jobs in a production environment. Prerequisite: VC121 and VC122, and second year standing in the Visual Communications program. Class fee $\$ 15$. F, offered as needed.

## VC222 Layout and Design 4

2 class and 3 lab hrs/wk, 3 cr.
Further develops the concepts and skills required in the design and layout process. Project work on live jobs in a production environment. Prerequisite: VC221, and second year standing in the Visual Communications program. Class fee $\$ 15$. W, offered as needed.

## VC230 Painter

1 class and 2 lab hrs/wk, 2 cr.
Offers hands-on painting and drawing using MetaCreations Painter. Prerequisite: Demonstrated ability to work with computers. Class fee $\$ 20$. Offered as needed.

## VC232 Web Photography

1 class and 2 lab hrs/wk, 2 cr.
Combines traditional photographic skills with digitizing, manipulating, and displaying images on the Internet. Offered as needed.

## VC237 Web Design 1

2 class and 2 lab hrs/wk, 3 cr .
Develops the techniques and skills needed to plan and create basic pages for the World Wide Web. Prerequisite: CS178I, VC130 or VC151 or equivalent, and computing and browsing basics. Class fee $\$ 20$. Offered as needed.

## VC238 Web Design 2

2 class and 2 lab hrs/wk, 3 cr .
Continues to develop the techniques and skills needed to plan and create basic pages for the World Wide Web. Prerequisite: VC137 and VC237. Class fee $\$ 20$. Offered as needed.

## VC245 Print Production 2

2 class and 3 lab hrs/wk, 3 cr.
Continues work in the basic skills of prepress and offset press operations. Multi-color work will be emphasized in image assembly, proofing, and press and bindery operations which will include live production jobs. Prerequisite: VC145 and second-year standing in the Visual Communications program. Physical challenges: Students who are unable to freely and quickly walk will not be able to perform the required tasks on the printing presses and bindery equipment. Dyslexia may be a challenge. Class fee $\$ 35$. Offered as needed.

## VC246 File Prep

1 class and 2 lab hrs/wk, 2 cr.
Builds knowledge of readying digital files for film output and printing. Presents common file problems and their solutions. Prerequisite: Second year status in the Visual Communications program or equivalent work experience. Working knowledge of the MAC Operating System, Photoshop, and QuarkXPress. Class fee $\$ 20$. Offered as needed.

VC251 Electronic Imaging 2
2 class and 3 lab hrs/wk, 3 cr .
Continues work in digital photography, color scanning, and photo manipulation on the Macintosh. Work includes electronic imagesetting and film processor operation. Prerequisite: Enrollment into the Visual Communications program and completion of VC151. Students should have completed a course in basic black and white photography or be concurrently enrolled in such a course. Class fee $\$ 25$. F, offered as needed.

## VC271-279 Studio Practices

1 class and $0-8$ lab hrs/wk, for variable 1.9 credits
Offers the opportunity to work with an instructor on the production of live jobs. Prerequisite: Second year status in the Visual Communications program. Class fee $\$ 5$ per credit. Offered as needed.

## VC280 Cooperative Work Experience see AUM280.

## VMW

## Vineyard Management/Winemaking

## VMW101 General Viticulture

## 3 class hrs/wk, 3 cr .

Introduces grape growing. Covers botany, fruiting and rootstock cultivars; anatomy and physiology; history and distribution of grapes; vine classification; world growing areas, including latitude, climate and soils; and common diseases and pests. F, W, Sp

## VMW105 Spanish in the Vineyard

3 class hrs/wk, 3 cr.
Covers practical Spanish terms and phrases specific to viticulture work. Surveys cultural information about Spanish speaking people. Includes pronunciation, technical vocabulary, greetings and basic grammar. No prior knowledge of Spanish is necessary. W

## VMW110 Fall Vineyard Practices

3 class and 2 lab hrs/wk, 4 cr.
Surveys fall vineyard management practices. Focuses on harvest practices, harvest contracts, and ripening parameters. Compares different ripening characteristics for a variety of clones and rootstocks. Covers fall canopy management, disease problems, and weather effects on ripening. Class fee $\$ 8$. F

## VMW111 Winter Vineyard Practices <br> 3 class and 2 lab hrs/wk, 4 cr.

Surveys winter vineyard management practices. Covers training, pruning, propagation, bench grafting and simple trellis designs. Class fee $\$ 43$. W

## VMW112 Spring Vineyard Practices

3 class and 2 lab hrs/wk, 4 cr .
Surveys spring vineyard management practices. Focuses on preparing a vineyard site for planting, spring canopy management and other site issues. Covers pest and disease control. Class fee $\$ 8$. $\mathbf{S p}$

## VMW113 Summer Vineyard Practices

3 class and 2 lab hrs/wk, 4 cr.
Surveys summer vineyard management practices. Covers planting, training of young vines, disease and weed control, canopy and vineyard floor management, and nutritional applications. Class fee $\$ 8$. Su

VMW121 Introduction to Winemaking
3 class hrs/wk, 3 cr.
Introduces winemaking practices. Covers fruit choices and quality, crushing, fermenting, and bottling. Includes basic winemaking chemistry and microbiology. Prerequisite: Student must be 21 years of age. W

## VMW131 Wine Appreciation

3 class hrs/wk, 3 cr.
Introduces wine appreciation. Includes grape varieties; wine types; sensory distinctions; food and wine combinations and the sensory evaluation of wines. Prerequisite: Student must be 21 years of age. Class fee $\$ 50$. F, W, Sp

## VMW132 Wines of the World

## 3 class hrs/wk, 3 cr.

Introduces wines and the wine producing regions of the world. Focuses on viticultural practices and winemaking styles. Covers the influence of wine on literature, history, the economy and religion. Prerequisite: VMW131 or consent of instructor. Student must be 21 years of age. Class fee $\$ 50$. W

## VMW133 Cool Climate Wines

## 3 class hrs/wk, 3 cr.

Introduces cool climate wine producing regions of the world and sensory evaluation of representative wines. Includes viticulture practices and winemaking styles. Covers how wine reflects geography. Prerequisite: VMW131 or consent of instructor. Student must be 21 years of age. Class fee $\$ 50$. Sp

## VMW221 Advanced Winemaking

2 class and 2 lab hrs/wk, 3 cr.
Focuses on advanced winemaking. Covers wine styles and quality and experimentation practices. Provides essential skills for a career in commercial winemaking. Prerequisite: VMW121 or consent of instructor. Student must be 21 years of age. Class fee $\$ 25$. W

## VMW232 Sensory Evaluation of Wine

3 class hrs/wk, 3 cr.
Focuses on advanced wine evaluation through sensory methods. Covers statistical analysis of trials, distinguishing wine styles, identification of wine faults and wine judging methods. Prerequisite: VMW121 and VMW131 or consent of instructor. Student must be 21 years of age. Class fee $\$ 50$. $\mathbf{S p}$

## VMW241 Winery Operations I

3 class and $7 \mathrm{lab} \mathrm{hrs} / \mathrm{wk}, 10 \mathrm{cr}$.
Fundamentals of commercial winery operations. Covers equipment operation and maintenance; sanitation; and safety practices. Includes use of laboratory data. Prerequisite: Consent of instructor. $\mathbf{F}$

## VMW242 Winery Operations II

6 lab hrs/wk, 2 cr.
Fundamentals of commercial winery operations. Covers equipment operation and maintenance, sanitation and safety. Includes wine racking, fining and aging. $\mathbf{W}$

## VMW243 Winery Operations III

6 lab hrs/wk, 2 cr.
Fundamentals of commercial winery operations. Covers equipment operation and maintenance, sanitation and safety. Includes wine aging, storage and bottling. Prerequisite: Consent of instructor. $\mathbf{S p}$

## VMW250 Agricultural Supervisor Training

4 class hrs/wk, 4 cr.
Emphasizes skills needed for supervision in agricultural settings. Covers confidence and esteem building; decision making; communication; leadership and management; and legal and safety issues. F

## VMW251 Winery Management

3 class hrs/wk, 3 cr .
Introduces winery management practices. Covers annual plans; budgets; winery development; labor management; contracts; legal compliance; record keeping; and problem solving. $\mathbf{S p}$

## VMW252 Vineyard Management

3 class hrs/wk, 3 cr.
Introduces vineyard management practices. Covers annual plans; budgets; vineyard development; labor management; contracts; legal compliance; record keeping; and problem solving. $\mathbf{S p}$

## VMW260 Soil and Plant Nutrition

4 class hrs/wk, 4 cr.
Introduces basic principles of soil science. Emphasizes grapevine mineral nutrition and the relationship of water and soils. Covers soil conservation and improvement. W

## VMW261 Vine Physiology

4 class hrs/wk, 4 cr.
Introduces the anatomy, physiology and growth habits of grapevines. Covers plant processes responsible for patterns of growth, yield, and fruit quality in wine grapes in the context of common viticulture practices. $\mathbf{S p}$

VMW280A-L Cooperative Work Experience see AUM280.

## WFB

## Welding Fabrication

WFB087 Fabrication Practices III
1 class and 6 lab hrs/wk, 3 cr.
Emphasizes structural fabrication using steel and aluminum. Prerequisite: Enrollment in Welding Fabrication program or consent of program chair. Class fee $\$ 15$. W

## WFB088 Fabrication Practices IV

1 class and 6 lab hrs/wk, 3 cr.
Instruction and experience in production-type welding with use of jigs, fixtures, and positioners. Prerequisite: WFB087 or consent of program chair. Class fee $\$ 15$. Sp

## WFB096 Shop Projects

1 class 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 skills and knowledge developed in concurrent courses. Prerequisite: Enrollment as a full-time student in the Welding Fabrication program or consent of the program chair. Class fee $\$ 40$. Sp
WFB280 Cooperative Work Experience see AUM280.

## WLD

## Welding

## WLD051 Basic Arc Welding

## 2 class and 9 lab hrs/wk, 5 cr .

A study of the basic principles involved in making fillet welds on mild steel using standard industrial procedures, equipment, and welding electrodes with the shielded metal arc welding (SMAW) process. Includes information concerning other welding processes and compares them to the shielded metal arc welding process. Class fee $\$ 25$. F

## WLD052 Intermediate Arc Welding

2 class and 9 lab hrs/wk, 5 cr .
Continuation of WLD051 covering ferrous and non-ferrous alloys and welding procedures. Demonstration and supervised practice of techniques on various metals applied in fabrication and repair. Prerequisite: WLD051 or consent of program chair. Class fee $\$ 30$. W

## WLD053 Advanced Arc Welding

1 class and 6 lab hrs/wk, 3 cr.
Preparation for welding, under code-type procedures, on plate and pipe. A study of welding procedures previously covered, as they apply to heavy gauge welding, with groove-type joints. At the end of the term the student will be given the opportunity to take a certification test, in accordance with American Welding Society (AWS) code welding standards. Prerequisite: Satisfactory completion of WLD051 and WLD052, or equivalent industrial experience with consent of program chair. Class fee $\$ 30$. Sp

## WLD056 Blueprint Reading and Sketching

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. $\mathbf{F}$

## WLD057 Layout Practices <br> 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. Class fee $\$ 5$. W

## WLD058 Weld Shop Problems

2 class 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: Successful completion of the first two terms of the one-year Welding program, or equivalent industrial experience with consent of program chair. Class fee $\$ 25$. Sp

## WLD061 Basic Gas Metal Arc Welding (MIG) 1 class and 6 lab hrs/wk, 3 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. Class fee $\$ 25$. F

## WLD062 Intermediate Gas Metal Arc Welding

 (MIG)1 class and 6 lab hrs/wk, 3 cr.
A continuation of WLD061. Includes study of and practice in welding of carbon steel. Emphasizes production welding situations using large diameter electrodes (solid and fluxcored) with mixed shielding gases in flat or horizontal positions. Prerequisite: WLD061 or consent of program chair. Class fee $\$ 35$. W

## WLD063 Advanced Gas Metal Arc Welding

 (MIG)1 class and 6 lab hrs/wk, 3 cr.
Continuation of WLD062. Includes welding mild steel, aluminum, stainless steel and steel pipe welding. Students may take a certification test in accordance with the American Welding Society (AWS) unlimited plate test in accordance with AWS D1.1 structural code. Prerequisite: WLD061 or equivalent industrial experience, with consent of program chair. Class fee $\$ 35$. Sp

## WLD070 Oxyacetylene Processes

1 class and 6 lab hrs/wk, 3 cr.
Designed to familiarize the student with the safe use, care, and operation of oxyacetylene welding, brazing and cutting equipment. Class fee $\$ 35$. $\mathbf{F}$

## WLD071 Basic Oxyacetylene Welding

1 class and 3 lab hrs/wk, 2 cr.
Fundamentals of oxyacetylene welding, including brazing and cutting processes. Class fee \$20. F

## WLD072 Oxyacetylene Cutting

5 lab hrs/wk, 2 cr.
Use and care of oxyacetylene cutting equipment. Class fee $\$ 20$. Offered as needed.

## WLD073 Basic Gas Tungsten Arc Welding (TIG)

## 1 class and 9 lab hrs/4cr.

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. Class fee $\$ 35$. W

## WLD077 Welding Processes

2 class and 6 lab hrs/wk, 4 cr.
A beginning course in fundamentals of shielded metal arc welding, oxyacetylene welding and cutting, metallic inert gas welding (MIG), and arc-air procedures. Class fee $\$ 35$. $\mathbf{S p}$

## WLD081 Welding Metallurgy I

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. W

## WLD082 Welding Metallurgy II <br> 2 class hrs/wk, 2 cr.

A continuation of WLD081 covering heat treatment of steel, common non-ferrous alloys, and alloy steels. Prerequisite: WLD081. Sp

## WLD097 Welding

1 class and 3 lab hrs/wk, 2 cr.
Fundamentals and application of arc welding, oxyacetylene welding, brazing and cutting pertaining to the automotive industry. Class fee \$20. Sp

## WLD280A-L Cooperative Work Experience see AUM280.

## WR

Writing
see also Skills Development
WR040 Writing Skills
3 class hrs/wk, 3 cr .
Focuses on writing complete and coherent sentences using correct grammar, punctuation, usage, and spelling. These abilities are developed in the context of paragraphs and longer pieces of writing. Class fee $\$ 2$. $\mathbf{F}, \mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## WR090 Fundamentals of Writing

3 class hrs/wk, 3 cr.
Focuses on writing essentials that will build confidence in writing for professional-technical students and anyone who writes in the workplace. Includes discussion, reading, lectures, and constant writing practice. Sentence concepts are presented and reinforced by working with paragraphs and longer pieces of writing. All concepts are directly applied to both academic and workplace writing and are also connected to outside reading. Class fee $\$ 2$. W, Sp

## WR095 Fundamentals of Composition

3 class hrs/wk, 3 cr .
Focuses on composition essentials that will build confidence for professional-technical students and anyone who writes in the workplace. This course is taught in the context of a specific program area. Explores a variety of getting started and revision techniques, and emphasizes audience analysis and the importance of sensitivity to audience in achieving accuracy in writing and reporting. Covers organization of writing for different purposes and selection of supporting details consistent with those purposes. Students writing will be a product of reallife experiences such as interviews, workplace visitations, and therefore blends observations with research and the writer's own opinions.

Prerequisite: WR090 or equivalent as determined by the instructor. Class fee $\$ 2$. W, Sp

## WR115 Introduction to Composition

3 class hrs/wk, 3 cr.
An introduction to WR121, this course focuses on writing well-developed, unified, coherent paragraphs, and formulating and developing a main idea in the composition of short, expository essays. Explores techniques for generating and controlling topic sentences, selecting and incorporating supporting details, and creating coherence within and between paragraphs. Reinforces competency in sentence writing skills and accepted conventions of grammar, punctuation, usage, and spelling in the context of paragraphs and short essays. Class fee $\$ 2$. F, $\mathbf{W}, \mathbf{S p}, \mathbf{S u}$

## WR121 English Composition-Exposition <br> 3 class hrs/wk, 3 cr.

Emphasizes clear, detailed informative writing, clear thinking and active reading. Prerequisite: Ability to organize thoughts and competency in standard written English, as demonstrated by: (a) standard placement test or (b) successful completion of WR115 or (c) COM051. Class fee $\$ 2$. F, W, Sp, Su

## WR122 English Composition-Logic and Style

 3 class hrs/wk, 3 cr.Focuses on the writing of logical, effective argumentative prose, awareness of stylistic elements, and critical reading. Prerequisite: WR121. Class fee $\$ 2$. F, W, $\mathbf{S p}, \mathbf{S u}$
WR123 English Composition-Research Writing 3 class hrs/wk, 3 cr.
This third-term college-level English composition course covers the acquisition and evaluation of evidence, integration of source material and personal opinion, and the appropriate processes and forms for developing the research paper. Prerequisite: WR121 and WR122. Class fee $\$ 2$. F, W, Sp, Su

## WR198A-B Independent Studies: Writing

Variable 1-2 credits
The use of the college learning contract provides student and instructor with vehicle to allow independent study in an area of student interest. Prerequisite: Consent of instructor. Offered as needed.

## WR227 Technical Writing

3 class hrs/wk, 3 cr.
Covers a variety of reports that include format, organizational, supplemental, bibliographical, and illustrative considerations. Emphasizes factual content, objective presentation, and a defined purpose for specific readers/audiences. Prerequisite: WR121. Class fee $\$ 2$. F, W, Sp, Su

## WR241, 242, 243 Imaginative Writing

3 class hrs/wk, 3 cr.
Designed to help writers of fiction, poetry and drama, using discussions of student writing and explorations of texts by established writers. Includes individual and group projects. Students taking the course for a second or third term are asked to submit work for publication. Although all three genres are explored each term, fiction is emphasized in the fall, poetry in

## WR248A-C Strategies for Revision

3 class hrs/wk, 1-3 cr.
Series of exercises designed to initiate, sustain, and refine personal and professional writing.
Offered as needed.

## WR298A Independent Studies: Writing

3 cr.
Faculty-supervised independent study in an area of student interest. May be taken for a maximum of nine credits. Offered as needed.

## WS

## Women's Studies

## WS101 Introduction to Women's Studies:

## Women in American Society

## 3 class hrs/wk, 3 cr.

An introduction to the sociology of women in American society throughout the life cycle. Focuses on the search for identity and meaningful relationships as well as theories of gender role socialization and covers the new scholarship concerning women in western civilization, their history, and alterative futures. $\mathbf{F}$

## WS102 Introduction to Women's Studies:

## Women, Work and Family

## 3 class hrs/wk, 3 cr.

Examination of the economic position of women in American society today. Includes an overview of working women in American history from colonial times to the present. Focuses on the problems women face today as a result of economic pressures, changing family and work roles, societal expectations, and the double day. W

## WS103 Introduction to Women's Studies:

## Women Around the World

3 class hrs/wk, 3 cr .
A survey of women around the world in the Twentieth Century using cross-cultural comparisons. Examines the status of women in subsistence economies and developing countries, and under socialism and capitalism. Explores women's productivity, access to resources and political power, and gender relations in different societies. Debates the politics of ecofeminism7, environmental consciousness, and ecological awareness. $\mathbf{S p}$

## Z00

Z00LOGY

## Z00201 General Zoology

## 3 class and 3 lab hrs/wk, 4 cr .

An introductory study of the major unifying principles and concepts of biology as applied to the study of animals. Includes the chemical basis of life, cell biology, theories about the origin of life, evolution, and genetics. Class fee \$12. F

## Board of Education

Members of Chemeketa's Board of Education are elected to represent seven geographical zones in the college district.
Zone One-Edward Dodson
Zone Two-Marilyn Crouser
Zone Three-JoAnne Beilke, Chair
Zone Four-Michael Stewart, Vice Chair
Zone Five-Tom Marks
Zone Six-Gerald Watson
Zone Seven-Gwen VanDenBosch

## Staff as of June, 2000

This is a partial listing of Chemeketa Community College's staff. It includes most of the people who are employed full time in instructional, coordinating, and administrative roles.

## A

Acker, Ted-Program Chair, Building Construction Training
Adams, Laurie-Coordinator, 2+2/Technical Preparation Programs
Agee, Steve-Instructor, Automotive Technology
Alfaqeeh, Nuri-Instructor, Mathematics
Alvarez, Maria (Cleo)-Counselor
Anderson, D. Craig-Coordinator, Agriculture Program
Anderson, Gwen Ellyn-Counselor, Life Skills
Anderson, Kenneth-Program Chair, Mathematics
Andrea, Ara-Instructor, Forest Resources Technology
Andrews, Peggy-Instructor, Emergency Medical Technology
Antoine, Patricia-Instructor, Criminal Justice
Ashe, Barbara-Instructor, Corrections Education
Asher, Greg-Instructor, Psychology

## B

Balyo, Mike--Instructor, History
Bannon, David-Instructor, Physical Science
Barber, Wayne-Instructor, Mathematics
Bassett-Smith, Ron-Director, Workforce Integration
Bates, Michael-Instructor, Computer Science
Beaufait, Dorothy-Instructor, Mathematics
Beck, Sally-Instructor, Adult Basic Education and GED
Beebe, Janell-Instructor, Business Technology
Beigh, Marybelle-Instructor, Electronics
Benson, June-Program Chair, Adult Basic Education and GED
Berger, Gerard-President
Berman, Arthur-Program Chair, Accounting and Management
Bibler, Rob-Program Chair and Instructor, Art; Instructor, Film Studies
Bill, Bob-Director, Enterprise for Employment and Education
Blodget, James-Specialist, Media Production
Blucher, Robert-Instructor, Computer Science
Bode, Betty-Program Chair, Medical Office Assisting
Bohlander, Susan-Instructor, Business Technology
Bone, Andrew-Instructor, Accounting
Booth, Karleen-Coordinator, Occupational Skills Training
Borden, Tiffany-Counselor
Bothwell, Bruce-Instructor, Electronics
Bowman, Roberta-Instructor, Deaf Services and Study Skills and American Sign Language
Boyington, Gary-Program Chair, Electronics
Brase, Don-Instructor, English
Brooks, W. David-Instructor, Accounting
Brummond, Candis-Counselor

Buchanan, Mary Ann-Instructor, ABE/GED
Burns, Barbara-Instructor, Nursing
Bush, Lori-Project Specialist, JOBS Program
Byers, E. Maxine-Instructor, Study Skills
Bynum, Randall-Instructor, Speech

## C

Cammack, Janice-Instructor, Physical Science
Campbell, Kathy-Director, Financial Aid
Campbell, Lorraine-Coordinator, Family Resource Center
Carnegie, Kay-Team Coordinator, Nursing
Chancey, Fred-Instructor, Writing and Literature
Chesley, Bob-Program Chair, Mathematics
Christensen, Janet-Instructor, Corrections Education
Clark, Lori-Instructor, Health and Physical Education
Cochrane, Linda-Director, Learning Resource Center
Colton, Lois-Instructor, Developmental Education
Concepcion, Paul-Program Chair, Social Science
Connor, Marilyn-Instructor, Communication Skills
Cornutt, Delvin-Instructor, Sociology
Cortes-Garcia, Juan-Instructor, ABE/GED
Cox, David-Instructor, Corrections Specialist
Crandall, Sondra-Instructor, Public Speaking and Composition
Craven, Linda-Instructor, Early Childhood Education
Crossler-Laird, Janice-Instructor, English as a Second Language
Cudmore, Wynn-Instructor, Life Science
Cullison, Joanne-Instructor, Study Skills
Culveyhouse, James-Instructor, Training and Economic Development
Currin, Cynthia-Program Coordinator, Workforce Integration

## D

Darby, Sydney-Instructor, English
Davidson, Mollie-Instructor, Human Services
Davis, Anne-Counselor
Decker, Michele-Team Coordinator, Nursing
DePue, Thomas-Director, Information Technology
Desel, Theodore-Instructor, Speech
Dinsdale, Sara-Instructor, English as a Second Language
Dobay, Deborah-Instructor, Psychology
Dunn, Tim-Program Chair, Forest Resources Technology
Dutch, Donald-Instructor, Corrections Education
E
Edge, Barbara-Coordinator, Grants Development
Edholm, Len-Counselor
Edwards, Karen-Instructor, Management
Ehlers, Deborah-Instructor and Counselor, Life Skills
Elegant, Ann-Instructor and Counselor, Life Skills
Elias, Marilyn-Instructor, Nursing
Eppler, Carol-Instructor, Business Technology
Eustrom, James-Director, Student Life and Academic Support Services

## F

Fadel, Stephen-Reference Librarian
Faircloth, Kathleen-Instructor, Psychology
Falk, Cheryl—Dean, Regional Education Services
Farjami, Javad-Instructor, Electronics
Ferguson, Jim-Instructor, Physical Science
Ferry, Marjorie-Instructor, English
Fish, Susan-Director, Developmental Education
Fisher, Gene-Program Chair, Fire Protection
Fisher, Kris-Instructor, Communication Skills
Fishfader, Randy-Instructor, Early Childhood Education
Fleming, Vickie-Director, Mid-Willamette Education Consortium
Florence, William-Instructor, Journalism; Adviser, Student Newspaper
Ford, Edward-Program Chair, Health and Physical Education
Forest, Jacques-Instructor, Economics
Forslund, Larry-Instructor, Life Science

Frank, Andrew-Instructor, Physical Science and Geology
Franklin, Harvey-Director, Woodburn Campus
Frey, Phil-Manager, Auxiliary Services
Furr, William—Program Chair, Alternative High School

## G

Gerard, Kay-Instructor, English as a Second Language
Gilbert, Jeremy-Instructor, Psychology
Gillette, David-Instructor, Mathematics
Glaser, Adam-Instructor, Emergency Medical Technology
Glennon, Barbara-Instructor, Nursing
Gohaidan, Carol Ann-Instructor, English as a Second Language
Gohring, Judy-Director, Personnel and Payroll
Goulard, Liz-Vice President, Academic Services
Graham, Jerry-Instructor, Adult Basic Education
Green, Constance-Dean, Strategic Partnerships for Academic and Community Effectiveness

## H

Hanby, Stephen-Instructor, Welding Technology
David Hardesty-Instructor, ABE/GED
Hare, Nancy-Program Chair, Clerical Technology and Office Occupations
Harmon, Millie-Instructor, Sociology
Harvey, Jean-Instructor, Alternative High School
Hassoun, Judith - Counselor, Life Skills
Hawkins, John-Executive Director, Chemeketa Foundation
Heater, Steven-Instructor, Welding Technology
Hilgemann, Vickie-Program Chair, Humanities
Hirt, Donna-Program Chair, Human Services
Hodges, Gary-Instructor, Automotive Technology
Hodgson, Tracie-Instructor, History
Holmes, Darrel-Program Chair, Building Inspection
Hoobler, Tony-Instructor, Physical Science
Horn, Terry-Director, Business Management and Health Services Management
Howard, Jeffrey-Instructor, Deaf and Hearing Impaired
Hudson, Meredeth-Instructor, Nursing
Hulett, Ronald-Director, Extended Learning Programs
Hunter, Jeri-Registrar
Hunter, Robert-Manager, Computer Services
Hyland, Mariann-Director, Public Safety, Risk Management, Contracts, and Affirmative Action

## I

Inoue, Asa0-Instructor, English
Irving, Jan-Program Chair, Nursing
Ivey, Marion-Instructor, Custodial/Building Maintenance

## J

Jacobson, Lee-Instructor, Art
Jantzi, Ron-Director, Trades and Technologies
Jasper, Sally-Instructor, Nursing
Johanson, Terri-Director, Distance Education
Johnson, Robert-Instructor, Computer Science
Jones, Anetta-Instructor, Business Technology
Jones, Lee-Instructor, Mathematics
Jordan, Carol-Program Chair, Business Technology

## K

Kalb, David-Instructor, Automotive Technology
Kelly, Mike-Instructor, Architectural Drafting
Kelly, Susie-Coordinator, National Science Foundation
Kizziah, John-Instructor, Welding Technology
Knab, Bernard-Director, Humanities and Visual Communications
Koch, Alan-Director, College Advancement
Kopald, Seth-Instructor, Early Childhood Education
Krahn, Greta-Coordinator, Older Adult Programs

Kuhn, Gary-Coordinator, Cooperative Work Experience
Kurz, Sandra-Instructor, Health and Physical Education

## L

Lacy-Tang, Jean-Counselor
Lander, Gregg-Program Chair, Emergency Medical Technology
Lang, William-Counselor
Lavine, Phil-Instructor, Farm Business Management
Lazzara, Edward—Program Chair, Foreign Languages
Leonard, Phyllis-Instructor, Mathematics
LeRoy, Robert-Instructor, Composition and Literature
Libbon, George-Athletic Director; Instructor, Health and Physical Education
Lightfoot, Dick-Coordinator, Career Center - Newberg
Linder, Christine-Program Chair, Visual Communications
Longshore, Glen-Specialist, Media Production
Lorenz, Virgie-Instructor, Inmate Education

## M

MacDonald, Al—Instructor, Vineyard Management
MacDonald, Lucy-Instructor, Study Skills
MacInnes, Patricia-Instructor, Inmate Education
Mack, Johnny-Instructor, Fire Protection
Malone, Patricia-Instructor, Business Technology
Marckx, Elaine-Program Chair, Nursing
Martin, Joel-Counselor
McCrary, Kelola-Instructor, ABE/GED
McCready, Marveen-Program Chair, Mathematics
McCullough, Linda-Instructor, Accounting
McDonough, Thomas-Instructor, Physical Science
McGill, Meg-Coordinator, Salem Area Programs
McGlynn, Maureen-Director, Curriculum Resource Center
McLaughlin, Suzanne-Instructor, Spanish
McLaughlin, Terrence-Instructor, Physical Education
McNicholas, Michael-Program Chair, Physical Science
Mendenhall, Mike-Instructor, Building Inspection
Merola, Joseph-Instructor, Visual Communications
Meyers, Dianne-Program Chair, Nursing
Michels, John-Instructor, Mathematics
Miller, Mark-Instructor, Engineering and Math
Miller, Selania-Coordinator, Career Center-Santiam Campus
Mock, John-Instructor, Composition and Literature
Mohn-Brown, Elaine-Instructor, Nursing
Monson, Bryan-Program Chair, Business Technology, Woodburn Campus
Moothart, Janine-Director, Santiam Campus
Morgan, Micheal-Dean, Campus-Based Instruction
Moxley, Doug-Coordinator, Special Projects
Murphy, Lori-Director, Corrections Education and Hospitality Systems Management
Murray, Susan-Instructor, High School Completion
N
Newton, Kristi-Instructor, Business and Management
Newton, Ronald-Instructor, Civil Engineering
Nichols, Van-Program Chair, College Transfer Engineering,
Drafting Technology, and Civil-Structural Engineering Technology
Nielson, Lisa-Instructor, Cognitive Life Skills
Nieubuurt, Kathleen-Instructor, Nursing
Nubile, Barbara-Team Coordinator, Nursing Skills Lab
Nunez, Ellen-Instructor, Cognitive Skills

## 0

0'Hara, Rick-Instructor, Life Science
Olheiser, Dean-Program Chair, Automotive Technology
Ottaway, Carol—Program Chair, Business Education, Dallas Campus

## P

Page, Fran-Director, New Workforce
Parker, Andrew-Instructor, Inmate Education

Parmeter, Stanton-Instructor, Life Science
Pearcy, Diana-Instructor, Corrections Education
Perkins, Ruth-Specialist, Corrections Education
Peters, Julie-Instructor, Structural Drafting
Phipps, Raymond-Director, Employment and Work-Based Learning Services
Pillette-Stephens, Debra-Program Chair, Criminal Justice
Pink, Peg-Instructor, Inmate Education
Pintler, Michael-Program Chair, Welding Technology and Manufacturing
Plett, John—Director, McMinnville Campus
Poston, Susan-Program Chair, Mathematics
Pratt, Betty-Program Chair, Financial Services
Prentice, Cynthia-Program Chair, Life Science
Prothero, Marilyn-Instructor, English as a Second Language

## R

Radtke, Lee-Instructor, Corrections Education
Rasmussen, Douglas-Instructor, Mathematics
Rediski, Mark-Instructor, Education
Reed, Marilyn-Coordinator, Evening On-Campus and Apprenticeship Programs
Reid, Donna-Instructor, Art and Writing
Richardson, Steve-Instructor, Writing and Literature
Roelofs, Gary-Instructor, English as a Second Language
Rosen, Lois-Program Chair, English as a Second Language

## S

Salgado, Monica-Instructor, Adult Basic Education
Sansone, Steve--Instructor, Health and Physical Education
Saxowsky, Gail—Instructor, Emergency Medical Technology
Scherf, Joan-Director, Dallas Campus
Scott, Janet-Director, Online Programs
Seals, Georgina-Instructor, Business Technology
Sekafetz, Charles-Instructor, Electronics
Sessions, Patricia-Instructor, Business Technology
Skirvin, Charles-Counselor
Slemenda, Steve-Instructor, Composition and Literature
Slosser, Joseph-Instructor, Psychology
Smith, Craig-Chief Financial Officer
Smith, Ronnie-Instructor, Inmate Education
Sprenger, John-Instructor, Adult Basic Education
Stam, Bruce-Program Chair, Early Childhood Education
Steiner, Ann-Instructor, Adult Basic Education and GED
Steiner, Jerry-Executive Dean
Stevens, Malia-Coordinator, Opportunity Center
Stewart, Joanne-Instructor, Adult Basic Education and GED
Stillinger, Ken-Coordinator, Career Center
Stubbs, Dina-Program Chair, Nursing
Suter, Marcia-Instructor, English, Writing, and Literature
Suter, Paul-Instructor, Writing and Literature
Swan, Tani-Instructor, Inmate Education
Swearingen, Dell-Director, Science, Mathematics, and Electronics
Swenson, David-Instructor, Computer Science

## T

Tardaewether, Virginia-Instructor/Coordinator, ABE/GED
Terpin, Mark-Instructor/Coordinator, Corrections Education
Thompson, Tammy-Instructor, Inmate Education
Thorp, Anne-Instructor, Adult Basic Education and GED, Downtown Learning Center
Troupe, Count-Instructor, Developmental Education and Cognitive Skills
Truesdell, Joanne-Dean, Student Development and Learning Resources
Turner, James-Instructor, Alternative High School

## U

Urban, Wanda-Instructor, Human Services
Ure, Douglas-Program Chair, Life Science

## V

Valdivia, Armandina-Instructor/Coordinator, ESL/ABE
Vaughn, Joyce-Instructor, Dental Assisting
Veldhuisen, Kathleen-Reference Librarian
Veliz, Anthony—Director, High School Equivalency
Vessello, Jerry-Director, Facilities and Operations
Vogel, Allan-Instructor, Life Science
Vollmar, Lorene-Program Chair, Dental Assisting

## W

Wachal, Ken—Program Chair, Real Estate
Wahner, Royal--Instructor, Manufacturing and Drafting Technology
Ward, H. Jill-Director, Advising and Counseling
Waring, Pam-Coordinator, Cooperative Work Experience
Warren, John-Instructor and Counselor, Life Skills
Warren, Lynda-Director, Business Services
Wasson, Barbara-Program Chair, Study Skills Program
West, Susan-Instructor, Health and Physical Education
Wetle, Victoria-Program Chair, Health Services Management
Wheeler, Claire-Program Chair, Developmental Education
White, Roger-Instructor, Electronics
Whitney, John-Program Chair, English as a Second Language
Whitton, Louanne-Coordinator, Opportunity Center
Whyte, Catherine-Program Chair, Education
Wieczorek, Emily—Instructor, Health Services Management
Wigginton, Barbara-Program Chair, English
Wilkins, Jimmie-Coordinator, Small Business Development Center
Williams, Doris-Director, Dental Assisting, Medical Office Assisting, and Nursing
Willis, Vicki-Assistant to the President, Organizational Development and Planning
Wintermeyer, Larry-Program Chair, Computer Science
Wolfe, Steven - Instructor, Geography
Woods, Rae-Counselor

## Z

Zolkoske, Gary-Instructor, Manufacturing Engineering Technology

## Student Rights and Responsibilities

### 1.0 Preamble

Chemeketa Community College provides an environment that celebrates the freedom to learn and the freedom to teach. In that celebration of teaching and learning it is appropriate that individuals and groups be viewed with regard to their potential to contribute within the learning environment. Each has dignity and value.
2.0 Code of Behavior

As a community of people seeking education, Chemeketa students are dedicated to improving personally and academically. Choosing to join the college community obligates each member to a code of behavior.
Chemeketa students will:
2.1 Practice personal and educational integrity.
2.1.1 Students shall practice academic honesty by not cheating, plagiarizing, or misrepresenting their coursework in any way.
2.1.2 Students shall not misuse college documents, library or computer resources, student records, or identification cards.
2.2 Maintain standards of academic performance and contribute to the safe, cooperative, and respectful learning environment throughout the college.
2.2.1 Students shall participate in classroom assignments and discussions and attend classes regularly.
2.2.2 Students shall not disrupt the teaching/learning process.
2.3 Discourage bigotry and respect the diversity and dignity of all persons.
2.3.1 Students shall not participate in physical or verbal abuse of any individual.
2.3.2 Students are encouraged to demonstrate respect for all persons.
2.4 Respect the rights and property of all persons.
2.4.1 Students shall do nothing to impede another's right to move about freely, express his/herself or enjoy privacy.
2.4.2 Students shall not destroy, deface, or misuse property belonging to an individual or the college.
2.5 Bear the ultimate responsibility for the effects of their decisions and behavior.
2.5.1 Students have an ethical obligation to confront, challenge, or report destructive or abusive behavior.
2.5.2 Students shall not abuse alcohol or other drugs.
2.5.3 Students shall abide by federal, state, and local laws.

### 3.0 Student Rights

Each student in the college community has certain rights that accompany his/her responsibilities. Those rights are to be protected by both students and staff regardless of an individual's race, sex, religion, color, creed, disability, sexual orientation, political affiliation, national origin, ancestry, or age.
The college will:
3.1 Provide access to education and campus facilities.
3.1.1 The college shall be open to applicants who are qualified according to current admission requirements within the limits of its resources and facilities.
3.1.2 Students have the right to be informed about class requirements and college policy and procedures. Students' access to education shall not be inhibited by prejudiced or capricious academic evaluation.
3.1.3 Students have the right to participate in evaluations of programs, course content, and educational objectives.
3.1.4 If a student is charged with a violation of law not related to his/her activities on campus, the matter shall be of no disciplinary concern to the college, unless the student is incarcerated and cannot comply with educational requirements.
3.1.5 Students, official clubs and organizations may use available college facilities according to college policy and procedures.
3.2 Assure the protection of confidential student records and information.
3.2.1 Student records and information are protected and governed by federal and state laws and the college's Student Records Policy and Procedures. Students may obtain the Student Records Policy from the Registrar's Office on the Salem campus.
3.2.2 Information about student views, beliefs, private activities, and political associations which is acquired or learned by college employees in the course of work is to be treated with professional judgment and confidentially.
3.2.3 Professional evaluations and references about the ability and character of students may be provided under appropriate circumstances.
3.3 Provide opportunities for association and preserve freedom of expression.
3.3.1 Policy and procedures governing clubs and organizations shall be established by the college and ASCCC Student Senate.
3.3.2 Students may express their views on college policy or matters of general interest and may support causes by any orderly means that does not disrupt the operation of the college.
3.3.3 In the classroom, students may take exception to the information and may reserve judgment about matters of opinion, but they are responsible for learning the content of the course.
3.3.4 Chemeketa Community College, as publisher, bears in conjunction with the staff of student publications, the responsibility for the content of the publications. The publications shall adhere to all applicable Oregon statutes, such as those regarding mass communications.
3.3.5 The student newspaper shall be governed by the Student Newspaper "Guidelines" and shall follow the Canons of Journalism of the American Society of Newspaper Editors.
3.3.6 Student publications shall state that the opinions expressed are not necessarily those of the college or student body.

### 4.0 Conflict Resolution

4.1 When there is a difference of opinion, values, or treatment, members of the Chemeketa community are encouraged to seek resolution directly with the individual with whom the conflict exists or his/her supervisor. When conflict is with a service area of the college, resolution should be sought first in that area or with its supervisor. If the issue involves alleged discrimination such as sexual harassment, the college's Affirmative Action Office should be contacted.
4.2 When resolution cannot be reached by talking to the individual (or when contact with the individual would not be appropriate) the Dean of Student Development and Learning Resources should be contacted. The Dean of Student Development and Learning Resources has multiple informal processes to assist the student to resolve the conflict. Unbiased investigation will be used in the informal processes in an attempt to resolve issues. Examples include but are not limited to:
4.2.1 Referral to supervisors or appropriate staff to achieve resolution.
4.2.2 Referral to the college ombudsperson. The ombudsperson serves as a resource to resolve disputes on an informal basis. The ombudsperson may find mediators who will work with the referred parties to achieve resolution.
4.2.3 Referral to a fact-finding committee, especially designed to achieve resolution. The committee will be composed of members who are approved by both sides of the issue.
4.2.4 The Dean of Student Development and Learning Resources may conduct an investigation of the situation to achieve resolution.
4.3 If the processes above do not result in agreement by both parties, the student may follow the College Appeals Process (Section 6.0) by contacting the Dean of Student Development and Learning Resources.

### 5.0 Student Discipline

5.1 If a college staff member believes a student has violated the Student Rights and Responsibilities document, the person or persons involved shall attempt to resolve the issue by personal contact, if possible.
5.1.1 Informal conflict resolution processes (Section 4.2) are encouraged for resolution of possible violations of the Student Rights and Responsibilities document. The Dean of Student Development and Learning Resources should be contacted for assistance.
5.1.2 Disciplinary action may be imposed upon a student by college staff for misconduct or for violation of law and/or college rules and policies.
5.1.3 Types of disciplinary action which may be imposed and authorization for such action are:

1. Temporary Exclusion is the removal of a student from a class or service area, not to exceed one class session, one day, or removal from a college-sponsored function for the duration of a function.
Any staff member of the college may impose temporary exclusion only when the presence of the student poses a danger to students, other persons, college property or a threat of disrupting the educational process. (See College Policy 4220.) A written report of the circumstances requiring this action shall be submitted to the appropriate director or dean within one working day following the incident with specific directions or expectations and consequences for non-compliance.
2. Disciplinary Probation is a written warning to a student which may include interim exclusion. Interim exclusion may not exceed five days.
The appropriate director may impose disciplinary probation.
3. Suspension is the exclusion of a student from classes in a program or service area and college-sponsored functions for a specified period of time as set forth in the notice of suspension.
The appropriate dean may impose suspension from classes in a program, from a service area, or from college-sponsored functions. Suspension may not exceed one term.
4. Expulsion is the permanent separation of a student from a program or service area or conditional separation from the college.
The Dean of Student Development and Learning Resources may impose expulsion. Conditions of readmission, if any, shall be stated in the order of expulsion.
5.2 The Dean of Student Development and Learning Resources may take any disciplinary action deemed appropriate for student behaviors which are considered destructive to the educational environment of the college.
5.3 Chemeketa staff who take disciplinary action against a student shall submit a written statement to the Dean of Student Development and Learning Resources specifying the nature of the alleged violation.
5.3.1 At the earliest possible time after a statement of violation, the appropriate director or dean shall meet with the student or issue a written statement for the purpose of advising the student of:
5. The nature of the charge(s).
6. Possible sanctions or sanctions imposed based on evidence.
7. The student's right to counsel, who may assist the student for advising purposes only.
8. The student's rights under college policy.
5.3.2 The student charged may:
9. Accept sanctions imposed by the college staff person. If the student does not submit a written appeal within five working days, it will be concluded that the sanctions have been accepted.
10. Request alternate resolution by notifying the college ombudsperson in writing within five working days.
11. Appeal the action within five working days by contacting the Dean of Student Development and Learning Resources who may use multiple informal processes to resolve the conflict or may refer to the College Appeals Committee.

### 6.0 College Appeals Process

6.1 A hearing before the College Appeals Committee occurs in situations which may require a summary decision on an unresolved conflict or may
result in the permanent expulsion of a student.
6.2 The college president shall appoint two students and three staff members to form a College Appeals Committee. The appeals committee must have a quorum of four to conduct a hearing. The hearing is not considered a formal legal trial.
6.3 The general rules governing a hearing are listed below. The specific rules for a hearing are contained in the guidelines of the College Appeals Committee. A copy of these guidelines is on file in the office of the Dean of Student Development and Learning Resources and is available for examination by any student upon request.
6.3.1 A written statement of the alleged college violation shall be delivered by the student to the Dean of Student Development and Learning Resources. A written statement of the alleged student violation shall be delivered to the student.
6.3.2 A hearing shall be held not less than three nor more than 20 working days after the filing of the statement of violation with the Dean of Student Development and Learning Resources. For reasonable cause, the College Appeals Committee may grant a postponement.
6.3.3 The student may be accompanied by counsel for advising purposes only; however, counsel will not participate directly in the hearing.
6.3.4 If the student who filed the appeal or is the subject of the appeal fails to appear for the hearing or agrees in writing not to contest the case, the College Appeals Committee shall review the evidence and prescribe the appropriate action.
6.4 In any case, the student may appeal findings and judgment of the College Appeals Committee to the College Board. If an appeal is submitted, the student must present to the College Board Chairperson a written notice stating the basis for the appeal. The appeal must be filed within five working days after the pronouncement of the judgment of the Appeals Committee; otherwise the right of the appeal shall be waived.
6.5 Upon the filing of an appeal, the College Board Chairperson shall review the record of the hearing and the judgment. The College Board may schedule a hearing if further clarification is needed.
6.6 Within a reasonable time, the College Board Chairperson will respond in writing prescribing the final decision.

### 7.0 Definitions

7.1 College shall mean Chemeketa Community College.
7.2 College Board shall mean the Board of Education.
7.3 Staff shall mean any employee of the college, both full- and part-time, management, faculty, and classified. Staff rights and responsibilities shall be provided by college policy, procedure, and collective bargaining agreements. Staff are expected to intervene and facilitate adherence to the Student Rights and Responsibilities document.
7.4 Student shall mean any person currently enrolled in a college class.
7.5 Community member shall mean any person not enrolled in a Chemeketa class. A community member shall have the rights and responsibilities provided by local, state, and federal laws. The Student Rights and Responsibilities document does not apply to community members. Community members may contact the college ombudsperson for clarification of their rights and responsibilities.
7.6 Associated Students of Chemeketa Community College (ASCCC) shall mean the official organization of the student body, made up of currently enrolled students at the college.
7.7 ASCCC Student Senate shall consist of student representatives of the student body selected according to the ASCCC Constitution and Bylaws.
7.8 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 at the college as an official organization.
7.9 The College Appeals Committee shall be composed of students and staff and will conduct non-judicial hearings on alleged violations of the Student Rights and Responsibilities document. The hearings are not considered formal, legal trials.

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## Chemeketa Salem Campus mo lacastrid dree ne



## Map Legend

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3. General classrooms, Math lab, Student Life Office
4. Technical Skills classrooms, Crossroads Cafe
5. Technical Skills and Art classrooms
6. Technology Classroom Building, Computer Lab
7. Physical Education, Gym
8. Science and Allied Health classrooms and labs
9. Learning Resource Center
12. Information and Public Safety
14. Fire Station
15. Emergency Operations and Research Facility
16. English as a Second Language, Volunteer Tutor Program
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19. Classrooms

6/12/00
20. New Workforce Resource Center, TRIO Mentor Program
22. Information Technology, ABE/GED classrooms
23. Life Skills classroom
24. Machine Shop
25. Welding Shop
26. Classrooms A-B
27. Classrooms A-B
28. Classrooms A-F
29. Staff offices and classroom
30. Classrooms
31. Classroom
32. Classrooms A-F
33. Mailing, Receiving, C Copy Plus
34. Food Service
35. Writing Center and classrooms
36. Staff offices
37. Staff offices
38. Staff offices
39. Child Development Center
40. Maintenance/Facilities Services

41. Classrooms
42. Vacant
45. Activity Field
46. Greenhouse
48. Office Building (MaPS), JOBS Program Winema Career Center, Life Skills Center Workforce Integration, Mid Willamette Workforce Network
49. Northwest Center
50. Classrooms, High School Completion,

Extended Learning, Farm Business Mgmt., Apprenticeship, Family Resource Center, Chemeketa Community Child Care Center
51. Construction Skills
52. Classrooms
53. Adult and Family Services (state offices)


[^0]:    American Society of Certified Engineering Technicians (ASCET)

[^1]:    *To meet four-year college general education requirements.

[^2]:    **Many professional-technical courses are applicable to the baccalaureate degree. Check with the BA-granting institution.

