



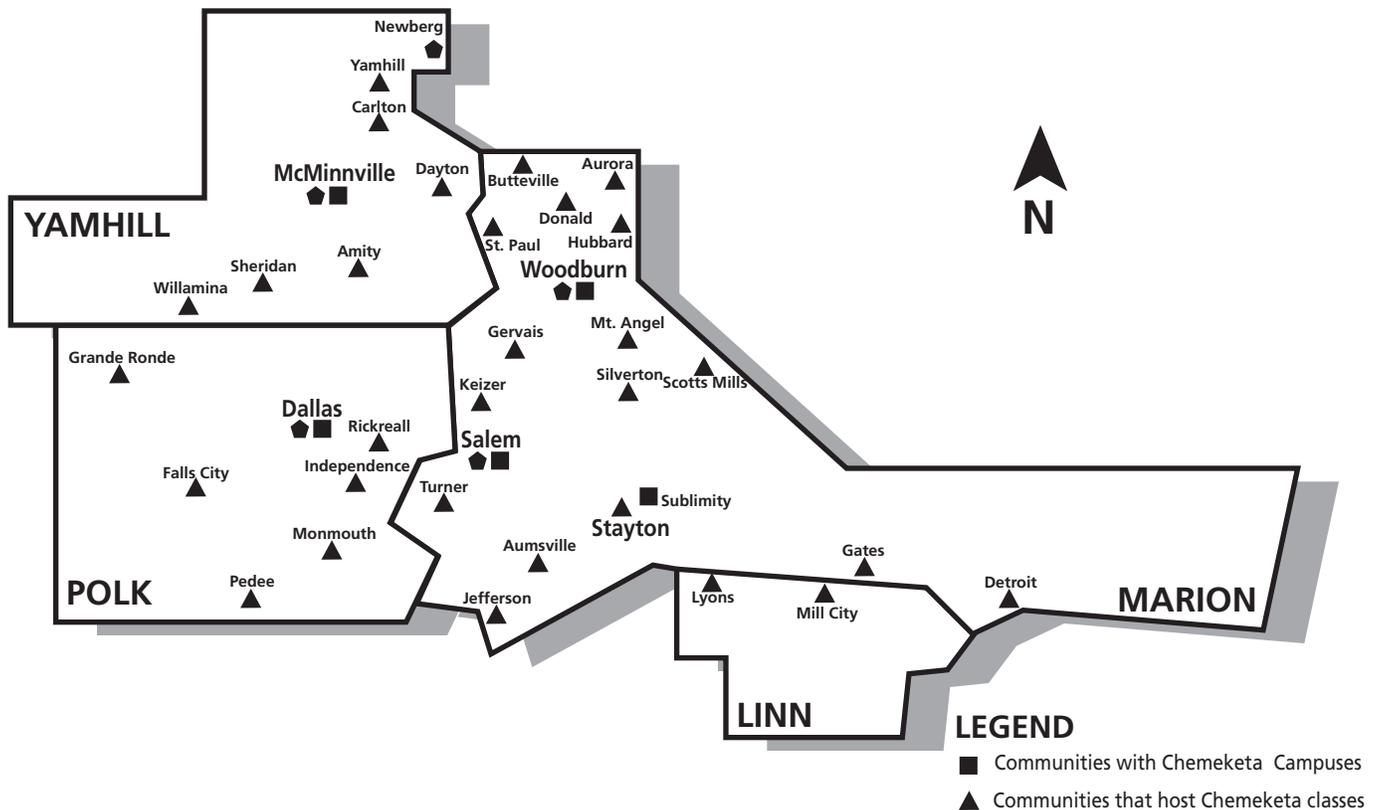
Chemeketa Community College Catalog 2004–2005

Chemeketa Community College is an equal opportunity, affirmative-action institution.
To request this publication in an alternate format, please call 503-399-5192.

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Chemeketa Community College District



Chemeketa Campuses

Salem Campus

4000 Lancaster Dr. NE
Salem

Dallas Center

975 SE Ash
Dallas

McMinnville Campus

500 NW Hill Rd.
McMinnville

Santiam Campus

11656 Sublimity Rd. SE
Sublimity

Woodburn Campus

120 E Lincoln St.
Woodburn

Training and Economic Development Center

365 Ferry St. NE
Salem

Job and Career Centers

McMinnville Job and Career Center

370 NE Norton Lane
McMinnville

Newberg Job and Career Center

2251 E. Hancock St., Ste. 106
Newberg

Polk Job and Career Center

580 Main St. SE, Ste. B
Dallas

Salem Job and Career Center

605 Cottage St. NE
Salem

Santiam Job and Career Center

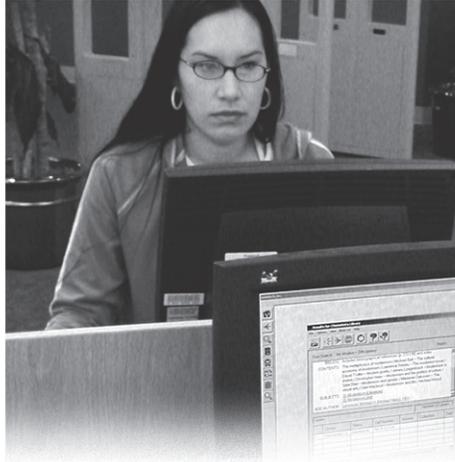
11656 Sublimity Rd. SE
Sublimity

Winema Job and Career Center

4001 Winema Pl. NE, Ste. 200
Salem

Woodburn Job and Career Center

120 E. Lincoln, Ste. 115B
Woodburn



Chemeketa Community College
About Chemeketa



Welcome to Chemeketa

www.chemeketa.edu

Chemeketa is your community college. It is a place where you can accomplish almost any educational goal you have in mind.

You can finish your first two years of college 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 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 can go to school full time to finish a one- or two-year program. You can go part time to take a class or a workshop.

You can attend classes and special events on the Salem Campus or at the college's Dallas Center or Santiam, McMinnville 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 via the Internet.

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

The meaning of Chemeketa

The name Chemeketa is a Kalapuya 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.

Academic Calendar

	Summer 2004	Fall 2004	Winter 2005	Spring 2005
Registration begins	Please check each term's <i>Schedule of Classes</i> for registration information.			
Late registration begins	June 21	September 27	January 3	March 28
Day/evening classes begin	June 21	September 27	January 3	March 28
Last day to register without instructor signature	June 25	October 1	January 7	April 1
Last day to withdraw and receive a refund	July 2	October 8	January 14	April 8
Last day to register or add classes	July 2	October 8	January 14	April 8
Audit requests due	July 19	October 22	January 28	April 22
Graduation applications for next term due	July 19	October 22	January 28	April 22
Holidays	July 5	November 11 November 25-26, December 23-24 and 30-31	January 17	May 30
Winter/Spring Break		December 13-31	March 21-25	
College Closure Days	July 9, 16, 23, 30	September 7 December 20, 21, 22		
Last day to withdraw from classes without responsibility for grades	July 26	November 19	February 25	May 20
Review and final exams	Final exams given during the last class period.	December 6-9	March 14-17	June 6-9
End of term	Eight week: August 14 Ten week: August 28	December 10	March 18	June 10
Graduation GED and High School Completion one-and two-year pro- grams				June 11 June 11

Programs

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 the humanities, communications, sciences and social sciences.

College transfer courses 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 Associate of Arts Oregon transfer degree. See page 43 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 We encourage you to continue to learn throughout your life, and 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 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.



Faculty

Chemeketa has over 250 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.

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.*

Integrity *We provide current, effective educational services of the highest quality. We are responsible guardians of the public trust.*

Collaboration *We invent resourceful and innovative solutions in partnership with others. We respond with optimism and enthusiasm to opportunities for positive change.*

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

History

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

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

Accreditation

The Northwest Commission on Colleges and Universities granted full accreditation to Chemeketa in December 1972. In addition, the Oregon Department of Education has approved all of our professional-technical programs and college transfer courses. Professional associations have also accredited those professional-technical programs which require approval.

For more information on accreditation, contact the office of the Vice President of Academic Services in Building 3 on the Salem Campus at 503-399-5144.

Location

The Chemeketa Community College district covers more than 2,600 square miles in Oregon's Mid-Willamette Valley, including Marion, Polk, most of Yamhill and part of Linn counties.

We consider the entire college district as our campus. Our largest campus is located at 4000 Lancaster Drive N.E., Salem. We also have campuses and centers in Dallas, McMinnville, Sublimity, and Woodburn, including seven Job and Career in Centers located in Marion, Polk and Yamhill counties. We also schedule credit and non-credit classes, workshops, seminars, and special programs in about 25 locations 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.

Facilities

Chemeketa's Salem Campus has 10 major buildings and a number of smaller buildings. Building 2 houses Counseling and Career Services, Enrollment Services, Financial Aid, the Cashier's

Office, Tutoring Services Center, Student Center, Study Skills Center and the Planetarium.

The Learning Resource Center is located in Building 9. It includes the library, which is equipped with computers for research. The Learning Resource Center also includes a television studio, teleconferencing capability, and facilities for audio, graphics and multimedia production.

The Technology Classroom, Building 6, has up-to-date computer labs and an auditorium, where a variety of lectures and performances are scheduled throughout the year.

Our science and health building, Building 8, has modern, well-equipped laboratories for science and health-related programs. Workout and weight rooms, racquetball courts, and a gymnasium are located in the physical education building, Building 7. Other buildings provide modern classrooms, and welding and manufacturing shops. The fire-training building 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 Center or McMinnville, Santiam, and Woodburn campuses have classrooms, up-to-date laboratories and offices.

Admission and Registration

Enrolling at Chemeketa

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.

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 in each term's Schedule of Classes. Before you submit this form, contact Counseling and

Teaching and Learning Values

At Chemeketa Community College, we value teaching that...

- *Creates a learning climate of mutual respect and fairness.*
- *Encourages creative and critical thinking.*
- *Actively engages students in the learning process.*
- *Facilitates learning that applies to and enriches a student's life.*
- *Clarifies expectations and encourages student responsibility for learning.*
- *Promotes learning as a lifelong process.*

The Teaching and Learning Values are a shared responsibility at the college and will be considered in decision and policy-making arenas. We will encourage and promote these values in college programs, courses and activities.

How to enroll at Chemeketa

Student Classification	1. Academic and career decision	2. Placement testing	3. Applying for admission	4. Registration for classes
Enrolling for most Salem Campus classes* **	Contact Counseling and Career Services, Building 2, Salem Campus (optional).	Contact Counseling and Career Services, Building 2, Salem Campus.	Submit Student Record Form with Enrollment Services, Building 2, Salem Campus.	New Students —Register following directions sent by Enrollment Services. Continuing Students —Register via Web/Campus Pipeline or 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 Center or McMinnville, Santiam or Woodburn campuses or contact Counseling and Career Services, Building 2, Salem Campus.	Contact nearest Chemeketa campus.	Submit 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. Continuing Students —Follow procedure above for enrolling on Salem Campus.
Enrolling for Salem evening, weekend, or non-credit classes	Contact Counseling and Career Services, Building 2, Salem Campus (optional).	Contact Counseling and Career Services, Building 2, Salem Campus (optional).	Submit Student Record Form with Enrollment Services, Building 2, Salem Campus.	New Students —Follow procedure above for enrolling on Salem Campus. Continuing Students —Follow procedure above for enrolling on Salem Campus.
Earning a GED or taking English as a Second Language (non-credit)	Contact the Developmental Education Office, Building 22, Salem Campus; or the college's Dallas Center or McMinnville, Santiam or Woodburn campuses.	GED: Contact the Developmental Education Office, Building 22. ESL: Contact the Developmental Education Office, Building 22, Salem Campus.	Submit Student Record Form with Enrollment Services, Building 2, Salem Campus. Students 16 to 18 must have an Underage Consent Form.	Consult quarterly <i>Schedule of Classes</i> . Students must attend a program orientation before registering for classes.
Earning a high school diploma	Contact the Adult High School Completion Office, Building 50, Room 154, Salem Campus; or the college's Dallas Center or McMinnville, Santiam or Woodburn campuses (optional). During summer, contact the Developmental Education Office, Building 22.	Contact Counseling and Career Services, Building 2, Salem Campus.	Submit high school transcript to Building 50, Room 154, Salem Campus. Submit Student Record Form with Enrollment Services, Building 2, Salem Campus. Students 16 to 18 must have an Underage Consent Form.	Follow directions sent by Enrollment Services before registration.
*These programs have prerequisites and require assessment before admission. Contact Counseling and Career Services at 503-399-5120 for assessment.				
Accounting Automotive Technology Business Technology Civil Engineering Technology Computer Programming Criminal Justice	Dental Assisting Drafting Technology—CAD Early Childhood Education Education Certificate Electronics Technologies	Forest Resources Technology Health Services Management Medical Transcription Hospitality and Tourism Management	Human Services Integrated Circuit Mask Design Management Medical Office Assisting	Network Technology Visual Communications Vineyard Management Vineyard Operations Winemaking
**These programs have special admission requirements or enrollment limits. Contact Enrollment Services at 503-399-5006 for details.				
Building Inspection	Emergency Medical Technology	Fire Suppression	Network Technology	Nursing (RN, LPN, Nursing Assisting, re-entry course)



Career 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 can also meet with a counselor at Chemeketa's Dallas Center or McMinnville, Santiam and Woodburn campuses.

Students younger than 18 who do not have a high school diploma or GED certificate should contact the Enrollment Services (Admissions) Office in Building 2 on the Salem Campus.

Placement tests

503-399-6556

If you are a new student pursuing a degree or certificate, you will be asked 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 so you can select the entry-level classes that are right for you. Under certain conditions, you may be granted a test waiver.

Information about tests and test waivers may be obtained from Counseling and Career Services in Building 2 on the Salem Campus or from Chemeketa's Dallas Center or McMinnville, Santiam and Woodburn campuses.

Registration information

503-399-5120

For information about registration, students can call 503-399-5120 or drop by Counseling and Career Services in Building 2 or go to any of the Outreach Campuses.

Tours of campus

503-399-3995

Tours of campus are conducted by the Chemeketa Student Ambassadors of the Student Life Office, Building 2. 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 Business Services in Building 2.

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 by Title 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 (ORS 659); 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 employment 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 the Affirmative Action Officer, P.O. Box 14007, Salem, Oregon 97309, 503-399-5009.

Student e-mail accounts

503-399-7899

When you register for classes at Chemeketa, you automatically get a free student e-mail account through Campus Pipeline. With your e-mail account you can receive notification about your grades and other information. You can also use your e-mail account for personal correspondence. After you finish at Chemeketa, you can even take your e-mail account with you.

Accessing class materials online

503-399-7750

Chemeketa classes are taking advantage of computers and the Internet to give you new ways to learn and access information. Class material – such as lecture notes, tests and syllabi – may be available to you via the Internet. Sometimes that will be the only means for you to access these materials. It's more common, too, to be asked to do research on the Internet for your classes or to take a test online.

If you don't have a computer or access to the Internet in your home, you can use Chemeketa's computer lab or library on the Salem campus. The only cost to you is for the copies you may want to print out.

Class loads

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 schedule changes, access Web registration at <http://pipeline.chemeketa.edu>, call the touch-tone registration system 503-399-6262 or complete a Schedule Change (add/drop) Form. Forms are available in the Enrollment Center, staff offices and Counseling and Career Services. We recommend the changes be approved by an academic advisor or counselor. 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 professional-technical programs which limit enrollment or have special admission requirements:

Accounting
Aquarium Science
Automotive Technology
Building Inspection Technology
Business Technology
Civil Engineering Technology
Computer Programming
Criminal Justice
Dental Assisting
Drafting Technology—CAD
Early Childhood Education
Education Certificate
Electronics Technologies
Emergency Medical Technology—Paramedic
Fire Protection Technology
Health Services Management
Hospitality and Tourism Management
Human Services
Integrated Circuit Mask Design
Management
Network Technology
Nursing (Nursing Assisting, Practical Nursing, Associate Degree Nursing and re-entry courses)
Professional-Technical Teacher Preparation
Vineyard Management
Visual Communications
Winemaking

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.

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 (ORS 659); 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 criterio: 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, P.O. Box 14007, Salem, Oregon 97309-7070, 503-399-8677.

Many of Chemeketa's professional-technical 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 and Career 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, human services, 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

503-399-5006

You may transfer credits from other colleges you have attended by requesting they send an official copy of your transcript to our Enrollment Services (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 Enrollment Services 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 college-level 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 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 Enrollment Services (Admissions)

Credit Class Tuition			
Does not include \$4 per credit universal fee.			
Number of credits	Oregon students	Out of state students	International students*
1	\$56	\$192	\$192
2	112	384	384
3	168	576	576
4	224	768	768
5	280	960	960
6	336	1,152	1,152
7	392	1,344	1,344
8	448	1,536	1,536
9	504	1,728	1,728
10	560	1,920	1,920
11	616	2,112	2,112
12	672	2,304	2,304
13	728	2,496	2,496
14	784	2,683	2,683
15	840	2,880	2,880
16	896	3,072	3,072
17	952	3,264	3,264
18	1,008	3,456	3,456
Over 18 hours: Multiply the number of credit hours by the cost given for one credit hour.			
*International students attending on an F1 visa will be charged a non-refundable service fee of \$265 per term. International students attending on other visa types will be charged a non-refundable service fee of \$75 per term.			

Office. Then contact the Enrollment Services Office and request, in writing, an evaluation of your transcripts and scores. For more CLEP and Advanced Placement (AP) information, see page 20.

Chemeketa also accepts some credits from the military and the Community College of the Air Force. Contact the Enrollment Services 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.

The Chemeketa Creed

The Chemeketa Creed is part of the Student Rights and Responsibilities Document which can be found on pages 188 and 189 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 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.
- 2.2 Maintain standards of academic performance and contribute to the safe, cooperative and respectful learning environment throughout the college.

International students

503-399-2527; Fax 503-399-3918

e-mail: international@chemeketa.edu

An average of about 200 international students attend Chemeketa each year representing a variety of cultures and ethnicities. They come from more than 20 different countries. International students may enroll in any of our professional-technical programs or college transfer programs, or attend intensive English language training.

Chemeketa offers an outstanding range of services and activities to help international students get started and to succeed. These services are offered through the International Student Services. Some of these services include: an orientation program, conversation partners, drop-in advising, volunteer opportunities, housing assistance, writing center, academic tutoring and clubs. Chemeketa also offers an intensive English program.

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 Bureau of Citizenship and Immigration Service (BCIS) and to the college. Chemeketa has special application materials and deadlines for international students. Because there are new federal rules and regulations in place for international students, we suggest you apply as early as possible.

For more information or to answer your questions on admissions please contact International Student Admissions listed above.

Re-admission

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.



Money Matters

Tuition

503-399-5011

Tuition and fees are due after you register. Late payment fees will be charged. Please refer to the current term Schedule of Classes for additional information.

Credit courses

Use the chart on page 8 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 121.

Non-credit courses

The cost of most non-credit courses is \$4 per class hour with a \$10 minimum charge, or as stated in the term Schedule of Classes.

The term Schedule of Classes lists any charges for adult basic education, General Educational Development (GED), and non-credit English as a second language classes. There is a \$95 fee to take the GED test.

- 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.

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.

Universal fee

A Universal Fee, applies to both credit and non-credit classes. The fee is \$4 per credit for credit classes and 30 cents per hour for non-credit classes.

Distance Education, Online fees

A distance education or online fee applies to credit courses. The telecourse fee is \$35, the online fee is \$50 and the online/tele-course fee is \$50 per course.

Oregon residency

You are considered an Oregon student if you have established a permanent residence within the state at least 90 days prior to the term you begin. The college may ask you to provide information proving you meet the residence requirement.

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 for tuition purposes for 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, Room 200 before the end of the fourth week of the term.

Refund policy

When you register for a class, you agree to pay for it whether or not you attend.

If the college cancels a class, you will get a full refund of tuition and fees.

If you decide to drop a class, you may do so by accessing Web registration at <http://pipeline.chemeketa.edu>, by touchtone registration, 503-399-6262, or by submitting a schedule change (add/drop) form to the Enrollment Center, Building 2 Salem



Campus or your nearest Chemeketa Outreach campus during regular business hours. If you drop a class that meets for the entire term (full term class) within the first two weeks of the term, you will receive a refund of tuition and fees as long as you have no outstanding debts. Less than full term classes have a shorter refund period.

You will not receive a refund or credit toward another class for any classes dropped after the end of the refund period. Refunds for classes paid by Visa or Mastercard will be credited back to the credit card. Refunds are not issued for amounts under \$5, unless requested. Changes in the number of hours for which you are registered may affect your financial aid, agency or veteran's benefits.

See information under Withdrawal from College, page 19.

Other costs and fees

503-399-5011

The cost of books and supplies for full-time students is about \$375 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 56 to 116.

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.

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 necessary 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.

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 Enrollment Center 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 prior to time of registration. International students should contact the International Admissions Office at 503-399-2527 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. This initiates 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, VA requires all previous credit to be evaluated and reported. Please arrange to have transcripts of your credits sent to the Enrollment Services Office and request an evaluation.

Policy of satisfactory progress: In accordance with a Veterans Administration directive, if you receive veterans' educational benefits, 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. GPA is based on A=4, B=3, C=2, D=1, 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 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' Office 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 non-citizen.
- Be registered with Selective Service if you are a male born after December 31, 1959. (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, non-credit or challenge 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 35 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 35 or 33, you may not be eligible for financial aid. However, you may be eligible to retake the placement test. Contact the Counseling and Career Services.

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 12 and 13.

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.
- 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.
- If you are a male over 18 years of age and born after December 31, 1959, 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 be in an eligible degree or certificate program.
- You must enroll for at least six credit hours each term.
- You must maintain satisfactory academic progress.

Program and source of funding	Eligibility requirements	Available amounts	Special information
Grants and scholarships			
Federal Pell Grant	<ul style="list-style-type: none"> • You must not have a bachelor's degree. 	<ul style="list-style-type: none"> • Amounts are based on federal funding. • The estimated highest award at Chemeketa for 2004-2005 is \$4,050. 	<ul style="list-style-type: none"> • Pell Grant will send you a Student Aid Report (SAR) indicating your eligibility. • Eligibility may be transferred to any post-secondary school participating in federal programs.
Federal Supplemental Educational Opportunity Grant (SEOG)	<ul style="list-style-type: none"> • You must prove an exceptional financial need. • You must not have a bachelor's degree. 	<ul style="list-style-type: none"> • Amounts range from \$450 to \$2,000 a year. • The estimated highest award at Chemeketa for 2004-2005 is \$450. 	<ul style="list-style-type: none"> • The Financial Aid Office will determine and then notify you of your eligibility.
Oregon Opportunity Grant (funded by the state of Oregon and the federal government)	<ul style="list-style-type: none"> • You must enroll full-time (12 credit hours or more). • You must be an Oregon resident. • You must also apply for a Pell Grant. • You must not have a bachelor's degree. • You must attend a college in Oregon. 	<ul style="list-style-type: none"> • Amounts are based on state funding. • The award at Chemeketa for 2004-2005 is at least \$1,257. 	<ul style="list-style-type: none"> • Your grant may be transferred to other Oregon colleges and universities. • Your grant may be awarded for up to 12 quarters (terms) or for eight semesters. • You must not be enrolled in a program leading to a degree in theology, divinity, or religious education.
Talent Grants (funded by Chemeketa Community College)	<ul style="list-style-type: none"> • You must show outstanding ability and achievement in selected fields. • You must enroll full-time (12 credit hours or more). 	<ul style="list-style-type: none"> • Amounts vary up to the cost of tuition. 	<ul style="list-style-type: none"> • No FAFSA is required. • Contact an instructor or coach directly associated with your skills or ask at the Financial Aid Office.
Scholarships (funded by private donors)	<ul style="list-style-type: none"> • Determined by donor. 	<ul style="list-style-type: none"> • Determined by donor. 	<ul style="list-style-type: none"> • Scholarship information is posted in the Financial Aid Office throughout the year. Many postings are made in winter and spring terms for the next academic year.
Work			
Federal Work Study Program		<ul style="list-style-type: none"> • Amounts vary according to your financial need. • Funds usually are not more than \$850 a term or \$2,550 a year. • Jobs pay minimum wage or higher. 	<ul style="list-style-type: none"> • Jobs are available both on and off campus. • You must complete the employment procedure in Job Placement.
Chemeketa part-time employment (funded by Chemeketa Community College)	<ul style="list-style-type: none"> • You must enroll in six credit hours or more. 	<ul style="list-style-type: none"> • Pay varies according to the job. • Jobs pay minimum wage or higher. • Pay varies according to the job. • Jobs pay minimum wage or higher. 	<ul style="list-style-type: none"> • No FAFSA is required. • Contact the Human Resources Dept.
Part-time jobs (funded by private businesses)	<ul style="list-style-type: none"> • You must be willing to work. • You must meet the qualifications of the employer. 	<ul style="list-style-type: none"> • Pay varies according to the job. • The average wage for 2004-2005 was \$8.20 an hour. 	<ul style="list-style-type: none"> • No FAFSA is required. • Apply at the Job Placement Center in Building 2 on the Salem Campus.

Programs and source of funding	Eligibility requirements	Available amounts	Special information
Loans			
Federal Perkins Student Loan Program (FPSL)	<ul style="list-style-type: none"> • You may borrow up to \$2,250 in an academic year. • The highest award at Chemeketa for 2004-2005 is \$2,250. • Priority will be given to second-year students. 	<ul style="list-style-type: none"> • 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 complete entrance counseling online 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. • First time borrowers must attend class for 30 days before the first check is issued. 	<ul style="list-style-type: none"> • 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 complete entrance counseling online 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. • First time borrowers must attend class for 30 days before the first check is issued.
Federal Subsidized Stafford Loan (funded by commercial lenders with state or other agency guarantee and interest subsidy from the federal government)	<ul style="list-style-type: none"> • School has the right to deny loan certification and/or limit amount borrowed. 	<ul style="list-style-type: none"> • You may borrow up to \$2,625 to complete the first year of a program of undergraduate education. • After completing your first year of undergraduate education, you may borrow up to \$3,500 to complete the remainder of a program of undergraduate study. 	<ul style="list-style-type: none"> • Pick up the separate Stafford information packet at the Financial Aid Office. • Required fees will be deducted from your check. • You must begin payment six months after you drop your enrollment to less than six credit hours. • You may defer payment if you continue half-time or full-time study. Contact the Financial Aid Office for other possible deferments. • You must attend an entrance and an exit interview. • The variable interest rate is capped at 8.25 percent. • The federal government pays the interest while you are enrolled in an approved program. • First-time borrowers must attend class for 30 days before the first check is issued.
Federal Unsubsidized Stafford Loan (Provides for insured loans for borrowers who do not qualify for federally subsidized Stafford Loans. Terms and conditions for subsidized Stafford Loans apply to unsubsidized Stafford Loans.)	<ul style="list-style-type: none"> • School has the right to deny loan certification and/or limit amount borrowed. 	<ul style="list-style-type: none"> • You may borrow the cost of attendance minus the amount of estimated financial assistance, up to annual loan limits. • Students who show need for only part of the annual subsidized Stafford Loan limit may borrow the remainder through unsubsidized loans. 	<ul style="list-style-type: none"> • Repayment of principal begins six months after the month in which you cease to be enrolled at least half-time. • Interest during in-school, grace and deferment periods may be paid monthly or quarterly, or may be added to the principal amount of the loan not more frequently than quarterly by the lender.
Federal "PLUS" program (funded by commercial lenders with state or other agency guarantee)	<ul style="list-style-type: none"> • Some lenders will not loan money for students who are not enrolled full-time. • Lenders will perform credit checks and may deny loan certification based on adverse credit. 	<ul style="list-style-type: none"> • Parents may borrow up to the cost of attendance minus the amount of estimated financial assistance. 	<ul style="list-style-type: none"> • Only mothers, fathers, adoptive parents or legal guardians may borrow for dependents. • Pick up the PLUS information packet at the Financial Aid Office. • Take the completed loan application to a lending agency such as a bank or savings and loan association. • Pay the required fees. • Variable interest rate may not exceed 9 percent. • Lenders loan their own funds • Payment begins 60 days after the date funds are disbursed.

How to apply

Follow these steps to apply for financial aid:

- You may apply for financial aid online at www.fafsa.ed.gov after applying and receiving a PIN number. Chemeketa's federal school code is 003218.
- 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 Center or 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 and Career Services on the Salem Campus or Chemeketa's Dallas Center or McMinnville, Santiam, or Woodburn campuses for details.
- Apply for admission to Chemeketa.

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 2 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 Opportunity 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 campus-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 cumulative 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.
- Less than half-time students; complete all credits.

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-hours and 2.0 GPA requirements, the Financial Aid Office reviews your progress and may either stop your aid or place you on

Questions? Call for information.

Salem Campus Welcome Center 503-399-5120

Chemeketa's Welcome Center is located in Counseling and Career Services on the first floor of Building 2 on the Salem Campus. Staff will answer your questions about room locations, activities, workshops, meetings, academic advisor assignments and instructional staff office locations. The Welcome Center also distributes Schedule of Classes and catalogs.

Other Locations:

- **Dallas Area**
503-623-5567 or 503-399-5206
- **McMinnville Area**
503-472-9482 or 503-399-5219
- **Salem Keizer Area**
503-399-5135
- **Santiam Area**
503-769-7738 or 503-399-5215
- **Woodburn Area**
503-981-8820 or 503-399-5207
- **Training and Economic Development Center (TED)**
503-399-5181



warning 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 denied must file an appeal. If reinstated, you may be placed on warning.

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 and all transfer credits 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 10 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, 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 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 official 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 Satisfactory Academic Progress 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.

Academic Information

Student records and transcripts

503-399-5001, e-mail: registrar@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.

Transcripts of Chemeketa credit courses are kept permanently. You may obtain an official transcript from the Enrollment Center in Building 2, Room 200 by submitting a written request with the appropriate fee. Access Pipeline at <http://pipeline.chemeketa.edu> for an unofficial transcript. 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 589-004-0400 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 Department of Community Colleges and Workforce Development, and the Oregon Community College Assoc. 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 to 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 continue with their education and to find out whether community college courses are a good basis for further education;
- The Oregon Employment Department, which gathers information, including employment and earnings, to help state and local agencies plan education and training services to help Oregon citizens get the best jobs available;
- The Oregon Department of Education, to provide reports to local, state and federal governments. The information is used to learn about education, training, and job market trends for planning, research and program improvement.
- 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 Service, if you take the Asset placement test, for educational research purposes.

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

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 Enrollment Center in Building 2, Room 200.

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

The responsibility for evaluating student performance and for assigning grades rests with the instructor.

The responsibility for demonstrating competency within the framework of a course's outcomes and criteria rests with the student.

Students have the right to know how and on what basis their performance is being evaluated.

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

Grade/Points

- A/4 Excellent.** An indication that the student has met the stated outcomes and course criteria at the highest level, demonstrating mastery of required knowledge and skills.
- B/3 Very Capable.** An indication that the student has met the stated outcomes and course criteria at a high level, demonstrating mastery of most required knowledge and skills.
- C/2 Competent.** An indication that the student has met the stated outcomes and course criteria but with sufficient mastery of enough of the required knowledge and skills to be capable of success in other courses that require this course as a prerequisite.
- D/1 Limited success.** An indication that the student has only minimally met the stated outcomes and criteria of the course but may not have sufficient mastery of enough of the required knowledge and skills to be capable of success in other courses that require this course as a prerequisite.
- F/0 Failure.** An indication that the student has not adequately met the stated outcomes and criteria of the course.
- I/0 Incomplete.** An indication that the quality of work is satisfactory, but some essential requirement of the course has not been completed, and additional time is granted for completion of coursework. An "I" does not entitle a student to satisfy a prerequisite requirement for another course.
- N/0 No Grade Assigned.** The "N" grade is used when student participation in the course is minimal and does not warrant a grade. It may be used when the student's name is still on the final grade report and no other grade is possible. An "N" grade may not be assigned as a withdrawal or substitute for a failing grade.
- P/0 Pass. Acceptable Performance.** A grade of "P" represents satisfactory achievement which would have been graded "C" or better on the regular grading scale, but is given

instead of a letter grade. A maximum of 8 "P" credits are allowed toward a one-year certificate. A maximum of 16 "P" credits are allowed toward an associate's degree.

NP/0 No Pass. Unacceptable Performance. Does not satisfy requirements for entry into courses where prerequisites are specified.

PL/0 Pass. This grade is used to indicate satisfactory achievement of course outcomes and criteria for Credit for Prior Learning and Credit for Prior Certification.

The student's grade point average is computed by dividing the total credit hours (except I, N, P, NP, and PL) into the total points earned.

The following marks may appear on a student's transcript and are assigned by Enrollment Services:

Mark Meaning

- X Audit.** This mark is used when a student participates in the class but does not wish to receive a grade or credit for the course.
- R Course Repeated.** The "R" mark is used upon student request when a course taken at Chemeketa has been repeated and the student receives a higher grade in the repeated course. If a course is repeated more than once, only the original grade can be changed to an "R". This mark cannot be used to change "N" or "I" grades.
- M Missing Grade.** This mark appears when an instructor neglects to enter a grade for the course. Students receiving an "M" should contact the instructor as soon as possible so that a grade change form can be submitted to Enrollment Services to correct the omitted grade.

Incomplete

You may remove an "Incomplete" from your record by completing course requirements. 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.

Pass/No pass

A pass (P) grade indicates satisfactory completion of the course (equivalent to a C or better). A no pass (NP) grade means the course was not satisfactorily completed and no credit was granted. Some courses offer the option to choose between P/NP and a letter grade and some courses may be taken for a letter grade only. A pass grade satisfies the prerequisite of C or better required for entry into some courses. Each student is limited to receiving no more than 16 P/NP credits for an associate's degree, and 8 P/NP for a Certificate. Transfer students should be aware that four-year institutions limit the number of P/NP credits that may be applied to a degree. If you'd like to be graded P/NP, and the course qualifies, you must complete the P/NP Request Form, obtain your instructor's approval by way of his/her signature and

submit the request form to the Enrollment Center by the end of the fourth week of the term. P/NP grades cannot be changed back to a standard letter grade.

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, Room 200 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. If the original grade is an N or I, it may not be changed no matter how many times you repeat the 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 2, Room 200 before making such a request.

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 10.

Transfer credit and prior learning

Transfer credit and prior learning accepted by Chemeketa Community College is transcribed under the heading Transfer Credit and Other Chemeketa Credit on your official transcript. The number of hours accepted from other institutions is recorded, however, the grades are not included in the GPA.

PL	Prior Learning.....	0.0
T	Transfer C or better.....	0.0
TD	Transfer D.....	0.0

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.

P	Pass.....	0.0
U	Unsatisfactory.....	0.0
N	No Grade.....	0.0
I	Incomplete.....	0.0

Academic recognition

Chemeketa recognizes outstanding academic performance by placing students on one of three lists. **Honor Roll** recognizes students who earn a term grade point average of at least 3.00 while completing six or more credit hours. **The Dean's List** recognizes students who earn a term grade point average between 3.50 and 3.99 while completing twelve or more credit hours. **The President's List** recognizes students who earn a perfect 4.00 grade point average while completing twelve or more credit hours. Students who qualify for academic recognition receive e-mail notification of their honor and may choose to download documents which commemorate their achievement. Academic recognition lists are also provided to newspapers in Chemeketa's district.

Academic progress/review program

503-399-5076

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

Students check list

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

- taken mathematics, reading and writing placement tests? Contact Counseling and Career Services, Salem Campus, Building 2, 503-399-5120.
- submitted a Student Record Form? Contact the Enrollment Center, Salem Campus, Building 2, Room 200, 503-399-5006.
- 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 of:

- tuition and fees?
 - special tools, equipment, uniforms, etc. required by your program?
- These costs are listed in this catalog in the description of your professional-technical program.*

3. Have you arranged for:

- transportation?
- child care?

4. Have you asked about financial aid?

Contact the Financial Aid Office, Salem Campus, Building 2, 503-399-5018, or Chemeketa's Dallas Center or McMinnville, Santiam or Woodburn campuses.

5. Have you checked on your eligibility for Veterans Administration educational benefits?

Contact the Veteran's Office, Salem Campus, Building 2, Room 200, 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 online at www.chemeketa.edu, at Counseling and Career Services, Salem Campus, Building 2, at the Chemeketa campus in your community, or by calling 503-399-5006.

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
- 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.

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.

Withdrawal from college

503-399-5001

If you decide to withdraw from Chemeketa, you may do so using the touch-tone or Web registration systems or you may obtain a Student Schedule Change (add-drop) Form from the Enrollment Center, Counseling and Career Services, or Chemeketa's Dallas Center or 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 or Web registration systems 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 department 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, unless requested. The college cannot refund the cost of student insurance or the International Student Service fee.

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 and Career 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 and Career Services to determine which examinations and scores Chemeketa accepts. If you wish to take a CLEP examination, schedule a testing time through testing services in Counseling and Career Services.

Credit by examination

503-399-6556

Another way to earn credit for some courses is to demonstrate your college-level 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 successfully-completed exams once the student pays for the course.

Contact Counseling and Career 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.

For more information, contact your academic advisor or Counseling and Career Services.

Distance education

503-399-7873

You can earn an Associate of Arts degree or an Associate of General Studies degree and Associate of Applied Science degrees in Fire Suppression and Fire Prevention (except for the chemistry and physical science requirements) and Hospitality and Tourism Management through a combination of distance education courses. You can also earn a Business Software Certificate or a Computer Assisted Drafting (CAD) certificate. Students may be required to attend some class meetings on the Salem Campus.

Listings, registration procedures, and information about distance education courses are available on the college Web site www.chemeketa.edu/exploring/studies/distance.html or online.chemeketa.edu and are published each term in the *Schedule of Classes*.

Telecourses allow you to earn college credits at home. Assignments are based on televised lectures. You may view the broadcasts on your own television 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 Center or McMinnville, Santiam, or Woodburn campuses. Videos for most courses are available by rental. Chemeketa charges a fee of \$35 per telecourse in addition to college tuition and fees. Telecourses may require online access.

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

Online courses allow you to take classes at your convenience. You'll need access to a computer with modem, Web browser, and an active 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 \$50 per course in addition to college tuition and fees. Contact Chemeketa Online at 503-399-7873.

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.

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.

Study abroad

Chemeketa Community College provides opportunities to study abroad while earning CCC transfer credits. Courses are taught by CCC and other Oregon faculty, as well as regional faculty. For specific offerings, consult the CCC schedule of classes.

Current programs include:

- Fall Quarter in Florence, Italy – Students experience Italian life and culture while living and studying in Florence, the heart of Tuscany. The program offers an unparalleled opportunity for students of art, history and literature to explore museums, churches and culture.
- Spring Quarter in London – Students experience British life and culture by living and studying in the heart of central London. Students bring a more global perspective to the home campus after experiencing the London study program.

For questions about Study Abroad, contact Maureen McGlynn, 503-399-6145.

Student Development Services

Tutoring services

503-399-5190

Tutoring is available in most subject areas to all registered Chemeketa students taking credit classes. Visit the Tutoring Center upstairs in Building 2, on the Salem Campus. Tutoring is also available online via e-mail or WebBoard at our Web site: programs.chemeketa.edu/tutoring. A current student ID card is required to use these services. Only limited tutoring is available the first week of the term and during finals week.

Literacy volunteer program

503-399-2557

Volunteers offer basic-skills and English as a Second Language tutoring on a one-to-one basis in Salem and throughout the Chemeketa district. Contact the literacy volunteer program coordinator in Building 17.

Study Skills program

503-399-5162

To improve the academic skills students need for success in college, the Study Skills Program offers individualized, lecture and online classes. A Study Skills faculty member is available to consult with students and instructors on course-specific learning strategies including taking tests, controlling test anxiety and managing time. 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 (ESL)

503-399-6298

The mission of the ESL/ENL Program at Chemeketa Community College is to provide high-quality, rigorous instruction to adults who need to gain or improve their English proficiency to attain their goals of employment, advancement in employment, or transition to post-secondary education or training. Instruction



in the Chemeketa ESL program is in English and is provided by qualified professionals using variety of language teaching techniques. The program collaborates with community partners throughout the Chemeketa Community College district to provide language services for limited English speakers.

Services on the Salem Campus include:

Counseling and Career 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 Program—Building 16, 503-399-2557.

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, non-specific 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.



Counseling, tutoring, and English as a Second Language classes are also available at Chemeketa's Dallas Center or McMinnville, Santiam and Woodburn campuses.

Chemeketa Language and Culture Institute

503-315-4290

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) and High School Completion

For students who have not completed high school, Chemeketa offers Adult Basic Education, General Educational Development (GED) and High School Diploma classes. See page 37 for more information.

Single parent – displaced homemaker

Life and Work Transitions Program 503-399-6554

The Life and Work Transitions Program (formally, "Life Skills") is part of a statewide network of Transitions Programs sponsored by 14 community colleges in Oregon. The Chemeketa program offers a six-credit course for single parents and displaced homemakers who desire assistance in over-coming personal barriers to education and employment. The course is provided tuition-free to qualifying adults. Support services such as child care and transportation costs are available to low-income students to enable them to participate in the program. See also page 158 (HD220/221, Life Skills Seminars 1 & 2).

Workplace Skills Center 503-390-3921

The Workplace Skills Center is a pilot project jointly sponsored by the Winema Job and Career Center and Chemeketa's New Workforce Department. The Workplace Skills Center is located on the Salem Campus in Building 20 and is open to the public free of charge, from 8:30 a.m.–noon, Monday through Friday. The Center offers self-paced computerized tutorials for Word XP, Excel XP, Access XP, Key Train, and Mavis Beacon Teaches Typing. A Certificate of Achievement is available upon successful completion of each tutorial.

Transitions Resource Center

503-399-3920

The New Workforce Transitions Resource Center is located on the Salem Campus in Building 20. The Center offers a supportive environment for re-entry adults to meet and study. Books and other media are available on personal development, career exploration and women's issues. Information and referral to community resources are also available. Brief workshops on career and personal topics of interest to adults in transition are offered in the Resource Center free of charge.

Services for Students with Disabilities

503-399-5192 voice/TTY

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 Center or McMinnville, Santiam and Woodburn campuses are designed to provide access for students with physical disabilities. Parking spaces are reserved for persons with DMV disability parking placards.

If you have a documented disability, including learning, psychiatric, sensory, orthopedic or otherwise, please know that support services are available for you. 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 disability related accommodations for classes or college events, contact the SSD office at least two weeks in advance.

The TRIO Disabilities Student Support Services Program (DSSS) provides additional support in individual tutoring, scholarships, mentoring and books/equipment loans, etc. for students with disabilities who qualify. Contact 503-399-5192 for information.

Services for students who are Deaf or hard of hearing

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

Chemeketa offers services and provides accommodations if you are Deaf or hard of hearing. These include counseling, interpreting, and FM loop systems.

Trio Projects

503-315-4293

Chemeketa currently operates four Trio programs. Each program is designed to provide support for low-income, first-generation students wanting to pursue higher education.

Student Support Services offers academic support, advising, transfer information and college visits to students planning to transfer to a four-year college or university. Students may earn six college credits through program sponsored classes and are eligible to borrow textbooks at no cost. Talent Search provides students in sixth through twelfth grade an opportunity to explore the benefits of a college education. Chemeketa students can participate in the program by being a mentor for a student in the program. Mentors develop goals and plan for their academic future. Upward Bound is a college preparatory program for high school students. The program provides services year-round such as tutoring, after-school activities and Saturday workshops. During the summer, the program provides a six-week academy where students earn high school credits. See Services for Students with Disabilities for Disabled Support Service Program (DSSS).

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 first-year scholarships and academic and personal support for students planning to transfer to a four-year college or university. For information about CAMP call 503-589-7778.

High School Equivalency Program (HEP), located on the main campus in Salem, Building 16, 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 503-589-7725.

Writing Center

503-399-7179

<http://newterra.chemeketa.edu/faculty/cwc/cwc>

If you need writing assistance, help is available in the college Writing Center where you may consult with writing instructors or use the computers. 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.

Student Services

Library Services

503-399-5043

<http://newterra.chemeketa.edu/library/>

The library is located on the second floor of Building 9. 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 library houses an art collection, a small collection of materials in Spanish, children's books, "easy readers" and periodical stacks that you can browse.

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 29), the library also allows people with a valid CCRLS card to borrow materials.

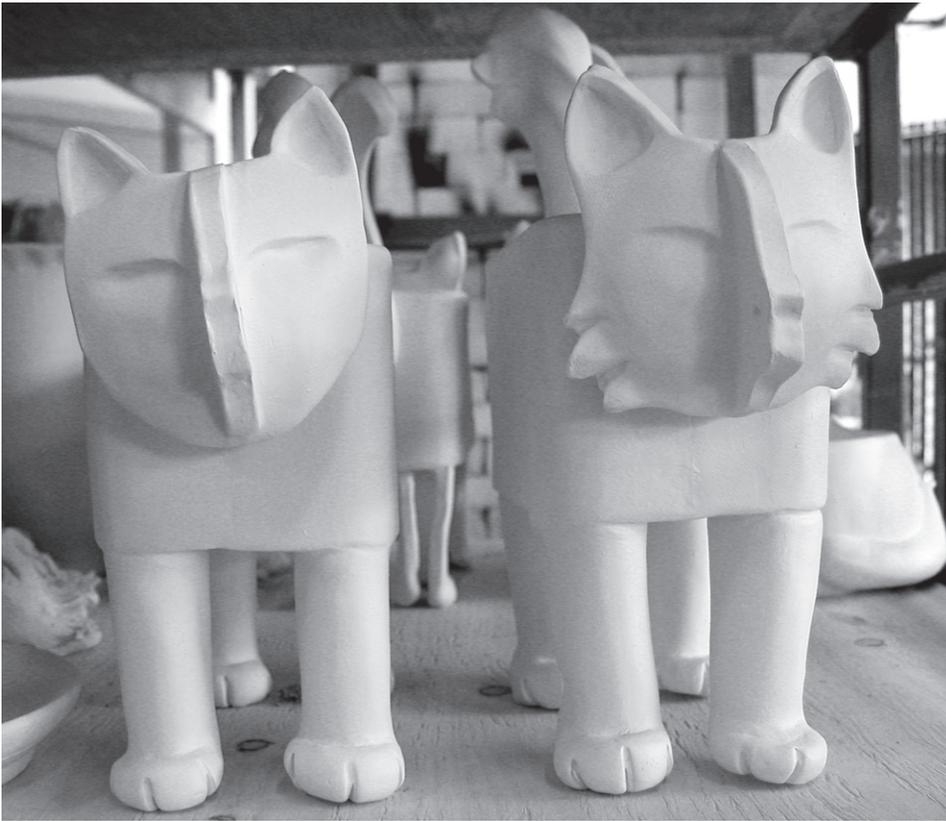
Bookstore

503-399-5131

bookstore.chemeketa.edu

You may purchase books and supplies at the college Bookstore in Building 1 on the Salem Campus. Textbooks also are available at the beginning of each term at our Dallas Center or Santiam, Woodburn and McMinnville campuses. The cost of books is included in the description of each professional-technical program.

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.

Regular Bookstore hours—7:30 a.m.–4:30 p.m., Monday–Friday. We have extended hours the first two weeks of Fall, Winter and Spring terms.

Book Exchange

503-399-5117

The Book Exchange is a non-profit service, run by Student Life, 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.

Student Life receives books during finals week of fall term and winter term and sells books during the first week of winter term and spring term. The Book Exchange is held in Bldg. 2, Rm. 174G, Student Center. For more information, contact the Student Life Office.

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. ID cards will not be issued during final exam weeks or between terms. Lost or stolen cards can be replaced for a small fee.

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 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 park a vehicle on the Salem campus from 8 a.m.–10 p.m., Monday through Friday, the college requires a parking permit on the vehicle. Permits are available at the Enrollment Center, Bookstore, Convenience Store and the Public Safety Office. Students and staff can purchase an annual parking permit – fall term through summer term – for \$25. After initial purchase on an annual permit, additional annual permits may be purchased for a reduced fee of \$5 for any vehicle registered to the original annual permit purchaser. Individual term permits may be purchased for \$10. Permits are assigned to a vehicle and must be attached to the exterior of the vehicle, either on the rear bumper or rear window. Visitors may obtain free parking permits at the Information Booth or Public Safety Office. Employees of the college and students are not allowed to use visitor permits.

Along with the permit, you will receive a copy of Chemeketa's Traffic Code. The college expects employees and students to know and follow the rules for operating and parking a vehicle on campus.

The college suggests you lock your car at all times when on campus, and not leave personal effects of value in plain view inside your vehicle. More information about campus safety is contained in an annual report available from the Public Safety Office.

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

Food Central, Building 2, 503-399-5180. Open Monday through Friday. Seven station food court featuring Wraps, Grill, Grab -n- Go, Soup Express, Hot Entrees, Salad Toss and a Pastry/Dessert Station.

Food Court Espresso, Building 2. Espresso, gourmet coffees, pastries and smoothies.

Summit Subs and Barrel Head Pizza, Building 2, 503-399-5180. Sub sandwiches made to order and great pizza.

Crossroads Café, Building 4. Monday through Friday. Espresso, gourmet coffees, pastries, soup, sandwiches and salads.

Blue Moon Café, MaPS Building 48, 503-399-8005. A sit down diner serving gourmet burgers, salads, blue plate specials and great ice cream shakes.

Catering, NW Hospitality Services, 503-399-3906. On campus delivery, coffee services, lunches and dinners.

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 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.

Child care

Chemeketa offers one child care program on the Salem Campus. The program is 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.

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 2.

Lost and found

503-399-5023

Lost and found items are kept in the Public Safety Department. If you have lost or found an item, please check with this office.

Local bus service to the Salem campus is available through the Cherriots. Carts and Wheels provides transportation to the campus from Woodburn, Silverton and Dallas.

For more information on all routes and schedules, contact the Salem Area Transit Information Office at 503-588-BUSS (TTY for hearing impaired: 503-370-8691) or visit their Web site: www.cherriots.org.

Information about Carts and Wheels bus service is available by calling 503-585-5187 (TTY 503-364-7869)

Cherriot bus passes are available for purchase at the Bookstore in Bldg. 1. Cherriot bus schedules are available in the lobby of Bldg. 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 for more information.

Counseling and Career Services

Counseling Services

503-399-5120

If you are interested in educational, vocational or personal counseling, contact our Counseling and Career Services Center in Building 2 on the Salem Campus. Counselors and advisors are available by walk-in or by appointment. Chemeketa's Dallas Center, McMinnville, Santiam and Woodburn campuses also provide counseling by appointment. Counseling and Career Services are available to both current and prospective students.

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, walk in during open hours. Call Counseling and Career Services for current hours of operation.

Career planning classes

Career planning classes 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 and Career Services for a current schedule of career planning classes.

Career Resource Center

Counseling and Career 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 and Career Services.

SKILLS program

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 assisted by 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, please see a counselor in Counseling and Career Services.

If you attend only evening classes or are a part-time student, we encourage you to visit Counseling and Career Services periodically for academic advising. You may also consult with a counselor at our Dallas Center or McMinnville, Santiam, or Woodburn campuses.

Job Search and Placement

Job Placement Services

503-399-5026

e-mail: jobplacement@chemeketa.edu

If you are looking for a job or just need help with the job search process, check out the free services and resources available at Job Placement Services.

Job referral

There are a variety of jobs available that relate to specific career programs here at Chemeketa, as well as other part-time and full-time positions. We have daily contact with employers for jobs requiring a wide range of experience and skills.

Job search assistance and resources

Job Placement offers assistance and information with job search techniques. Resource material ranges from resume writing to interviewing techniques. You can also take advantage of equipment such as computers, printers and fax machines available to assist you in your job search. Appointments may be scheduled for individual resume consultation and assistance.

Videotapes on job search techniques are available in the Learning Resource Center in Building 9 and at Counseling and Career Services in Building 2 on the Salem Campus. They are also available at Chemeketa's Dallas Center or McMinnville, Santiam and Woodburn campuses, and the Salem Public Library.

On-campus recruiting

Job Placement works with employers who wish to come to the Salem Campus to recruit and interview students. These visits are announced through special recruitment mailings, job postings at the center, and announcements in class.

Cooperative Work Experience

503-399-5029

As a student, you may be qualified to participate in work-based learning in your career field through our Cooperative Work Experience (CWE) program. The program allows you to combine your classroom studies with work-related experiences.

In this program, you work with a CWE Coordinator to find a qualified training site. Your current job may qualify if it relates to your studies. You must enroll for the appropriate number of



credits for the amount of hours you work per week. The college must approve your training site and the learning objectives that you and your supervisor develop. Your participation is required in weekly seminars or in regular meetings with a CWE faculty member to discuss your progress.

CWE training helps you expand your knowledge of, and experience in, a particular type of work while you earn college credit. You gain valuable references for future employment and you can make the transition from school to career a smooth process.

Most of Chemeketa's professional-technical programs include CWE for elective credit. The CWE office is located in Counseling and Career Services, Building 2, on the Salem Campus.

Career Management classes—Career management classes are offered for those in the process of finding, keeping or changing jobs. These classes include the Résumé and Job Search Correspondence, Interviewing for Success and Preparing for the Changing Workplace.

Preparing for the Changing Workplace—Three credit class focusing on current diversity workplace issues, the skills needed for today's workplace, and identifying personal skills and identifying teambuilding strategies required by most employers. Experience working as part of a team on a service learning project.

These classes are listed under Job Search in the *Schedule of Classes*.

Services to the Community

Training & Economic Development Center

503-399-5181

<http://tedcenter.chemeketa.edu>

The TED Center trains and counsels over 4000 new employees and business owners per year. Our highly effective workshops pay dividends through improved performance on the job.

Located at 365 Ferry St. SE., in downtown Salem we have safe, convenient parking and easy access. The TED Center offers a comfortable setting with computer and satellite communications abilities with room for 40; it is available to rent for your employee development needs.

The TED Center assists regional economic development needs by providing business assistance counseling and through designing customized programs for employer's onsite. You can choose from regularly scheduled workshops or arrange for a workshop to be delivered for your employees from one of our group of excellent trainers.

Resources include free access to business publications, video-tapes and computers for researching business assistance services. The classroom allows for down linking satellite programs and group training on computer software as well as instructor led training.

Call us for assistance in developing your business or your employees.

The following services are available through the TED Center.

Small Business Development Center—Workshops, free 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.

In addition the SBDC has unique programs including: MicroEnterprise – providing access to specialized services focused on economic independence and self-sufficiency through self-employment; Opportunity Knocks – a peer advisory board for business owners; Self-Employment Assistance for individuals collecting unemployment benefits to develop a business plan; Western Oregon International Trade Council – a certificate program in International Trade.

Small Business Management—This 10-month program is for business owners and operators. It includes monthly faculty visits to your business and monthly evening classes on business topics.

Online Delivery—A full range of internet based workshops offered with three starting times per class. Take classes from home or work on your computer. Instructors interaction via email. Over 200 topics including: Internet, Certification Prep, Writing, Legal, Entrepreneur, Management, Spanish, Media Design. Personal Assessments with related instruction via Work Keys and Key Train.

Core Workplace Skills—A wide variety of employee and organizational assessments are available for individuals or groups, including math, reading, writing, communication, problem solving, and English as a Second Language. Skill development courses can be provided for any of these subject areas. Course delivery methods range from traditional classroom to computer-based instruction.

Customized and Workforce Training—Training is customized for business, industry and government agencies. Services include needs assessments, skill assessments, training design and delivery, curriculum development, consulting and facilitation, job profiling, classroom and lab rentals and grant coordination. Let us add value to your training program through enlisting the resources of the college and training community to meet your business needs.

Management Skills and Organizational Development—Customized seminars and workshops to meet your organization's objectives, with skills focused on industry specific needs and performance standards. Topics include: leadership training, communication skills, supervision, project management and strategic planning, and managing customer expectations. Facilitation of groups and process improvement consulting are available.

Occupational Spanish Participants learn the Spanish they need for their jobs, and use it the same day. Short, outcome-based workshops and classes for dentists, nurses, law enforcement officers, bank tellers, teachers, firefighters and many other professionals yield immediate benefits for patients, employees and customers. No prior knowledge of Spanish required.



Computer Technology Training Center

503-315-4590

<http://cttc.chemeketa.edu>

The Computer Technology Training Center (CTTC) provides computer skills, computer lab rentals and technical certification preparation training for individuals and organizations. Public and customized computer courses are delivered at your site or at a Chemeketa lab. Classes are designed to increase work-related skills and productivity and can be custom designed to meet your needs.

The CTTC is the only Salem area Microsoft IT Academy providing Microsoft certified technical training (MCSE, MCSA, MCDST), industry-recognized networking and high end desktop and web publishing courses. The CTTC also offers Cisco Networking classes preparing students for CCNA and CCNP certifications. Standard office software, accounting, programming and networking training are also offered.

Short-term training/industry certifications

503-399-5181

<http://tedcenter.chemeketa.edu>

Chemeketa has a variety of short-term training, industry specific options which you can complete in less than a year that may lead to employment opportunities for you. Many of these training programs are based on industry skill standards or certification requirements. Offerings include credit and non-credit classes and workshops that range from less than a week to four terms. Please look at page 39 for a list of these options and a contact number for specific information. Some of the programs like Occupational Skills Training and Employment Skills Training may allow you to

create your own customized program if it is consistent with gaining employment in a specific occupation.

Starting dates for the classes vary. Many of these classes can be offered on demand but others follow the regular college schedule. It is best to contact the department offering the courses to check on cost, schedule and any requirements for admission and job placement information. These classes meet all college standards for quality of instruction. For additional information on short-term training opportunities, contact Eileen Casey White, Chemeketa Short-Term Training Coordinator, at Eileen@chemeketa.edu or 503-589-7951.

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 and Career Services in Building 2, on the main campus to see if the coursework will apply. To arrange and appointment, call 503-399-5120.

Financial aid may be available to students who enroll in programs that offer 24 or more credits over approximately six months or more. For more information on financial aid, call 503-399-5018 during regular business hours.

New Workforce Department

Agency-Sponsored Services

503-399-6075

New Workforce Department contracts with public and private agencies throughout the district to provide client and staff development services. Workshops are offered on career and personal development topics, and mental and health issues. Case consultation, assessments and individual counseling can be provided under contract to agency-sponsored clients. Professional development workshops can also be arranged for agency staff.

Campus Gallery

503-399-2533

Chemeketa's art gallery is in Building 3, 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

503-399-5119

The college library is part of the Chemeketa Cooperative Regional Library Service (CCRLS), along with 17 public libraries in the college district.

This cooperative, tax-supported effort provides library service to district residents who have no access to a local library. Member libraries share their resources and honor library cards issued by other member libraries. CCRLS also provides book delivery between libraries.

An automated, online catalog listing over 300,000 titles found in CCRLS libraries is available in each library. Patrons can search by author, title or subject to find materials in any member libraries.

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Planetarium

503-399-5161

Chemeketa's Planetarium is in Building 2 on the Salem Campus. It features a Spitz model 512 sky instrument which projects 2,500 stars, five planets, the sun and moon, and sky coordinates on a 35-foot metal dome. This instrument can project the sky for any date—past, present or future—as seen from any location on earth, and can simulate all motions of the earth.

Chemeketa usually presents two different sky shows each fall, winter and spring term. Showings are scheduled weekly during the term. There is an admission fee with a special rate for families. Call to arrange group showings for schools, clubs and organizations.

Student Life

Recruitment, orientation and retention services

Student Life supports teaching and learning by fostering student success, inter-cultural competence and leadership development.

At Chemeketa Community College we believe that programs outside the classroom help involve students more fully in their education. The Student Life program is designed to enhance student skills while supporting student centered projects and services.

There are numerous opportunities for students to get involved with. The following is list of programs in Student Life and across the college that support our mission. For more information please contact telephone numbers listed.

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 administer 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 on the Salem Campus. There are numerous opportunities for students to participate in leadership opportunities.

Student leadership opportunities

Student Representative Team

503-399-5185

This team of students represents the Chemeketa student voice on the Chemeketa Board of Education, Oregon Community College Student Association (OCCSA), College Council, President's Advisory Committee and various college standing committees. They



coordinate the Council of Clubs, Student Leadership Council, student forums and other tools for student representation.

The Chemeketa Courier (student newspaper)

503-399-5134

The Chemeketa Courier, Chemeketa's student newspaper, is published weekly during fall, winter and spring terms. It is written and prepared by journalism students and 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. Students can also enroll in the class, JNL215, and work on a number of assignments, including page design, distribution, copy, editing, headline writing, cartooning, column/editorial writing, etc.

Literary publication—A humanities faculty group solicits student literary throughout the year. Works are reviewed and selected entries are published in Visions, a literary supplement to The Chemeketa Courier.

Into the Streets

503-399-5221

Each year Chemeketa plans a major volunteer effort to involve students and staff in community service activities in the college district. This event not only provides volunteer experience, it is an opportunity for you to learn the leadership skills associated with community service.

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.

Student ambassadors

503-589-7644

This program gives you the opportunity to work as a student leader in a variety of college settings. Student Ambassadors conduct campus tours and provide assistance to prospective students through personal contact and correspondence. They are also involved in recruitment, promotional and special events, high school visitations, and working with international and multicultural students. Students are selected through a competitive application and interview process. Students may be paid at an hourly rate, a tuition grant or a combination of both.

Student Center assistants

503-399-5143

The Student Center Assistants serve as the main reception and information agents for the Student Center. Duties include production of student identification cards, maintenance of display cases, bulletin boards and public areas of the Student Center. Students are selected through an application and interview process to determine their interests, abilities and experience working with people. Students are paid at an hourly rate and may be eligible for tuition grants and college credit.

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 mentors 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 small-group 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 provide information and referrals, locate resources and assist students to utilize the services within the Counseling and Career Services Department.

Student clubs and organizations

503-399-5118

Chemeketa Community College recognizes a number of organizations which provide a variety of activities for students. Among them are:

- Artists Alliance
- Asian Cultural
- Black Student Union
- Campus Ambassadors
- Campus Crusade
- Chess Club
- Christian Fellowship Club
- Dance Ability Ensemble Club
- Dance Team
- Deaf and Hard of Hearing Club
- Fire Protection Club
- First Nations Club
- Football (Soccer) Club
- Gamers Guild
- Geography Club
- Health Occupation Students of America (HOSA)
- Instrument Society of America (ISA)
- International Code Council (ICC)
- Juntos Club
- Latter-day Saints Students Association
- Martial Arts
- McMinnville Activity Club
- MEChA
- Oregon Glass Guild Club
- Pacific Islander Club
- Phi Theta Kappa
- Salem Area Anime Society
- Single Parents
- Ski Club
- Society of Manufacturing Engineers (SME)
- Soul Sisters Club
- Student Nurses Organization (SNO)
- Table Tennis Club
- Theatre Arts Club
- Triangle Society
- Unique Club

For more information about clubs and organizations on the Salem Campus, contact the Student Life Office in Building 2.

Student leadership and community service team

503-399-5118

This student team works to support college clubs and student organizations and assists with Leadership Development activities. It also plans and organizes community change. Students are selected through an application and interview process. Students are paid at an hourly rate and may be eligible for tuition grants and college credit.

College committees

503-399-5185

Student representatives serve on the following campus-wide committees with Chemeketa staff: Academic Standards, Alcohol and Other Drugs, Curriculum and Multicultural. For more information, contact the Student Life Office.

Oregon Community College Student Association (OCCSA)

503-399-5185

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

Intercollegiate athletics

503-399-5082

Chemeketa is a member of the Northwest Athletic Association of Community Colleges (NWAACC). The association includes all community colleges in Oregon and 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, women's volleyball 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.

Outreach programs

We hold classes not only on the Salem Campus, but also at a number of off-campus Salem locations: at our Dallas Center or 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 weekends. 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 business skills classes which include training on computers and word processors.

Outreach campus services

In addition to classes, Chemeketa's Dallas Center or 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;
- Services to meet employment and training needs of businesses and job seekers.

Community Education

503-399-5135

Chemeketa offers community education classes throughout the district. These noncredit, personal enrichment classes are for students who enjoy learning. Class lengths vary from the full term to short courses. Classes start throughout the term and are offered during daytime, evening and week-end hours. Topics include art, computers, dance, driver's education, English language for nonnative speakers, fitness, foreign language, health, home projects, music, travel and writing.

The Community Education Program is always interested in ideas for new classes and potential instructors. We are looking for instructors with subject matter knowledge, teaching experience, enthusiasm and a desire to share.

Agriculture classes

503-399-5139 or 503-589-7946

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

- Landscape and nursery/greenhouse, including Spanish delivery;
- Pesticide license examination preparation and recertification;
- Agricultural leadership development in English and Spanish.

Lambing school, pasture management and small gas engine repair classes are also offered.



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 503-589-7759

Chemeketa's three-year Farm Business Management program prepares farm businesses, who are program participants, to understand sound business management principles and practices through a focus on effective farm record-keeping, analysis and interpretation. For more information, see page 86.



Chemeketa Community College
Degrees, diplomas, certificates and transfer information

Degrees, Diplomas, Certificates and Transfer Information



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.

Degrees

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.

Associate of Arts Oregon Transfer degree

The Associate of Arts Oregon Transfer (AAOT) degree encompasses the core curriculum of a liberal arts education. This core includes coursework in the areas of communication, 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 coursework.

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. If you enroll full time, it usually takes two years to meet the AAOT requirements listed on page 43.

See the Program Guide on pages 40 and 41 for a complete list of our transfer programs. Information and curriculum guidelines of these programs begin on page 56.

Associate of Applied Science degree

Chemeketa, with its emphasis on professional-technical education, offers training in more than 40 occupational areas.

In most of these programs, you may earn an Associate of Applied Science (AAS) degree. If you enroll full time, it usually takes two years to meet the Associate of Applied Science degree requirements. In some programs of study, there are prerequisites to enter the program. See the Program Guide on pages 40 and 41 for a complete list of Associate of Applied Science degree programs. Information and curriculum outlines of these programs begin on page 56 along with college transfer curricula.

To qualify for an Associate of Applied Science degree, you must meet the requirements listed on page 44.

Associate of General Studies degree

The Associate of General Studies (AGS) 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 or to fulfill the requirements of a specific four-year college program or special program of study.

To qualify for the Associate of General Studies degree, you must meet the requirements listed on page 45.

Associate of Science Oregon Transfer Business degree

The Associate of Science/Oregon Transfer Business Degree in Business (AS/OT-Bus) is a focused academic program that furnishes students with a marketable degree and keeps open their options for transfer to a baccalaureate program. Students who earn this degree from Chemeketa will have fulfilled the lower division general requirements at any of the schools in the Oregon University System to which the student transfers as well as the ability to register as a junior. Recipients of this degree, however, are not guaranteed admission to the business school/program of choice.

This Statewide degree must be taken as designed; that is, courses or sequence requirements may not be added or removed. To qualify for the AS/OT-Bus, you must meet the requirements listed on page 46.

Second degree

To earn a second associate's 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 to ensure you complete these requirements.

As a candidate for graduation, fill out an Application for a Degree or Certificate form. Return the form to the Enrollment Center in Building 2, Room 200 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.

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 written approval of the academic/program director to make the substitution.
- Submit a Request for Substitution of curriculum Requirement form, to your academic/program director. This form shows that the substitution will benefit you without changing the quality of your program. The Registrar may then record 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 and through distance learning options. Some of the classes are also offered at Chemeketa's Dallas Center or McMinnville, Santiam and Woodburn campuses.

Certificate of Completion

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 40 and 41 for a complete list of Certificate of Completion programs. Information and cur-

riculum outlines of these programs begin on page 56 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; and;
- Apply courses numbered 050 or higher toward a certificate.

Occupational Skills Training

503-399-5028

Occupational Skills Training, Building 20. Students can earn college credit and a Certificate of Completion for work-based training at approved community training sites throughout the state. Instruction is based on a personalized curriculum created by the Skills Training coordinator, site supervisor, student and/or sponsoring vocational consultant if a sponsoring agency is involved. Occupational Skills Training is financial aid eligible if a student qualifies. Relevant classes may also be part of the training if necessary for completion of required skills, worker's compensation coverage is included. For further information about the program, see page 106.

On-the-Job Evaluation—The OJE process provides evaluation services and workers' compensation coverage for clients who need a work-based evaluation at a designated site to clarify vocational goals and assess capabilities and potential for a designated job or training area. This is a non-credit, non-graded process which is monitored according to a personalized outcome assessment.

High School Completion

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, Room 154, on the Salem Campus or to Chemeketa's McMinnville, Santiam or Woodburn campuses. Interested students must take the college placement test and meet minimum entry scores in the ASSET test of 34 for reading, 33 for writing and 29 for math.

At Chemeketa, you may earn credits toward a high school diploma in three ways:

- Enroll in high school completion classes offered on the Salem, McMinnville, Santiam, or Woodburn campuses.

- Earn high school credit for most Chemeketa classes. All Chemeketa high school level 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 high school credits, ASSET scores of 40 for reading, 39 for writing, and 38 for math 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)

503-399-5224

You may earn a high school equivalency certificate by passing General Educational Development (GED) tests in English or Spanish. These are five tests covering language arts: writing, language arts: reading, social studies, science and mathematics.

Chemeketa offers classes throughout the college district to help you prepare for these tests. You may enroll during the term depending on space in classes and progress at your own pace. Classes are held at our Dallas Center or 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. Fees may apply.

GED tests are given in Salem, McMinnville, Dallas and Woodburn. The fee is \$95.

Adult 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 Center or McMinnville, Santiam and Woodburn campuses. Fees may apply.

College Transfer

General information

Chemeketa offers the Associate of Arts Oregon Transfer Degree, as well as individual transfer courses for students who wish to begin their bachelor's degree at the community college. You can complete most of the general education requirements, and begin work on the requirements for a specific major while studying at Chemeketa.

If you plan to transfer credits toward a bachelor's degree, follow these steps:

- Contact the four-year university 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 college or university a term or two before completing your work at Chemeketa to make sure you are meeting all requirements.
- Apply for admission as a college transfer student and transfer your credits to the four-year institution.

Collaborative bachelor's degrees

Chemeketa has partnerships with Portland State University, Linfield College, Oregon State University, Western Oregon University, the University of Phoenix, George Fox University, Western Baptist College, Eastern Oregon University and Capella University to offer bachelor's and master's degrees in Salem. Most classes are held during the evening, on weekends, or via distance education. For more information on these programs, contact advisors at the numbers listed below:

Portland State University 503-399-5262

Offers bachelor degree programs in Child and Family Studies, General Studies, Social Science and minors or certificates in Administration of Justice, Community Development, History, Sociology, and Chicano/Latino Studies. Graduate degrees include Master of Business Administration – Statewide, Master of Curriculum and Instruction, and Master of Public Administration. Students may be co-admitted and jointly enrolled at PSU and Chemeketa under a new agreement.

Linfield College 503-399-5121

Offers bachelor degree programs in: Management, Business Information Systems, Arts and Humanities, International Business, Social and Behavioral Sciences and Accounting.

Oregon State University 503-589-7678

Offers bachelor degree programs in: Environmental Science, General Agriculture, Natural Resources, Liberal Studies and minor in Communication (Distance Education format). students may be co-admitted and jointly enrolled at OSU and Chemeketa under a new agreement.

George Fox University 888-888-0178

Offers a bachelor degree program in: Management and Organizational Leadership.

Western Baptist College 503-375-7590

Offers bachelor degree programs in: Family Studies and Management and Communication (Online and classroom format.)

Western Oregon University 503-838-8483

Offers a Master of Science in Education and Continuing License program or Standard License program.

Eastern Oregon University 800-547-8887

Offers bachelor degree programs in: Business, Liberal Studies, PE/Health, Philosophy, Politics, Economics and Fire Services Administration (Online format).

University of Phoenix 503-670-0590

Offers bachelor degree programs in: Business (e-business, Administration, Management), Human Services, Information Technology and Management (Online and classroom format).

Capella University www.capellauniversity.edu

Offers online bachelor degree programs in Business, Information Technology and Education.

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 Counseling and Career Services 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 Center or McMinnville, Santiam and Woodburn campuses.

General education requirements for Oregon's four-year colleges and universities are listed on pages 42–48. The Counseling and Career Services 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 University, Oregon Health Sciences University, Pacific Northwest College of Art, Pacific University, University of Portland, Western Baptist College, Western States Chiropractic College, Willamette University and the University of Phoenix.

Certificates of Completion* and Short-term Training Awards

You don't need to complete a two-year degree to prepare for some of the jobs that may be of interest you. Many programs offer Certificates of Completion that you can usually finish in one year. Another alternative is getting training for a specific

workplace skill and receiving a short-term training award. The amount of time required for short-term training ranges from a few hours to one or two terms. Contact the departments or individuals below for more details.

Program	Contact	Telephone	Duration
A+	Amanda Sharp	503-315-4265	1 term
Activity Director Training	Peggy Soliday	503-399-6159	1 term
Human Services - Addiction Counselor Certification Preparation*	Donna Hirt	503-399-6157	4 terms
Automotive Technology - Automotive Body Repair*	Steve Agee or Dean Olheiser	503-399-6521 or 503-399-6524	4 terms
Automotive Technology - Automotive Machining*	Steve Agee or Dean Olheiser	503-399-6521 or 503-399-6524	4 terms
Basic Nursing Assistant	Kay Carnegie	503-399-5058	11 weeks
Building Inspection Technology*	Darrel Holmes and Mike Mendenhall	503-399-5073 and 503-399-5071	4 terms
One- and Two-family plans Examiner, Structural Inspector and Mechanical Inspector*	Darrel Holmes and Mike Mendenhall	503-399-5073 and 503-399-5071	4 terms
Structural Inspector*	Darrel Holmes and Mike Mendenhall	503-399-5073 and 503-399-5071	4 terms
Structural Plans Examiner*	Darrel Holmes and Mike Mendenhall	503-399-5073 and 503-399-5071	4 terms
Mechanical Inspection*	Darrel Holmes and Mike Mendenhall	503-399-5073 and 503-399-5071	4 terms
Business Technology - Business Software Certificate*	Patti Sessions	503-399-6094	3 terms
Business Technology - Business Technology Certificate*	Patti Sessions	503-399-6094	3 terms
Clerical Basics*	Carol Ottaway	503-399-2894	2-3 terms
Call Center Customer Service Training	TED Center	503-399-5181	33 hours
Civil Engineering – Survey Technology*			
Computer-Assisted Drafting (CAD)*			
Custodial Tech I	TED Center	503-399-5181	32 hours
Dental Assisting*	Kimberly Martin	503-399-6546	3 terms
Early Childhood Ed – One-Year Program*	Bruce Stam	503-399-6071	3 terms
Education Certificate*	Cathie Whyte	503-399-2694	3 terms
Employment Skills Training*	Counseling	503-399-5120	individualized
Fire Protection Technology - Fire Service Supervision & Management*			
Forklift Safety Training	TED Center	503-399-5181	3 hours
Health Services Technology - Health Information Technology*	Vikki Wetle	503-399-8343	3 terms
Hospitality and Tourism Management Certificate*	Nancy Duncan	503-399-5296	9 months
Integrated Circuit Mask Design Certificate*	Gary Boyington	503-399-5218	3 months
Juvenile Corrections Certificate*	Debra Pilette-Stephens	503-399-5110	3 terms
Leadership Strategies*	TED Center	503-399-5181	1 term
Medical Office Assisting*	Kimberly Martin	503-399-6546	3 terms
Medication Aide	Kay Carnegie	503-399-5058	11 weeks
Microsoft Certified Systems Engineer			
Microsoft Certified Systems Administrator	Amanda Sharp	503-315-4590	4 terms
Network+	Amanda Sharp	503-315-4590	1 term
Occupational Skills Training* (see page 106)			
JOBS Clients Contact:	Sherry Wolcott	503-589-7646	3-12 months
Non-JOBS Clients Contact:	Karleen Booth	503-399-6542	3-12 months
WIA Clients Contact:	Gerri Bennett-Connolly, Bldg. 20	503-399-6985	3-12 months
ODOT Flagger Training	TED Center	503-399-5181	4 hours
Professional-Technical Teacher Preparation*	Cathie Whyte	503-399-2694	3 terms
Retail Sales/Cashier Training	TED Center	503-399-5181	16 hours
School Bus Driver Training	Marilyn Hart Reed	503-399-5255	6-40 hours
SBDC/SBITO International Trade	Jimmie Wilkins	503-399-5088	9 months
Small Business Management (see page 110)	Jim Culveyhouse	503-316-3239	9 months
Speech Language Pathology Assistant Certificate*	Ashley Northam	503-589-7815	9 months
Substance Abuse Prevention Specialist Training	Donna Hirt	503-399-6157	1 term
Travel Systems Operations*	Nancy Duncan	503-399-5296	3-4 terms
Unarmed Private Security Operations and Procedures	TED Center	503-399-5181	18 hours
Vineyard Management - Vineyard Operations*	Al MacDonald	503-584-7254	4 terms
Welding Technology*			

Certificates, two-year degrees and transfer guide

Here's a quick-reference listing of the programs of study and courses available at Chemeketa. If you don't find the program or course you are looking for, check the index in the back of this catalog. For more information about any of the programs listed

C—Certificate of Completion

A—Associate of Applied Science Degree

Program	C	A	T	O
Accounting		✓		
Adult Basic Education				✓
Adult High School Diploma				✓
Agriculture			✓	
Anthropology			✓	
Aquarium Science		✓		
Art			✓	
Automotive Technology		✓		
• Automotive Body Repair	✓			
• Automotive Machining	✓			
Biology			✓	
Botany			✓	
Building Inspection Technology		✓		
• One- and Two-Family Plans Examiner, Structural Inspector and Mechanical Inspector	✓			
• Structural Inspector	✓			
• Structural Plans Examiner	✓			
• Mechanical Inspection	✓			
Business Administration			✓	
Business Technology				
• Accounting Administrative Assistant		✓		
• Administrative Assistant		✓		
• Business Software Certificate	✓			
• Business Support Specialist		✓		
• Business Technology Certificate	✓			
• Clerical Basics	✓			
• Medical Administrative Assistant		✓		
Chemistry			✓	
Chiropractic			✓	

in this guide, call Counseling and Career Services at 503-399-5120. For short-term or customized and workforce training, call the Training and Economic Development Center at 503-399-5181.

T—Transfer Program and/or Associate of Arts Degree

O—Other (classes for personal or professional skill development)

Program	C	A	T	O
Civil Engineering Technology		✓		
• Survey Technology	✓			
Computer Programming		✓		
• Computer Systems Support Specialist		✓		
Computer Science			✓	
Criminal Justice		✓	✓	
Dental Assisting	✓			
Dental Hygiene			✓	
Design			✓	
Drafting Technology—CAD				
• Computer-Assisted Drafting (CAD)	✓	✓		
• Computer-Aided Design/ Computer-Aided Manufacturing (CAD/CAM)		✓		
• Mechanical Design		✓		
Early Childhood Education				
• One-Year Program	✓			
• Two-Year Program		✓		
Economics			✓	
Education				
• Education Certificate	✓			
• Elementary			✓	
• Secondary			✓	
Electronics Technologies				
• Computer Electronics		✓		
• Electronic Engineering Technician		✓		
• Industrial Electronics		✓		
Emergency Medical Technology—Paramedic		✓		
Employment Skills Training	✓			

Program	C	A	T	O
Engineering			✓	
English			✓	
English as a Non-Native Language				✓
English as a Second Language				✓
Farm Business Management				✓
Fire Protection Technology				
• Fire Service Supervision and Management	✓			
• Fire Prevention		✓		
• Fire Suppression		✓		
Foreign Languages			✓	
Forest Management			✓	
Forestry			✓	
General Educational Development				✓
General Science			✓	
General Studies			✓	
Geography			✓	
Geology			✓	
Health, Health Education			✓	
Health Services Management				
• Health Information Technology	✓			
• Health Services Management		✓		
• Medical Transcription		✓		
History			✓	
Hospitality and Tourism Management	✓	✓		
Hotel Business Management			✓	
Hotel, Restaurant and Resort Management			✓	
Human Services				
• Addiction Studies		✓		
• Addiction Counselor Certification Preparation	✓			
• Social Services		✓		
Industrial Technology and Apprenticeship		✓		
Integrated Circuit Mask Design	✓	✓		

Program	C	A	T	O
Journalism			✓	
Juvenile Corrections Certificate	✓			
Management		✓		
Mathematics			✓	
Medical Office Assisting	✓			
Network Technology		✓		
Nursing			✓	
• Practical Nursing	✓			
• Associate Degree Nursing		✓		
Occupational Skills Training	✓			
Philosophy			✓	
Physical Education/Human Movement Studies			✓	
Physics			✓	
Political Science			✓	
Pre-Engineering			✓	
Pre-Law			✓	
Pre-Professional Study (medicine, dentistry, veterinary medicine)			✓	
Professional-Technical Teacher Preparation	✓	✓		
Psychology			✓	
Small Business Management				✓
Sociology			✓	
Speech			✓	
Speech Language Pathology Assistant	✓	✓		
Travel Systems Operations	✓			
Vineyard Management		✓		
• Vineyard Operations	✓			
Visual Communications		✓		
Welding				
• Welding Fabrication		✓		
• Welding Technology	✓			
Winemaking		✓		
Zoology			✓	

Business and industry certification

Certification is a recognized approach to demonstrate your proficiencies in any one of a wide range of technical and administrative areas. Whether you are seeking a position with a new organization, or looking to advance in your present organization, certification demonstrates that you have the skills you need to take the next step. At Chemeketa Community College, our mission is to provide high quality, affordable career education that meets the needs of professionals and employers. You will be

working with experienced faculty, using today's technology, at a fraction of the cost of private training companies. The course material is developed to help you prepare for the certification test, and succeed on the job.

Certificates are available for a broad range of career areas, designed for professionals working in a wide range of fields. Training and certification give employees the skills they need for today's high-tech workplace.

Preparation for Industry Certification

Certification	Contact	Telephone
*credit		
**noncredit		
***available online, noncredit		
Operating System Core Hardware* (A+)**, ***	Robert Johnson TED Center	503-399-6074 503-399-5181
Cisco Certified Network Associate *(CCNA) ***	Gary Boyington TED Center	503-399-5218 503-399-5181
Cisco Certified Network Professional *(CCNP)	Gary Boyington	503-399-5218
Cisco Certified Security Professional *(CCSP)	Gary Boyington	503-399-5218
Certified Wireless Network Administrator *(CWNA)	Gary Boyington	503-399-5218
Cisco Aironet WLANS Security *(WLANFE)	Gary Boyington	503-399-5218
Network + *, **, ***	Gary Boyington TED Center	503-399-5218 503-399-5181
Sun Certified Java Programmer *	Robert Johnson	503-399-6074
Microsoft Certified Professional(MCP) *	Robert Johnson	503-399-6074
Linux + *	Robert Johnson	503-399-6074
Red Hot Certified Engineer (RACE) *	Robert Johnson	503-399-6074
Solaris 8 *	Robert Johnson	503-399-6074
Microsoft Certified System Engineer (MCSE) **, ***	TED Center	503-315-4590
Microsoft Certified Systems Administrator (MCSA) **	TED Center	503-315-4590
Flagger Training, State of Oregon Certificate **	TED Center	503-399-5181
Custodial Technician **	TED Center	503-399-5181
Structural Welding Certification *	Mike Pintler	503-399-6059
Pipe Welding Certification *	Mike Pintler	503-399-6059

Associate of Arts Oregon Transfer Degree Requirements

Requirements	Credit Hours	Courses which satisfy requirements
Complete a minimum of 90 credit hours. These must include the following:		
General Education Requirements		
Writing (with grade "C" or better)	9	WR121, WR122, and WR123 or WR227
Math (with grade "C" or better)	4	MTH105 or above
Oral Communication/Rhetoric (with grade "C" or better)	3	SP100, SP111, SP112, SP115, SP130, SP218, SP219, or SP229
Physical Education or Health	3	Any PE185 class (one credit each); HE250 (three credits); HPE184, HPE270, HPE295 or HPE296 (three credits each). A maximum of 12 credits of PE185 may be applied toward an A.A. degree.
Distribution Requirements (Courses used to meet the Distribution Requirements must be at least three credits each.)		
Arts and Letters Complete a minimum of 12 credits, choose from at least two disciplines, with no more than nine credits from one discipline. (All foreign languages are considered one discipline.) Each course must be worth at least three credits. Note: The course taken to meet the Oral Communication/Rhetoric requirement above may not be used to meet this requirement.	12	ART101, 115, 116, 117, 131, 132, 133, 154, 155, 156, 204, 205, 206, 210, 221, 222, 223, 224, 225, 230, 233, 234, 235, 236, 237, 238, 239, 244, 245, 246, 247, 248, 250, 250B, 250C, 251, 254, 256, 261, 262, 263, 265, 270, 271, 272, 273, 274, 275, 281, 284, 285, 286, 291, 292, 293; ENG104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 214, 222, 250, 253, 254, 255, 256, 257, 258, 260, 261, 262, 263, 269; FA255, 256, 257; FR201, 202, 203; HUM106, 251, 252, 253, 259; JNL216, 217, 224, 225, 226, 227; JPN201, 202, 203; MUS105, 161, 201, 202, 203, 205; PHL201, 202, 203, 204, 205, 206; REL201, 202, 203; RUS201, 202, 203; SP100, 111, 112, 115, 130, 218, 219, 229; SPN201, 202, 203, 211, 212, 213; TA110, 121, 122, 123, 130C, 140C, 230C, 240C, 286; WR241, 242, 243, 244
Social Sciences Complete a minimum of 15 credits, choose from at least two disciplines, with no more than nine credits from one discipline. Each course must be worth at least three credits.	15	ATH101, 102, 103, 153, 180, 201, 202, 203, 207, 208, 209, 212, 214, 215, 231, 232, 233; CLA201, 202, 203; EC200, 201, 202, 203; GEG105, 106, 107, 140, 190, 201, 202, 206, 207, 220; HST110, 111, 112, 157, 158, 159, 201, 202, 203, 228, 257, 258, 259, 262, 293; PS201, 202, 203, 205; PSY100, 101, 104, 119, 201, 202, 203, 206, 237, 239; SOC204, 205, 206, 210, 221, 235, 291; SSC100, 101, 150, 206; WS101, 102, 103
Sciences, Math, Computer Science Complete a minimum of 15 credits. Choose a minimum of three laboratory courses of at least 12 credits in the biological or physical sciences and Choose 3 credits in Computer Information Science or Computer Science (CS101 or higher).	15	Choose 12 credits from: BI101, 102, 103, 131, 132, 133, 143, 200, 230, 231, 232, 233, 234; BOT201, 202, 203; CH104 and 104R, 105 and 105R, 106 and 106R, 110 and 110R, 111 and 111R, 115, 116, 117, 121 and 121R, 122 and 122R, 123 and 123R, 201, 202, 203, 221 and 221R, 222 and 222R, 223 and 223R, 241 and 241B, 242 and 242B, 243 and 243B; GEO142, 143, 144, 201, 202, 203; GS104, 105, 106, 107, 111, 141, 142, 143; PH201, 202, 203, 207, 208, 209, 211, 212, 213; ZOO201, 202, 203. Choose 3 credits from: CIS120, 121, 122; CS101, 103, 105, 125A, 125E, 133C, 133E, 133J, 133U, 133VB, 135AC, 140A, 140B, 140S, 140U, 145, 160, 161, 162, 171, 178I, 178W, 179, 233C, 233J, 233U, 234C, 234J, 234L, 240, 240U, 244, 246, 260, 275, 276A, 276B, 277A, 277B, 278, 279, 285, 286, 288, 289
Electives Complete additional courses to bring the total number of credits to 90.		All lower division collegiate courses numbered 100 and above. Courses numbered 198/298 and 199/299 will only apply toward this degree as electives. A maximum of 12 credit hours in professional-technical courses may be included, with the exception of the following: BT084, 085; COM051, 052, 053; MTH052 through 095; RD090; SSP050A, B, C; SSP051; WR090, 095. A maximum of 12 credit hours of cooperative work experience may be applied toward an Associate of Arts degree.
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: Two terms of college-level foreign language, with a grade of C or higher, are required for admission to Oregon University System universities. This requirement applies only to students graduating from high school in 1997 or later. This requirement may also be met by completing two years of foreign language at the high school level. This is not a requirement for earning the Associate of Arts degree.		

Associate of Applied Science Degree Requirements

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

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 general education 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

The following program-approved list of courses allows a student to meet the college's computer literacy competency requirement. Check with your program advisor if you have any questions related to this requirement.

CA100**	Microcomputer Basics	3 credits
CIS120**	Computer Information Science I	4 credits
CS101**	Introduction to Microcomputer Applications	3 credits
DRF165**	CAD System Administration	3 credits
CAM160**	Programming CNC Mills	3 credits

Three credit hours from three of the four following areas:

Social Sciences

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, General Engineering, General Science, Geology, Nutrition and Food Management, Oceanography, Physics, Zoology

Communications*

Communication Skills, English as a Non-Native Language, Journalism, Speech, Writing, Reading, plus these specific classes: **BA214**, **BT120**, **RD115**, **RD116**, **RD120**, and **SSP112**.

Three additional credits from any of these areas:

Communications
Health Education
Humanities/Fine Arts
Math
Physical Education
Science
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 credits 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 99.

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

** Indicates a course prerequisite or requirement related to the course. For further information contact your program advisor or college advisor.

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 120 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 WR122, 123, 227, 241, 242, 243 or BA214
Math (with a grade "C" or better)	4	MTH095 or above
Speech (with a grade "C" or better)	3	SP100 or above
Computer Studies	3	The following approved list of courses allows a student to meet the college's computer literacy competency requirement. CA100* Microcomputer Basics 3 credits CIS120* Computer Information Science I or higher 4 credits CS101* Introduction to Microcomputer Applications or higher 3 credits DRF165* CAD System Administration 3 credits CAM160* Programming CNC Mills 3 credits
Physical Education or Health**	3	Any three-credit health course with an HE prefix; HPE184, HPE270, HPE295 or HPE296 (three credits each); 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 (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 (Courses must include a laboratory.)	8	Choose courses from Biology, Botany, Chemistry, Geology, General Science, Physics, Zoology.
Electives: 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:		
1. A maximum of 12 credit hours of cooperative work experience may be applied toward the degree.		
*Indicates a course prerequisite or requirement related to the course.		
**A maximum of 12 credit hours of physical education (PE185) may be applied toward the degree.		

Associate of Science/Oregon Transfer Degree in Business

Requirements	Credits Hours	Courses which satisfy requirements
General Requirements		
Note: Each course in this section must be completed with a grade of "C" or better.		
Writing: A minimum of eight credits of college-transfer writing courses.	8	Designated courses are: WR121, WR122, WR227
Oral Communications/Rhetoric: A minimum of three credits of a fundamentals of speech or communication course	3	SP111, SP112, SP115, SP130, SP218, SP219
Mathematics: A minimum of 12 credits, MTH111 or above, four credits of which must be statistics	12	MTH111 or above, MTH243, MTH244
Computer Applications: A minimum of three credits. Proficiency in word-processing, spreadsheet, database, and presentation software as demonstrated by successful completion of applicable courses	3-6	Computer Science: CS101, CS125A, CS125E Computer Applications: CA100, CA100M, CA115, CA208
Distribution Requirements		
Note: Courses used to meet these requirements must be at least 3 credits each. In "Arts and Letters" the second year of a foreign language may be included, but not the first year. ASL is considered a foreign language.		
* Arts and Letters: A minimum of twelve credits, chosen from at least two disciplines.	12	ART101, 115, 116, 117, 131, 132, 133, 154, 155, 156, 204, 205, 206, 210, 221, 222, 223, 224, 225, 230, 233, 234, 235, 236, 237, 238, 239, 244, 245, 246, 247, 248, 250, 250B, 250C, 251, 254, 256, 261, 262, 263, 265, 270, 271, 272, 273, 274, 275, 281, 284, 285, 286, 291, 292, 293; ENG104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 214, 222, 250, 253, 254, 255, 256, 257, 258, 260, 261, 262, 263, 269; FA255, 256, 257; FR201, 202, 203; HUM106, 251, 252, 253, 259; JNL216, 217, 224, 225, 226, 227; JPN201, 202, 203; MUS105, 161, 201, 202, 203, 205; PHL201, 202, 203, 204, 205; 206 REL201, 202, 203; RUS201, 202, 203; SP100, 111, 112, 115, 130, 218, 219, 229; SPN201, 202, 203, 211, 212, 213; TA110, 121, 122, 123, 130C, 140C, 230C, 240C, 286; WR123, 241, 242, 243, 244
Social Sciences: A minimum of twelve credits, with a minimum of eight credits of "principles of economics" (EC201, EC202 to include microeconomics and macroeconomics) at the 200 level. The courses in economics must be completed with a grade of "C" or better.	12	ATH101, 102, 103, 153, 180, 201, 202, 203, 207, 208, 209, 212, 214, 215, 231, 232, 233; CLA201, 202, 203; EC200, 201, 202, 203; GEG105, 106, 107, 140, 190, 201, 202, 206, 207, 220; HST110, 111, 112, 157, 158, 159, 201, 202, 203, 228, 257, 258, 259, 262, 293; PS201, 202, 203, 205; PSY100, 101, 104, 119, 201, 202, 203, 206, 237, 239; SOC204, 205, 206, 210, 221, 235, 291; SSC100, 101, 150, 206; WS101, 102, 103
Requirements	Credits Hours	Courses which satisfy requirements
Science: A minimum of twelve credits of laboratory courses in the biological or physical sciences	12	BI101, 102, 103, 131, 132, 133, 143, 200, 231, 232, 233, 234; BOT201, 202, 203; CH104 and 104R, 105 and 105R, 106 and 106R, 110 and 110R, 111 and 111R, 115, 116, 117, 121 and 121R, 122 and 122R, 123 and 123R, 201, 202, 203, 221 and 221R, 222 and 222R, 223 and 223R, 241 and 241B, 242 and 242B, 243 and 243B; GEO142, 143, 144, 201, 202, 203; GS104, 105, 106, 107, 111, 141, 142, 143; PH201, 202, 203, 207, 208, 209, 211, 212, 213; ZOO201, 202, 203.
Subtotal of General & Distribution Requirements	62-65	
Business-Specific Requirements		
Note: Each course in this section must be completed with a grade of "C" or better.		
* BA101 Introduction to Business	3-4	
BA211 Fundamentals of Financial Accounting and BA213 Decision Making with Accounting Information (or BA211, BA212 Financial Accounting 1, 2, and BA213 Managerial Accounting)	8-9	
BA226 Business Law 1 (or other advisor-approved Business elective)	3-4	
Subtotal of Business-Specific Requirements	14-17	
Electives and/or University-Specific Prerequisites	8-14	Depends on choice of transfer institution. See an advisor. A maximum of 12 credit hours in professional-technical courses may be included, with the exception of the following: BT084, 085; COM051, 052, 053; MTH052 through 095; RD090; SSP050A,B, C; SSP051; WR090, 095.
Grand Total Credits	90	

Electives should be taken to meet the requirements of your transfer institution. See your advisor for assistance. For the most up-to-date information on the requirements of transfer, see the Oregon University System, Joint Boards Articulation Commission website at: <http://www.ous.edu/aca/jbac.html> (4-18-03)

Notes: For transfer students graduating from high school in 1997 and thereafter, the Oregon University System has a second language admission requirement: two terms of a college-level second language with an average grade of C- or above, OR two years of the same high school-level second language with an average grade of C- or above, OR satisfactory performance on an approved second language assessment of proficiency. Demonstrated proficiency in American Sign Language meets this second language admission requirement.

Requirements	Credit hours	Chemeketa courses which satisfy requirements
Humanities (Choose courses from at least two different prefixes other than the prefix of your major.)	Minimum 15 hours	ART 101, 204, 205, 206; ENG 104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 214, 222, 250, 253, 254, 255, 256, 257, 258, 260, 261, 262, 263, 269; FA 255, 256, 257; HUM 106, 251, 252, 253; JNL 224; MUS 105, 161, 201, 202, 203, 205; PHL 201, 202, 203, 205; SP 115; TA 110
Natural Science (Choose courses from at least two different departments other than your major.)	Minimum 15 hours	ATH 101, 153, 180; BI 100, 101, 102, 103, 131, 132, 133, 143, 200, 251; BOT 201, 202, 203; CH 104, 105, 106, 110, 111, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223; GEO 130, 142, 143, 144, 201, 202, 203; GEG 105, 190; GS 104, 105, 106, 107, 120, 141, 142, 143; OC 133; PH 106, 111, 201, 202, 203, 207, 208, 209, 211, 212, 213; ZOO 201, 202, 203
Social Science (Choose courses from at least two different prefixes other than the prefix of your major.)	Minimum 15 hours	ATH 102, 103, 207, 208, 209; CLA 201, 202, 203; EC 200, 201, 202, 203; GEG 106, 107, 201, 202, 206, 207; HST 110, 111, 112, 157, 158, 159, 199, 201, 202, 203, 257, 258, 259, 262, 293; PS 201, 202, 203, 205; PSY 100, 201, 202, 203, 237; SOC 204, 205, 206; SSC 206; WS 101, 102, 103
Art, Languages and Logic (Choose courses outside of your major.)	Minimum 15 hours	
Artistic Creation (Sub-Area 1)	3-12 hours	ART 115, 116, 117, 131, 132, 133, 154, 155, 221, 222, 223, 234, 235, 236, 238, 239, 244, 254, 261, 262, 270, 271, 281, 284, 291, 292, 293; MUP 100, 174; MUS 197; TA 121, 122, 123; WR 241, 242, 243
Languages and Logic (Sub-Area 2)	3-12 hours	ASL 101, 102, 103; CIS 120, 121, 122; CS 140B, 140M; FR 101, 102, 103, 150, 151, 201, 202, 203; GER 101, 102, 103, 201, 202, 203; JPN 101, 102, 103; MTH 105, 211, 212, 213, 241, 243, 244, 251, 252, 253; PHL 204; RUS 101, 102, 103, 201, 202, 203; SP 100, 111, 112, 115, 118, 130, 218, 219; SPN 101, 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. General Education Distribution Requirements: In the absence of an AAOT 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.
3. Students must demonstrate "functional computer literacy" in the major field.
4. 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.
5. 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).
6. 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 50 or better before attempting the WPE given at Eastern.
7. Courses in which "D" grades have been earned will transfer to Eastern.
8. Only courses with letter prefixes and numbers above 100 are accepted at 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.
10. Two years of high school or two terms of college-level foreign language (same language) required for students graduating from high school spring, 1997 or later.

www.eou.edu 541-962-3393

Requirements	Credit hours	Chemeketa courses which satisfy requirements
Communication		
Speech	3	SP111
English Composition	6	WRI121 and 122
Nine additional credits from speech/writing courses having WRI122 or SP111 as a prerequisite; specified by the major department from the following: BA214 , WRI123 , 227, 321, 322, 323, 327, 328; SP321 .	9	WRI123 , 227; BA214 ; SP113 ; no equivalent courses for WRI321 , 322, 323, 327, 328
Business	9	No equivalent course.
Nine credits selected from upper-division business and industrial management courses.		
Humanities	9	ART101 , 115, 116, 117, 131, 132, 133, 154, 155, 156, 198, 199, 204, 205, 206, 210, 221, 222, 223, 224, 230, 231, 233, 234, 235, 236, 238, 239, 244, 245, 246, 254, 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, 259; JPN201 , 202, 203; MUP100 , 105, 174; MUS105 , 197, 199, 201, 202, 203; PHL 199, 201, 202, 203, 204, 205; REL201 , 202, 203; RUS201 , 202, 203; SPN201 , 202, 203; TA110 , 121, 122, 123, 285A, B, C
Nine credits selected by student or specified by a major department from the following: ART , ENG , HUM , MUS , PHL , Language (second year)		
Social Sciences	12	ATH101 , 102, 103, 207, 208, 209, 231, 232, 233; CLA203 ; CJ101 , 110, 131, 200, 206, 220, 226; EC200 , 201, 202, 203; GEG105 , 106, 107, 201, 202, 206; HST110 , 111, 112, 157, 158, 159, 199A, 201, 202, 203, 228, 257, 258, 259, 293; PS151 , 201, 202, 203, 205; PSY100 , 101, 102, 104, 201, 202, 203, 206, 237, 239; SOC204 , 205, 206, 210, 221, 227, 235, 291; SSC150 , 151, 206; WS101 , 102, 103
Twelve credits selected by student or specified by a major department from ATH , ECO , GEG , HST , PS , PSY , SOC .		
Technology	12	EGR211 , 212, 213; select computer course from: CIS120 , 121, 122; CS101 , 125A1, 125A2, 125A3, 133A, 133B, 133C, 133E, 133F, 133U, 133VB, 140B, 140U, 160, 171, 178I, 233U, 234C, 234L, 240, 244, 246, 260, 285
Twelve credits selected by student or specified by a major department. At least one computer course is required.		
Science/Mathematics		
College Algebra	4	MTH111BI101 , 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; GEO142 , 143, 144, 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
Twelve additional credits selected by student or specified by a major department from biological sciences, mathematics, or physical science.	12	

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 Associate of Arts Oregon Transfer (AAOT) 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.
5. Two years of high school or two terms of college-level foreign language (same language) required for all students graduating from high school spring 1997 or later.

www.oit.edu 541-885-1000 or 800-422-2017

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; JNL216 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, 219
Mathematics	4 or 5	MTH105, 111 or higher math (must be completed before transferring)
Fitness	3	HPE295 Health and Fitness for Life
Writing Intensive Course		(Must be taken at OSU as part of major)
Physical Science (Including Lab)	4-5	CH104, 105, 106, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223; GEG105; GEO142, 143, 144, 201, 202, 203; GS104, 105, 106, 107, 141, 142, 143; PH201, 202, 203, 207, 208, 209, 211, 212, 213
Biological Science (Including Lab)	4	BI101, 102, 103, 131, 132, 143, 200, 234; BOT201, 202, 203; ZOO201, 202, 203
One additional Physical Science or Biological Science course	4-5	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; HST110, 111, 112, 201, 202, 203, 228; PHL201, 202, 203; REL202, 203
Cultural Diversity	3	ATH201, 202, 203, 212, 214, 231, 232, 233; CLA201, 202, 203; GEG201, 202, 206; HST157, 158, 159, 257, 258, 259, 293; REL201, 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, 269, 299; FA255; MUS161, 201, 202, 203; TA110
Social Processes and Institutions	3	ATH103, 207, 208, 209; EC201, 202; ENG269; HE209; PS201, 202; PSY201, 202, 203; SOC204, 205
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:

1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree.
2. No more than two courses from the same department may be used to fulfill the Baccalaureate Core Curriculum requirements other than writing.
3. In general, only courses with letter prefixes and numbers above 100 are accepted at OSU. Some professional/technical courses numbered 100 or higher are not accepted as transferable courses. Please contact the office of admissions and orientation at OSU regarding specific courses. Professional/Technical courses include those with prefixes of: **AUM, BLD, BT, CA, CJ, DRF, ECE, ED, ELT, ENL, FE, FRP, FT, HM, HTM, MED, MFG, MT, NET, RE, VC, VMW.**
4. Students with professional/technical credits (including courses numbered 50-99) should contact the assistant registrar at OSU for assistance in determining transferability of these courses to an OSU major.
5. OSU will accept "D" grades. Some departments, schools or colleges may not accept "D's" in required courses.
6. Students with an Associate of Arts Oregon Transfer (AAOT) degree from Chemeketa Community College will be considered as having met OSU's lower division Baccalaureate Core Curriculum requirements.
7. Departments, schools, or colleges at OSU may restrict the courses used by their major students to satisfy each general educational component.
8. This guide is subject to change without notice and should not be regarded as a contract between OSU and students attending Chemeketa Community College.
9. Two years of high school or two terms of college-level foreign language (same language) required for students graduating from high school spring, 1997 or later.

osu.orst.edu 541-737-4411 or 800-291-4192

Requirements	Credit hours	Chemeketa courses which satisfy requirements
Freshman Inquiry (Three five-credit courses) This sequence is required of all transfer students who have earned less than 30 quarter hours at the time of transfer. Electives or Major Requirements	15 30	Complete 45 credit hours from courses listed for Associate of Arts Oregon 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 (Three four-credit courses selected from different interdisciplinary programs or general education clusters.) Students who have earned 30 to 89 quarter hours at the time of transfer must complete sophomore inquiry at PSU Electives or major requirements	12 33	Complete 45 credit hours from courses listed for Associate of Arts Oregon Transfer degree and courses required for major. Students planning to attend Chemeketa two years should complete the Associate of Arts Oregon Transfer degree.

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 100 or higher are accepted at PSU.
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.
4. PSU does not accept courses in which "D" grades have been earned.
5. PSU does not award credit for the following courses: CA121, 122, 123, CPL120, CS125, NUR111, 122, 123, NUR215, (and some other computer assisted business technology classes), as well as Drafting, Electronic Technology and Visual Communications courses.
6. Students who have earned an Associate of Arts Oregon Transfer (AAOT) degree from Chemeketa Community College will be considered as having met PSU's lower division general education requirements.
7. Two years of high school or two terms of college-level foreign language (same language) required for students graduating from high school spring, 1997 or later.
8. This guide is subject to change without notice and should not be regarded as a contract between PSU and students attending Chemeketa Community College.
9. Students who transfer 60-74 credit hours must take two sophomore inquiry courses. Students who transfer 75-89 credit hours must take one sophomore inquiry course.

www.pdx.edu 503-725-3511 or 800-547-8887

SOU requirements	Credit hours	Chemeketa courses which satisfy requirements
Writing	6	WR 121, 122 ("C-" or better in each class at SOU.)
Oral Communication	3	SP 111, 218 ("C-" or better in each class.)
Mathematics	4	MTH 211 and 212, or 243, 244, 251 or 245
Arts and Letter (sequence)	6-8	Choose a sequence of two or three classes from the following: ART 204, 205, 206; ENG 104, 105, 107, 108, 109; FR 202, 203; GER 202, 203; PHL 201 or 202, 203.; SPN 202, 203
Social Science (sequence)	6-8	Choose sequences of two or three classes from the following: ATH 101, 102, 103; CJ 100, 101; EC 201, 202; HST 110, 111 or 112; 201 and 202 and 203; PS 201 and 202 and 203; SOC 204 and 205 and 206; SOC 204 and ATH 103; HE 250 and HPE 295
Science (sequence)	6-8	Choose sequences of two from the following: BI 101, 102, 103; CH 104, 105, 201, 202, 221, 222; GEO 201, 202; PH 201, 202;

General Education Notes:

1. Must complete 36 transferable credits before transferring.
2. Must complete a two quarter/6-8 credit sequence from each of the following three courses resulting in a total of 24 credit hours; Arts & Letters, Social Science, Science/Math.
3. **Bachelor of Science**
Need total of 8 credits w/Math, Computer Science or designated logic class. Must have combined total of 48 credits from Math, Science, business and Social Science.

Bachelor or Arts

Need one year of a foreign language at a second year level. Must have a combined total of 48 credits from Humanities, and Fine and Performing Arts.

Students entering SOU who have earned an Associate of Arts Transfer Oregon degree from Chemeketa will be considered to have met SOU's core curriculum requirements.

Notes:

1. A maximum of 108 hours taken at community colleges can be transferred to SOU. A total of 180 credits is required for a Bachelor of Arts or Sciences degree.
2. Only courses with a letter prefix and a number of 100 or higher are considered transferable.
3. A maximum of 24 credit hours of professional/technical courses are accepted as free electives.
4. Courses in which "D" grades have been earned are accepted by SOU except those otherwise noted.
5. This guide is subject to change without notice and should not be regarded as a contract between SOU and Chemeketa Community College.
6. *Two years of high school or two terms of college-level foreign language (same language) required for all students graduating from high school Spring 1997 or later. SOU will not grant credit for the following courses; **RD**115, **RD**116.

www.sou.edu 541-552-6411 or 800-482-7672

Requirements	Credit hours	Chemeketa courses which satisfy requirements
Written English	6	WR121 and WR122 or WR123 (with a “C” grade or better) WR121 must be completed before transferring.
Arts and Letters* These courses must be completed in at least two subjects (prefixes), and a minimum of two courses must be completed in one subject.	16	Choose from the following: ART 204, 205, 206; ENG 104, 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 222, 250, 253, 254, 255, 256, 257, 258, 260, 269; FA 255, 256, 257; FR 201, 202, 203; HUM 251, 252, 253; MUS 201, 202, 203, 205; PHL 201, 202, 203, 204; RUS 201, 202, 203; SPN 201, 202, 203; TA 110
Social Science* These courses must be completed in at least two subjects (prefixes), and a minimum of two courses must be completed in one subject.	16	Choose from the following: ATH 102, 103, 180, 201, 202, 203, 207, 208, 209, 212, 214, 231, 232, 233; BA 101; CLA 201, 202, 203; EC 201, 202, 203; GEG 106, 107, 201, 202, 206, 207; HST 110, 111, 112, 157, 158, 159, 201, 202, 203, 228, 257, 258, 259, 262, 293; JNL 224; PS 201, 202, 203, 205; PSY 202, 203, 206, 237, 239; REL 201, 202, 203; SOC 204, 205, 206, 210; SSC 150, 206; WS 101, 102, 103
Science* 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 or be granted a waiver.)	16	Choose from the following: ATH 101; BI 100, 101, 102, 103, 131, 132, 133, 143, 200, 231, 232, 233, 234; BOT 201, 202, 203; CH 104, 105, 106, 110, 115, 116, 117, 121, 122, 123, 201, 202, 203, 221, 222, 223; CIS 121, 122; CS 161, 162, 244, 246, 260; GEO 142, 143, 144, 201, 202, 203; GEG 105, 190; GS 104, 105, 106, 107, 120, 141, 142, 143; MTH 105, 211, 212, 213, 231, 232, 241, 243, 244, 245, 251, 252, 253; OC 133; PH 201, 202, 203, 207, 208, 209, 211, 212, 213; PSY 201; ZOO 201, 202, 203
Multicultural Studies You must complete two courses chosen from two of the following three areas:		
Area 1—American Culture	2 courses at least 3 credits each.	Area 1 — ATH 231, 232, 233; CLA 201, 202, 203; ENG 256, 257; GEG 207 HST 257, 258, 259; MUS 105, 205; SSC 150
Area 2—Identity, Pluralism and Tolerance		Area 2 — ENG 222, 250, 260; SP 115; SSC 206; WS 101, 102, 103
Area 3—International Cultures (Some courses may be chosen to meet this requirement and one of the requirements listed above.)		Area 3 — ATH 103, 201, 202, 203, 207, 208, 209, 212, 214; ENG 258; GEG 106, 201, 202; HST 110, 111, 112, 157, 158, 159, 293; REL 201, 202

Notes:

1. A maximum of 108 credit hours earned at a community college may be applied toward a baccalaureate degree.
2. Courses with letter prefixes and numbers above 100 are accepted at the University of Oregon (with the exception of the following: **RD**115, 116, 117).
3. A maximum of 12 credit hours of vocational/technical courses are accepted as electives.
4. B.A. degree requires equivalent of two years of college foreign language. Students who have not earned the Associate of Arts Oregon (AAOT) transfer, can not use the same foreign language courses to meet both the Arts and Letters and BA requirements.
5. B.S. degree requires **MTH**111, 211, 212 and 213; or any three of the following: **MTH**105, 111, 241 and 243; or **MTH**112 or 116 plus any one of the following: **MTH**231, 241, 243, **CS**133U, 161, 162; or any one of the following: **MTH**251, 252, 253, 254, 255, 256. All courses must be completed with a “C” grade or better. Students who have not earned an Associate of Arts-Oregon Transfer (AAOT), cannot use the same courses to meet BS degree Math/Computer course proficiency requirement and the Science requirement.
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.
7. Students not meeting freshman admissions criteria must complete **WR**121 and **MTH**105 or 111 before transferring.
8. Students who have earned an Associate of Arts Oregon Transfer (AAOT) 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 AAOT degree unless acceptable courses are taken as part of the AAOT degree.
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.
10. Students graduating from high school in 1997 or after must have completed two years of high school-level second language or two terms of a college-level second language or demonstrated proficiency to be admitted to U of O.

*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.

www.uoregon.edu 541-346-3201 or 800-232-3825

Requirements	Credit hours	Chemeketa courses which satisfy requirements
English Composition	3	WR121 or WR122 or WR123
Speech	3	Courses with SP prefix and numbered 111 or higher. SP111 , 112, 218. SP111 preferred.
Physical Education	4	All activity courses selected from PE180 , 185, 190, 194, 294 and HPE295 . (HPE295 and one hour of activity class preferred. Classes should include different activities.)
Creative Arts (Art, Dance, Music, Theater Arts)	9	Any course with prefix of ART , MUP* , MUS , TA and numbered 100 or above. In addition, dance courses at WOU meet requirement. Nine hours in combination of three different areas preferred.* A maximum of three hours of music performance courses is allowed.
Humanities (Literature, Philosophy and Religion)	12	A sequence of at least nine hours in literature is required: ENG104 , 105, 106, 107, 108, 109, 201, 202, 203, 204, 205, 206, 250, 253, 254, 255, 260, 261, 262, 263 and one philosophy or religion course: PHL201 , 202, 203 or 204, or REL201 , 202 or 203.
Laboratory Science	12	A sequence of at least eight hours in the same discipline is required. All courses numbered 100 or higher and with a prefix of BI , BOT , CH , GEO , GS , PH or ZOO . (Elementary education majors should take BI101 , GS104 and GS106 .)
Social Science	12	A sequence of at least nine hours in the same discipline is required. All courses numbered 100 or higher with a prefix of ATH , GEG , HST , PS or SOC . The remaining three hours may be in any social science area, including psychology and criminal justice. Note: US history or geography are recommended for elementary education majors. PSY237 is recommended for elementary education majors.
Special Graduation Requirements		
Bachelor of Arts (B.A.)	4	(1) MTH105 or higher math. (Elementary education majors should take MTH211 , 212, 213 Foundation of Elementary Mathematics);
or	3	(2) CS101 ; and
	4	(3) Third term of a second-year foreign language
Bachelor of Science (B.S.)	12	(1) A combined total of 12 credit hours in mathematics, computer science or designated statistics courses. A minimum of one math class and one computer science (MTH105 and CS101 do not meet this requirement). Each BS degree program in the Western catalog identifies the math, computer science and statistics courses that meet this.

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 Associate of Arts Oregon Transfer (AAOT) 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. Students who graduate from high school spring 1997 or later must have completed two years of high school foreign language (same language) or two terms of college-level foreign languages to be admitted to WOU. 12. This guide is subject to change without notice and should not be regarded as a contract between Western and students attending Chemeketa Community College.

www.wou.edu 877-838-8211 or 877-877-1593

Career Choices and Programs of Study

As you begin at Chemeketa you may have already decided on a career you want to pursue or a program area you want to enter. Many students, however, are still figuring that out when they start at the college. If you are still exploring career options, the career information here may be helpful to you. Below is a list of the fastest-growing occupations in the United States. Chemeketa

has programs of study for most of these top-20 careers. In some cases there is more than one choice of a program to get you started in the career. For some of the careers you may need to get training at another community college. In all cases, you will see where you can find more information about the program or whom you need to contact.

Top 20 Fastest Growing Occupations in the United States

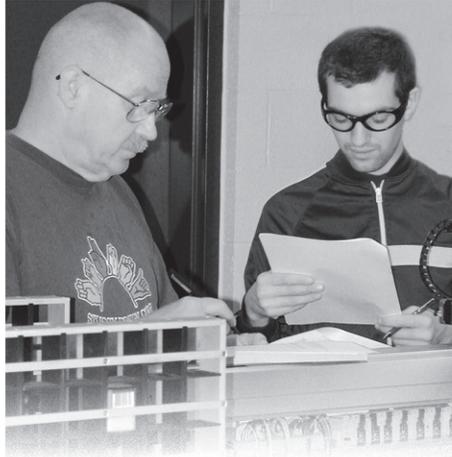
Occupation	Program or Information	Page or Telephone
1. Computer Software Engineers, Applications	See Computer Science (Transfer)	page 71
2. Computer Support Specialist	See Microcomputer Support Specialist	page 71
3. Computer Software Engineers, Systems software	See Computer Science (Transfer)	page 71
4. Network and Computer Systems Administrators	See Network Technology	page 103
5. Network Systems and Data Communications Analysts	See Network Technology	page 103
6. Desktop Publishers	See Visual Communications	page 113
7. Database Administrators	See Computer Programming	page 70
8. Personal and Home Care Aides	Contact Nursing Department	503-399-5252
9. Computer Systems Analysts	See Computer Science	page 71
10. Medical Assistants	See Medical Office Assisting	page 102
11. Social and Human Service Assistants	See Human Services Program	page 97
12. Physician Assistants	See Associate of Arts-Oregon Transfer/Biology Major	page 43
13. Medical Records and Health Information Technicians	See Medical Transcription	page 67
14. Computer and Information Systems Managers	See Computer Science	page 71
15. Home Health Aides	Contact Nursing Department	503-399-5252
16. Physical Therapist	See Associate of Arts-Oregon Transfer	page 43
17. Occupational Therapist	See Associate of Arts-Oregon Transfer	page 43
18. Physical Therapist Assistants	Contact Mt. Hood Community College	503-491-6422
19. Audiologists	See Associate of Arts-Oregon Transfer/Speech Major	page 43
20. Fitness Trainers and Aerobics Instructors	See Physical Education	page 107

Source: US Department of Labor Statistics

Here is a list of the fastest-growing jobs in Marion, Polk and Yamhill counties. As you look at these jobs, keep in mind that some of these jobs require a degree or certificate, but others may just require a few courses. In each of these areas Chemeketa has

the training available to prepare you for work. The contact and program information will help you find the classes or program you need.

Occupation	Contact TED Center	Telephone	Programs and Courses
1. Salesperson: Retail	TED Center	503-399-5181	Sales Training/Customer Service
2. General Office Clerk	Patricia Sessions	503-399-6094	See Business Technology Certificate, page 64
3. Clerical Supervisor	Patricia Sessions	503-399-6094	See Administrative Assistant Options, page 66
4. Food Preparation Workers	Nancy Duncan	503-399-5296	Food Handler Certification, Food Manager Training
5. Hospitality Management	Nancy Duncan	503-399-5296	See Hospitality & Tourism Management, page 94
6. Sales Supervisors	TED Center	503-399-5181	Supervisory Skills for Sales Supervisors
7. Gardeners/Groundskeepers	Craig Anderson	503-399-6565	Landscaper / Groundskeeper Training
8. Registered Nurses	Kay Carnegie	503-399-5058	See Nursing, page 104
9. Personal and Home Care Aides	Kay Carnegie	503-399-5058	Class offered as needed
10. Receptionists/Information Clerks	Patricia Sessions	503-399-6094	See Clerical Basics Program, page 64
11. Post-Secondary Teachers	Cathie Whyte	503-399-2694	See Prof-Tech Teacher Prep, page 109
12. Computer Support Specialist	Robert Johnson	503-399-6074	See Microcomputer Support Specialist, page 71
13. Sales Representatives: Non Technical	TED Center	503-399-5181	Sales Training/Customer Service
14. Computer Network and Internet Specialists	Gary Boyington	503-399-5218	See Network Technology, page 103



Chemeketa Community College
Career choices and programs of study

Accounting

See also Business Administration and Management.

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 Chemeketa's Counseling and Career Services 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:

BT061A	Electronic Calculators A (if less than 80 strikes/minute)	1
BT085	Business English 2.....	3
CA121A	Keyboarding A (if less than 25 wpm)	1
CS101	Introduction to Microcomputer Applications	3
MTH060	Introductory Algebra	4
RD090	College Textbook Reading	3

If you have questions about the requirements, call Chemeketa's Counseling and Career Services 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 BA280A-L Cooperative 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, \$1,820; class fees, \$250; universal access fee, \$392; equipment and supplies, \$165. Contact the Financial Aid Office at 503-399-5018 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 98 credit hours with a grade of C or better in all Business Administration (BA) courses:

Course	Title	Credit Hours
Term 1		
BA202	Personal Effectiveness	3
BA211	Financial Accounting 1*	4
BA214	Business Communications	3
	or	
WR123	English Composition-Research Writing	3
CS125E	Excel-Workbooks	4
MTH062	Business Applications Using Mathematics (or higher)	4
Term 2		
BA101	Introduction to Business	4
BA203	Interpersonal Relations in Business	3
BA212	Financial Accounting 2	4
MTH070	Elementary Algebra (or higher)	4
	Computer Science elective**	3
Term 3		
BA213	Managerial Accounting	4
BA228	Computer Accounting Applications	3
BA256	Income Tax Accounting 1	4
EC200	Introduction to Economics (or higher)	3
WR227	Technical Writing	3
Term 4		
BA226	Business Law 1	3
BA240	Governmental/Nonprofit Accounting 1***	3
	or	
BA257	Income Tax Accounting 2	4
BA266	Intermediate Financial Accounting 1	4
BA271	Information Technology in Business	4
FE205C	Interviewing for Success	1
Term 5		
BA206	Business Management Principles	3
BA222	Financial Management	3
BA267	Intermediate Financial Accounting 2	4
BA280C	Cooperative Work Experience	3
	or	
	Business elective****	3
Term 6		
BA177	Payroll	4
BA268	Intermediate Financial Accounting 3	4
SP111	Fundamentals of Public Speaking	3
	Business elective****	3
	or	
BA280C	Cooperative Work Experience	3
	Humanities/Fine Arts elective	3

*You must have completed the requirements, or be concurrently enrolled in MTH062 or higher math.

**Choose from 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 and EC except BT084, BT085, BA051, BA052, BA053 and CS101.

Agriculture

(transfer course guideline)

Oregon State University offers Bachelor of Science degrees in Agricultural and Resource Economics, Agricultural Business Management, General Agriculture, Animal Sciences, Crop and Soil Science, Fisheries and Wildlife Science, Food Science and Technology and Horticulture.

The educational guide outlined below is designed to meet some requirements at OSU. It is important to check the OSU catalog for the requirements of specific majors.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at OSU to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121 English Composition-Exposition or Speech courses* (WR227 Technical Writing and/or SP111 or SP112 required for some options; SP111, 112, 218 required for Agriculture Education and General Agriculture/Fisheries and Wildlife Science)	3	3	3
Mathematics (per placement test through MTH111 College Algebra for most majors; MTH243 Probability and Statistics 1, MTH241 Elementary Calculus, or MTH251, MTH252 Calculus required in several majors; MTH105 for General Agriculture and Ag Education. (Check OSU catalog for specific requirements)	(4)	5	(4)
BI101, 102, 103 General Biology or ZOO201, 202, 203 Zoology or CH121 and 121R, 122 and 122R, 123 and 123R General Chemistry (depending upon major and option; CH221 and 221R, 222 and 222R, 223 and 223R required for Food Science)	4-5	4-5	4-5
HPE295 Health and Fitness for Life	3		
CS101 Introduction to Microcomputer Applications (or other computer class needed)		3	
Arts and Letters or Social Science* (EC201, 202 Introduction to Microeconomics and Macroeconomics required in some options; PS201 required for Agricultural and Resource Economics)	3	3	3
Electives*			3
Second Year	4	5	6
BI101, 102, 103 or CH121 and 121R, 122 and 122R, 123 and 123R (both sequences recommended, but may not be required in all majors; some options require ZOO201, 202 General Zoology and BOT201, 202 General Botany or PH201, 202 General Physics)	4-5	4-5	4-5
Arts and Letters or Social Science electives*	6	6	6
Electives* (BA226 Business Law or NFM225 Nutrition required in some majors; BA211, 212, 213 required in some majors; BI234 Microbiology for Animal Sciences, CH241 and 241B, CH242 and 242B, and CH243 and 243B Organic Chemistry required for some majors. Check OSU for additional courses required in specific options)	6	3	6

*To meet OSU general education requirements.

Anthropology

(transfer course guideline)

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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition Exposition* (SOU choose SP111 or SP218 instead of WR123)	3	3	(3)
HPE295 Health and Fitness for Life* or elective			3
ATH101, 102, 103 Human Evolution, Archeology and Introduction to Cultural Anthropology (OSU requires ATH103 only; SOU requires ATH211; UO requires ATH102***)	3	3	3
Arts and Letters/Humanities courses*	3	3	0-3
Electives or Foreign Language* (two years of college-level Foreign Language required at PSU and recommended at UO; may be required for graduate work; for WOU choose courses for minor)	3-4	3-4	3-4
Math or Science electives*(EOU requires a statistical class at EOU; PSU requires math through MTH244 or ATH180; SOU requires math through MTH243 Probability and Statistics 1)	4	4	4
Second Year	4	5	6
Social Science electives* (SOC204, 205, 206 General Sociology for EOU)	3	3	3
Arts and Letters/Humanities electives*	3	3	3
Second-year Foreign Language (for PSU and for graduate studies) or electives*	3-4	3-4	3-4
Math or Science electives**	4	4	4
Electives* (UO recommends Computer Science and Statistics courses)	3	3	3

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

**MTH243 and MTH244 Probability and Statistics 1 and 2 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 and SOU.

Aquarium Science

The Aquarium Science program is a comprehensive two-year Associate of Applied Science degree program of both theory and practical experience designed to prepare students for a career in aquatic animal husbandry.

This program is taught at Oregon Coast Community College, and enrollment is limited. For additional information, contact Bruce Koike, the Aquarium Science program director at 541-574-7130 or visit www.occ.cc.or.us/aquarium.

Students who successfully complete the program will be qualified to work in the aquatic animal husbandry profession. They may be eligible for positions as aquarist, aquatic biologist and keeper. Potential employment opportunities include public zoos and aquariums, ornamental fish retailers and wholesalers, aquaculture businesses, research programs, marine educational centers, state and federal natural resource agencies, as well as self-employment.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,500; class fees, \$590; universal access fee, \$176; equipment and supplies, \$400; and travel and living expenses during the internship. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree in Aquarium Science by successfully completing the required 93 credit hours with a grade of C or better in all courses. You will need to complete 132 hours of practicum and 400 hours of field internship.

Course	Title	Credit Hours
Term 1		
AQS100	Introduction to Aquarium Science	3
BI101	General Biology (or higher)	4
CA118F1	PowerPoint Basics 1	1
MTH095	Intermediate Algebra (or higher)	4
PSY104	Psychology in the Workplace	3
Term 2		
AQS110	Aquarium Science Practicum 1	2
BI102	General Biology (or higher)	4
CA118B1	Excel Basics 1	1
CH110,110R	Foundations of General, Organic and Biochemistry (or higher)	5
SP111	Fundamentals of Public Speaking (or higher)	3
WR121	English Composition-Exposition (or higher)	3
Term 3		
AQS111	Aquarium Science Practicum 2	2
AQS141	Interpretation and Communication	4
AQS165	Current Issues in Aquarium Science	2
AQS186	Introduction to Scientific Diving	1
BI103	General Biology (or higher)	4
PE185SA	Scuba Diving-Beginning	1
	Aquarium Science electives*	3
Term 4		
AQS215	Biology of Captive Fish	4
AQS220	Biology of Captive Invertebrates	4
AQS240	Life Support System Design and Operation	4
CA118C1	Access Basics 1	1
WR227	Technical Writing	3
Term 5		
AQS226	Biology of Diverse Captive Species	3
AQS232	Reproduction and Nutrition of Aquatic Species	4
AQS250	Principles of Exhibit Development	4
AQS270	Fish and Invertebrate Health Management	4

Term 6

AQS275 Aquarium Science Internship12

*Aquarium Science electives:

AQS150 Special Projects2

AQS187 Scientific Diving1

BI100 Orientation to Marine Life of the Oregon Coast.....3

Art

(transfer course guideline)

See also **Visual Communications for Graphic Design**

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, Art History, Fine Arts, Graphic Design and Photography, and UO has majors in Art History, and Fine and Applied Arts.

A five-year educational guide in Art leading to the Bachelor of Fine Arts (B.F.A.) degree is also offered at OSU, SOU and UO.

The educational guide outlined below is designed so that you may meet requirements of these institutions in two years, if you attend full time.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition-Exposition* (SOU: WR121, WR122 and SP111 or SP218)	3	3	(3)
ART115, 116, 117 Basic Design (does not meet requirement at UO, PSU); ART115 for SOU	3	3	3
ART101 Understanding Art and ART131 Introduction to Drawing, ART234 Figure Drawing 1 for OSU, and WOU (PSU and SOU require ART131, 132, 133)	4	3	3
Science or Mathematics courses*	4	4	4
Social Science courses* (recommend HST110, 111, 112 World History for OSU, PSU)			3-6
Arts and Letters/Humanities* (non-art: OSU, PSU and UO require two years of Foreign Language, preferably French, German, Italian, Chinese or Japanese, for Art History majors)	3-4	3-4	3-4
Second Year			
ART204, 205, 206 Art History	3	3	3
Social Science courses*	3	3	3
Arts and Letters/Humanities electives* (Third-year Foreign Language for OSU and UO Art History majors; recommend French, German or Japanese; PSU requires Art History only)	3-4	3-4	3-4
Science or Mathematics* (MTH111 College Algebra or 211 Foundations of Elementary Mathematics for EOU)	4	(4)	(4)
HPE295 Health and Fitness for Life* or elective		3	

Studio Art courses (EOU choose from ART154

Pottery I, ART221 Graphic Design 1: Symbols and Meaning, ART261 General Photography, ART271 Printmaking: Photo-Etching, ART281 Painting, ART291 Beginning Sculpture) OSU ART261 General Photography, ART281 Painting, and ART291 Beginning Sculpture for most options, also recommend ART221, ART237 and ART262, for some options; PSU choose two from VC111, ART260, ART261, ART263, ART291; SOU choose eight credits from three groups listed in SOU catalog; UO Art History majors take six hours of studio courses in Drawing, Painting, Sculpture, or Design; WOU 12 hours from ART155 Pottery 2, ART230 Drawing: Anatomy for Artists, ART270 Printmaking: Screen Printing 1, ART274 Printmaking: Screen Printing 2, ART281, ART291) 3 3 3

Electives (CS course required at EOU; 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.

Automotive Technology

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. The certificate programs have been designed to be completed in one year and the degree programs in two years, and they offer training for auto body repair and auto machine shop, including courses in auto heating and air conditioning, welding, general education courses and Cooperative Work Experience. Students in the degree program must attend full time.

This program has special admission requirements and enrollment limits. For additional information, contact the Counseling and Career Services at 503-399-5120. There are entry-level expectations for skill levels in reading, writing and mathematics.

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 the following program is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services 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
RD090	College Textbook Reading	3
WR040	Writing Skills	3

If you have questions about the requirements, call Counseling and Career Services at 503-399-5120 or 503-399-5210. 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. To be eligible for on-site Cooperative Work Experience, students must maintain a 2.5 or higher GPA in Automotive Technology courses. With the approval of the program chair, you may enroll in AUM280A-L 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, \$305; class fees, \$57; universal access fee, \$184; equipment and supplies, \$1,800. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 46 credit hours with a grade of C or better in AUM courses:

General Education requirements (12 credit hours):

Course	Title	Credit Hours
COM051	Communications Skills 1	3
	or	
WR121	English Composition-Exposition (or higher).....	3
CS101	Introduction to Microcomputer Applications (or higher)	3
MTH052	Introduction to Algebra and Geometry (or higher)	3
PSY100	Introduction to Psychology (or higher)	3

Automotive Body core requirements (19 credit hours):

AUM168	Automotive Electrical Systems 1	4
AUM184	Automotive Materials and Resources.....	1
AUM280L	Cooperative Work Experience	12
WLD097	Welding	2
	or	
WLD061	Basic Gas Metal Arc Welding (MIG)	3

Automotive Body Repair electives (Select 15 credit hours):

AUM151	Basic Automotive Engines	5
AUM157	Automotive Brake Systems	5
AUM158	Automotive Steering and Suspension	5
AUM286	Automotive Heating and Air Conditioning.....	5

Automotive Machining

This certificate emphasizes machining and rebuilding automotive engines. A significant portion of the training is done on the job as well as specific training on campus.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$290; class fees, \$209; universal access fee, \$208; equipment and supplies, \$1,800. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 52 credit hours with a grade of C or better in AUM courses:

Course	Title	Credit Hours
General Education requirements (12 credit hours):		
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition (or higher).....	3
CS101	Introduction to Microcomputer Applications (or higher)	3
MTH052	Introduction to Algebra and Geometry (or higher)	3
PSY100	Introduction to Psychology (or higher)	3

Automotive Machine core requirements (40 credit hours):

Course	Title	Credit Hours
AUM151	Basic Automotive Engines	5
AUM184	Automotive Materials and Resources.....	1
AUM185	Automotive Machining Fundamentals	2
AUM186	Automotive Lathe Fundamentals	2
AUM187	Automotive Milling Machine Processes.....	2
AUM188	Auto Machine Shop-Upper Engine	3
AUM189	Auto Machine Shop-Lower Engine	3
AUM190	Auto Machine Shop-Engine Assembly	3
AUM253	Automotive Engines 2.....	3
AUM280L	Cooperative Work Experience	12
WLD077	Welding Processes	4

Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$900; class fees, \$309; universal access fee, \$416; equipment and supplies, \$1,800. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 104 required credit hours with a grade of C or better in AUM courses:

Course	Title	Credit Hours
Term 1		
AUM151	Basic Automotive Engines.....	5
AUM157	Automotive Brake Systems.....	5
AUM184	Automotive Materials and Resources.....	1
COM051	Communication Skills 1	3
	or	
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 2	3
	or	
WR122	English Composition-Logic and Style.....	3
CS101	Introduction to Microcomputer Applications (or higher)	3
MTH052	Introduction to Algebra and Geometry (or higher)	3
Term 3		
AUM161	Manual Drive-trains and Axles 1.....	5
AUM168	Automotive Electrical Systems 1	4
AUM192	Automotive Diesel Engines	3
PSY100	Introduction to Psychology (or higher)	3
Term 4		
AUM262	Manual Drive Trains and Axles 2	3
AUM263	Automatic Transmissions and Transaxles 1	5
AUM266	Basic Fuel Systems	4
AUM276	Automotive Electrical Systems 2	4
Term 5		
AUM267	Advanced Carburetion and Fuel Systems	5
AUM277	Automotive Electrical Systems 3	5
AUM282	Electronic Vehicle Controls.....	5
AUM286	Automotive Heating and Air Conditioning.....	5
Term 6		
AUM253	Automotive Engines 2.....	3
	or	
AUM280C	Cooperative Work Experience.....	3
AUM273	Automatic Transmissions and Transaxles 2	3
	or	
AUM280C	Cooperative Work Experience.....	3
AUM281	Tune-up and Driveability.....	6
AUM283	Advanced Electronic Vehicle Controls Systems.....	4
WLD097	Welding.....	2
	or	
WLD077	Welding Processes.....	4

Biology, Botany, General Science, Zoology

(transfer course guideline)

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 educational guide 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. With minor adjustments as noted below, this outline of classes may also be followed for majors in Botany, Microbiology or Zoology at Oregon State University. See college catalogs for other class options and additional requirements. It may be advisable to transfer after one year of community college course work.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition-Exposition* (SOU: WR121, WR122 and SP111 or SP218)	3	3	(3)
HPE295 Health and Fitness for Life* or elective			3
CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry (CH121 and 121R, 122 and 122R, 123 and 123R College Chemistry is also accepted for OSU Botany and General Science and for UO Biology and General Science majors; CH201, 202, 203 required for SOU)	5	5	5
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 EO. EO requires 12 hours of math or a combination of math and computer science. MTH111, 112, 243, 251 and 252 required for SOU; a course in Statistics is recommended for OSU and UO; MTH251 and 252 or MTH241 Elementary Calculus and 243 for Botany, and General Science at OSU; PSU requires MTH243 and MTH244 Probability and Statistics 1 and 2 or MTH251 and MTH252; WOU requires MTH251 and MTH252 or MTH243 and CS161	4-5	4-5	4
Computer Science 1			
Arts and Letters/Humanities courses*	3	3	3
Second Year			
PH201, 202, 203 General Physics or PH211, 212, 213 Physics for Engineers and Scientists (not required at WOU and only one term required at EO; only PH201, 202 required for Zoology at OSU; OSU Botany majors take BOT201, 202, 203 Botany; General Science majors at OSU may take 12 credits of physical science or physics; EO choose between PH211 and MTH251 Differential Calculus; PSU requires PH201 and twelve credits of 200-level Geology, Physics, or Chemistry; SOU also accepts GEO201, 202, 203 Geology; WOU take any science for general education requirements)	4	4	4

CH241, 241B, 242, 242B, 243, 243B 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; CH242 and 242B and 243 and 243B not required at PSU; UO General Science majors may take GEO201, 202, 203 Geology)	4-5	4-5	4-5
Social Science courses* (ATH101 Human Evolution may be taken for General Science at UO)	3	3	3
Arts and Letters/Humanities* or electives	3-4	3-4	3-4
OSU Botany, Biology, Microbiology, and Zoology majors should take ZOO201, 202 General Zoology and BOT201, 202 General Botany; OSU General Science allows BI101, 102, 103. PSU General Science degree allows other science choices. Social Science electives or other electives* (EOU requires CS101 Introduction to Microcomputers or computer studies courses at or above the 200 level)	3	3	3

*To meet four-year college general education requirements.
 Note: General Science needs three three-course sequences from CH221 and 221R, 222 and 222R, 223 and 223R; GEO201, 202, 203; PH201, 202, 203 or 211, 212, 213; or from Anthropology, Biology, Computer Science at UO.
 Chemeketa's BI101, 102, 103 do not meet biology requirement for Biology majors.

Building 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 BLD280A-L 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 Enrollment Services (Admissions) Office at 503-399-5006.

Focused Plans for Certificates

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$907; class fees, \$66; universal access fee, \$240-264; equipment and supplies, \$264. Contact the Financial Aid Office at 503-399-5018 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 1	3
BLD181	Mechanical Codes 1	3
BLD193A	Building Inspection-Lab	2
BLD263	Structural Inspection-Concrete	3
BLD271	Plumbing Codes 1	3
BLD292A	International Residential Code (Structural).....	3
COM051	Communication Skills 1	3
or		
WR121	English Composition-Exposition	3
MTH052	Introduction to Algebra and Geometry (or higher)	3
Term 2		
BLD152	Building Codes 2	3
BLD161	Structural Inspection-Wood	3
BLD193B	Building Inspection-Lab	2
BLD292B	International Residential Code (Mechanical)	3
COM052	Communication Skills 2	3
or		
WR122	English Composition-Logic and Style	3
MTH053	Introduction to Trigonometry with Geometry (or higher)	3
Term 3		
BLD153	Building Codes 3	3
BLD155	Building Department Administration	3
BLD162	Structural Inspection-Masonry.....	3
BLD193C	Building Inspection-Lab	2
COM053	Technical Report Writing.....	3
or		
WR227	Technical Writing	3
PSY104	Psychology in the Workplace.....	3
Term 4		
BLD280L	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 1	3
BLD193A	Building Inspection-Lab	2
BLD263	Structural Inspection-Concrete	3
BLD268	Foundations, Excavating and Grading.....	3
BLD292A	International Residential Code (Structural).....	3
COM051	Communication Skills 1	3
or		
WR121	English Composition-Exposition	3
MTH052	Introduction to Algebra and Geometry (or higher)	3
Term 2		
BLD152	Building Codes 2	3
BLD161	Structural Inspection-Wood	3
BLD193B	Building Inspection-Lab	2
BLD292B	International Residential Code (Mechanical)	3
COM052	Communication Skills 2	3
or		
WR122	English Composition-Logic and Style	3
MTH053	Introduction to Trigonometry with Geometry (or higher).....	3

Term 3

BLD153	Building Codes 3	3
BLD155	Building Department Administration	3
BLD162	Structural Inspection-Masonry	3
BLD193C	Building Inspection-Lab	2
COM053	Technical Report Writing	3
	or	
WR227	Technical Writing	3
PSY104	Psychology in the Workplace	3

Term 4

BLD280L	Cooperative Work Experience	12
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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
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Term 1

BLD151	Building Codes 1	3
BLD193A	Building Inspection-Lab	2
BLD263	Structural Inspection-Concrete	3
BLD268	Foundations, Excavating and Grading	3
BLD292A	International Residential Code (Structural)	3
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition	3
MTH052	Introduction to Algebra and Geometry (or higher)	3

Term 2

BLD152	Building Codes 2	3
BLD161	Structural Inspection-Wood	3
BLD193B	Building Inspection-Lab	2
BLD266	Structural Plan Review	3
BLD292B	International Residential Code (Mechanical)	3
COM052	Communication Skills 2	3
	or	
WR122	English Composition-Logic and Style	3
MTH053	Introduction to Trigonometry with Geometry (or higher)	3

Term 3

BLD153	Building Codes 3	3
BLD155	Building Department Administration	3
BLD162	Structural Inspection-Masonry	3
BLD193C	Building Inspection-Lab	2
BLD267	Non-Structural Plan Review	3
COM053	Technical Report Writing	3
	or	
WR227	Technical Writing	3
PSY104	Psychology in the Workplace	3

Term 4

BLD280L	Cooperative Work Experience	12
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You may earn a Certificate of Completion for the One-Year Mechanical Inspection by successfully completing these 69 required credit hours:

Course	Title	Credit Hours
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Term 1

BLD151	Building Codes 1	3
BLD181	Mechanical Codes 1	3
BLD193A	Building Inspection-Lab	2
BLD271	Plumbing Codes 1	3
BLD292A	International Residential Code (Structural)	3
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition	3
MTH052	Introduction to Algebra and Geometry (or higher)	3

Term 2

BLD152	Building Codes 2	3
BLD182	Mechanical Codes 2	3
BLD193B	Building Inspection-Lab	2
BLD272	Plumbing Codes 2	3
BLD292B	International Residential Code (Mechanical)	3
COM052	Communication Skills 2	3
	or	
WR122	English Composition-Logic and Style	3
MTH053	Introduction to Trigonometry with Geometry (or higher)	3

Term 3

BLD153	Building Codes 3	3
BLD155	Building Department Administration	3
BLD183	Mechanical Codes 3	3
BLD193C	Building Inspection-Lab	2
COM053	Technical Report Writing	3
	or	
WR227	Technical Writing	3
PSY104	Psychology in the Workplace	3

Term 4

BLD280L	Cooperative Work Experience	12
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*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, \$2,069; class fees, \$258; universal access fee, \$432; equipment and supplies, \$764. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 114 required credit hours:

Course	Title	Credit Hours
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Term 1

BLD150	Introduction to Building Inspection	3
BLD151	Building Codes 1	3
BLD181	Mechanical Codes 1	3
BLD193A	Building Inspection-Lab	2
COM051	Communication Skills 1	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 2	3
BLD159	Materials of Construction	2
BLD161	Structural Inspection-Wood	3
BLD182	Mechanical Codes 2	3
BLD193B	Building Inspection-Lab	2
COM052	Communication Skills 2	3
	or	
WR122	English Composition-Logic and Style (or higher)	3
MTH053	Introduction to Trigonometry with Geometry (or higher)	3

Term 3

BLD153	Building Codes 3	3
BLD155	Building Department Administration	3
BLD162	Structural Inspection-Masonry	3
BLD183	Mechanical Codes 3	3
BLD193C	Building Inspection-Lab	2
BLD280L	Cooperative Work Experience	12
COM053	Technical Report Writing	3
	or	
WR227	Technical Writing	3
FE205B	Resumes and Job Search Correspondence	1

Term 4

BLD193D	Building Inspection-Lab	2
BLD263	Structural Inspection-Concrete	3
BLD268	Foundations, Excavating and Grading.....	3
BLD269	Engineering for the Building Inspector	3
BLD271	Plumbing Codes 1	3
BLD292A	International Residential Code (Structural).....	3

Term 5

ART261	General Photography	3
	or	
	Social Science elective	3
	or	
	Humanities/Fine Arts elective	3
BLD193E	Building Inspection-Lab	2
BLD266	Structural Plan Review.....	3
BLD272	Plumbing Codes 2	3
BLD292B	International Residential Code (Mechanical)	3

Term 6

BLD193F	Building Inspection-Lab	2
BLD260	Fire Protection for Buildings	3
BLD267	Non-Structural Plan Review.....	3
BLD291	One- and Two-Family Electrical Code	3
	or	
FRP072	Uniform Fire Code	3
PSY101	Psychology of Human Relations (or higher)	3

Business Administration

(transfer course guideline)

See also Accounting, and Management. (Includes Accounting, Finance, International Business, Marketing and Management)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

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 departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

First Year	1	2	3
WR121 English Composition-Exposition	3		
WR122, SP111 or SP218 for SOU; WR122 or 123 English Composition for UO; WR122 or 227 Technical Writing or BA214 Business Communication for OSU*; BA214 required for PSU; (neither required at UO)		(3)	3
Mathematics per placement test (MTH111 College Algebra, MTH243 Probability and Statistics I, MTH241 Elementary Calculus for OSU, UO, and WOU; MTH241 for EOU; MTH111, 243, and 244 for PSU; MTH112 or 251 for SOU)	5	4	(4)
CS101 Introduction to Microcomputer Applications and knowledge of MS PowerPoint, Access, Excel for UO, OSU		(4)	3

Arts and Letters/Humanities courses* (PHL203 Ethics required for PSU accounting majors)	3	3	3
Social Science courses* (PSU Accounting majors need one course from ATH, PSY or SOC)	3	3	3
HPE295 Health and Fitness for Life* or elective		3	
Electives* (recommend CS178I for PSU; BA275 Quantitative Business Methods or MTH244 Probability and Statistics 1 for OSU)	(3-4)	(3-4)	
Second Year	4	5	6
BA211, 212 Financial Accounting (BA101 for SOU)	4	4	
BA213 Managerial Accounting			4
EC201, 202, 203 Economics (EC203 not required at OSU, SOU, or UO but is recommended)	3	3	3
SP111 Fundamentals of Public Speaking for WOU; SP111 or SP112 Fundamentals of Persuasion for OSU; SP112 for PSU; choose one from SP111, 112, 113 Fundamentals of Small Group Communication or SP218 Interpersonal Communication for SOU; SP218 for EOU	3		
BA226 Business Law for EOU, OSU, SOU, and WOU; BA101 Introduction to Business for EOU, PSU, and UO		3-4	
Elective courses to meet general education requirements		(3)	(3)
Arts and Letters/Humanities electives*	3		3
Science courses*	4	4	4
Social Science courses* (Accounting majors at PSU need PS201, 202 American Government)	(3)	(3)	(3)

*To meet four-year college general education requirements.

Business Technology

Chemeketa offers a Clerical Basics certificate, one-year certificates and two-year degree programs in business technology for those who wish to pursue a career in a business office environment.

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.

The one-year core curriculum and electives prepare you as an entry-level office support specialist. You may earn a Business Technology Certificate of Completion by successfully completing the credit hours required.

The two-year program is designed for people who want to become administrative assistants, secretaries, office assistants and support specialists. There are four options: Administrative Assistant, Accounting Administrative Assistant, Business Support Specialist and Medical Administrative Assistant. 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 BT280A-L Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

Many courses have prerequisites. Check the course descriptions in the back of this catalog for details.

Clerical Basics Program

The Clerical Basics program allows you to concentrate on developing the basic skills required of a receptionist, file clerk, bookkeeping assistant, typist and/or an employee in other related positions. Independent study and individualized instruction allow you to proceed at your own pace. Most class times are flexible to accommodate your schedule. Course content includes keyboarding, records management, business English, calculators, bookkeeping, formatting, proofreading, a computer operating system, and basic word processing, spreadsheet, database and presentation software. 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's outreach centers in Dallas, McMinnville, Stayton, and Woodburn. For additional information, call 503-399-3524 in Salem, 503-623-5567 in Dallas, 503-472-9482 in McMinnville, 503-399-5215 in Stayton for the Santiam Center, and 503-981-8820 in Woodburn.

In addition to tuition, estimated costs for students who complete the required courses listed below are books, \$760; class fees, \$72; universal access fee, \$120; equipment and supplies, \$50. Contact the Financial Aid Office at 503-399-5018 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 with a grade of C or better in all courses.

Required Courses:

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

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

Getting Started

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

BT084	Business English 1.....	3
CA121A	Keyboarding A (if less than 25 wpm).....	1
MTH060	Introductory Algebra.....	4
RD090	College Textbook Reading.....	3

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

One-Year Certificate Programs

You may earn a Certificate of Completion by successfully completing the credit hours required for the Business Technology Certificate or the Business Software Certificate.

Business Technology Certificate

This certificate prepares you to work as a word processing operator, general office clerk, receptionist, typist, file clerk, secretary, bookkeeping assistant and/or accounting clerk. You may enroll part time or full time. Your classes will be offered primarily in traditional classrooms and labs. Taking classes through distance education is an option for some classes. If you are interested in taking classes primarily by distance delivery, see the Business Software Certificate.

In addition to tuition, estimated costs for students who complete the required courses listed below are books, \$1,075; class fees, \$90; universal access fee, \$184; equipment and supplies, \$100. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 46 credit hours with a grade of C or better in all courses. These include the 41 credit hours listed under Business Technology Certificate core requirements and five credit hours of Business Technology Certificate electives.

Business Technology Certificate core requirements (41 credit hours):

Course	Title	Credit Hours
BT061	Electronic Calculators.....	2
BT085	Business English 2.....	3
BT086	Personal and Professional Development.....	3
BT090	Bookkeeping.....	3
BT099	Proofreading/Editing.....	3
BT116	Office Procedures.....	3
BT120	Professional Communication Skills.....	4
BT128	Introduction to Records Management.....	3
CA118A	Microsoft Windows Basics*.....	1
CA118B1	Excel Basics 1.....	1
CA118C1	Access Basics 1.....	1
CA118D	Internet for the Office Environment.....	1
CA118E	Outlook Basics.....	1
CA122	Keyboard Skillbuilding.....	3
CA201D	Microsoft Word Processing 1.....	3
CA213	Integrating Office Procedures.....	3
CS101	Introduction to Microcomputer Applications*.....	3

Business Technology Certificate electives (Select 5 credit hours):**

BA051	Accounting Procedures 1.....	4
BA052	Accounting Procedures 2.....	4
BA053	Accounting Procedures 3.....	4
BA211	Financial Accounting 1.....	4
BA212	Financial Accounting 2.....	4
BA213	Managerial Accounting.....	4
BA214	Business Communications.....	3
BT280C	Cooperative Work Experience.....	3
CA091	QuickBooks-Computerized Bookkeeping.....	3
	or	
CA091ABC	QuickBooks Parts A, B, C-Computerized Bookkeeping.....	1 each
CA117	Microsoft Publisher.....	3
	or	
CA117ABC	Microsoft Publisher 1, 2, 3.....	1 each
CA118B2	Excel Basics 2.....	1
CA118B3	Excel Basics 3.....	1
CA118C2	Access Basics 2.....	1
CA118F1	PowerPoint Basics 1.....	1

CA119	Exploring Office Desktop Publishing.....	3
CA202D	Microsoft Word Processing 2	3
CA203	Advanced Formatting.....	1
CA205	PageMaker 1	3
CA208	Workplace Presentations Using PowerPoint.....	3
CA225ABC	Machine Transcription 1-A, 1-B, 1-C	1 each
CS125E	Excel-Workbooks	4
MTH062	Business Applications Using Mathematics (or higher)	4
PSY104	Psychology in the Workplace.....	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.

Business Software Certificate

This certificate offers students the opportunity to earn a one-year certificate in Business Technology primarily through distance delivery methods such as telecourses, online courses and CTV courses.

In addition to tuition, estimated costs for students who complete required courses listed below are books, \$950; class fees \$66; universal access fee, \$188; equipment and supplies, \$100 plus access to a computer with a modem and appropriate software. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing 47 required credit hours. These include the 25 credit hours listed under Business Software core requirements and 22 credit hours of Business Software electives. Successful completion requires that you earn a grade of C or better in all courses.

Business Software core requirements (25 credit hours):

Course	Title	Credit Hours
BT085	Business English 2.....	3
	or	
WR121	English Composition-Exposition (or higher).....	3
CA118A	Microsoft Windows Basics*.....	1
CA118D	Internet for the Office Environment	1
CA201D	Microsoft Word Processing 1	3
CA202D	Microsoft Word Processing 2	3
CS101	Introduction to Microcomputer Applications*	3
CS125E	Excel-Workbooks	4
MTH062	Business Applications Using Mathematics (or higher)	4
PSY104	Psychology in the Workplace.....	3

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

BT090	Bookkeeping.....	3
BT280C	Cooperative Work Experience	3
CA091	QuickBooks-Computerized Bookkeeping	3
	or	
CA091ABC	QuickBooks Parts A, B, C-Computerized Bookkeeping.....	1 each
CA117	Microsoft Publisher.....	3
	or	
CA117ABC	Microsoft Publisher 1, 2, 3.....	1 each
CA118C1	Access Basics 1	1
CA118C2	Access Basics 2	1
CA118E	Outlook Basics.....	1
CA118F1	PowerPoint Basics 1	1
CA204D	Microsoft Word Processing 3	3
CA205	PageMaker 1	3
CA206	PageMaker 2	3
CA208	Workplace Presentations Using PowerPoint.....	3
CA213	Integrating Office Procedures.....	3
CA232	Integrating Office Software Applications.....	3
CS105	Introduction to MS Windows.....	3

CS125A	Micro Database Software-Access	3
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.

Two-Year Degree Programs

Chemeketa's Business Technology two-year program is designed for a person who wants to become an accounting assistant, administrative assistant, business support specialist, medical assistant, office coordinator or manager and/or other administrative support specialist.

If you are an office worker and you want to increase your skills in order to advance in your career, you may benefit from this training. You may select individual courses to meet your needs, or you may work toward an Associate of Applied Science degree.

The program has four options: Accounting Administrative Assistant, Administrative Assistant, Business Support Specialist, and Medical Administrative Assistant. You may earn an Associate of Applied Science degree by successfully completing the credit hours required for each area. Successful completion requires that you earn a grade of C or better in all courses.

Accounting Administrative Assistant Option

The Accounting Administrative Assistant option prepares you for office positions where bookkeeping tasks are emphasized.

This option provides you with basic training in bookkeeping, 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, \$2,030; class fees, \$194; universal access fee, \$384; equipment and supplies, \$250. Contact the Financial Aid Office at 503-399-5018 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 96 credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
BT061	Electronic Calculators	2
BT085	Business English 2.....	3
BT090	Bookkeeping	3
CS101	Introduction to Microcomputer Applications	3
MTH062	Business Applications Using Mathematics (or higher)	4
Term 2		
BT120	Professional Communication Skills	4
CA091	QuickBooks-Computerized Bookkeeping	3
CA118A	Microsoft Windows Basics	1
CA118B1	Excel Basics 1	1
CA118C1	Access Basics 1	1
CA118D	Internet for the Office Environment	1
CA122	Keyboard Skillbuilding	3
CA201D	Microsoft Word Processing 1	3
Term 3		
BT099	Proofreading/Editing	3
BT116	Office Procedures	3
BT128	Introduction to Records Management.....	3
CA208	Workplace Presentation Using PowerPoint.....	3
CA213	Integrating Office Procedures.....	3

Term 4

BA214	Business Communications	3
CS125E	Excel-Workbooks	4
MTH070	Elementary Algebra (or higher)	4
	Accounting Administrative Assistant elective*	3
	Humanities/Fine Arts elective	3
	or	
	Science/Applied Science elective.....	3

Term 5

BA251	Office Management	3
BT280C	Cooperative Work Experience.....	3
CA232	Integrating Office Software Applications.....	3
SP111	Fundamentals of Public Speaking.....	3
	or	
SP218	Interpersonal Communications.....	3
PSY104	Psychology in the Workplace.....	3
	Accounting Administrative electives*	3

Term 6

BA177	Payroll.....	4
BA228	Computer Accounting Applications.....	3
BT086	Personal and Professional Development	3
CA203	Advanced Formatting.....	1
CA230	Executive Office Simulation.....	3

***Accounting Administrative Assistant electives:**

BA051	Accounting Procedures 1.....	4
BA052	Accounting Procedures 2.....	4
BA053	Accounting Procedures 3.....	4
BA211	Financial Accounting 1	4
BA212	Financial Accounting 2	4
BA213	Managerial Accounting.....	4
BA226	Business Law 1.....	3
BA277	Business Ethics.....	3
CA117	Microsoft Publisher.....	3
	or	
CA117ABC	Microsoft Publisher 1, 2, 3.....	1 each
CA118B2	Excel Basics 2.....	1
CA118B3	Excel Basics 3.....	1
CA118C2	Access Basics 2	1
CA118E	Outlook Basics.....	1
CA118F1	PowerPoint Basics 1	1
CA119	Exploring Office Desktop Publishing.....	3
CA122	Keyboard Skillbuilding (repeat).....	3
CA205	PageMaker 1	3
CS125A	Micro Database Software-Access	3

Administrative Assistant Option

The Administrative Assistant option prepares you for a variety of positions in administrative support. This work requires you to be able to organize a variety of tasks, accept responsibility, and work effectively as a team member. You will become skilled in areas such as keyboarding, document production, composition, machine transcription and computers. You will gain knowledge of records management, word processing, spreadsheets, databases, desktop publishing and office procedures.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,165; class fees, \$234; universal access fee, \$384; equipment and supplies, \$250. Contact the Financial Aid Office at 503-399-5018 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 99 credit hours with a grade of C or better in all courses. These include the 46 credit hours listed under Administrative Assistant first-year core requirements and 53 credit hours from the second-year core requirements.

Administrative Assistant first-year core requirements (46 credit hours):

Course	Title	Credit Hours
BT061	Electronic Calculators	2
BT085	Business English 2.....	3
BT086	Personal and Professional Development	3
BT090	Bookkeeping	3
BT099	Proofreading/Editing	3
BT116	Office Procedures	3
BT120	Professional Communication Skills	4
BT128	Introduction to Records Management.....	3
CA118A	Microsoft Windows Basics	1
CA118B1	Excel Basics 1	1
CA118C1	Access Basics 1	1
CA118D	Internet for the Office Environment	1
CA119	Exploring Office Desktop Publishing.....	3
CA122	Keyboard Skillbuilding	3
CA201D	Microsoft Word Processing 1	3
CA213	Integrating Office Procedures.....	3
CS101	Introduction to Microcomputer Applications	3
	Administrative Assistant electives*.....	3

Administrative Assistant second-year core requirements (53 credit hours):

BA214	Business Communications	3
BA251	Office Management	3
BT280C	Cooperative Work Experience.....	3
CA118E	Outlook Basics.....	1
CA202D	Microsoft Word Processing 2	3
CA203	Advanced Formatting.....	1
CA204D	Microsoft Word Processing 3	3
CA205	PageMaker 1	3
CA208	Workplace Presentations Using PowerPoint.....	3
CA225ABC	Machine Transcriptions 1-A, 1-B, 1-C.....	1 each
CA230	Executive Office Simulation.....	3
CA232	Integrating Office Software Applications.....	3
MTH062	Business Applications Using Mathematics (or higher)	4
PSY104	Psychology in the Workplace.....	3
WR227	Technical Writing	3
	Humanities/Fine Arts elective	3
	Speech elective	3
	Administrative Assistant electives*.....	5

***Administrative Assistant electives:**

BA051	Accounting Procedures 1.....	4
BA177	Payroll.....	4
BA211	Financial Accounting 1	4
CA091	QuickBooks-Computerized Bookkeeping	3
	or	
CA091ABC	QuickBooks Parts A, B, C-Computerized Bookkeeping	1 each
CA117	Microsoft Publisher.....	3
	or	
CA117ABC	Microsoft Publisher 1, 2, 3.....	1 each
CA118B2	Excel Basics 2.....	1
CA118B3	Excel Basics 3.....	1
CA118C2	Access Basics 2	1
CA118F1	PowerPoint Basics 1	1
CA122	Keyboard Skillbuilding	3
CA206	PageMaker 2	3
CS125A	Micro Database Software-Access	3
CS125E	Excel-Workbooks	4

Business Support Specialist Option

The Business Support Specialist option prepares you for a career in a variety of business environments where you are able to work independently, exercising responsible judgment. This program stresses the principles of persuasion and sales, business management and interpersonal relations. You will develop computer skills, including training in the use of current operating systems, software applications, the Internet and World Wide Web.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,090; class fees, \$184; universal access fee, \$384; equipment and supplies, \$250. Contact the Financial Aid Office at 503-399-5018 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 96 credit hours with a grade of C or better in all courses. These include the 46 credit hours listed under Business Support Specialist first-year core requirements and 50 credit hours from the second-year core requirements.

Business Support Specialist first-year core requirements (46 credit hours):

Course	Title	Credit Hours
BT061	Electronic Calculators	2
BT085	Business English 2.....	3
BT086	Personal and Professional Development	3
BT099	Proofreading/Editing	3
BT116	Office Procedures	3
BT120	Professional Communication Skills	4
BT128	Introduction to Records Management.....	3
CA118A	Microsoft Windows Basics	1
CA118B1	Excel Basics 1	1
CA118C1	Access Basics 1	1
CA118D	Internet for the Office Environment	1
CA119	Exploring Office Desktop Publishing.....	3
CA122	Keyboard Skillbuilding	3
CA201D	Microsoft Word Processing 1	3
CA213	Integrating Office Procedures.....	3
CS101	Introduction to Microcomputer Applications	3
	Business Support Specialist electives*	6

Business Support Specialist second-year core requirements (50 credit hours):

Course	Title	Credit Hours
BA214	Business Communications	3
BA238	Sales and Persuasion.....	3
BA251	Office Management	3
BT090	Bookkeeping.....	3
BT280C	Cooperative Work Experience	3
CA091	QuickBooks-Computerized Bookkeeping	3
CA118E	Outlook Basics.....	1
CA202D	Microsoft Word Processing 2	3
CA205	PageMaker 1	3
CA208	Workplace Presentations Using PowerPoint.....	3
CA232	Integrating Office Software Applications.....	3
MTH062	Business Applications Using Mathematics (or higher)	4
PSY104	Psychology in the Workplace.....	3
	Humanities/Fine Arts elective	3
	Speech elective	3
	Business Support Specialist electives*	6

*Business Support Specialist electives:

BA051	Accounting Procedures 1.....	4
BA177	Payroll.....	4
BA204	Teamwork Dynamics	3
BA211	Financial Accounting 1	4
BA223	Principles of Marketing.....	3

BA226	Business Law 1.....	3
BA277	Business Ethics.....	3
CA117ABC	Microsoft Publisher 1, 2, 3.....	1 each
CA118B2	Excel Basics 2	1
CA118B3	Excel Basics 3	1
CA118C2	Access Basics 2	1
CA118F1	PowerPoint Basics 1	1
CA122	Keyboard Skillbuilding	3
CA204D	Microsoft Word Processing 3	3
CA206	PageMaker 2	3
CS125A	Micro Database Software-Access	3
CS125E	Excel-Workbooks	4
CS178I	Introduction to the Internet/World Wide Web	3
WR227	Technical Writing	3

Medical Administrative Assistant Option

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

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,464; class fees, \$244; universal access fee, \$372; equipment and supplies, \$250. Contact the Financial Aid Office at 503-399-5018 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 93 credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
BT085	Business English 2.....	3
CA122	Keyboard Skillbuilding	3
CS101	Introduction to Microcomputer Applications	3
HM110	Health Information Systems Procedures 1.....	4
HM120	Medical Terminology 1	3
Term 2		
BT116	Office Procedures	3
CA118A	Microsoft Windows Basics	1
CA118B1	Excel Basics 1	1
CA118C1	Access Basics 1	1
CA118D	Internet for the Office Environment	1
CA201D	Microsoft Word Processing 1	3
HM114	CPT-IV Coding/Reimbursement	3
HM121	Medical Terminology 2	3
Term 3		
BT120	Professional Communication Skills	4
CA202D	Microsoft Word Processing 2	3
CA213	Integrating Office Procedures.....	3
HM101	Medical Law and Ethics	3
HM115	ICD-9-CM Coding/Reimbursement	3
Term 4		
BI071	Body Structure and Function 1	3
	or	
BI231	Human Anatomy and Physiology	4
BT061	Electronic Calculators	2
BT090	Bookkeeping.....	3
BT128	Introduction to Records Management.....	3
SP111	Fundamentals of Public Speaking.....	3
	or	
SP218	Interpersonal Communication	3

Term 5	
BA214	Business Communications3
BI072	Body Structure and Function 23
	or
BI232	Human Anatomy and Physiology4
BT099	Proofreading/Editing3
HM140	Medical Transcription3
	Business elective*3

Term 6	
BT086	Personal and Professional Development3
CA203	Advanced Formatting.....1
CA225AB	Machine Transcription 1-A, 1-B.....1 each
CA230	Executive Office Simulation.....3
MTH062	Business Applications Using Mathematics (or higher)4
PSY104	Psychology in the Workplace.....3

*Business elective: Choose courses with prefixes BA, BT, CA, CS, CIS, and HM.

Chemistry

(transfer course guideline)

Oregon's state 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 (SOU), University of Oregon and Western Oregon University. SOU also offers a Business-Chemistry co-major.

The educational guide outlined below is designed to meet some of the requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also, you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
WR121, 122, and/or 123 English			
Composition or WR227 Technical Writing* (SOU: WR121, 122 and SP111 or 218)	3	3	(3)
CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry (CH121 and 121R, 122 and 122R, 123 and 123R)	5	5	5
Mathematics per placement test; EOU requires through MTH253 Series Calculus; OSU requires through MTH254 Vector Calculus 1; SOU requires MTH112 Trigonometry and MTH251 Differential Calculus and MTH252 Integral Calculus; PSU requires MTH254 Vector Calculus 1; WOU requires MTH251, 252, 254)	4-5	4-5	4-5
Arts and Letters/Humanities electives* (PSU recommends a Foreign Language, particularly for students planning on graduate studies)	3-4	3-4	3-4
Second Year	4	5	6
PH211, 212, 213 Physics for Engineers and Scientists (SOU and UO students may substitute PH201, 202, 203)	4-5	4-5	4-5
Social Science courses*	3	3	3
**CH241, 241B, 242, 242B, 243, and 243B Organic Chemistry	5	5	5
Mathematics/Computer Science (EOU requires CS161 Computer Science 1; OSU requires BI102 General Biology; WOU requires MTH254 and CS162; OSU requires MTH254 Vector Calculus 1 and MTH256 Applied Differential Equations; UO requires MTH256)	4-5	4-5	4-5

HPE295 Health and Fitness for Life* or elective	3		
Arts and Letters/Humanities electives or Social Science electives*	3-4	3-4	3-4

*To meet four-year college general education requirements.
**Replaces 300 level requirement at state universities with acceptable score on ACS national exam.

Chiropractic

(transfer course guideline)

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 program outlined below is designed to meet the prerequisite requirements for Western States Chiropractic College. 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 Counseling and Career Services or a Chemeketa advisor in your program.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry	5	5	5
Mathematics per placement test through MTH111 College Algebra and MTH112 Trigonometry	5	5	
WR121 English Composition-Exposition and six hours from JNL216 Newswriting, SP111 Fundamentals of Public Speaking, SP112 Fundamentals of Persuasion, WR122 English Composition-Logic and Style, WR123 English Composition-Research Writing, WR227 Technical Writing, WR241, 242, 243 Imaginative Writing	3	3	3
PSY201 and 202 or 203 General Psychology (counts towards 15 credits of required Social Science)		3	3
Approved Humanities or Social Science electives*	3-6	3	6
(21 credit hours of electives needed)			
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 or PH211, 212, 213 Physics for Scientists	4	4	4
CH241, 241B, 242, 242B, 243, 243B 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

Civil Engineering Technology

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 and drafting 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 and surveying. The two-year program also includes basic engineering science, environmental and sanitary engineering, communication skills, and psychology.

Job opportunities vary. As a graduate of the two-year program, you may assist in 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, surveying, drafting or designing.

Getting Started

The first step to entering the following program is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services 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
SSP051	Studying for College	3
	or	
RD090	College Textbook Reading	3
WR040	Writing Skills	3

If you have questions about the requirements, call Counseling and Career Services 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, \$95; universal access fee, \$196; equipment and supplies, \$355; optional certification exam, \$100. Contact the Financial Aid Office at 503-399-5018 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 with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition	3
CVL130	Work Zone Safety and First Aid.....	1
CVL143	Introduction to Civil Survey	3
DRF110	Applied Engineering Computations.....	2
DRF112	Sketching	1
DRF130	AutoCAD 1	3
MTH081	Technical Mathematics 1	4
	or	
MTH111	College Algebra.....	5
Term 2		
CVL161A	Plane Surveying 1-Lecture.....	2
CVL161B	Plane Surveying 1-Lab	2

DRF131	AutoCAD 2	3
GEG105	Physical Geography.....	4
MTH082	Technical Mathematics 2	4
	or	
MTH112	Trigonometry.....	5

Term 3

COM053	Technical Report Writing.....	3
	or	
WR227	Technical Writing	3
CVL162A	Plane Survey 2-Lecture.....	2
CLV162B	Plane Survey 2-Lab	2
DRF155	Mapping and Platting	3
DRF160	Technical Software Applications.....	3
	or	
CS125E	Excel-Workbooks	4
PSY104	Psychology in the Workplace.....	3

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, \$275; universal access fee, \$396; equipment and supplies, \$355; optional certification exam, \$100. Contact the Financial Aid Office at 503-399-5018 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 (transfer course guideline).

An Associate of Applied Science degree is awarded upon the successful completion of the required 98 credit hours with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition (or higher).....	3
CVL130	Work Zone Safety and First Aid.....	1
CVL143	Introduction to Civil Survey	3
DRF110	Applied Engineering Computations.....	2
DRF112	Sketching	1
DRF130	AutoCAD 1	3
MTH081	Technical Mathematics 1	4
	or	
MTH111	College Algebra (or higher)	5
Term 2		
CVL161A	Plane Surveying 1-Lecture.....	2
CVL161B	Plane Surveying 1-Lab	2
DRF131	AutoCAD 2	3
GEG105	Physical Geography.....	4
MTH082	Technical Mathematics 2	4
	or	
MTH112	Trigonometry (or higher)	5
Term 3		
COM053	Technical Report Writing.....	3
	or	
WR227	Technical Writing	3
CVL162A	Plane Surveying 2-Lecture.....	2
CVL162B	Plane Surveying 2-Lab	2
DRF155	Mapping and Platting	3
DRF160	Technical Software Applications.....	3
	or	
CS125E	Excel-Workbooks	4
PSY104	Psychology in the Workplace.....	3

Term 4

CVL230	Applied Statics	3
DRF241	Structural Drafting.....	3
DRF245	Civil Drafting and Design.....	4
PH081	Applied Physics (or higher)	4
PH207	Astronomy.....	4
	or	
	Science/Applied Science elective.....	4

Term 5

CVL231	Applied Strength of Materials.....	4
CVL260	Survey Project Planning	3
CVL261	Environmental and Sanitary Engineering.....	4
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

Computer Electronics Technology

See Electronics Technologies.

Computer Programming

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 as an entry-level computer programmer.

The Computer Systems Support Specialist option is for those who are seeking to start a career in microcomputer applications management and systems administration. The two-year program includes theory and technical information as well as experience in performing actual computer systems maintenance in a hands-on classroom environment. The curriculum emphasizes problem solving, troubleshooting and working effectively with people.

Either program can be modified to a limited extent by working with the instructional staff to meet your individual needs, as you work toward an Associate of Applied Science degree.

Students interested in specializing in network administration should see the Network Technology program.

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 coordinator, you may enroll in CS280A-L Cooperative Work Experience and earn college credit hours. For more information, please look under Cooperative Work Experience in the catalog index.

Getting Started

The first step to entering the following programs is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services 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
MTH060	Introductory Algebra	4
RD090	College Textbook Reading	3
WR115	Introduction to Composition	3

If you have questions about the requirements, call Counseling and Career Services 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, \$1,887 class fees, \$276; universal access fee, \$384; equipment and supplies, \$210. Contact the Financial Aid Office at 503-399-5018 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 96 credit hours:

Course	Title	Credit Hours
Term 1		
BA101	Introduction to Business	4
CIS120	Computer Information Science 1	4
CIS121	Computer Information Science 2	4
WR121	English Composition-Exposition (or higher).....	3
Term 2		
CS125A	Micro Database Software-Access	3
CS133VB	Visual Basic-Event-Driven Programming	4
CS140B	Microcomputer Operating Systems.....	3
SP111	Fundamentals of Public Speaking (or higher)	3
WR227	Technical Writing	3
Term 3		
CIS122	Computer Information Science 3	4
CS133C	COBOL 1	4
	or	
CS133U	C++ Language.....	4
CS244	Systems Analysis 1	3
FE205A	Job Search Preparation	1
	or	
FE205B	Resumes and Job Search Correspondence	1
	or	
FE205C	Interviewing for Success	1
MTH111	College Algebra (or higher)	5
Term 4		
CS133J	Fundamentals of Java Programming 1	4
CS246	Systems Analysis 2	3
CS275	Database Management	4
	Business elective*	3
	Humanities/Fine Arts elective	3
	or	
	Science/Applied Science elective.....	3
Term 5		
CS171	Principles of Computer Organization	4
CS233J	Fundamentals of Java Programming 2	4
CS280D	Cooperative Work Experience	4
	or	
	Computer Science elective**	4
CS276A	Introduction to Oracle SQL.....	4
Term 6		
CS234J	Fundamentals of Java Programming 3	4
CS280D	Cooperative Work Experience	4
	or	
	Computer Science elective**	4
CS276B	Oracle Program with PL/SQL.....	4
PSY104	Psychology in the Workplace.....	3

*Business elective: Choose courses with BA, BT, or CA prefixes.

**Computer Science elective: Choose courses with CS or CIS prefixes above CS105.

Computer Systems Support Specialist Option

This option emphasizes the horizontal integration of application packages, systems management, and provides introduction to micro-computer programming. It includes training in many of the software packages used in business, operating systems, programming essentials and networking fundamentals.

Students interested in specializing in network administration should see the Network Technology program.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,950; class fees, \$318; universal access fee, \$396; equipment and supplies, \$285. Contact the Financial Aid Office at 503-399-5018 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 98 credit hours:

Course	Title	Credit Hours
Term 1		
BA101	Introduction to Business	4
CIS120	Computer Information Science 1	4
CIS121	Computer Information Science 2	4
WR121	English Composition-Exposition (or higher).....	3
Term 2		
CS125A	Micro Database Software-Access	3
CS133VB	Visual Basic-Event-Driven Programming	4
CS140B	Microcomputer Operating Systems.....	3
SP111	Fundamentals of Public Speaking (or higher).....	3
WR227	Technical Writing	3
Term 3		
CIS122	Computer Information Science 3	4
CS125E	Excel-Workbooks	4
CS140U	Unix/Linux	3
CS244	Systems Analysis 1	3
MTH105	Introduction to Contemporary Mathematics (or higher)..	4
Term 4		
CS133J	Fundamentals of Java Programming 1	4
CS179	Introduction to Client-Server Networks.....	4
CS275	Database Management.....	4
FE205B	Resumes and Job Search Correspondence	1
	or	
FE205C	Interviewing for Success.....	1
	Humanities/Fine Arts elective	3
	or	
	Science/Applied Science elective.....	3
Term 5		
CS145	Microcomputer Hardware.....	4
CS240	Advanced Operating Systems	3
CS278	Data Communications.....	3
CS280C	Cooperative Work Experience	3
	or	
	Computer Science elective**	3
CS288	Advanced Client-Server Networks	4
Term 6		
CS060	Techniques of User Training.....	2
CS279	Network Management	5
CS280C	Cooperative Work Experience	3
	or	
	Computer Science elective**	3
PSY104	Psychology in the Workplace.....	3
	Business elective*	3

*Business elective: Choose courses with BA, BT, or CA prefixes.

**Computer Science elective: Choose courses with CS or CIS prefixes above CS105. (Additional spreadsheet or database classes will not apply as CS elective.)

Computer Science

(transfer course guideline)

Oregon's state 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; must have a grade of "B" in CS133VB and CS133U to start.)

The educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

First Year	Term		
	1	2	3
CS160 Introduction to Computer Science (required co-requisite for Chemeketa's CS161), CS161, 162, 260 Computer Science 1, 2 and 3 (required by all except EOU, OSU, SOU, and UO; recommend CS161, 162 for EOU and OSU)	4	4	4
Mathematics per placement test* (MTH111 prerequisite for CS161; MTH251 Differential Calculus and higher required at most colleges; MTH231, 232 Discrete Mathematics required at OSU; MTH231, 232, 233 at UO; MTH243 at SOU; MTH231 or 252 or 253 for WOU)	4	4	4
Science courses to meet college and Computer Science major requirement* (PH211, 212, 213 Physics for Engineers and Scientists for some majors and four hours Biological Science required for all options at OSU; PH211, 212, 213 Physics for PSU; science sequence for WOU; PH201, 202, 203 General Physics or CH221, 222, 223 General Chemistry at UO)	4-5	4-5	4-5
WR121, 122 and/or 123 English Composition and/or WR227 Technical Writing* (WR121, 227 and SP111 for OSU; WR121, 122, SP111 or SP218 for SOU; WR121 and WR227 for PSU; WR121 and WR122 or 123 for UO; WR121 and Speech elective for WOU)	3	3	(3)
It is recommended that students planning to attend PSU and UO transfer after completing one year. UO students should plan on taking required CS courses at UO.			
Second Year	4	5	6
Computer Science course to meet major requirements (Chemeketa recommends CS171 Principles of Computer Organization for all schools; CS133U C++ Language required for OSU, PSU and SOU; CS133VB; CS260 Computer Science 3: Data Structures for SOU; CS285 Introduction to Structured Query Language-SQL at WOU)	3-4	3-4	3-4

Mathematics to meet major requirements MTH251 and 252 Calculus for EOU; MTH231, 232, Discrete Mathematics and MTH251 and 252, MTH253 Series Calculus and Linear Algebra, and MTH254 Vector Calculus 1 for Computer Systems option at OSU; MTH241 Elementary Calculus and MTH243 Probability and Statistics for Information Systems and Applied Computer Science option at OSU; MTH231, 232, Discrete Mathematics and MTH251 and 252, MTH253 Series Calculus and Linear Algebra, and MTH254 Vector Calculus 1 for PSU; MTH251, 252, 253 for UO; MTH231 or MTH252 for WOU; MTH243 for SOU	4-5	4-5	4-5
Social Science courses*	3	3	3
Arts and Letters/Humanities sequence*	3	3	3
HPE295 Health and Fitness for Life* or elective	3		
Electives* (CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry for PSU)	(3-5)	3-5	3-5

*To meet four-year college general education requirements.

Criminal Justice

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 9-1-1 telecommunications, 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 a 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 Counseling and Career Services and an advisor at the institution to which you plan to transfer.

With the approval of the program chair, you may enroll in CJ280A-L 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 about specific seminar content. Students should refer to the schedule of classes for these seminars as well as for specific criminal justice courses that are offered online.

Chemeketa's Criminal Justice program also offers a one year (47 credit hour) certificate in Juvenile Corrections, for information refer to page 101.

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 Career Services staff. You may need to complete pre-program courses.

Students should contact program chair regarding waiver of CJ050. 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)	1
MTH020	Basic Mathematics	3
RD090	College Textbook Reading	3
WR115	Introduction to Composition	3
	or	
COM051	Communication Skills 1	3

If you have questions about the requirements, call Counseling and Career Services at 503-399-5120 or 503-399-5163. 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; universal access fee, \$364. Contact the Financial Aid Office at 503-399-5018 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 with a grade of C or better in all courses. 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 Applications (or higher)	3
MTH060	Introductory Algebra (or higher)	4
	Physical Education elective (3 different activities)	3
	or	
HPE295	Health and Fitness for Life	3
SP218	Interpersonal Communication	3
	or	
	Speech elective	3
WR121	English Composition-Exposition	3
WR122	English Composition-Logic and Style	3
WR227	Technical Writing	3
	General Education electives*	18
	Humanities/Fine Arts electives**	9
	Social Science electives**	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 1: 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	Spanish for Law Enforcement Personnel	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 2: 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 Corrections	3
CJ232	Introduction to Corrections Casework	3

CJ235	Youth, Drugs and Corrections.....	3
CJ253	Introduction to Penology	3
CJ280C	Cooperative Work Experience.....	3
*Students are urged to select general education electives in the following courses:		
CA121	Keyboarding	3
HDF226	A Time To Grow	3
HDF260	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

**Suggestions for students: Due to current bilingual hiring preferences, students are urged to take SPN111, 112, 113 for Humanities sequence. Law enforcement and adult corrections students are urged to take PSY201, 202, 203 for Social Science sequence.

Criminal Justice

(transfer course guideline)

Oregon's state universities offering Bachelor of Arts and/or Bachelor of Science degrees in Criminal Justice are Western Oregon University (degree in Law Enforcement, Corrections, or Community Crime Prevention), Southern Oregon University (degree in Criminology) and Portland State University (degree in Administration of Justice).

The educational guide outlined below is designed to meet lower division general education requirements at these institutions. Students who complete all the courses outlined below will be eligible for an Associate of Arts Oregon Transfer degree from Chemeketa.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

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

	Term		
First Year	1	2	3
WR121, 122 English Composition	3	3	
WR123 English Composition or WR227 Technical Writing (not required at SOU)			3
Social Science course (WOU requires a sequence other than Psychology)	3	3	3
Humanities courses (WOU requires	3	3	3
ENG104, 105, 106 Introduction to Literature or ENG107, 108, 109 World Literature)			
CJ100 Survey of Criminal Justice System (required at PSU)	3		
CJ101 Criminology (required at SOU)	3		
CJ110 Introduction to Law Enforcement (required at PSU and SOU)	3		
CS101 Introduction to Microcomputers	3		
SP111 Fundamentals of Speaking or SP112	3		

Fundamentals of Persuasion or SP219 Fundamen- tals of Small Group Communication or SP218 Interpersonal Communication (SP115 Introduc- tion to Intercultural Communication required at PSU; SP111 or 218 for SOU) Humanities elective in discipline other than Humanities sequence (PHL203 Elementary Ethics required at PSU; Philosophy or Religion course required at WOU)	3		
Second Year	4	5	6
MTH105 Introduction to Contemporary Mathematics or MTH111 College Algebra			4-5
Science Courses (WOU requires at least two courses in same discipline)	4-5	4-5	4-5
Social Science electives* (SOC204 General Sociology required at PSU)	3	3	3
HPE295 Health and Fitness or HE250	3		
Personal Health or three credits of PE185 Activity Courses*HPE295 required at WOU	(1)	(1)	(1)
Humanities or Science or Math elective* other than in discipline taken for sequence (PHL203 Elementary Ethics required at PSU)			3-4

CJ206 Crime and Delinquency (CJ210 and 211 Introduction to Criminal Investigation 1 and 2 required at PSU and SOU)			3
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CJ215 Criminal Justice Administration (take CJ220 Introduction to Substantive Law and Criminal Code for PSU and SOU)			3
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CJ226 Introduction to Constitutional Law (required at SOU) Electives (courses numbered 100 or above)	3	3	3
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*See page 43 in current catalog for acceptable sequences and courses for AAOT degree and pages 47-53 for 4-year institution general education requirement.

Dental Assisting

The Dental Assisting program offers technical training to persons who want to work in dental offices and clinics. The program is accredited by the American Dental Association 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, assisting with clinical procedures, expanded functions, 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 insurance billings, 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 Enrollment Services (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 Career Services 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.....	3
CA121A	Keyboarding A (if less than 25 wpm)	1
CS101	Introduction to Microcomputer Applications	3
MTH060	Introductory Algebra	4
PSY100	Introduction to Psychology (or higher)	3
	or	
PSY101	Psychology of Human Relations (preferred)	3
RD090	College Textbook Reading	3
SP100	Introduction to Communication (or higher).....	3
	or	
SP218	Interpersonal Communication (preferred).....	3
SSP112	Study Skills (recommended)	3
WR115	Introduction to Composition.....	3

If you have questions about the requirements, call Counseling and Career Services 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 Counseling and Career Services, Admissions, and program offices.

Students must possess a Health Care Provider CPR or equivalent card prior to enrollment in winter term classes. Successful completion of the Dental Assisting program requires that you 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 infection control, general chairside, and radiation health and safety.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$375; lab fees, \$235; universal access fee, \$184; uniform and shoes, \$235; post graduation exam fees, \$395; dental kit and transportation fees, \$550; radiation monitoring badge, \$50; physical examination/immunizations, \$200; optional: professional membership fee, \$35. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the 46 required credit hours with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
DEN050	Dental Sciences.....	3
DEN051	Introductory Concepts in Dental Assisting	3
DEN052	Dental Anatomy	3
DEN053	Dental Materials 1	3
DEN054	Preventive Dentistry.....	1
DEN065	Dental Office Emergency Management	1
Term 2		
DEN060	Dental Specialties.....	3
DEN061	Dental Assisting Practicum 1	3
DEN062	Intermediate Clinical Skills	2
DEN063	Dental Materials 2	3
DEN064	Dental Radiology 1	3
DEN070	Dental Office Management.....	2
Term 3		
DEN071	Dental Assisting Practicum 2	9
DEN072	Expanded Functions	3
DEN074	Dental Radiology 2.....	2
DEN080	Dental Assisting Seminar	2

Dental Hygiene

(transfer course guideline)

Oregon Institute of Technology is the only state college offering a Bachelor of Science degree in Dental Hygiene.

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 educational guideline outlined below is designed to meet requirements at 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.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institute to which you plan to transfer to learn of any possible changes an academic area.

	Term		
	1	2	3
First Year			
CH121 and 121R, 122 and 122R, 123 and 123R College Chemistry (CH104 and 1104R, 105 and 105R, 106 and 106R Chemistry for Allied Health may be substituted*)	4-5	4-5	4-5
Psychology elective for OIT	3		
WR121, 122 English Composition and WR227 or 123 Technical Writing for OIT	3	3	3
SP219 Fundamentals of Small Group Communication		3	
CS101 Introduction to Microcomputer Applications for OIT		3	
MTH111 College Algebra or MTH105 Introduction to Contemporary Mathematics		4-5	
NFM225 Nutrition			4
Second Year			
BI231, 232, 233 Anatomy and Physiology	4	4	4
Humanities electives* (six hours) SP115 Introduction to Intercultural Communication	3	3	3
BI234 Microbiology			4
SOC204 General Sociology-Introduction	3		

*To meet four-year college general education requirements.

Design

(transfer course guideline)

Oregon State University offers a Bachelor of Science degree in Apparel Design, Interior Design, Housing Studies and Merchandising Management.

The educational guide 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.)

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at OSU to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
WR121 English Composition-Exposition	3		
WR122 or 123 English Composition or 227 Technical Writing, or BA214 Business Communications		3	3
Mathematics per placement (through MTH111 College Algebra; some majors require MTH243)		(4)	4-5
HPE295 Health and Fitness for Life			3
Biological and Physical Science**	4-5	4-5	4-5
Social Science** EC201, 202, Introduction to Micro- economics and Macroeconomics (EC201 only for Housing Studies and Interior Design) PSY 201, 202, SOC204 for Merchandising Management, HST110, 111, 112 required for Merchandising Management	6	3	6
Literature and Arts elective* (ART115 Basic Design and ART131 required in most majors)	3-4		
SP111 Fundamentals of Public Speaking or SP112 Fundamentals of Persuasion or SP218 Interper- sonal Communications depending upon option selected		3	
Second Year	4	5	6

Additional required courses can be taken at Chemeketa during a second year. These vary considerably, depending upon option chosen, including Art courses. It is important to work carefully with an advisor to meet OSU's Baccalaureate Core requirements, major requirements and option requirements.

*To meet OSU general education requirements.

**Check OSU catalog for requirements in your major and option.

Drafting Technology— CAD

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.

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 DRF280A-L 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 the following programs is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services 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
SSP051	Studying for College	3
	or	
RD090	College Textbook Reading	3
WR040	Writing Skills	3

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

Computer-Assisted Drafting (CAD) Certificate

The CAD Certificate program is for students seeking a basic working knowledge of CAD systems. Full-time students can complete the program in three terms, although full-time enrollment is not required. All required courses are available online to provide maximum flexibility to non-traditional and working students.

This certificate provides initial training for entry-level CAD operator positions. This may not be suitable for students seeking employment as entry-level CAD design technicians.

Completion of the CAD Certificate includes a competency-based AutoCAD Assessment Exam. All credits apply toward the Associate of Applied Science degree in CAD Drafting Technology.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$692; class fees, \$150; universal access fee, \$180; certification exam, \$50. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 45 credit hours with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition	3
DRF110	Applied Engineering Computations	2
DRF130	AutoCAD 1	3
DRF131	AutoCAD 2	3
MTH060	Introductory Algebra (or higher).....	4
Term 2		
DRF132	AutoCAD 3	3
DRF150	Architectural Drafting 1	3
DRF230	Introduction to MicroStation PC.....	3
MTH070	Elementary Algebra (or higher)	4
PSY100	Introduction to Psychology (or higher)	3
Term 3		
DRF095C	Special Projects in Drafting and Design	3
DRF140	Advanced Technical Graphics.....	3
DRF160	Technical Software Applications.....	3
DRF170	AutoCAD Certification Preparation.....	2
DRF240	Architectural Drafting 2.....	3

Computer-Assisted Drafting (CAD) Option

Students graduating from the CAD option may become technicians in civil, mechanical, structural or architectural drafting. Additional career opportunities include Geographic Information Systems (GIS), mapping and technical illustration. Training encompasses computer-aided drafting in all of the fields listed, application of software and mathematical concepts to solve real-world problems; as well as broader skills in communication, teamwork and human relations.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,243; class fees, \$330; universal access fee, \$388; equipment and supplies, \$227. Contact the Financial Aid Office at 503-399-5018 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 with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
COM051	Communications Skills 1	3
	or	
WR121	English Composition-Exposition (or higher).....	3
DRF110	Applied Engineering Computations.....	2
DRF112	Sketching.....	1
DRF114	Drafting Orientation.....	2
DRF130	AutoCAD 1	3
MTH081	Technical Mathematics 1	4
	or	
MTH111	College Algebra (or higher)	5
Term 2		
CVL161A	Plane Surveying 1-Lecture.....	2
CVL161B	Plane Surveying 1-Lab	2
DRF131	AutoCAD 2	3
MTH082	Technical Mathematics 2	4
	or	
MTH112	Trigonometry (or higher)	5
PH081	Applied Physics.....	4
Term 3		
DRF132	AutoCAD 3	3
DRF140	Advanced Technical Graphics.....	3
DRF150	Architectural Drafting 1.....	3
DRF155	Mapping and Platting.....	3
DRF160	Technical Software Applications.....	3
	or	
CS125E	Excel - Workbooks.....	4
Term 4		
CVL230	Applied Statics	3
DRF210	Parametric Design.....	3
DRF241	Structural Drafting.....	3
DRF242	3-D Studio.....	3
DRF245	Civil Drafting and Design.....	4
DRF256	AutoLISP Programming.....	3
Term 5		
CVL261	Environmental and Sanitary Engineering.....	4
DRF220	GIS ArcView.....	2
DRF230	Introduction to MicroStation PC.....	3
DRF240	Architectural Drafting 2.....	3
	Humanities/Fine Arts elective	3
	or	
	Social Science elective	3
Term 6		
COM053	Technical Report Writing.....	3
	or	
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, \$296; universal access fee, \$400; equipment and supplies, \$319. Contact the Financial Aid Office at 503-399-5018 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 100 credit hours with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
CAM111	Industrial Safety Seminar	1
CAM130	CNC Machine Setup/Operation.....	3
DRF110	Applied Engineering Computations.....	2
DRF112	Sketching.....	1
DRF114	Drafting Orientation.....	2
	or	
GE101	Engineering Orientation	3
DRF130	AutoCAD 1	3
MTH081	Technical Mathematics 1	4
	or	
MTH111	College Algebra (or higher)	5
Term 2		
CAM115	Geometric Dimensioning/Tolerancing.....	2
CAM116	Geometric Dimensioning and Tolerancing for CNC Lab.1	1
CAM160	Programming CNC Mills	3
COM051	Communication Skills 1	3
	or	
WR121	English Composition-Exposition (or higher).....	3
DRF131	AutoCAD 2	3
MTH082	Technical Mathematics 2	4
	or	
MTH112	Trigonometry (or higher)	5
Term 3		
COM053	Technical Report Writing.....	3
	or	
WR227	Technical Writing	3
DRF132	AutoCAD 3	3
DRF140	Advanced Technical Graphics.....	3
DRF160	Technical Software Applications.....	3
	or	
GE103	Engineering Computations	3
	or	
CS125E	Excel-Workbooks	4
	Humanities/Fine Arts elective	3
	or	
	Social Science elective	3

Term 4	
CAM230	CAM Applications/Mills.....3
CVL230	Applied Statics3
	or
EGR211	Statics4
DRF210	Parametric Design.....3
DRF256	AutoLISP Programming*3
	or
GE102	Engineering Computations3
ELT100	Electronic Fundamentals for Non-Majors4
Term 5	
CVL231	Applied Strength of Materials.....4
	or
EGR213	Strength of Materials.....4
DRF241	Structural Drafting*3
DRF251	Power Transmission Design.....3
	or
EGR212	Dynamics.....4
DRF260	Tool Design3
PH081	Applied Physics.....4
	or
PH201	General Physics.....4
Term 6	
DRF165	CAD System Administration*3
DRF255	Technical Illustration*3
DRF262	Machine Design.....3
ELT291	Advanced Industrial Electronics4
	or
DRF280D	Cooperative Work Experience4
EGR202	Electrical Fundamentals 24
MT227A	Pneumatics and Hydraulics Fundamentals3

*Courses above 200 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 inspection (the CMM) and industrial mechanical design.

The first year of study emphasizes machining skills as they relate to Computer Numerical Control machining. Students completing the first year may find employment as entry-level machine tool operators and basic CAD drafters.

Second-year classes concentrate on integrating mechanical design and Computer-Aided Manufacturing programming. Students apply knowledge and skills to solve increasingly complex design and machining problems. After successful completion, graduates may find employment in the fields of engineering technology and manufacturing operations. Graduates will use computers on the job for drafting, design and programming, and operating machine tools.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,388; class fees, \$321; universal access fee, \$388; equipment and supplies, \$287. Contact the Financial Aid Office at 503-399-5018 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 98 credit hours with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
CAM110	CNC/Manual Fundamentals2	
CAM111	Industrial Safety Seminar1	
CAM130	CNC Machine Setup/Operation.....3	
DRF110	Applied Engineering Computations.....2	
DRF114	Drafting Orientation.....2	
DRF130	AutoCAD 13	
MTH081	Technical Mathematics 14	
	or	
MTH111	College Algebra (or higher)5	
Term 2		
CAM115	Geometric Dimensioning/Tolerancing2	
CAM116	Geometric Dimensioning and Tolerancing for CNC Lab1	
CAM120	CNC/Manual Milling.....3	
CAM160	Programming CNC Mills3	
DRF131	AutoCAD 23	
MTH082	Technical Mathematics 24	
	or	
MTH112	Trigonometry (or higher)5	
Term 3		
CAM121	CNC/Manual Lathe2	
CAM190	Programming CNC Lathes3	
DRF095B	Special Projects in Drafting and Design2	
	or	
DRF280B	Cooperative Work Experience2	
DRF132	AutoCAD 33	
DRF140	Advanced Technical Graphics.....3	
DRF160	Technical Software Applications.....3	
Term 4		
CAM230	CAM Applications/Mills.....3	
COM051	Communication Skills 13	
	or	
WR121	English Composition-Exposition (or higher).....3	
CVL230	Applied Statics3	
DRF112	Sketching1	
DRF210	Parametric Design.....3	
	Humanities/Fine Arts elective3	
	or	
	Social Science elective3	
Term 5		
CAM260	CAM Applications/Lathes.....3	
CVL231	Applied Strength of Materials.....4	
DRF251	Power Transmission Design.....3	
DRF260	Tool Design3	
PH081	Applied Physics.....4	
	or	
PH201	General Physics.....4	
Term 6		
CAM290	CAD/CAM Integrations4	
COM053	Technical Report Writing.....3	
	or	
WR227	Technical Writing3	
DRF165	CAD System Administration3	
DRF262	Machine Design.....3	
MT227A	Pneumatics and Hydraulics Fundamentals3	

Early 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 all Early Childhood Education (ECE) or Human Development and Family (HDF) courses. 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 ECE280A-L Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

One-Year Option Getting Started

The first step to entering the following programs is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services 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	3
	or	
COM051	Communication Skills 1	3

If you have questions about the requirements, call Counseling and Career Services 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; universal access fee, \$220; equipment and supplies, \$36; immunization fees, \$10; basic first-aid card, \$35; criminal records check, \$3-70; conference registration, \$100. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 55 credit hours with a grade of C or better in all ECE and HDF courses.

Course	Title	Credit Hours
Term 1		
ECE068A	Observing Preschool Experiences	1
ECE150	Introduction and Observation in Early Childhood Education	3
ECE161	Infant/Toddler Practicum.....	3
HDF222	Family Relationships	3
HDF225	Prenatal, Infant and Toddler Development.....	3
HDF249	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	
NFM225	Nutrition	4
ECE162	Early Childhood Educator Orientation.....	2
HDF247	Preschool Child Development.....	3
MTH060	Introductory Algebra (or higher).....	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
HDF229	Development in Middle Childhood.....	3
HDF248	Learning Experiences for Young Children	4

Two-Year Option

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$924; class fees, \$55; universal access fee, \$380; equipment and supplies, \$72; immunization fees, \$10; basic first-aid card, \$35; criminal records check, \$3-70; and conference registration, \$100. Contact the Financial Aid Office at 503-399-5018 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 95 credit hours with a grade of C or better in all ECE and HDF courses.

Course	Title	Credit Hours
Term 1		
ECE068A	Observing Preschool Experiences	1
ECE150	Introduction and Observation in Early Childhood Education	3
ECE161	Infant/Toddler Practicum.....	3
HDF222	Family Relationships	3
HDF225	Prenatal, Infant and Toddler Development.....	3
HDF249	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	
NFM225	Nutrition	4
ECE162	Early Childhood Educator Orientation.....	2
HDF247	Preschool Child Development.....	3
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
HDF229	Development in Middle Childhood.....	3
HDF248	Learning Experiences for Young Children	4
Term 4		
ECE251	Environments for Young Children	3
ECE261	Student Teaching 1, ECE***	6
HDF285	Professional Issues in Early Childhood Education	3
MTH060	Introductory Algebra (or higher).....	4
Term 5		
ECE280D	Cooperative Work Experience	4
HDF257	Home, School and Community	3
HDF258	Teaching in an Anti-Bias Classroom***	3

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

Term 6

ECE262 Student Teaching 2, Early Childhood Education***	6
ECE295 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.
 **See Associate of Applied Science Degree guidelines.
 ***Students transferring to Western Oregon University should see advisor.

Economics

(transfer course guideline)

Oregon’s state 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 educational guideline outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa’s Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, WR122 and/or 123 English Composition or WR227 Technical Writing* (SP111 or 218 for SOU; WR121 for WOU)	3	3	(3)
Social Science courses*	3	3	3
Arts and Letters/Humanities courses*	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 1 and 2, and MTH241 for PSU; UO requires MTH111, 241, 242, or 251, 252 and MTH243 [MTH242 taken at UO]; WOU requires MTH111 and additional math and computer science class for BS degree*)	5	4	4
HPE295 Health and Fitness for Life* or electives	3		
Electives*		3	3-6
Second Year	4	5	6

Economics sequence: EC201, 202, 203 Introduction to Microeconomics, Introduction to Macroeconomics and Applications of Economic Issues (EC203 not required at OSU, SOU, or UO)	3	3	3
Science electives*	4	4	4
Arts and Letters/Humanities or Social			

Science electives*	3	3	3
Electives (CS161 or higher for WOU; WOU requires a minor; MTH243 Probability and Statistics recommended for OSU and SOU)	6-7	6-7	6-7

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

Education

See also Early Childhood Education, Professional-Technical Teacher Preparation, and Speech Language Pathology Assistant.

Elementary Education

(transfer course guideline)

Oregon’s state universities offering Elementary Education programs are Oregon State University and Western Oregon University, which offer Bachelor of Arts and/or Bachelor of Science degrees in Elementary Education. Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University and University of Oregon 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 fifth-year program should follow the educational guideline outlined in the catalog for the academic major which they plan to complete before entering a fifth-year program.

The guideline outlined below is designed to meet prerequisite requirements. 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 Counseling and Career Services or a Chemeketa advisor.

For students transferring to WOU or Concordia University, contact Counseling and Career Services at 503-399-5120.

	Term		
	1	2	3
First Year			
WR121 English Composition-Exposition (recommend WR122 and 123; WR121, 122 and SP111 or 218 for SOU)	3	(3)	(3)

Mathematics (per placement test through MTH211, 212, 213 Foundations of Elementary Mathematics; MTH095 prerequisite)	4	4	4
Literature sequence (ENG104, 105, 106 Introduction to Literature or ENG107, 108, 109 World Literature recommended)	3	3	3
HST110, 111, 112 World History or GEG105, 106, 107 Geography	3	3	3
HPE295 Health and Fitness for Life		3	
Computer Science elective*			3
Speech elective (SP111 recommended)			3
Second Year	4	5	6
MTH211, 212, 213 Foundations of Elementary Mathematics (if not taken first year)	(4)	(4)	(4)
Creative Arts electives (ART115 Basic Design, one MUS and one TA course)	3	3	3
Science Sequence (GS104, GS106 Physical Science and BI101 General Biology)	4-5	4-5	4-5
Physical Education elective*	1		
Philosophy or Religion elective	3		
Social Science elective (PSY201 and 202)	3		3
Electives ED209B Practicum: Introductory Observation and Experience (LDC) recommended for those lacking verified classroom work with children; GS105 Physical Science, or BI103 General Biology (see WOU catalog for elective options available)	0-3	3-6	3-6

*To meet four-year college general education requirements.

Secondary Education

(transfer course guideline)

Oregon's state universities offering secondary education programs are Eastern Oregon University, Oregon State 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 fifth-year secondary education program. University of Oregon 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 Western Oregon University 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 departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

Education Certificate

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 45). Completion of the associate's 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. For students transferring to WOU, contact Counseling and Career Services at 503-399-5120 for special program requirements.

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 practicum to gain experience and to practice skills learned in classes. You are required to maintain a grade of C or better in all Education 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 Career Services 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
MTH060	Introductory Algebra	4
RD090	College Textbook Reading	3
WR115	Introduction to Composition.....	3

If you have questions about the requirements, call Counseling and Career Services 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, \$650; class fees, \$78; universal access fee, \$180; measles vaccine, \$10; criminal history check, \$17. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

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, Mark Rediske, at 503-399-2693 or e-mail to redm@chemeketa.edu for approval before enrolling in elective classes.

You may earn a Certificate of Completion by successfully completing these 45 required credit hours:

Education core requirements (24 credit hours):

Course	Title	Credit Hours
ED101	Introduction to Observation and Experience	3
ED110	Psychology of Learning	3

ED131	Teaching Techniques.....	3
ED133	Instructional Media and Materials	3
ED212	Schools and Society.....	3
ED217	Comprehensive Classroom Management	3
ED251	Overview of Students with Special Needs.....	3
ED258	Multicultural Education.....	3

Approved Education Electives (Select 21 credit hours):

ED102	Practicum	3
ED103	Advanced Practicum	6
ED123	Classroom Techniques in Reading and Language	3
ED124	Classroom Techniques in Mathematics and Science	3
ED209V1-V4	Advanced Education Practicum	3-6
ED210	Professional Portfolio Development	3
ED213	Advanced Instructional Techniques in Reading.....	3
ED214	Advanced Instructional Techniques in Mathematics and Science.....	3
ED235	Instructional Technology.....	3
ED236	Introduction to Library/Media Technology.....	3
ED253	Current Issues in Special Education	3
ED257	Second Language Teaching Techniques	3
ED259	Bilingual Methodology	3
ED268	Educating the Mildly and Severely Disabled	3
ED292	Occupational Analysis, Curriculum and Evaluation.....	3
ED293	Applied Integrated Academics.....	3

Electronics Technologies

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: Electronic Engineering Technician, Computer Electronics and Industrial Electronics.

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 ELT280A-L Cooperative Work Experience. For more information, look under Cooperative Work Experience in the catalog index or contact Roger White at 503-399-5068.

For tours of the electronics laboratory or additional information visit educationwithafuture.com.

Getting Started

The first step to entering the following programs is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services 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 Counseling and Career Services 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 computer-like 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 an electronics advisor, 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, \$2,369; class fees, \$360; universal access fee, \$408; equipment and supplies, \$190; and Intel-compatible computer, \$900. Contact the Financial Aid Office at 503-399-5018 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 105 credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
ELT111	Electronics Orientation.....	1
ELT131	Electronic Concepts 1	4
MTH111	College Algebra (or higher)	5
or		
MTH081	Technical Mathematics 1	4
NET123	Computer Operating Systems	4
WR121	English Composition-Exposition	3
Term 2		
ELT132	Electronic Concepts 2.....	4
ELT141	Transistor Fundamentals	5
ELT151	Digital Fundamentals.....	4
MTH112	Trigonometry (or higher)	5
or		
MTH082	Technical Mathematics 2	4
Term 3		
ELT133	Electronic Concepts 3	4
ELT142	Semiconductor Devices.....	3
ELT143	Pulse Circuit Fundamentals	3
ELT161	Linear IC Fundamentals	4
WR227	Technical Writing	3
Term 4		
ELT121	Programming Concepts 1	4
or		
CS133J	Fundamentals of Java Programming 1	4
ELT244	Electronic Circuit Analysis.....	4
ELT252	Digital Circuit Applications	3
FE205B	Resumes and Job Search Correspondence	1
PH201	General Physics.....	4
or		
PH081	Applied Physics.....	4
SP111	Fundamentals of Public Speaking.....	3

Term 5

CS278	Data Communications.....	3
ELT253	Microprocessor Systems	5
ELT254	Computer Hardware.....	4
	or	
CS145	Microcomputer Hardware.....	4
PH202	General Physics.....	4
	or	
PH082	Applied Physics.....	4
PSY104	Psychology in the Workplace.....	3

Term 6

ELT122	Programming Concepts 2	4
	or	
CS140U	Unix/Linux	3
	or	
CS140S	Solaris-UNIX Operating System	5
	or	
CS179	Introduction to Client-Server Networks.....	4
ELT255	Advanced Data Communication.....	5
	or	
CS279	Network Management	5
ELT256	Advanced Computer Architecture.....	4
ELT283	Logical Troubleshooting.....	5

Electronic Engineering Technician Option

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).

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,450; class fees, \$360; universal access fee, \$412; Intel-compatible computer, \$900; equipment and supplies, \$190. Contact the Financial Aid Office at 503-399-5018 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 102 credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
DRF101	Basic CAD for Electronics	2
	or	
DRF130	AutoCAD 1 (or higher)	3
ELT111	Electronics Orientation.....	1
ELT131	Electronic Concepts 1	4
MTH111	College Algebra (or higher)	5
	or	
MTH081	Technical Mathematics 1	4
WR121	English Composition-Exposition	3

Term 2

ELT132	Electronic Concepts 2.....	4
ELT141	Transistor Fundamentals	5
ELT151	Digital Fundamentals.....	4
MTH112	Trigonometry (or higher)	5
	or	
MTH082	Technical Mathematics 2	4

Term 3

ELT133	Electronic Concepts 3.....	4
ELT142	Semiconductor Devices.....	3
ELT143	Pulse Circuit Fundamentals	3
ELT161	Linear IC Fundamentals	4
WR227	Technical Writing	3

Term 4

ELT121	Programming Concepts 1	4
	or	
CS133J	Fundamentals of Java Programming 1	4
ELT244	Electronic Circuit Analysis	4
ELT252	Digital Circuit Applications	3
FE205B	Resumes and Job Search Correspondence	1
PH201	General Physics.....	4
	or	
PH081	Applied Physics.....	4
SP111	Fundamentals of Public Speaking.....	3

Term 5

ELT253	Microprocessor Systems	5
ELT262	Linear IC Applications.....	3
ELT281	Antennas and Transmission Lines.....	2
ELT282	Telecommunications	3
PH202	General Physics.....	4
	or	
PH082	Applied Physics.....	4

Term 6

ELT283	Logical Troubleshooting.....	5
ELT291	Advanced Industrial Electronics	4
PSY104	Psychology in the Workplace.....	3
	Approved Electronics electives*	6

***Approved Electronics electives:**

CH121,121R	College Chemistry	5
CH201	Chemistry for Engineers	4
CS145	Microcomputer Hardware.....	4
ELT122	Programming Concepts 2	3
ELT254	Computer Hardware.....	4
ELT255	Advanced Data Communications	5
ELT256	Advanced Computer Architecture.....	4
ELT280C	Cooperative Work Experience	3
	(For second-year students, must have prior approval of Program Chair)	
MT110	Microelectronics	3
MT221	Fluid and Vacuum Systems	4
MT223	High Vacuum Technology.....	3
MT227A	Pneumatics and Hydraulics Fundamentals	3
MTH241	Elementary Calculus	4
MTH243	Probability and Statistics 1	4
MTH251	Differential Calculus (or higher)	5
PH203	General Physics.....	4

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 an Industrial Electronics advisor, 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, \$2,200; class fees, \$360; universal access fee, \$408; Intel-compatible computer, \$900; equipment and supplies, \$190. Contact the Financial Aid Office at 503-399-5018 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 101 credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
DRF101	Basic CAD for Electronics	2
	or	
DRF130	AutoCAD 1 (or higher)	3
ELT111	Electronics Orientation	1
ELT131	Electronic Concepts 1	4
MT110	Microelectronics	3
MTH111	College Algebra (or higher)	5
	or	
MTH081	Technical Mathematics 1	4
WR121	English Composition-Exposition	3
Term 2		
ELT132	Electronic Concepts 2	4
ELT141	Transistor Fundamentals	5
ELT151	Digital Fundamentals.....	4
MTH112	Trigonometry (or higher)	5
	or	
MTH082	Technical Mathematics 2	4
Term 3		
ELT133	Electronic Concepts 3	4
ELT142	Semiconductor Devices.....	3
ELT143	Pulse Circuit Fundamentals	3
ELT161	Linear IC Fundamentals	4
WR227	Technical Writing	3
Term 4		
ELT121	Programming Concepts 1	4
	or	
CS133J	Fundamentals of Java Programming 1	4
ELT244	Electronic Circuit Analysis.....	4
ELT252	Digital Circuit Applications	3
FE205B	Resumes and Job Search Correspondence	1
PH201	General Physics.....	4
	or	
PH081	Applied Physics.....	4
SP111	Fundamentals of Public Speaking.....	3
Term 5		
ELT253	Microprocessor Systems	5
ELT262	Linear IC Applications.....	3
PH202	General Physics.....	4
	or	
PH082	Applied Physics.....	4
	Approved Technical elective*	3

Term 6

ELT291	Advanced Industrial Electronics	4
PSY104	Psychology in the Workplace.....	3
	Approved Technical electives*	9

*Approved Technical electives:

CH121,121R	College Chemistry	5
CH201	Chemistry for Engineers	4
CS145	Microcomputer Hardware.....	4
DRF251	Power Transmission Design.....	3
DRF252	Flexible Manufacturing Systems.....	3
ELT254	Computer Hardware.....	4
ELT283	Logical Troubleshooting.....	5
MT221	Fluid and Vacuum Systems	4
MT223	High Vacuum Technology.....	3
MT227A	Pneumatics and Hydraulics Fundamentals	3
MTH243	Probability and Statistics 1	4

Emergency Medical Technology - 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 hospital and pre-hospital clinical training sites. The program is fully accredited by the Oregon Department of Education, the Oregon State EMS Office 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 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. 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, \$1,368; class fees, \$565; universal access fee, \$384; equipment and supplies, \$535; testing fees, \$325. Contact the Financial Aid Office at 503-399-5018 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 96 credit hours with a grade of C or better in all courses:

Course	Title	Credit Hours
Term 1		
BI231	Human Anatomy and Physiology (or higher).....	4
EMT151	Emergency Medical Technician Basic, Part 1	5

EMT175	Introduction to Emergency Medical Services	3
	or	
ES072	Introduction to Emergency Services.....	4
HM120	Medical Terminology 1	3
WR121	English Composition-Exposition (or higher).....	3

Term 2

ES115	Crisis Intervention	3
BI232	Human Anatomy and Physiology (or higher).....	4
EMT152	Emergency Medical Technician Basic, Part 2.....	4
EMT280A	Cooperative Work Experience.....	1
MTH070	Elementary Algebra (or higher)	4

Term 3

BI233	Human Anatomy and Physiology (or higher).....	4
EMT169	EMT Rescue.....	3
	or	
FRP056	Fire Service Rescue Practices	4
EMT170	Emergency Communication and Patient Transportation ..	3
	or	
FRP053	Fire Incident Related Experience.....	3
PSY101	Psychology of Human Relations.....	3
	or	
HUM259	Death and Dying.....	3
	or	
PSY201	General Psychology-Biological Emphasis.....	3
SP111	Fundamentals of Public Speaking.....	3

Term 4

CS101	Introduction to Microcomputer Applications (or higher)	3
EMT296	EMT Paramedic, Part 1	14

Term 5

EMT297	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, see program faculty for additional courses):**

ASL101	American Sign Language, Term 1	3
BA101	Introduction to Business	4
BA173	Public Relations in Business	3
BA206	Business Management Principles.....	3
BA211	Financial Accounting 1	4
BA224	Personnel Management.....	3
BA226	Business Law 1	3
EMT280C	Cooperative Work Experience	3
FRP050	Introduction to Fire Protection	3
FRP064	Hazardous Materials Operations	3
FRP277	NFPA Fire Instructor 1	3
FRP278	NFPA Fire Instructor 2	3
HE250	Personal Health.....	3
HE262	Cardiopulmonary Resuscitation Instruction.....	2
HM101	Medical Law and Ethics	3
HM114	CPT IV Coding/Reimbursement	3
HM121	Medical Terminology 2	3
HM122	Medical Terminology 3	3
HS101	Addiction Pharmacology and Physiology	4
HS150	Personal Effectiveness for Human Service Workers.....	3
HS154	Community Resources.....	3
HUM259	Death and Dying.....	3
MED128	Introduction to Medical Science	3

MTH243	Probability and Statistics 1	4
PSY101	Psychology of Human Relations.....	3
PSY201	General Psychology-Biological Emphasis.....	3
WR227	Technical Writing	3
	Foreign Language	3

Employment Skills Training

The Employment Skills Training program provides individuals the opportunity to receive a state-approved Certificate of Completion for completing an individualized 12- to 44-credit program that leads to skills and knowledge necessary for employment in an occupation or career field. Students who enroll in this short-term program will receive instruction based on a curriculum personalized for their chosen occupation and their individual abilities, knowledge and skills. This program may include a combination of classroom and on-the-job experiences. Students can enroll at the beginning of any term of the academic year.

Engineering

(transfer course guideline)

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 educational guide outlined below closely follows 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.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
GE101 Engineering Orientation	3		
EGR248 Graphics and 3-D Modeling (not required for Electrical Engineering; CS161 Computer Science 1 required for Electrical Engineering)	(4)	3	
GE102 Engineering Computations		3	
CS162 Computer Science 2 (required for Electrical Engineering at OSU)		(4)	
GE103 Engineering Computations			3
MTH251, 252 Calculus and Calculus with Analytic Geometry; MTH253 Series Calculus and Linear Algebra	5	5	4
CH221, 222 General Chemistry (CH223 required for Civil/Mechanical Engineering at PSU)	4	4	(4)
Biological Science course for OSU*	4		
WR121 English Composition-Exposition (WR122 and SP111 or 218 for SOU)		3	

WR227 Technical Writing			3
HPE295 Health and Fitness for Life (for OSU)			3
Arts and Letters/Humanities or Social Science electives*	3		3
Second Year	4	5	6
EGR211 Statics	4		
EGR212 Dynamics		4	
EGR213 Strength of Materials (not required for Electrical Engineers)			(4)
EGR201, 202 Electrical Fundamentals 1 and 2 (EGR202 not required for Civil Engineering at OSU)	4	(4)	
EGR203 Electric Control Fundamentals (not required for Mechanical or Civil Engineering)			(4)
MTH256 Applied Differential Equations			4
MTH254 Vector Calculus 1	4		
MTH255 Vector Calculus 2 (not required for Mechanical or Civil Engineering at PSU)			(4)
PH211, 212, 213 Physics for Engineers and Scientists	5	5	5

Arts and Letters/Humanities or Social Science electives and SP111 Fundamentals of Public Speaking or SP112 Fundamentals of Persuasion 0-6 0-6

*To meet four-year college general education requirements. Note: The above requirements are for the fields of Civil, Mechanical, and Electrical Engineering. For other fields of Engineering contact the program advisor.

English

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

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; WR121, 122 and SP111 or 218 for SOU)	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; six credits from ENG [excluding ENG104, 105, or 106] plus ENG201 or 203 for UO; only ENG253, 254, for WOU; SOU: take three courses: ENG104, 105, and 106)	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
ENG201, 202, 203 Introduction to Shakespeare; EOU requires ENG201; OSU requires any one course; UO requires ENG201 or 203; PSU requires ENG201, 202; SOU requires HUM106; WOU does not require any.	3	3	3
Second-Year Foreign Language sequence required at PSU and WOU and for literature option at SOU	4	4	4
Arts and Letters/Humanities electives* (PSU requires four credits of art, music or theater)	3	3	3
HPE295 Health and Fitness for Life* or elective			3
Additional Social Science or Math/Science courses*	3-4	3-4	3-4
Additional courses to meet major requirements or electives (JNL216 Newswriting and WR241, 242, or 243 Imaginative Writing for EOU)	3	3	

*To meet four-year college general education requirements.

English as a Non-Native 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 503-399-6298 or the Counseling and Career Services at 503-399-5120.

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 503-399-6298 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

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
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
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 1	4
ENL114	Advanced Grammar 2	4

Farm Business Management

The Farm Business Management programs 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. Various 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 503-589-7759.

XAGR9800C,D,E Farm Business Management 1

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

XAGR9800F,G,H Farm Business Management 2

Monitors and assesses financial position of the farm business based upon records and analysis obtained in Farm Business Management 1. Explores computerized farm accounting and income tax management.

XAGR9800J,K,L Farm Business Management 3

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

XAGR9800M,N,P Farm Business Management 4

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.

XAGR9800Q,R,S Farm Business Management 5

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

XAGR9800T 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.

XAGR9801T Farm Business Management Workshop

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

Fire Protection Technology

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 on-campus 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 11 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, \$2,228; class fees, \$174; universal access fee, \$400; equipment and supplies, \$825. Contact the Financial Aid Office at 503-399-5018 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 100 credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
EMT151	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 1	3
FRP064	Fire Incident Related Experience 1	3
MTH070	Elementary Algebra (or higher)	4
Term 2		
CH111,111R	Chemistry for Fire Science and Emergency Services (or higher)	5
CS101	Introduction to Microcomputer Applications (or higher)	3
EMT152	Emergency Medical Technology Basic, Part 2.....	4
EMT280A	Cooperative Work Experience*	1
FRP052	Fire Incident Related Experience 2	3
FRP066	Building Construction for Fire Suppression	3
Term 3		
FRP053	Fire Incident Related Experience 3.....	3
FRP054	Water Supply Operations	3
FRP058	Fire Pump Construction and Operations	3
FRP069	Fire Department Leadership.....	3

PH111,111R Physical Science for Fire and Emergency Services (or higher)	5
Approved electives*	3

Term 4

FRP060 Fundamental of Fire Prevention	3
FRP061 Fire Incident Related Experience 4	3
HPE295 Health and Fitness for Life.....	3
SOC204 General Sociology-Introduction.....	3
WR121 English Composition-Exposition (or higher).....	3

Term 5

FRP056 Fire Service Rescue Practices	4
FRP062 Fire Incident Related Experience 5	3
FRP072 Uniform Fire Code	3
SP115 Introduction to Intercultural Communication (or higher)	3

Term 6

FRP063 Fire Incident Related Experience 6.....	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:**

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 1	3
BLD152 Building Codes 2	3
EMT165 Emergency Medical Technician Intermediate, Part 1	5
EMT166 Emergency Medical Technician Intermediate, Part 2.....	5
EMT175 Introduction to Emergency Medical Services	3
EMT280F Cooperative Work Experience.....	6
ES115 Crisis Intervention	3
FRP059 Major Emergency Strategy and Tactics	3
FRP070 Fire Fighting Tactics and Strategies.....	3
FRP073 Law for Emergency Services.....	3
FRP074 Fire Investigation	4
FRP075 Crash/Rescue for Non-Commercial Aircraft	1
FRP086 Advanced Detection and Protection Systems.....	3
FRP087 Fire Insurance Fundamentals	3
FRP277 NFPA Fire Instructor 1	3
FRP278 NFPA Fire Instructor 2.....	3
HE262 Cardiopulmonary Resuscitation Instruction.....	2
HM120 Medical Terminology 1	3
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 FRP280A-L 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, \$843; class fees, \$521; universal access fee, \$404. Contact the Financial Aid Office at 503-399-5018 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 101 credit hours with a grade of C or better in all courses. 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 Fundamentals 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

CS101 Introduction to Microcomputer Applications (or higher)	3
DRF102 Print Reading.....	2
FRP072 Uniform Fire Code	3
FRP081 Fire Prevention Inspection	3
PH111,111R Physical Science for Fire Science and Emergency Services (or higher)	5
PSY101 Psychology of Human Relations (or higher).....	3

Term 3

CH111,111R Chemistry for Fire Science and Emergency Services (or higher)	5
FRP071 Fire Protection Systems and Extinguishers	3
FRP089 Fire Codes and Ordinances 2	3
SP111 Fundamentals of Public Speaking (or higher).....	3
WR227 Technical Writing	3

Term 4

BLD151 Building Codes 1	3
FRP074 Fire Investigation	4
FRP080 Hazardous Materials for Inspectors	3
FRP280C Cooperative Work Experience.....	3
Approved electives*	3

Term 5

BLD152 Building Codes 2	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 Non-Structural Plan Review.....	3
FRP054 Water Supply Operations.....	3
FRP084 Public Information for the Fire Service	3
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
FRP067 Hazardous Materials Regulations	3
FRP068 Law Enforcement Procedures for Fire Prevention.....	3
FRP069 Fire Department Leadership.....	3
FRP070 Fire Fighting Tactics and Strategies.....	3
FRP079 Wildland Urban Interface	3
FRP083 Incident Report Writing.....	2
FRP086 Advanced Detection and Protection Systems.....	3
FRP277 NFPA Fire Instructor 1	3
FRP278 NFPA Fire Instructor 2	3

Fire Service Supervision and Management

The Fire Service Supervision and Management 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 1 and 2. To be admitted to the Fire Officer Certificate program you must be certified as Firefighter 1, or equivalent, and actively be pursuing Firefighter 2 or have an associate's 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; universal access fee, \$220; equipment and supplies, \$20. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 52 credit hours with a grade of C or better in all courses.

Fire Service Supervision and Management requirements:

Course	Title	Credit Hours
Communications:		
BA214	Business Communications	3
BT084	Business English 1	3
	or	
COM051	Communication Skills 1 (or higher)	3
WR115	Introduction to Composition	3
WR121	English Composition-Exposition (or higher)	3
WR227	Technical Writing	3
Human Relations:		
PSY101	Psychology of Human Relations (or higher)	3
SOC204	General Sociology-Introduction (or higher)	3
SP111	Fundamentals of Public Speaking (or higher)	3
Math:		
MTH052	Introduction to Algebra and Geometry (or higher)	3
Science:		
CH111, 111R	Chemistry for Fire Science and Emergency Services (or higher)	5
	and	
PH111, 111R	Physical Science for Fire Science and Emergency Services (or higher)	5
	or	
	(Any combination of one Chemistry and one Physics course of at least four credit hours each and include a lab component)	
Term 1		
	Communications (See requirements above)	3
	Human Relations (See requirements above)	3
	Math (See requirements above)	3
FRP069	Fire Department Leadership	3
FRP073	Law for Emergency Services	3
	or	
FRP166	Firefighter's Law	1
FRP074	Fire Investigation	4
FRP277	NFPA Fire Instructor 1	3

Term 2

	Science (see requirements above)	4
FRP054	Water Supply Operations	3
FRP066	Building Construction for Fire Suppression	3
FRP070	Fire Fighting Tactics and Strategy	3
FRP160	Incident Safety Officer	1
FRP161	Fire Management Practices	1
FRP162	Managing Fire Personnel	1
FRP163	Planning Fire Protection	1

Term 3

	Science (See requirements above)	4
FRP059	Major Emergency Strategy and Tactics	3
FRP072	Uniform Fire Code	3
FRP164	Fire Department Budgets	1
FRP165	Public Relations, Public Information, and Public Education	1
PS203	State and Local Government	3

Foreign Languages

(transfer course guideline)

Oregon's state 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; SOU offers a Bachelor of Arts in Language and Culture with options in French, German, Spanish (see SOU catalog); 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 educational guide outlined below is designed so that you may meet requirements of these institutions in two years, if you attend full time.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
WR121, WR122 and/or WR123 English Composition* (SP111 and 218 for SOU)	3	(3)	(3)
Arts and Letters or Humanities courses* (PSU requires four credits music, art, or theater)	3	3	3
Mathematics or Science courses*	4	4	4
Foreign Language sequence (first year) 101, 102 and 103 (French, German, Japanese, Russian, or Spanish)(French, German, or Spanish only at SOU)	4	4	4
Social Science* (PSU recommends History and Geog- raphy classes of countries in which the language is spoken; UO recommends History; SOU requires ATH103)	3	3	3
HPE295 Health and Fitness for Life* or elective			3

Second Year	4	5	6
Foreign Language sequence (second year) 201, 202 and 203	4	4	4
Social Science*	3	3	3
Arts and Letters or Humanities* (UO recommends literature)	3	3	3
Science*	4	4	4
Electives (a Foreign Language sequence in addition to the one chosen for the major may be used to fulfill requirements for a BA degree at OSU)	3	3	3

*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.

Forest Management

(forest management transfer)

Oregon State University offers degrees in Forest Management. The educational guide outlined below is for students wishing to transfer to the Oregon State University College of Forestry.

Course	Title	Credit Hours
Term 1		
BI131	Environmental Science 1.....	4
CS101	Introduction to Microcomputer Applications	3
FT111	Introduction to Forest Resources.....	5
FT141A	Oregon Tree and Shrub Identification 1.....	3
WR121	English Composition-Exposition	3
Term 2		
FT150	Forest Seminar	1
FT220	Forest Photo Interpretation.....	3
MTH111	College Algebra.....	5
WR227	Technical Writing	3
Term 3		
FT141B	Oregon Tree and Shrub Identification 2.....	3
FT210A	Forest Surveying 1.....	3
FT223	Timber Cruising/Log Scaling.....	5
FT270A	Silviculture 1.....	2
HPE295	Health and Fitness for Life.....	3
Term 4		
BI101	General Biology	4
CH121,121R	College Chemistry	5
FT210B	Forest Surveying 2.....	5
FT270B	Silviculture 2.....	3
Term 5		
BI102	General Biology	4
CH122,122R	College Chemistry	5
DRF220	GIS ArcView.....	2
EC201	Introduction to Microeconomics	3
MTH241	Elementary Calculus	4
Term 6		
BI103	General Biology	4
CH223,223R	General Chemistry.....	5
EC202	Introduction to Macroeconomics.....	3
MTH243	Probability and Statistics 1	4

Forestry

(transfer course guideline)

Several universities in the Northwest offer degrees in Forest Engineering, Forest Management, Forest Products, Forest Recreation and Natural Resources. The Oregon State University College of Forestry and the University of Idaho College of Natural Resources have developed articulation agreements with Chemeketa Community College's Forestry Transfer program, allowing Chemeketa students to transfer many of their forestry courses as corresponding courses at these universities. In addition, many core, or general studies, courses are also transfer to these universities.

The OSU College of Forestry offers a bachelors degree in Forest Management that optimally articulates coursework from Chemeketa Community College. Other degrees, offered within the College of Forestry, also articulate various courses from Chemeketa. Course equivalency forms, unique to each OSU forestry or natural resources degree, are available from the Chemeketa Counseling and Career Services, or from a Chemeketa forestry instructor at 503-399-5210.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at OSU to learn of any possible changes in an academic area.

Science or electives*

Forest Management BI101, BI102, and BI103 (for Forest Mgt. Degree only) CH121, CH122 and CH223, DRF220

Forest Recreation DRF220

Natural Resources BI101, BI102, BI103, GEO201 or GEO202, GS120

Wood Science and Technology (Wood Eng. & Science Option) CH201, CH221 or CH121, CH202, CH222, or CH122, CH223, PH203, PH211 and PH213

Wood Science and Technology (Wood Industry Mgt. Option) CH121, CH122, and CH123, PH201 and PH202

Forest Engineering CH201, PH211 and PH213, EGR211 and EGR212, EGR201

Forest Engineering/Civil Engineering CH201 and CH202, PH211, PH212 and PH213, EGR201, EGR211, EGR212, and EGR213

Mathematics

Forest Management MTH241 and MTH243

Forest Recreation MTH243

Natural Resources MTH112 or MTH241

Wood Science and Technology (Wood Eng. & Science Option) MTH111, MTH112, MTH251, MTH252, and MTH254

Wood Science and Technology (Wood Industry Mgt. Option) MTH111, MTH112, MTH241, and MTH243

Forest Engineering MTH251, MTH252, MTH254, and MTH256

Forest Engineering/Civil Engineering MTH251, MTH252, MTH254, and MTH256

Electives

All OSU Forestry Degrees EC201 and EC202, WR121, WR227, SP111 or SP112, HPE295, BA212, BA213, BA226 and BA232

Forest transfer courses

FT111, FT141A, FT141B, FT150, FT210A, FT210B, FT220, FT223, FT270A, FT270B

General Science

See **Biology**.

General Studies

(transfer course guideline)

Most of Oregon's state universities offer Bachelor of Arts and/or Bachelor of Science degrees in General 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition or WR227 Technical Writing*	3	3	(3)
Social Science courses*(UO recommends at least one history course; OSU requires one history course, PSY201, 202 and six additional history credits)	3	3	3
Mathematics per placement test* or Science courses* (need MTH105 Introduction to Contemporary Mathematics or MTH111 College Algebra; MTH211, 212, 213 for OSU; WOU requires MTH111 or two years foreign language)	4-5	4-5	4-5
Arts and Letters/Humanities* (OSU recommends and UO requires second year college level Foreign Language)	3-4	3-4	3-4
HPE295 Health and Fitness for Life*	(3)		
Electives (ART204, or 205, or 206 Art History recommended for UO; foreign language or additional math for OSU)	0-3	0-3	0-3
Second Year	4	5	6
Arts and Letters/Humanities*	3-4	3-4	3-4
Social Science courses*	3	3	3
Science sequence or electives*	4	4	4
Electives* or courses to meet Chemeketa's A.A. degree requirements (CS101 Introduction to Microcomputer Applications and a Speech course recommended, CS101 required for SOU; UO recommends PHL201 or 202 or 203 or 204 Philosophical Problems and Elementary Ethics; WOU requires approved study from two or more academic areas with a minimum of 27 hours in each)	6	6	6

*To meet four-year college general education requirements.

Geography

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition* (SP111 or 218 required for SOU)	3	3	(3)
GEG105 Physical Geography, GEG106 Cultural Geography, GEG107 Global Lands and Livelihoods (not all schools require all three courses; GEG106 Cultural Geography, 202 World Regional Geography for OSU; GEG105, 106 for SOU; GEG106 for UO)	3	3	(3)
Mathematics per placement test* (MTH111 College Algebra and 112 Trigonometry for OSU; MTH243 and 244 Probability and Statistics 1 and 2 for some courses at PSU; MTH243 for SOU; UO has four choices to meet requirements [see UO catalog for courses]; MTH111 for WOU)	4-5	4-5	4-5
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* (GEG206 Geography of Oregon or GEG207 Geography of U.S. and Canada recommended for UO; OSU requires GEO201, 202 Geology; Choose two electives from GEG107, 201, 202)	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* (Physical or Biological sequence of two courses and a Biological or Physical 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 for WOU or second-year Foreign Language; additional Arts and Letters for UO)	6	6	6

*To meet four-year college general education requirements.

Geology

(transfer course guideline)

Oregon's state universities offering Bachelor of Arts and/or Bachelor of Science degrees in Geology are Oregon State University, Portland State University, Southern Oregon University, University of Oregon and Western Oregon University (Earth Science).

The educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year	1	2	3
WR121, 122 and/or WR123 or 227*	3	3	(3)
Arts and Letters/Humanities courses*	3	3	3
Mathematics per placement test*(EOU requires MTH111, 112; OSU requires Math through MTH252 Integral Calculus; PSU requires through MTH254 Vector Calculus I for BS or MTH251 and MTH243 for BA; SOU requires MTH111, 112, 243, 251 or 253 Series Calculus and Linear Algebra or MTH243 Probability and Statistics 1; UO requires through MTH253; WOU requires MTH111, 112, 243, and CS161 or two years of Foreign Language) and MTH112 and CS161	4-5	4-5	4-5
CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry (CH121 and 121R, 122 and 122R, 123 and 123R College Chemistry also accepted at OSU and WOU; OSU requires CH123 and 123R or 223 and 223R or PH203 or 213)	5	5	5
Social Science*	3	3	3-6
Second Year	4	5	6
PH201, 202, 203 General Physics or PH211, 212, 213 Physics for Engineers and Scientists (OSU requires only 2 terms; WOU will also accept B101, 102, 103 General Biology instead of Physics)	4	4	4
GEO201, 202, 203 Geology	4	4	4
HPE295 Health and Fitness for Life* or elective			3
Arts and Letters/Humanities or Social Science electives*	3	3	
Electives (OSU requires four credits of biological science; Chemeketa recommends a CS course)	3-4	3-4	3-4

*To meet four-year college general education requirements.

Note: UO recommends that students obtain a graduate degree for most professional positions.

Health, Health Education

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed so that you may meet requirements of these institutions in two years, if you attend full time.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

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.

	Term		
	1	2	3
First Year	1	2	3
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, 122 and SP111 or 218 for SOU; WR121 and a Speech elective for WOU)	3	3	(3)
BI231, 232, 233 Anatomy and Physiology for EOU, OSU, PSU, and SOU except Health Care Administration at OSU (BI101, 102, 103 General Biology are also required for Environmental Health and Safety and health promotions/education at OSU; BI101 and 103 required as prerequisite sites at WOU)	4	4	4
Mathematics per placement test* (MTH111 College Algebra or MTH112 Trigonometry, MTH211, 212, or 213 Foundations of Elementary Mathematics for EOU; Health Care Administration at OSU requires MTH111 and MTH243 Probability and Statistics 1; Environmental Health at OSU requires MTH111 and 241 Elementary Calculus or MTH112 Trigonometry; MTH111, 243, and 244 for Health and Fitness at PSU; MTH111 or two years of Foreign Language at WOU)	4	4	4
HPE295 Health and Fitness for Life	3		
HE151 Alcohol and Other Drugs and HE262 Cardiopulmonary Resuscitation Instruction required at SOU; HE250 recommended at WOU)			3
Arts and Letters/Humanities*	3	3	3
Electives** (BI234 Microbiology for OSU; EOU requires one year of chemistry as prerequisite for BI231, 232, 233; SOU and Health Promotion and Education at OSU require NFM225 Nutrition (HPE250 for PSU)	(3-4)	(3-4)	3
Second Year	4	5	6
CH121 and 121R, 122 and 122R, 123 and 123R College Chemistry (not required at PSU, SOU, and WOU or for Health Care Administration at OSU; only CH121 and 121R required for Health Promotion and Education at OSU)	5	5	5
Social Science courses to meet four-year college general education or major requirements (PSY201 General Psychology, SOC204 General Sociology required for Health Promotion at OSU; EC201, 202 Introduction to Microeconomics and Macroeconomics required for Health Care Administration at OSU; WOU requires PSY201, 202 as prerequisites for required courses)	6	6	6

Electives* to meet four-year college general education or major requirements (Some OSU options require CS101 Introduction to Microcomputer Applications; Environmental Health and Safety at OSU requires PH201 General Physics and CH241 and 241B, 242 and 242B, 243 and 243B, Health Care Administration at OSU requires BA211, 212, 213; CS101 recommended for EOU for some options; PE131 Introduction to Health, PE and Recreation for WOU) 6 3-6 6

*To meet four-year college general education requirements.
**See OSU catalog for Health Care Administration requirement.

Dietetics

Oregon State University (OSU) offers a Bachelor of Science degree in Nutrition and Food Management with a Dietetics Option. The Dietetics Option meets the American Dietetics Association academic and accreditation requirements for students interested in becoming Registered Dietitians. It is essential that you work closely with Chemeketa's Dietetics program advisor or an advisor from OSU to ensure that you choose the appropriate courses.

Please contact Nancy Duncan at 503-399-5296 for a Chemeketa specific transfer guideline and further advising. For OSU advice about undergraduate course requirements, students can contact the OSU College of Health and Human Sciences Student Support and Advising Office at 541-737-8900.

Health Services Management

The Health Services Management program offers one-year and two-year training for students on a career ladder in health care services. The one-year program allows you to be trained as a health information technician. The two-year programs includes Health Services Management and Medical Transcription. Medical Office Assisting students should contact the advisors for the Health Services Management program as some classes taken in the Medical Office Assisting program may apply toward the A.A.S. degree. Students must earn grades of C or better on all required courses.

Getting Started

The first step to entering the following programs is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services. 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
MTH060	Introductory Algebra	4
RD090	College Textbook Reading	3
WR115	Introduction to Composition.....	3

If you have questions about the requirements, call Counseling and Career Services 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 continue on to 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's degree as an associate records technician, you must meet college graduation requirements including general education, math and English competencies. 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 Enrollment Services (Admissions) Office at 503-399-5006.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$625; class fees, \$100; universal access fee, \$192; equipment and supplies, \$325. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 51 required credit hours:

Course	Title	Credit Hours
Term 1		
BI071	Body Structure and Function 1	3
	or	
BI231	Human Anatomy and Physiology	4
HM101	Medical Law and Ethics	3
HM105	Professional Development A	1
HM110	Health Information Systems Procedures 1	4
HM120	Medical Terminology 1	3
WR121	English Composition-Exposition (or higher).....	3
Term 2		
BI072	Body Structure and Function 2	3
	or	
BI232	Human Anatomy and Physiology	4
HM106	Professional Development B	1
HM112	Health Information Systems Procedures 2.....	5
HM114	CPT-IV Coding/Reimbursement	3
HM116	Introduction to Allied Health Data	3
HM121	Medical Terminology 2	3
Term 3		
HM107	Professional Development C	1
HM115	ICD-9-CM Coding/Reimbursement	3
HM122	Medical Terminology 3	3
HM130	Health Information Systems Office Practice	5
HM131	Health Information Systems Seminar.....	1
PSY104	Psychology in the Workplace (or higher)	3

Two-Year Programs 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.

Students must earn grades of C or better in all required courses and be eligible for graduation in order to participate in the practicum.

In addition to tuition, estimated costs for students who complete the entire second year listed below are books, \$1,710; class fees, \$225; universal access fee, \$388; equipment and supplies, \$325. Contact the Financial Aid Office at 503-399-5018 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 99 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 1	3
	or	
BI231	Human Anatomy and Physiology	4
HM101	Medical Law and Ethics	3
HM110	Health Information Systems Procedures 1	4
HM120	Medical Terminology 1	3
WR121	English Composition-Exposition	3
Term 2		
BI072	Body Structure and Function 2	3
	or	
BI232	Human Anatomy and Physiology	4
HM112	Health Information Systems Procedures 2	5
HM114	CPT-IV Coding/Reimbursement	3
HM116	Introduction to Allied Health Data	3
HM121	Medical Terminology 2	3
Term 3		
BA206	Business Management Principles	3
HM115	ICD-9-CM Coding/Reimbursement	3
HM122	Medical Terminology 3	3
MTH070	Elementary Algebra (or higher)	4
WR227	Technical Writing	3
Term 4		
HM105	Professional Development A	1
HM210	Introduction to Health Services	3
HM250	Health Services Management 1	3
MTH095	Intermediate Algebra (or higher)	4
	or	
BA211	Financial Accounting 1	4
PSY201	General Psychology-Biological Emphasis (or higher)	3
	Business elective (200 or higher) (Recommend BA214) ...	3
Term 5		
HM106	Professional Development B	1
HM251	Health Services Management 2	3
	Communications elective (100 or higher)	3
	Humanities/Fine Arts elective (100 or higher)	3
	Business, Economic or Social Science elective (200 or higher)	3
	Computer elective (100 or higher) (CA or CS prefix)	3
Term 6		
HM107	Professional Development C	1
HM230	Health Services Externship	6
HM231	Health Services Seminar	1
HM252	Health Services Management 3	3
	Business elective (200 or higher) (Recommend BA224) ...	3

General Education elective (100 or higher) (Recommend HPE295)

Medical Transcription

The two-year medical transcription program prepares you for a career as a professional medical transcriptionist within an acute or non-acute health care environment. This program emphasizes the transcribing applications that will help you train for entry-level employment as a medical transcriptionist and provides the basic knowledge and skills required to transcribe medical dictation accurately and within timelines. Training stresses microcomputer word processing skills, as well as proofreading, transcription and formatting.

Students must earn grades of C or better in all required courses and be eligible for graduation in order to participate in the practicum.

This program has special admission requirements and enrollment limits. For additional information, contact the Enrollment Services (Admissions) Office at 503-399-5006.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,710; class fees, \$225; universal access fee, \$392; equipment and supplies, \$225. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 100 required credit hours.

Course	Title	Credit Hours
Term 1		
BI071	Body Structure and Function 1	3
	or	
BI231	Human Anatomy and Physiology	4
BT085	Business English 2	3
	or	
WR121	English Composition-Exposition (or higher)	3
HM101	Medical Law and Ethics	3
HM110	Health Information Systems Procedures 1	4
HM120	Medical Terminology 1	3
Term 2		
BI072	Body Structure and Function 2	3
	or	
BI232	Human Anatomy and Physiology	4
HM112	Health Information Systems Procedures 2	5
HM116	Introduction to Allied Health Data	3
HM121	Medical Terminology 2	3
HM141	Medical Transcription 1	3
Term 3		
BA214	Business Communications	3
BT099	Proofreading/Editing	3
HM122	Medical Terminology 3	3
HM142	Medical Transcription 2	3
	Computer elective (100 or higher)*	3
	General Education elective	3
Term 4		
HM105	Professional Development A	1
HM143	Medical Transcription 3	3
HM210	Introduction to Health Services	3
HM250	Health Services Management 1	3
MTH070	Elementary Algebra (or higher)	4
	or	
BA211	Financial Accounting 1	4
	Computer elective (100 or higher)*	3
Term 5		
HM106	Professional Development B	1
HM114	CPT-IV Coding/Reimbursement	3
HM251	Health Services Management 2	3

SP218	Interpersonal Communication	3
PSY201	General Psychology-Biological Emphasis (or higher)	3
	General Education elective	3

Term 6

HM107	Professional Development C	1
HM115	ICD-9-CM Coding/Reimbursement	3
HM144	Medical Transcription Seminar	1
HM252	Health Services Management 3	3
HM280L	Cooperative Work Experience	8

*Approved Computer electives: Any CA or CS course (100 or higher).

History

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
WR121, 122 and/or 123 English Composition (WR121, 122 and SP111 or 218 for SOU)	3	3	(3)
HST110, 111, 112 World History (recommended but not required by UO; HST110, 111 or 112 pass two for SOU)	3	3	3
Science courses*	4	4	4
Arts and Letters/Humanities courses* (Foreign Language required at UO and recommended by OSU and SOU; often required for graduate work)	3-4	3-4	3-4
HPE295 Health and Fitness for Life* or elective	3		
Electives (EOU requires CS101 Introduction to Microcomputer Applications or CA201D Microsoft Word Processing 1; SOU require CS101; UO requires Arts and Letters courses in addition to Foreign Language)		3	6
Second Year	4	5	6
HST201, 202, 203 History of the United States (required at SOU; recommended but not required by UO)	3	3	3
Mathematics per placement test* (WOU requires a minimum of one math beyond MTH105 Introduction to Contemporary Mathematics and CS161 Computer Science 1 or second-year Foreign Language; EOU requires MTH105 or higher; OSU requires MTH105 and MTH111 College Algebra or two years Foreign Language)	4	4-5	
Arts and Letters/Humanities* (OSU and SOU recommends second-year Foreign Language for graduate work; UO requires second-year Foreign Language)	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 six credits in non-European, non-U.S. History)	3	3	6
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*To meet four-year college general education requirements.

Note: A maximum of 12 lower division history credits may be applied to major at PSU.

Hospitality and Tourism Management

See also Travel Systems Operations.

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. 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 between six 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 HTM280A-L Cooperative Work Experience. For more information, look under Cooperative Work Experience in the catalog index.

Hospitality and Tourism Management Certificate

The Hospitality and Tourism Management One-Year Certificate program introduces the management aspects of today's exciting Hospitality Industry including travel, tourism, and marketing. Coursework focuses on building management and communication skills. This program combines classroom and online instruction with internships, which offer students the opportunity to gain practical experience at Hospitality and Tourism job sites. Students who wish to further their education upon completion of the one-year certificate program may use applicable course credits toward an Associate of Applied Science degree in Hospitality and Tourism Management.

This certificate is designed to encourage students to begin the program and eventually obtain the two-year degree, and offers students the opportunity to tailor the certificate to their career interests.

Getting Started

The first step to entering the following programs is to take part in an assessment process which includes taking the college's free placement test and meeting with Counseling and Career Services. 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
MTH052	Introductory Algebra and Geometry	3
RD090	College Textbook Reading	3
WR115	Introduction to Composition	3

If you have questions about the requirements, call Counseling and Career Services at 503-399-5120 or Nancy Duncan at 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, \$932; class fees, \$32; universal access fee, \$200. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

A Certificate of Completion is awarded upon successful completion of the required 50 credit hours.

Course	Title	Credit Hours
Term 1		
BA202	Personal Effectiveness.....	3
CS178I	Introduction to the Internet/World Wide Web	3
HTM100	Introduction to the Hospitality Industry.....	3
HTM104	Travel and Tourism Industry.....	3
SP115	Introduction to Intercultural Communication.....	3
Term 2		
HTM101	Customer Service Management.....	3
HTM123	Global Distribution Systems.....	3
PSY101	Psychology of Human Relations.....	3
	or	
PSY104	Psychology in the Workplace.....	3
	or	
PSY201	General Psychology-Biological Emphasis required for LDC transfer) (or higher)	3
WR121	English Composition-Exposition	3
	Approved Hospitality and Tourism Management elective*	3
Term 3		
HTM103	Marketing in the Hospitality Industry.....	3
	or	
HTM102	Hotel, Restaurant and Travel Law	3
HTM128	Spanish for Hospitality Professionals.....	4
SP218	Interpersonal Communication	3
WR227	Technical Writing	3
	Approved Hospitality and Tourism Management elective*	3
Term 4		
HTM280D	Cooperative Work Experience.....	4

***Approved Hospitality and Tourism Management electives:**

HTM102	Hotel, Restaurant and Travel Law	3
HTM105	Introduction to the Food and Beverage Industry.....	3
HTM106	Introduction to the Lodging Industry	3
HTM107	Sanitation and Safety for Managers	3
HTM108	Introduction to the Leisure and Recreation Industry.....	3
HTM109	Front Desk Operations	3
HTM111	Cultural Heritage Tourism	3
HTM114	Travel Destination Geography 1.....	3
HTM115	Travel Destination Geography 2.....	3
HTM116	Travel Destination Geography 3.....	3
HTM119	Introduction to Casino Management.....	3
HTM126	Meeting and Event Planning.....	3
HTM127	Travel Sales and E-Commerce.....	3

Hospitality and Tourism Management

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,891; class fees, \$32; universal access fee, \$388. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

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

Course	Title	Credit Hours
Term 1		
BA202	Personal Effectiveness.....	3
CS178I	Introduction to the Internet/World Wide Web	3
HTM100	Introduction to the Hospitality Industry.....	3
HTM104	Travel and Tourism Industry.....	3
SP115	Introduction to Intercultural Communication.....	3

Term 2		
HTM101	Customer Service Management.....	3
HTM105	Introduction to the Food and Beverage Industry.....	3
HTM123	Global Distribution Systems	3
PSY101	Psychology of Human Relations.....	3
	or	
PSY104	Psychology in the Workplace.....	3
	or	
PSY201	General Psychology-Biological Emphasis (required for lower division transfer)(or higher)	3
WR121	English Composition-Exposition (or higher).....	3

Term 3		
HTM106	Introduction to the Lodging Industry	3
HTM107	Sanitation and Safety for Managers	3
HTM128	Spanish for Hospitality Professionals.....	4
SP218	Interpersonal Communication	3
WR227	Technical Writing	3

Term 4		
HTM280I	Cooperative Work Experience.....	9

Term 5		
CA208	Workplace Presentations Using PowerPoint.....	3
	or	
CA205	PageMaker 1	3
HTM127	Travel Sales and E-Commerce.....	3
MTH060	Introductory Algebra (or higher).....	4
	Approved elective*	3

Term 6		
BA211	Financial Accounting 1	4
HTM103	Marketing in the Hospitality Industry.....	3
HTM126	Meeting and Event Planning.....	3
	Humanities/Fine Arts elective	3
	or	
	Science/Applied Science elective.....	3

Term 7		
BA212	Financial Accounting 2	4
BA224	Personnel Management.....	3
BA238	Sales and Persuasion.....	3
HTM102	Hotel, Restaurant, and Travel Law	3
	Approved elective*	3

***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
HTM114	Travel Destination Geography 1.....	3
HTM115	Travel Destination Geography 2.....	3
HTM116	Travel Destination Geography 3.....	3
HTM119	Introduction to Casino Management.....	3
SPN111	Beginning Spanish Conversation 1.....	3
SPN112	Beginning Spanish Conversation 2.....	3
SPN113	Beginning Spanish Conversation 3.....	3

Hotel, Restaurant and Resort Management

(transfer course guideline)

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.

The educational guide outlined below is designed to meet requirements at Southern Oregon University.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. 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 an academic area. For questions contact Nancy Duncan, 503-399-5296.

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 1	4
BA101	Introduction to Business	4
	or	
WR227	Technical Writing	3
	Science elective with lab	4
Term 4		
BA211	Financial Accounting	4
EC201	Introduction to Microeconomics	3
HTM104	Travel and Tourism Industry	3
PSY201	General Psychology-Biological Emphasis.....	3
WR241	Imaginative Writing	3
Term 5		
BA212	Financial Accounting 2	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
	or	
SP112	Fundamentals of Persuasion	3

Hotel Business Management

(transfer course guideline)

An articulation agreement with Washington State University (WSU) has been developed for Hotel Business Management under WSU's School of Hospitality Business Management. The following education guideline, totaling 96 credits, is designed to meet their requirements.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services 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 an academic area. For questions contact Nancy Duncan, 503-399-5296.

Course	Title	Credit Hours
Term 1		
EC201	Introduction to Microeconomics	3
HTM100	Introduction to the Hospitality Industry.....	3
HTM104	Travel and Tourism Industry	3
SP111	Fundamentals of Public Speaking.....	3
WR121	English Composition-Exposition	3
Term 2		
EC202	Introduction to Macroeconomics	3
HTM101	Customer Service Management.....	3
HTM123	Global Distribution Systems	3
PSY201	General Psychology-Biological Emphasis.....	3
WR122	English Composition-Logic and Style	3
Term 3		
BA226	Business Law 1.....	3
HST110	History of World Civilization	3
HTM106	Introduction to the Lodging Industry	3
HTM107	Sanitation and Safety for Managers	3
MTH111	College Algebra.....	5
Term 4		
BA211	Financial Accounting 1	4
CA208	Workplace Presentations Using PowerPoint.....	3
	or	
CA205	PageMaker 1	3
HTM127	Travel Sales and E-Commerce.....	3
MTH243	Probability and Statistics 1	4
	Approved HTM elective*	3
Term 5		
BA212	Financial Accounting 2	4
BA271	Information Technology in Business	4
MTH244	Probability and Statistics 2	4
	Approved HTM elective*	3
Term 6		
BA213	Managerial Accounting	4
CA208	Workplace Presentations Using PowerPoint.....	3
	or	
CA205	PageMaker 1	3
HTM103	Marketing in the Hospitality Industry.....	3
MTH245	Finite Mathematics	4
	Approved HTM elective*	3
*Approved HTM electives:		
HTM102	Hotel, Restaurant, and Travel Law	3
HTM103	Marketing in the Hospitality Industry.....	3
HTM105	Introduction to Food Service Industry	3
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
HTM113	Club Management	3
HTM114	Travel Destination Geography 1.....	3
HTM115	Travel Destination Geography 2.....	3
HTM116	Travel Destination Geography III	3
HTM118	Ski Area Management	3
HTM119	Introduction to Casino Management.....	3
HTM126	Meeting and Event Planning	3
HTM128	Spanish for Hospitality Professionals.....	4

Human Services

The Human Services program offers training for entry-level positions in social service agencies. It is a two-year program which combines academic course work with 25 credits 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.

This program has special admissions requirements and enrollment limits. Students with criminal histories may be prevented from obtaining necessary field experience required for program completion. For additional information, contact the Enrollment Services (Admissions) Office at 503-399-5006.

Post B.A./B.S. students are also eligible to complete the Addiction Counselor Certification Preparation Program and earn a one-year certificate. Admission to the certificate program is assessed individually by Donna Hirt, 503-399-6157.

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.

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 Career Services. You may need to complete pre-program courses. A counselor will help you develop an individualized program of study, which may include one or more of the following:

MTH020	Basic Mathematics	3
RD090	College Textbook Reading	3
WR115	Introduction to Composition.....	3

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

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 in-patient and out-patient programs.

The curriculum includes courses in alcohol and drug information, family dynamics, case management, and individual and group counseling skills.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,848; class fees, \$150; universal access fee, \$424; equipment and supplies, \$192; measles vaccine, \$15. Contact the Financial Aid Office at 503-399-5018 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 106 credit hours with a grade of C or better in WR121 and all Human Services courses. 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	Addiction Pharmacology and Physiology	4
HS150	Personal Effectiveness for Human Service Workers	3
HS154	Community Resources	3
HS170	Introduction to Practicum	3
WR121	English Composition-Exposition	3
Term 2		
CS101	Introduction to Microcomputer Applications (or higher)	3
HS152	Stress Management	1
HS260	Group Dynamics	3
HS284A- HS288A	Practicum-Human Services	4-8
PSY201	General Psychology-Biological Emphasis.....	3
	Humanities/Fine Arts elective	3
	or Science/Applied Science elective.....	3
Term 3		
HS103	Ethics for Human Service Workers.....	2
HS155	Interviewing Theory and Techniques.....	3
HS211	HIV, TB and Infectious Diseases.....	1
HS284A- HS288A	Practicum-Human Services	4-8
MTH060	Introductory Algebra (or higher).....	4
PSY239	Introduction to Abnormal Behavior	3
Term 4		
HS156	Counseling Theories	3
HS213	Multicultural Counseling	3
HS214	Advanced Interviewing and Counseling Skills	3
HS218A	Group Processes A	1
HS284A- HS288A	Practicum-Human Services	4-8
SOC204	General Sociology-Introduction	3
Term 5		
HS216	Clinical Screening, Assessment and Treatment Planning	3
HS217	Group Counseling Skills	3
HS218B	Group Processes B.....	1
HS284A- HS288A	Practicum-Human Service	4-8
SOC205	General Sociology-Institutions	3
	or	
SOC206	General Sociology-Social Problems	3
SP111	Fundamentals of Public Speaking.....	3
	or	
SP112	Fundamentals of Persuasion	3
	or	
SP130	Business and Professional Speaking	3
Term 6		
HS201	Family Addiction	3
HS218C	Group Processes C	1
HS219	Case Management and Client Records.....	3
HS267	Systems Strategies	3
HS284A- HS288A	Practicum-Human Services	4-8
PSY237	Life Span Development.....	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, \$1,017; class fees, \$100; universal access fee, \$288; equipment and supplies, \$143; measles vaccine, \$15. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 49 credit hours with a grade of C or better in all Human Services courses. This program is four-terms in length, beginning with spring term. Check the course descriptions in the back of this catalog for details.

Course	Title	Credit Hours
Term 1		
HS101	Addiction Pharmacology and Physiology	4
HS103	Ethics for Human Service Workers.....	2
HS155	Interviewing Theory and Techniques.....	3
Term 2		
HS156	Counseling Theories	3
HS213	Multicultural Counseling.....	3
HS214	Advanced Interviewing and Counseling Skills.....	3
HS218A	Group Processes A	1
HS285A-		
HS288A	Practicum-Human Services	4-8
Term 3		
HS216	Clinical Screening, Assessment and Treatment Planning	3
HS217	Group Counseling Skills	3
HS218B	Group Processes B.....	1
HS285A-		
HS288A	Practicum-Human Services	4-8
Term 4		
HS201	Family Addiction	3
HS211	HIV, TB and Infectious Diseases.....	1
HS218C	Group Processes C.....	1
HS219	Case Management and Client Records.....	3
HS285A-		
HS288A	Practicum-Human Services	4-8

Social Services Option

The Social Services option trains students for employment in social service agencies. These agencies provide services in areas such as crisis counseling, employment services, housing, mental health, corrections and advocacy.

The curriculum includes courses in personal growth, interviewing, counseling, assessment and case management.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,800; class fees, \$150; universal access fee, \$404; equipment and supplies, \$193; measles vaccine, \$15. Contact the Financial Aid Office at 503-399-5018 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 with a grade of C or better in WR121 and all Human Services courses. Twenty-five credits of practicum are required.

Course	Title	Credit Hours
Term 1		
HS150	Personal Effectiveness for Human Service Workers	3
HS154	Community Resources.....	3
HS170	Introduction to Practicum	3
PSY201	General Psychology-Biological Emphasis.....	3
WR121	English Composition-Exposition	3
Term 2		
CS101	Introduction to Microcomputer Applications (or higher)	3
HS260	Group Dynamics	3
HS284S-		
HS288S	Practicum-Human Services	4-8
PSY202	General Psychology-Cognitive Emphasis.....	3
	or	
PSY203	General Psychology-Clinical/Social Emphasis	3
	or	
PSY239	Introduction to Abnormal Behavior.....	3
	Social Services elective*	1
Term 3		
HS101	Addiction Pharmacology and Physiology	4
HS103	Ethics for Human Service Workers.....	2
HS155	Interviewing Theory and Techniques.....	3
HS211	HIV, TB and Infectious Diseases.....	1
HS284S-		
HS288S	Practicum-Human Services	4-8
PSY237	Life Span Development.....	3
Term 4		
HS152	Stress Management	1
HS213	Multicultural Counseling.....	3
HS265	Casework Interviewing.....	3
HS284S-		
HS288S	Practicum-Human Services	4-8
MTH060	Introductory Algebra (or higher).....	4
SOC204	General Sociology-Introduction	3
Term 5		
HS220	Aging and Society**	3
	or	
HS222	Aging and Behavior**	3
HS266	Case Management.....	3
HS284S-		
HS288S	Practicum-Human Services	4-8
SOC205	General Sociology-Institutions	3
	or	
SOC206	General Sociology-Social Problems	3
	Social Services elective*	3
Term 6		
HS267	Systems Strategies	3
HS284S-		
HS288S	Practicum-Human Services	4-8
SP111	Fundamentals of Speaking	3
	or	
SP112	Fundamentals of Persuasion	3
	or	
SP130	Business/Professional Speaking.....	3
	Social Services elective*	3
	Humanities/Fine Arts elective	3
	or	
	Science/Applied Science elective.....	3

*Social Services electives (seven 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.

**Offered in alternate years. Consult program chair.

Industrial 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.
3. Complete general education requirements for an Associate of Applied Science degree. (See page 44 of this catalog.)
4. Compile a total of 90 credit hours. You may be awarded up to 22 credit hours for journey-level status, 23 credit hours for trade-related training.

If you have questions about the requirements, call 503-399-5255. 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 at 503-399-5018 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 brick masons, concrete finishers, plumbers, electricians, sheet metal workers, heating ventilating air conditioning (HVAC) technicians, welders and other trades, as required by local committees.

Integrated Circuit Mask Design

Chemeketa offers a Certificate of Completion or Associate of Applied Science degree in Integrated Circuit (IC) Mask Design.

Graduates of the IC Mask Design programs 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 computer-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.

Integrated Circuit Mask Design Certificate

If you already have an Associates or Bachelors degree in Electronics, you may enroll in Chemeketa's online IC Mask Design certification program. This program is offered entirely online and can be completed from anywhere in the world. Students entering this program need to contact the program chair, at 503-399-5218 or visit educationwithafuture.com, and have their previous coursework evaluated before registering. To register go to online.chemeketa.edu.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$450; class fees, \$60; universal access fee, \$80; Intel-compatible computer, \$900; and equipment and supplies, \$70. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the following required 19 hours with a grade of C or better in all courses.

Required courses:

CS140U	Unix/Linux	3
DRF201	CMOS 1	4
DRF202	CMOS 2	3
DRF203	CMOS 3	3
MT110	Microelectronics	3
PSY104	Psychology in the Workplace.....	3

Integrated Circuit Mask Design

If you do not have a degree in Electronics, Chemeketa also offers an Associate of Applied Science degree program in Integrated Circuit Mask Design. This program is a mixture of classroom lecture and online 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 Career Services. 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 Counseling and Career Services at 503-399-5120 or 503-399-5248. Failure to be assessed may delay your entry into program classes. For additional information visit EducationWithaFuture.Com.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,100; class fees, \$360; universal access fee, \$408; Intel-compatible computer, \$900; equipment and supplies, \$190. Contact the Financial Aid Office at 503-399-5018 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 101 hours with a grade of C or better in all courses.

Term 1

DRF101	Basic CAD for Electronics	2
	or	
DRF130	AutoCAD 1 (or higher)	3
ELT111	Electronics Orientation.....	1
ELT131	Electronic Concepts 1	4

MT110	Microelectronics	3
MTH111	College Algebra (or higher)	5
	or	
MTH081	Technical Mathematics 1	4
WR121	English Composition-Exposition (or higher).....	3
Term 2		
ELT132	Electronic Concepts 2.....	4
ELT141	Transistor Fundamentals	5
ELT151	Digital Fundamentals.....	4
MTH112	Trigonometry (or higher)	5
	or	
MTH082	Technical Mathematics 2	4
Term 3		
ELT133	Electronic Concepts 3.....	4
ELT142	Semiconductor Devices.....	3
ELT143	Pulse Circuit Fundamentals	3
ELT161	Linear IC Fundamentals	4
WR227	Technical Writing	3
Term 4		
ELT121	Programming Concepts 1	4
	or	
CS133J	Fundamentals of Java Programming 1.....	4
ELT244	Electronic Circuit Analysis.....	4
ELT252	Digital Circuit Applications	3
FE205B	Resumes and Job Search Correspondence	1
PH201	General Physics.....	4
	or	
PH081	Applied Physics.....	4
SP111	Fundamentals of Public Speaking.....	3
Term 5		
DRF201	CMOS 1.....	4
ELT253	Microprocessor Systems	5
ELT262	Linear IC Applications.....	3
PH202	General Physics.....	4
	or	
PH082	Applied Physics.....	4
Term 6		
CS140U	Unix/Linux.....	3
	or	
CS140S	Solaris-UNIX Operating System.....	5
DRF202	CMOS 2.....	3
DRF203	CMOS 3.....	3
ELT122	Programming Concepts 2	4
	or	
	Approved Computer elective*	3
PSY104	Psychology in the Workplace.....	3

***Approved Computer electives:**
 CS145, CS178W, CS179, or NET123. See program chair for other approved electives.

Journalism

(transfer course guideline)

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, and Photojournalism.

The educational guide outlined below is designed to meet requirements at these institutions.

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 departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition* (WR121, 122 and SP111 or 218 for SOU)	3	3	(3)
Humanities courses* (UO requires 16 credits in Literature)	3-4	3-4	3-4
HST110, 111, 112 History of World Civilization or HST201, 202, 203 History of the United States recommended at SOU; 9 hours required for UO)	3	3	3
Mathematics per placement test*	(4)	5	(4)
JNL224 Introduction to Mass Communications for UO	3		
Electives (JNL216 Newswriting required and CA205 PageMaker 1 recommended for SOU; UO re- quires additional credits from the Arts and Letters requirements)**	3	3	6
Second Year	4	5	6
Social Science or other elective courses* (SOU recom- mends 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 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.

**UO will only accept two journalism courses besides JNL224 from a community college.

Juvenile 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 Chemeketa's Counseling and Career Services 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 Career Services 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	3
	or	
COM051	Communication Skills 1	3

If you have questions about the requirements, call Counseling and Career Services at 503-399-5120 or 503-399-6153. 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; universal access fee, \$188. Contact the Financial Aid Office at 503-399-5018 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
CJ235	Youth, Drugs and Corrections.....	3
CJ280C	Cooperative Work Experience.....	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

Management

See also Accounting, and Business Administration.

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 Career Services. 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:

BT085	Business English 2.....	3
CA121A	Keyboarding A (if less than 25 wpm)	1
CS101	Introduction to Microcomputer Applications	3
MTH060	Introductory Algebra	4
RD090	College Textbook Reading	3

If you have questions about the requirements, call Counseling and Career Services 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 BA280A-L 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, \$1,670; class fees, \$200; universal access fee, \$384; equipment and supplies, \$150. Contact the Financial Aid Office at 503-399-5018 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 96 credit hours with a grade of C or better in all Business Administration (BA) courses:

Course	Title	Credit Hours
Term 1		
BA101	Introduction to Business	4
BA202	Personal Effectiveness.....	3
BA211	Financial Accounting 1*.....	4
MTH062	Business Applications Using Mathematics (or higher)	4
Term 2		
BA203	Interpersonal Relations in Business	3
BA212	Financial Accounting 2*.....	4
BA214	Business Communications**.....	3
MTH070	Elementary Algebra (or higher)	4
	Humanities/Fine Arts elective	3
Term 3		
BA204	Teamwork Dynamics	3
BA206	Business Management Principles.....	3
BA213	Managerial Accounting	4
CS125A	Micro Database Software-Access	3
CS125E	Excel-Workbooks	4
Term 4		
BA223	Principles of Marketing.....	3
BA226	Business Law 1.....	3
BA277	Business Ethics.....	3
	or	
WR227	Technical Writing	3
EC200	Introduction to Economics (or higher)	3
FE205C	Interviewing for Success.....	1
SP111	Fundamentals of Public Speaking.....	3
Term 5		
BA222	Financial Management.....	3
BA227	Business Law 2.....	3
BA271	Information Technology in Business	4
SP112	Fundamentals of Persuasion	3
	Business elective*** (BA280C Cooperative Work Experience recommended).....	3

Term 6

BA224	Personnel Management.....	3
	Business elective*** (BA280F Cooperative Work Experience recommended)	6
	Business elective***	3
	Computer Science elective****	3

*MTH062 or higher math placement recommended for BA211.

**Placement in math and English determined by testing. Lower division collegiate classes may be substituted. WR123 may be substituted for BA214.

***Business electives: Choose courses with prefixes BA, BT, CA, CS, CIS, EC, and RE except BT084, BT085, BA051, BA052, BA053 and CS101.

****Choose from CS133VB, CS133C, CS133E, CS133U or CA201X.

Manufacturing

Curriculum providing training for Computer Numerical Control (CNC) operators and integration of mechanical design and Computer Aided Manufacturing tools (CAD/CAM) is listed in the CAD/CAM option under Drafting Technology-CAD.

Mathematics

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
WR121, 122 and/or 123, English Composition and/or WR227 Technical Writing* (WR121, 122 and SP111 or 218 for SOU; WR121 for WOU)	3	3	(3)
Mathematics per placement test* MTH251, 252, 254 Calculus required (EOU, OSU, PSU, SOU, and WOU also require MTH253 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; CS133U C++ Language or other higher level language for OSU and SOU; CS133VB for SOU; CS161 Computer Science 1 for PSU; CS161 and 162 Computer Science 1 and 2 for WOU; CS161, 162, 260 for mathematical sciences at OSU)	4	4	4
HPE295 Health and Fitness for Life* or elective			3
Second Year	4	5	6
Mathematics through MTH255 Vector Calculus 2 (OSU also requires MTH256 Applied Differential Equations, MTH231 and 232 for mathematical sciences major; OSU, PSU and UO require MTH256; MTH255 not required at PSU, UO, and WOU)	4	(4)	(4)

Science courses* (OSU requires PH211 Physics for Engineers and Scientists and approved courses in the physical and biological sciences for all options; PH212, 213 for Applied Mathematics option)	4	4	4
Social Science courses*	3	3	3
Arts and Letters/Humanities or Social Science electives*	3	3	3
Electives	3	3-6	3-6

*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.

Medical Office 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 a fall term entry program with special admission requirements and enrollment limits. For information, contact the Enrollment Services (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 Career Services. 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
MTH060	Introductory Algebra	3
RD090	College Textbook Reading	3
WR115	Introduction to Composition.....	3

If you have questions about the requirements, call Counseling and Career Services at 503-399-5120 or 503-399-8343. 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 Counseling and Career Services, Admissions, and program offices.

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$975; class fees, \$142; universal access fee, \$200; equipment and supplies, \$284; physical examination, \$100; measles vaccination, \$20; Hepatitis B vaccination series, \$150. Contact the Financial Aid Office at 503-399-5018 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		
BI071	Body Structure and Function 1	3
	or	
BI231	Human Anatomy and Physiology	4
HM101	Medical Law and Ethics	3
HM105	Professional Development A	1
HM110	Health Information Systems Procedures 1.....	4
HM120	Medical Terminology 1	3
MED124	Medical Assisting, Basic Procedures*	4
Term 2		
BI072	Body Structure and Function 2	3
	or	
BI232	Human Anatomy and Physiology	4
HM106	Professional Development B	1
HM112	Health Information Systems Procedures 2.....	5
HM114	CPT-IV Coding/Reimbursement	3
HM121	Medical Terminology 2	3
MED125	Medical Assisting, Advanced Procedures*	6
Term 3		
HM107	Professional Development C	1
HM115	ICD-9-CM Coding/Reimbursement	3
HM122	Medical Terminology 3	3
MED130	Medical Assisting Practice	5
MED131	Medical Assisting Seminar.....	1
PSY104	Psychology in the Workplace (or higher).....	3

*To be taught in a Skills Lab format.

Network Technology

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).

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 program chair 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 Larry Cheyne at 503-399-7746, to see if your high school is certified.

For a tour of the Network Technology laboratory, visit EducationWithaFuture.Com.

This program is a fall term entry program and has special admission procedures and requirements. For information, contact the Enrollment Services (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 Career Services. 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 Counseling and Career Services 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, \$1,980; class fees, \$340; universal access fee, \$428; Intel-compatible computer, \$900; equipment and supplies, \$190. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully competing the 107 required credit hours with a grade of C or better in all courses.

Course	Title	Credit Hours
Term 1		
ELT100	Electronics Fundamentals for Non-Majors.....	4
MTH111	College Algebra (or higher)	5
	or	
MTH081	Technical Mathematics 1	4
NET123	Computer Operating Systems	4
NET151	Network Essentials.....	5
NET152	Network Router Configurations.....	5
Term 2		
CS145	Microcomputer Hardware.....	4
CS178I	Introduction to the Internet/World Wide Web	3
	or	
CS178W	Fundamentals of Web Design	5
NET153	LAN's and Internetwork Design	5
SP111	Fundamentals of Public Speaking.....	3
WR121	English Composition-Exposition	3
Term 3		
CS140U	Unix/Linux	3
	or	
CS140S	Solaris-Unix Operating Systems	5
CS179	Introduction to Client-Server Networks.....	4
NET154	WAN Design	5
NET171	Fundamentals of Wireless LANs	5
Term 4		
CS288	Advanced Client-Server Networks.....	4
NET251	Advanced Routing Configuration	5
NET252	Remote-Access Networks	5
WR227	Technical Writing	3
	Approved Programming elective*	3
Term 5		
FE205B	Resumes and Job Search Correspondence	1
NET253	Multi-Layer Switching	5
NET261	Fundamentals of Network Security	5
PSY104	Psychology in the Workplace.....	3
Term 6		
CS286	Web Server Configuration and Management	4
CS289	Advanced Network Application Support	4
NET254	Network Troubleshooting	5
	Approved Network Technology elective**	3

***Approved Programming electives:**

CS133J	Fundamentals of Java Programming 1	4
CS133U	C++ Language.....	4
CS133VB	Visual Basic-Event-Driven Programming	4
CS161	Computer Science 1.....	4
ELT121	Programming Concepts 1	4

****Approved Network Technology electives:**

CS125A	Micro Database Software-Access	3
CS162	Computer Science 2.....	4
CS240U	Advanced Unix/Linux.....	4
CS260	Computer Science 3: Data Structures.....	4
CS275	Database Management.....	4
ELT253	Microprocessor Systems	5
ELT280	Cooperative Work Experience (see program chair)	max. 6
	Continuing Education Units (see program chair)	max. 3

Nursing

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). You may contact NLNAC 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.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 (transfer course guideline).

The following five courses are required for application to the Nursing program for 2004-05:

1. Algebra (MTH070), or one year of high school algebra, or placement in MTH095 based upon the Chemeketa Placement Test.
2. Chemistry, CH110 and 110R or 104 and 104R or 121 and 121R or 221 and 221R 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 1, HM120 or equivalent.

These courses must be completed by the end of spring term of the application year with a grade of C or better, and within five years prior to entering the Nursing Program (except for HM120).

In addition to the five prerequisite courses for 2004-05, most pre-Nursing students complete the majority of 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 Counseling and Career Services or Chemeketa's website, www.chemeketa.edu. Enrollment in the program is limited, and there is an early deadline for applications. We recommend that you contact the Enrollment Services (Admissions) Office at 503-399-5006, or Counseling and Career Services 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:

Note: Some program prerequisites will change beginning fall 2005. Requirements will include: BI231 and NUR060 (completed within seven years); RD115 or placement in RD120; and HM120. Algebra and Chemistry will continue to be prerequisites for BI231. Please see an advisor for details.

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, \$1,330; class fees, \$277; universal access fee, \$200; equipment and supplies, \$414; testing fee, \$300. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

After successfully completing the required 50 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 in order to progress to the next term. Completion of this level qualifies you to apply to take the National Council Licensure Exam (NCLEX-PN) to become a licensed practical nurse (LPN).

Course	Title	Credit Hours
Term 1		
BI232	Human Anatomy and Physiology	4
NUR106	Fundamentals of Nursing.....	9
PSY201	General Psychology-Biological Emphasis.....	3
Term 2		
BI233	Human Anatomy and Physiology	4
NUR108	Care of Acutely Ill Patients and Developing Families 1.....	9
PSY237	Life Span Development.....	3
Term 3		
BI234	Microbiology	4
NUR109	Care of Acutely Ill Patients and Developing Families 2.....	11
WR121	English Composition-Exposition	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 94 required credit hours of the two-year Nursing program (44 credits during the second year after the 50 credits of Practical Nursing). You must earn grades of C or better in all required courses in order to progress to the next term. An associate degree in nursing qualifies you to apply to take the National Council Licensure Exam (NCLEX-RN) 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, \$575; class fees, \$187; universal access fee, \$176; equipment and

supplies, \$200; licensure testing fee, \$348. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

Course	Title	Credit Hours
Term 4		
CS101	Introduction to Microcomputer Applications (or higher CS course with CS101 as prerequisite)	3
NUR206	Care of Patients with Complex Health Problems.....	11
Term 5		
NUR208	Care of Patients in Situations of Crisis and in Community-Based Settings.....	10
	Social Science elective*	3
	Sociology elective	3
Term 6		
NUR209	Preparation for Entry into Practice.....	8
	General Education elective.....	3
	Humanities/Fine Arts elective**	3
	or	
	Communications elective**	3

For clock hour information, see Note following Practical Nursing course plan.

***Approved Social Science electives:**

ATH101	Human Evolution (or higher)	3
CLA201	Introduction to Chicano/Latino Studies 1: Historical Overview (or higher).....	4
EC200	Introduction to Economics (or higher)	3
GEG105	Physical Geography (or higher)	4
HDF222	Family Relationships	3
HST110	History of World Civilization (or higher).....	3
PS201	American Government (or higher)	3
PSY100	Introduction to Psychology (or higher)	3
SOC204	General Sociology-Introduction (or higher)	3
SSC101	Introduction to Deaf Studies: History, Cultural, and Linguistic/Sociological (or higher)	3
WS101	Introduction to Women's Studies: Women in American Society (or higher)	3

****Approved Humanities/Fine Arts/Communications electives:**

ART101	Understanding Art (or higher)	3
ASL101	American Sign Language 1 (or higher)	3
BA214	Business Communications	3
ENG104	Introduction to Fiction (or higher).....	3
FA255	Understanding Movies: Film Styles (or higher)	4
FR101	First Year French, Term 1 (or higher).....	4
GER101	First Year German, Term 1 (or higher)	4
HUM106	British Life and Culture (or higher).....	3
JNL216	Newsriting (or higher).....	3
JPN101	First Year Japanese, Term 1 (or higher)	4
MUS105	Music Appreciation: Introduction to Rock Music (or higher).....	3
PHL201	Philosophical Problems: Metaphysics (or higher)	3
RD115	Accelerated Reading Tactics 1 (or higher)	3
REL201	Primitive and Far Eastern Religions (or higher)	3
RUS101	First Year Russian, Term 1 (or higher)	4
SP100	Introduction to Communication (or higher).....	3
SPN101	First Year Spanish, Term 1 (or higher)	4
TA110	Introduction to Theater (or higher).....	3
WR115	Introduction to Composition (or higher)	3

Additional Nursing electives:

HS120	Alzheimer's Disease: Coping and Caring	3
HS220	Aging and Society	3
HS222	Aging and Behavior.....	3

Specialized and Refresher Courses

The college periodically 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. Non-credit basic nursing assistant and medication aide courses approved by the Oregon State Board of Nursing are also available. For more information about courses, contact the Nursing office, 503-399-5058.

Nursing

(transfer course guideline)

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 educational guide outline below indicates courses required for admission to the nursing major and is designed to meet prerequisite requirements.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

Term		1	2	3
First Year				
	CH104 and 104R, 105 and 105R, 106 and 106R Chemistry for Allied Health or CH121 and 121R, 122 and 122R, 123 and 123R General Chemistry	5	5	5
	MTH111 College Algebra (begin Math per placement test)	5		
	MTH243 Probability and Statistics 1 NFM225 Nutrition	4		4
	WR121, 122, 123 English Composition or WR227 Technical Writing	3	3	3
	Humanities elective (Foreign Language, Philosophy, SP115 Introduction to Intercultural Commu- nication or ASL101, 102, 103 American Sign Language recommended; ART101, 204, 205, 206 Art History; HUM251, 252, 253, 259 and SP111, 112, 113 also accepted; a total of 12 Humanities electives required)	3-4	3-4	3-4
Second Year		4	5	6
	BI231, 232, 233 Anatomy and Physiology	4	4	4
	BI234 Microbiology		4	
	Humanities elective			3
	SOC204 General Sociology-Introduction (SOC205 or SOC206 General Sociology may be substituted)	3		

PSY201 General Psychology-Biological Emphasis	3		
PSY237 Life Span Development		3	
Literature elective			3
SP111 Fundamentals of Public Speaking or SP218 Interpersonal Communication	3		
SP219 Fundamentals of Small Group Communication			3
ATH103 Cultural Anthropology			3
Social Science electives (Recommend courses with prefixes BA, EC, or PS and SSC206 Introduction to Diversity Studies)			3
Electives (to total 91 transferable credit hours; CS101 Introduction to Microcomputer Applications recommended)	3	3	3

Occupational Skills Training

The Occupational Skills Training (OST) program offers students with a career goal in mind the opportunity to earn college credit for worksite-based training at approved community training sites throughout the state. When you enroll in this short-term program (up to 44 credits), you will receive hands-on training at a worksite 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 vary depending on credits and related classes taken. Books and supplies average \$150 per term if related courses are taken.

Some sites may receive an additional \$336 per term trainer incentive in addition to the above costs if approved and paid by the sponsoring agency (if applicable).

You may earn a Certificate of Completion by successfully completing up to 44 credits of ST050A-P 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 degree, and variable credits may be applied toward the Associate of Applied Science degree as determined by each professional-technical program area.

Non-credit options (such as On-the-Job Evaluation) are also available to evaluate potential sites as well as student skills and career potential.

For an appointment or a schedule of OST orientations, interested agencies or students should contact an Occupational Skills Training Coordinator in Building 20, 503-399-5028, on the Salem Campus.

Philosophy

(transfer course guideline)

Oregon's state 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 Counseling and Career Services 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 Counseling and Career Services 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 43.

	Term		
	1	2	3
First Year			
WR121, 122 and/or 123 English Composition* (WR121, 122 and SP111 or 218 for SOU)	3	3	(3)
Arts and Letters/Humanities courses*	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, Mathematics, and Quantitative Studies for BS degree or two years of Foreign Language for BA degree; UO requires two years of Foreign Language)	3-4	3-4	3-4
Second Year	4	5	6
Humanities courses* (PHL201 Philosophical Problems: Metaphysics and PHL203 Elementary Ethics required at PSU; PHL201 recommended for OSU; PHL203 required and PHL201, 202, 204 recommended for UO; PHL201, 203, 204 for WOU)	3	3	3
Social Science electives*	3	3	3
Math or Science electives*	4	4	4
Electives (second-year Foreign Language for UO)	6	6	6

*To meet four-year college general education requirements.

Physical Education/ Human Movement Studies

(transfer course guideline)

Oregon's state 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, Exercise Science, Physical Education Teacher Education, Pretherapy and Applied Exercise 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

First Year	Term		
	1	2	3
WR121 and/or WR122 or 123 English Composition or SP111 Fundamentals of Public Speaking*	3	3	(3)
Mathematics per placement test (through MTH112 Trigonometry for OSU; MTH251 Differential Calculus for UO; to meet general education or BS degree requirements at SOU and WOU; MTH111 College Algebra, MTH112, 211, 212, or 213 for EOU; MTH111 for WOU)	(4)	4-5	4-5
Arts and Letters/Humanities courses*	3	3	3
PE194 Professional Activities (not required at most schools, except OSU 1 credit in PE194)	2	2	2
CH121 and 121R, 122 and 122R, 123 and 123R College Chemistry or CH221 and 221R, 222 and 222R, 223 and 223R 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	(5)	(5)	(5)
PE131 Introduction to Physical Education (recommended; required at WOU)	3		
Elective (PE185DM Aerobics-Beginning for WOU)			(3)
Second Year	4	5	6
Social Science courses (PSY201 General Psychology-Biological Emphasis for OSU and UO; PSY201 and 202 for Athletic Training option at SOU and recommended for WOU)*	3	3	3
HPE295 Health and Fitness for Life* (EOU, OSU, SOU, WOU)			3
HE250 Personal Health (not required at EOU, OSU, or UO)	3		
Science courses* (BI231, 232, 233 Human Anatomy and Physiology for EOU, OSU, and SOU; PH201, 202, 203 General Physics required at UO and for some options at OSU; BI101 and 102 General Biology for WOU; BI101, 102, 103 for UO)	4	4	4
Social Science or other electives* (PSY202, SOC204, 205, BOT201, 202, ZOO201, 202 required for some options at OSU)	3	3	3
Arts and Letters/Humanities* or electives (NFM225 Nutrition required for some options at OSU and at SOU; BI241, 242 required for some options at OSU, MTH243 required for Exercise and Sports Science at OSU)	0-8	0-8	0-8

*To meet four-year college general education requirements.

Physics

(transfer course guideline)

Oregon's state universities offering Bachelor of Arts and/or Bachelor of Science degrees in Physics are Eastern Oregon University, Oregon State

University, Portland State University, Southern Oregon University and University of Oregon.

The educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

First Year	Term		
	1	2	3
Mathematics per placement test (OSU, UO and PSU require MTH251 Differential Calculus through MTH256 Applied Differential Equation, PSU does not require MTH255; EOU requires Math through MTH254; SOU requires MTH251 and 252)	4-5	4-5	4-5
CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry (CH121 and 121R, 122 and 122R, 123 and 123R also accepted at UO;)	5	5	5
WR121, 122, and/or 123 English Composition or WR227 Technical Writing*	3	3	(3)
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	5	6
Mathematics	4-5	(4-5)	(4-5)
PH211, 212, 213 Physics for Engineers and Scientists (PSU and SOU also accept PH201, 202, 203 General Physics)	5	5	5
Arts and Letters/Humanities or Social Science courses*	3-4	3-4	3-4
Additional Arts and Letters/Social Science/Science electives* or free electives	3	3	3
Electives (EOU requires CS161 Computer Science 1; PSU requires other approved courses in a related area of science or Computer Science; Chemeketa recommends CS161, 162 Computer Science 1 and 2; OSU requires CS161, 162, 260 and one biological sciences course)	(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.

Political Science

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

First Year	Term		
	1	2	3
WR121, 122, and/or 123 English Composition* (WR121, 122 and SP111 or 218 for SOU)	3	3	(3)
Social Science courses*	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 and MTH112 Trigonometry, or MTH241 or 251 Calculus for BS degree for OSU. MTH111 and CS161 Computer Science I for WOU or second year Foreign Language)	4	4	4
Electives (Foreign Language for BA degree, Computer Science, and Math for BS degree required at OSU; CS101 Introduction to Microcomputer Applications for SOU and WOU; Foreign Language or MTH105 Introduction to Contemporary Mathematics, MTH111 College Algebra, MTH243 Probability and Statistics 1 for UO)	3	3	3
Second Year	4	5	6
PS201, 202 American Government (required at SOU and recommended for OSU and UO; PS201 for WOU; PS201, 202 not required at PSU)	3	3	
PS203 State and Local Government and/or PS205 International Relations recommended (both required at WOU; and fulfills requirement at UO; PS205 required at OSU and elective at SOU)			(3)
Math/Science courses*	4	4	4
Arts and Letters/Humanities courses*	3	3	3
Social Science courses*	3	3	3
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.

Pre-Engineering

See Engineering.

Pre-Law

(transfer course guideline)

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 Philosophy, Psychology and Sociology courses.

Pre-Professional Study (Medicine, Dentistry, Veterinary Medicine)

(transfer course guideline)

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 educational guide outlined below is designed to meet requirements for these majors.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

First Year	Term		
	1	2	3
WR121, 122, and/or 123 English Composition or approved Communications course*	3	3	3
CH221 and 221R, 222 and 222R, 223 and 223R General Chemistry (CH121 and 121R, 122 and 122R, 123 and 123R College Chemistry if not qualified for CH221, 221R-223, 223R)	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	3

*To meet four-year college general education requirements.

Professional-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 initial teaching license.

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 license. 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 license.

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, Mark Rediske, at 503-399-2693 or email redm@chemeketa.edu 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, \$650; class fee, \$70; universal access fee, \$184; measles vaccination, \$10, criminal history check, \$17. Contact the Financial Aid Office at 503-399-5018 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.....	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 1.....	6
ED217	Comprehensive Classroom Management	3
ED292	Occupational Analysis, Curriculum and Evaluation	3
Term 3		
ED209D	Professional Technical Practicum 2.....	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, \$695; class fee, \$75; universal access fee, \$376; measles vaccination, \$10, criminal history check, \$17. Contact the Financial Aid Office at 503-399-5018 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	Credit Hours
Term 4		
CS101	Introduction to Microcomputer Applications (or higher)	3
SP111	Fundamentals of Public Speaking.....	3
	or	
SP218	Interpersonal Communication (or higher)	3
WR121	English Composition-Exposition (or higher).....	3
	Professional-Technical electives*.....	6

Term 5		
HPE295	Health and Fitness for Life.....	3
	Science elective	3
	Approved Social Science elective*	3
	or	
	Humanities/Fine Arts elective*	3
	Professional-Technical electives*.....	6

Term 6		
	Math elective*	3
	General Education elective.....	3
	Professional-Technical electives*.....	12

*Approved by appraisal/advisory committee: See program chair.

Psychology

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122, and/or 123 English Composition (WR121, 122 and SP111 or 218 for SOU; WOU only requires WR121)*	3	3	(3)
PSY201, 202, 203 General Psychology (PSY201, 202 for OSU, SOU, and WOU; PSY201 for UO)	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 MTH243 and 244 Probability and Statistics; SOU requires MTH243; UO requires MTH111, 243 and one additional Math course; WOU requires MTH111 and CS161 Computer Science I or second year Foreign Language and MTH105 Introduction to Contemporary Mathematics)	(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			3
Electives	3-6	3-6	0-6
Second Year			
Social Science courses*	3	3	3
Arts and Letters/Humanities* (EOU recommends five hours of Philosophy)	3	3	3
Science courses* (UO requires Biology, Chemistry or Physics; PSU recommends BI101, 102, 103; SOU requires BI101, 102, 103)	4-5	4-5	4-5
Electives (Chemeketa recommends CS101 or other Computer Science courses for all schools)	6	6	6

*To meet four-year college general education requirements.

Small Business Management

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.

Sociology

(transfer course guideline)

Oregon's state 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 educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
First Year	1	2	3
WR121, 122, and/or 123 English Composition or WR227 Technical Writing* (OSU strongly recommends WR227; WR121, 122, SP111 or 218 required at SOU)	3	3	(3)
SOC204, 205, 206 General Sociology (OSU, UO and WOU; OSU and SOU accept a maximum of 12 credit hours of lower division Sociology; EOU and SOU require SOC204 and 205)	3	3	3
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 1; SOU requires MTH243; WOU requires MTH111 College Algebra for the BS degree; UO requires three math courses for BS)	4-5	4-5	4-5
Arts and Letters/Humanities sequence* (OSU strongly recommends PHL201 Philosophical Problems: Metaphysics)	3	3	3
Second Year	4	5	6
Social Science electives* (EOU requires ATH101, 102, 103 Human Evolution, Archeology, Introduction to Cultural Anthropology; SOU requires ATH103 Introduction to Cultural Anthropology)	3	3	3

Arts and Letters/Humanities electives* (Second year Foreign Language required for BA degree at OSU, SOU, UO, and WOU)	3	3	3
Science courses*	4	4	4
HPE295 Health and Fitness for Life* or elective	3		
Electives* (CS101 for BA degree and CS161 Computer Science 1 for BS degree at WOU; Computer Science and PHL201 recommended for OSU)	3	6	6

See WOU catalog for Interdisciplinary electives.

*To meet four-year college general education requirements.

Speech Language Pathology Assistant

See also Education.

The Speech Language Pathology Assistant (SLPA) program is a comprehensive certificate and degree program of both theory and practical experience designed to prepare students to become licensed speech language pathology assistants.

An SLPA is a certified support person who helps a licensed speech-language pathologist carry out professional responsibilities. The SLPA carries out specific therapy related tasks that are prescribed and directed by their supervising speech-language pathologist. The SLPA works closely with others in a variety of settings including schools, hospitals, rehabilitation centers, or in private practice. As a member of a speech-language therapy team, the SLPA helps children and adults with communication disorders improve their ability to speak to, listen to, and interact with others.

To be eligible to apply for certification with the Oregon Board of Examiners, an applicant must submit transcripts showing 45 quarter hours or 30 semester hours of speech-language pathology technical course work, 45 quarter hours or 30 semester hours of general education credit and written evidence of 100 clock contact hours of clinical interaction (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 Career Services. 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
MTH060	Introductory Algebra	4
RD090	College Textbook Reading	3
WR115	Introduction to Composition	3

If you have any questions about the requirements, call Counseling and Career Services at 503-399-5120 or Ashley Northam at 503-589-7815. Failure to be assessed may delay your entry into program classes.

Certificate of Completion

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$660; class fees, \$540; universal access fee, \$180; online fee, \$525. Contact the Financial Aid Office at 503-399-5018 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 with a grade of C or better in all courses.

Course	Title	Credit Hours
ED110	Psychology of Learning	3
ED217	Comprehensive Classroom Management	3
ED251	Overview of Students with Special Needs.....	3
ED258	Multicultural Education.....	3
SLP180	Survey of Speech and Language Disorders.....	3
SLP181	Phonetics for Language.....	3
SLP182	Intervention Strategies for SLP Assistants.....	3
SLP183	Introduction to Language Development	3
SLP184	Language Therapy.....	3
SLP185	Anatomy and Physiology of Speech and Language	3
SLP186	Speech Intervention with Children, Adolescents and Adults	3
SLP187	Clinical Documentation and Materials Management for the SLPA.....	3
SLP188	Communication Disorders in Low Incidence Populations	3
SLP189	SLPA Practicum 1	3
SLP190	SLPA Practicum 2.....	3

Associate of Applied Science Degree

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,320; class fees, \$1,080; universal access fee, \$360; online fee, \$1,050. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a two-year Associate of Applied Science degree in Speech Language Pathology Assisting by successfully completing 90 credit hours (45 credits for the Certificate, and 45 general education requirements) with a grade of C or better in all courses.

Course	Title	Credit Hours
General Education requirements (45 credit hours):		
CA100	Microcomputer Basics.....	3
	or	
CS101	Introduction to Microcomputer Applications (or higher)	3
MTH095	Intermediate Algebra (or higher)	4
SP100	Introduction to Communication (or higher).....	3
WR121	English Composition-Exposition (or higher).....	3
	Humanities/Fine Arts electives	9
	Physical Education or Health.....	3
	Science/Applied Science electives	8
	Social Science electives	12

Speech

(transfer course guideline)

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, Mass Media Studies and Journalism.

The educational guide outlined below is designed to meet requirements at these institutions.

As a student, you are responsible for learning the departmental requirements of the school to which you plan to transfer. Consult with Chemeketa's Counseling and Career Services or a Chemeketa advisor. Also you should make early contact with an advisor at the institution to which you plan to transfer to learn of any possible changes in an academic area.

	Term		
	1	2	3
First Year			
WR121, 122, and/or 123 English Composition (WR121, 122 for SOU)	3	3	(3)
SP111 Fundamentals of Public Speaking 3			
SP112 Fundamentals of Persuasion (SP100 required at PSU; not required at SOU or WOU; SP115 Introduction to Intercultural Communication required for Human Communications major at SOU)		3	
SP219 Fundamentals of Small Group Communication (not required at OSU, PSU, or WOU)			3
SP218 Interpersonal Communication (not required at PSU)			3
Arts and Letters/Humanities courses* (TA110, 121 required for Theater Arts option at OSU)	3	3	3
Social Science courses*	3	3	3
Math or Science* (MTH111 College Algebra, MTH243 Probability and Statistics and CS161 Computer Science I required for BS degree at WOU; OSU requires MTH111 and 112 or 241 and/or Computer Programming for BS degree)	4	4	4
Second Year			
Social Science electives*	3	3	3
Arts and Letters/Humanities electives* (Second year Foreign Language for B.A. degrees at OSU, UO, and WOU)	3	3	3
Science courses*	3-4	3-4	3-4
HPE295 Health and Fitness for Life* or elective	3		
Electives (SOU requires SP115 Introduction to Intercultural Communications and WOU requires CS101 Introduction to Microcomputer Applications and 15 hours of electives in Journalism, Speech and Writing)	3	6	6

*To meet four-year college general education requirements.

Travel Systems Operations

See also Hospitality and Tourism Management.

The Travel Systems 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 global distribution systems including computer reservations 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.

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 Career Services. 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
WR040	Writing Skills	3

If you have any questions about the requirements, call Counseling and Career Services at 503-399-5120 or Nancy Duncan at 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, \$528; class fees, \$32; universal access fee, \$148. Contact the Financial Aid Office at 503-399-5018 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:

Course	Title	Credit Hours
Term 1		
CS101	Introduction to Microcomputer Applications	3
HTM104	Travel and Tourism Industry	3
HTM114	Travel Destination Geography 1.....	3
HTM127	Travel Sales and E-Commerce	3
WR115	Introduction to Composition (or higher)	3
Term 2		
HTM101	Customer Service Management.....	3
HTM115	Travel Destination Geography 2.....	3
HTM123	Global Distribution Systems	3
SP218	Interpersonal Communication	3
	or	
SP219	Fundamentals of Small Group Communication.....	3
	or	
SP115	Introduction to Intercultural Communication	3
Term 3		
FE205B	Resumes and Job Search Correspondence	1
HTM116	Travel Destination Geography 3.....	3
HTM280F	Cooperative Work Experience.....	6

Vineyard 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 people 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 503-584-7254 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 Career Services. 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.....	3

If you have questions about the requirements, call Counseling and Career Services 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 at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 92 required credit hours:

Course	Title	Credit Hours
Term 1		
CH115	Consumer Chemistry (or higher)	4
PSY101	Psychology of Human Relations (or higher)	3
SPN111	Beginning Spanish Conversation Term 1 (or higher)	3
VMW101	General Viticulture	3
	Computer Science elective*	3
Term 2		
CH172	Chemical Methods for Analysis of Musts and Wines.....	3
MTH052	Introduction to Algebra and Geometry (or higher)	3
VMW105	Spanish in the Vineyard	3
	or	
SPN112	Beginning Spanish Conversation Term 2 (or higher)	3
WR121	English Composition-Exposition (or higher).....	3
	Computer Science elective*	3
Term 3		
VMW250	Agricultural Supervisor Training.....	4
	or	
PSY104	Psychology in the Workplace.....	3
WR227	Technical Writing (or higher).....	3
	Computer Science elective*	4
	General Education elective.....	3
Term 4		
VMW113	Summer Vineyard Practices.....	4
Term 5		
VMW110	Fall Vineyard Practices	4
VMW280D	Cooperative Work Experience.....	4
	General Education elective.....	3
	General Education elective.....	3
Term 6		
VMW111	Winter Vineyard Practices.....	4
VMW122	Introduction to Winemaking	3
VMW261	Vine Physiology	4
VMW280D	Cooperative Work Experience	4
Term 7		
VMW112	Spring Vineyard Practices.....	4
VMW252	Vineyard/Winery Business Management	3
VMW260	Soil and Plant Nutrition	4
VMW280D	Cooperative Work Experience.....	4
*Computer Science electives:		
CS101	Introduction to Microcomputer Applications	3
CS125A	Micro Database Software-Access	3
CS125E	Excel Workbooks	4

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 people wanting to establish a vineyard.

For more information about this program contact Al MacDonald at 503-584-7254 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 Career Services. 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 Counseling and Career Services 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 at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 39 required credit hours:

Course	Title	Credit Hours
Term 1		
CS101	Introduction to Microcomputer Applications (or higher)	3
VMW101	General Viticulture	3
VMW110	Fall Vineyard Practices	4
WR115	Introduction to Composition (or higher)	3
Term 2		
MTH052	Introduction to Algebra and Geometry (or higher)	3
VMW111	Winter Vineyard Practices	4
VMW261	Vine Physiology	4
Term 3		
VMW112	Spring Vineyard Practices	4
VMW250	Agricultural Supervisor Training	4
	or	
PSY104	Psychology in the Workplace	3
VMW260	Soil and Plant Nutrition	4
Term 4		
VMW113	Summer Vineyard Practices	4

Visual Communications

The Visual Communications program is constantly changing, reflecting the rapid growth of the field of graphic arts in a digital age. The logo you design may be printed on a T-shirt or animated on a Web page. The photograph you take might be published in a magazine or shown as part of a multimedia presentation. Never have there been so many opportunities in a variety of media. As part of the Visual Communications program, you may 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. You will develop skills in graphic design, layout, typography, traditional and digital photography, and electronic imaging. Students will produce both a traditional and digital portfolio of work including a personal stationery package and résumé in preparation for entering the job market. A class portfolio show is part of spring term your final year.

The Visual Communications program offers a two-year Associate of Applied Science degree that emphasizes Graphic Design. Additional coursework is available for further study in Web design, illustration, photography and digital imaging. Apply early. The program has special

admissions prerequisites, screening requirements and enrollment limits. A block transfer articulation is in place with Portland State University and the Art Institute of Portland for students planning on pursuing a Bachelor's degree. Students planning on transferring are encouraged to see an advisor regarding general education requirements.

This hands-on, intensive program 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. Many students elect to spread their coursework over three years to take advantage of additional courses that are offered. Cooperative Work Experience is encouraged.

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. Your advisor will then 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
MTH020	Basic Mathematics	3
SSP014ABC	Spelling Rules	1-3
SSP051	Studying for College	3
	or	
RD090	College Textbook Reading	3
WR115	Introduction to Composition	3

All interested students must submit a program application and required screening materials. A packet of detailed information is available through the program located in Building 4, Room 284, and on the program links on the www.chemeketa.edu website.

All Visual Communications classes take place in a Macintosh lab. If you have questions about the program requirements, call Counseling and Career Services at 503-399-5120 or the Visual Communications program chair at 503-399-6473. You are required to complete the entire enrollment process prior to registering for program classes.

In addition to tuition, estimated costs for students who complete the entire program listed below, average \$490 per term. These costs include photographic supplies, books, high resolution output, mounting boards and tissue, and storage media. A 5 megapixel digital camera, approximately \$800, is required for the photography courses. A portfolio, at a cost of up to \$240, is required for graduation. Class fees total an additional \$710; universal access fee, \$416. Although not required, a home computer greatly enhances the student's ability to successfully complete coursework and learn new software. Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by maintaining an overall grade point average of 2.5 and successfully completing the required 105 credit hours with a grade of C or better in all required courses.

Course	Title	Credit Hours
Term 1		
ART131	Introduction to Drawing 1 (or higher)	4
ART265	Digital Photography	4
VC111	Survey of Graphic Arts	4
VC114	Introduction to Computers for Graphics	4
WR121	English Composition-Exposition (or higher)	3
Term 2		
ART115	Basic Design	3
ART224	Type Design 1	4

MTH060	Introductory Algebra (or higher).....	4
SP112	Fundamentals of Persuasion	3
VC151	Electronic Imaging 1.....	3
Term 3		
ART116	Basic Design	3
ART262	Intermediate Photography	4
PSY100	Introduction to Psychology (or higher)	3
VC121	Layout 1: Principles of Page Layout	4
VC251	Electronic Imaging 2.....	3
Term 4		
ART221	Graphic Design 1: Symbols and Meaning	4
ART225	Type Design 2.....	4
VC122	Layout 2: Intermediate Page Design.....	4
VC237	Web Design 1	4
VC271	Studio Practices.....	1
Term 5		
ART222	Graphic Design 2: Logo Design.....	4
ART237	Photo Illustration.....	4
VC221	Layout 3: Publication Design.....	4
VC238	Web Design 2	4
VC246	File Prep.....	2
Term 6		
ART223	Graphic Design 3: Package Design.....	4
FE205B	Resumes and Job Search Correspondence	1
VC241	Introduction to Multimedia.....	3
VC283	Business of Graphic Arts	4
VC284	Portfolio Preparation.....	4
VC271	Studio Practices.....	1

Welding

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 welding 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; universal access fee, \$208; equipment and supplies, \$612; certification test, \$260 (optional).

Contact the Financial Aid Office at 503-399-5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing these 52 required credit hours with a grade of C or better in all courses:

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 1	2
PSY100	Introduction to Psychology (or higher)	3
Term 3		
COM051	Communications Skills 1	3
WLD053	Advanced Arc Welding.....	3
WLD058	Weld Shop Problems.....	7
WLD063	Advanced Gas Metal Arc Welding (MIG)	3
WLD082	Welding Metallurgy 2	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; universal access fee, \$360; equipment and supplies, \$612; certification test, \$260 (optional). Contact the Financial Aid Office at 503-399-5018 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 90 credit hours with a grade of C or better in all courses:

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 1	2

Term 3

COM051	Communication Skills 1	3
WLD053	Advanced Arc Welding.....	3
WLD058	Weld Shop Problems.....	7
WLD063	Advanced Gas Metal Arc Welding (MIG)	3
WLD082	Welding Metallurgy 2	2

Term 4

AUM185	Automotive Machining Fundamentals	2
CAM110	CNC/Manual Fundamentals	2
CAM111	Industrial Safety Seminar	1
CAM121	CNC/Manual Lathe	2
CAM130	CNC Machine Setup/Operation.....	3
GS104	Physical Science (or higher).....	4

Term 5

CAM120	CNC/Manual Milling.....	3
CAM160	Programming CNC Mills	3
MFG062	Practical Applications 2.....	2
MTH053	Introduction to Trigonometry with Geometry (or higher)	3
WFB087	Fabrication Practices 3	3

Term 6

AUM186	Automotive Lathe Fundamentals	2
COM052	Communication Skills 2 (or higher).....	3
PSY100	Introduction to Psychology (or higher)	3
WFB088	Fabrication Practices 4	3
WFB096	Shop Projects	2

Winemaking

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 people 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 503-584-7254 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 Career Services. 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 Counseling and Career Services 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 at 503-399-5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing these 101 required credit hours:

Course	Title	Credit Hours
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Term 1

CH121, 121R	College Chemistry (or higher).....	5
MTH070	Elementary Algebra (or higher)	4
VMW101	General Viticulture	3
VMW131	Wine Appreciation.....	3
	Computer Science elective*	3

Term 2

CH122, 122R	College Chemistry (or higher).....	5
CH172	Chemical Methods for Analysis of Musts and Wines.....	3
PSY101	Psychology of Human Relations (or higher)	3
VMW122	Introduction to Winemaking	3
	Computer Science elective*	3

Term 3

CH123, 123R	College Chemistry (or higher).....	5
BI230	Introduction to Microbiology	4
VMW222	Science of Winemaking.....	3
VMW250	Agricultural Supervisor Training	4
	or	
PSY104	Psychology in the Workplace.....	3

Term 4

VMW244	Wine Production and Quality Control 1	6
VMW280D	Cooperative Work Experience	4
WR121	English Composition-Exposition (or higher).....	3
	Computer Science elective*	4

Term 5

VMW132	Wines of the World.....	3
	or	
VMW134	Wines of the Pacific Northwest	3
VMW232	Sensory Evaluation of Wine Varietals	3
VMW245	Wine Production and Quality Control 2	4
VMW280D	Cooperative Work Experience	4
WR227	Technical Writing (or higher).....	3

Term 6

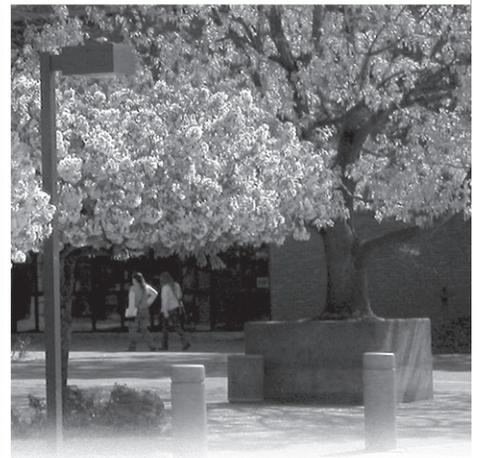
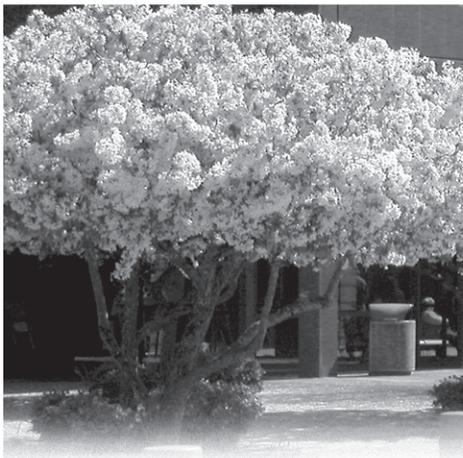
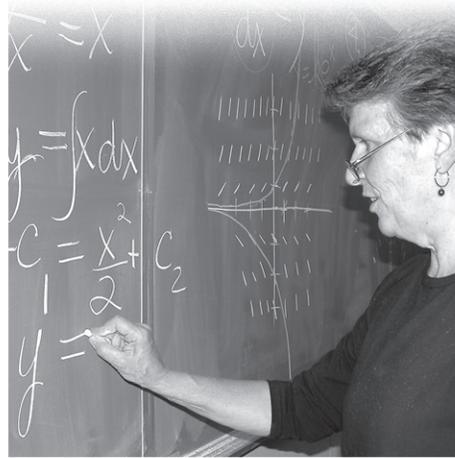
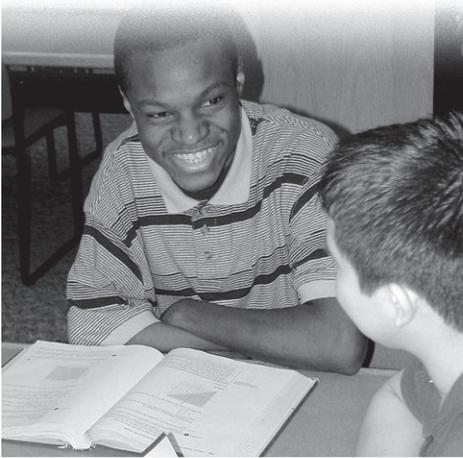
VMW233	Sensory Evaluation of Wine Components	3
VMW246	Wine Production and Quality Control 3	4
VMW252	Vineyard/Winery Business Management.....	3
VMW253	Winery Planning, Design and Operation	3
VMW280D	Cooperative Work Experience	4

*Computer Science electives:

CS101	Introduction to Microcomputer Applications	3
CS125A	Micro Database Software-Access	3
CS125E	Excel Workbooks	4

Zoology

See Biology.



Chemeketa Community College
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.

Chemeketa also offers many non-credit personal enrichment courses not included here. They are also listed in the Schedule of Classes.

Note:

The letters, **F**, **W**, **Sp**, and **Su** 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 available in print and on the Web each term.

Universal Access Fee

A Universal Access Fee, implemented spring term 2003 applies to both credit and non-credit classes. The fee is \$4 per credit for credit classes and 30 cents per hour for non-credit classes.

Definitions of Electives

You may find the information listed below helpful in choosing the classes necessary to fulfill your Associate of Applied Science 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 Counseling and Career Services 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), **JNL** (Journalism), **SP** (Speech), **WR** (Writing), plus these specific classes: **BA214**, **BT120**, **RD115**, **RD116**, **RD120** and **SSP112**.

Humanities/Fine Arts Electives: **ART** (Art), **ASL** (American Sign Language), **ENG** (English), **FA** (Film Arts), **FR** (French), **GER** (German), **JPN** (Japanese), **HUM** (Humanities), **MUP** (Music Performance), **MUS** (Music), **PHL** (Philosophy), **REL** (Religion), **RUS** (Russian), **SPN** (Spanish), **TA** (Theater Arts).

Science/Applied Science Electives: **BI** (Biology), **BOT** (Botany), **CH** (Chemistry), **GE** (General Engineering), **GEO** (Geology), **GS** (General Science), **HOR** (Horticulture) **NFM** (Nutrition and Food Management), **OC** (Oceanography), **PH** (Physics), **ZOO** (Zoology).

Social Science Electives: **ATH** (Anthropology), **CLA** (Chicano/Latino Studies), **EC** (Economics), **GEG** (Geography), **HDF** (Human Development and Family Studies), **HST** (History), **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
SSP: Study Skills Program
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., AS/OT-Bus or A.G.S. degree.

Professional-Technical Courses**

- AH:** Allied Health
AQS: Aquarium Science
AUM: Automotive Technology
BLD: Building Inspection Technology
BT: Business Technology
CA: Computer Applications
CAM: Computer-Aided Manufacturing
CJ: Criminal Justice
COM: Communication Skills
CPL: Credit for Prior Learning
CS: Computer Science
CVL: Civil Engineering Technology
DEN: Dental Assisting
DRF: Drafting Technology
ECE: Early Childhood Education
ED: Education
ELT: Electronics Technologies
EMT: Emergency Medical Technology
ENL: English as a Non-Native Language
ES: Emergency Services
FE: Field Experiences
FRP: Fire Protection Technology
FT: Forest Resources Technology
HD: Human Development
HDF: Human Development and Family Studies
HM: Health Services Management
HOR: Horticulture
HS: Human Services
HTM: Hospitality and Tourism Management
LIB: Library
MED: Medical Office Assisting
MFG: Manufacturing Technologies
MT: Microelectronics/Industrial
NET: Network Technology
NUR: Nursing
RD: Reading
QS: Quality Science
SLP: Speech Language Pathology Assistant
SSP: Study Skills Program
ST: Occupational Skills Training
VC: Visual Communications
VMW: Vineyard Management/Winemaking
WFB: Welding Fabrication
WLD: Welding

**Many professional-technical courses are applicable to the baccalaureate degree. Check with the BA-granting institution.

Lower Division Collegiate Courses

(first two years of the baccalaureate degree)

- ATH:** Anthropology
ART: Art
ASL: American Sign Language
BA: Business Administration***
BI: Biology***
BOT: Botany
CG: Counseling and Guidance***
CH: Chemistry
CJ: Criminal Justice
CLA: Chicano/Latino Studies
CIS: Computer Information Science
CS: Computer Science***
EC: Economics
ENG: English
EGR: Engineering
FA: Film Arts
FR: French
GEO: Geology
GE: General Engineering
GEG: Geography
GER: German
GS: General Science
HE: Health Education
HOR: Horticulture
HPE: Health and Physical Education
HST: History
HUM: Humanities
JNL: Journalism
JPN: Japanese
MTH: Mathematics***
MUP: Music Performance
MUS: Music
NFM: Nutrition and Food Management
OC: Oceanography
PE: Physical Education
PHL: Philosophy
PH: Physics***
PSY: Psychology
PS: Political Science
RUS: Russian
REL: Religion
SOC: Sociology
SP: Speech
SPN: Spanish
SSC: Social Science
TA: Theater Arts
WR: Writing***
WS: Women's Studies
ZOO: Zoology

***A number below 100 indicates a support course, which is usually not transferable to a BA-granting institution.

Accounting

See Business Administration.

AH

Allied Health

See also Chemistry, Dental Assisting, Emergency Medical Technology, Emergency Services, Health Education, Health Services Management, Medical Office Assisting and Nursing.

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, W, Sp, Su

AQS

Aquarium Science

AQS100 Introduction to Aquarium Science

2 class and 2 lab hrs/wk, 3 cr.

Examines the history of animal keeping and present-day aquatic animal husbandry industries. Explores the biological processes occurring in the aquarium environment. Learn proper set-up and maintenance of home aquaria. **Offered as needed.**

AQS110 Aquarium Science Practicum 1

6 lab hrs/wk, 2 cr.

Introduces aquatic animal husbandry work environment and the care of captive aquatic animals. Emphasize daily animal care and exhibit readiness. **Offered as needed.**

AQS111 Aquarium Science Practicum 2

6 lab hrs/wk, 2 cr.

Builds upon the experiences gained in Practicum 1. Involves participation in a higher level of aquatic animal husbandry activities including animal health procedures, long-term record keeping and life support systems training. Can be repeated for additional credits.

Prerequisite: AQS110. **Offered as needed.**

AQS141 Interpretation and Communication

3 class and 2 lab hrs/wk, 4 cr.

Examines the techniques used to present natural resource educational experiences to visitors. Emphasizes developing the skills to conduct informational research and assimilate information into a presentation that takes into account individual learning styles. **Offered as needed.**

AQS150 Special Projects

4 lab hrs/wk, 2 cr.

Provides the opportunity to work on an approved special project in aquarium science. Topics may include independent research in an area of interest or in-depth study in a particular aspect of aquarium science. **Offered as needed.**

AQS165 Current Issues in Aquarium Science

2 class hrs/wk, 2 cr.

Industry professionals share their experiences about facility operations and challenges facing their organization. Discussion topics may vary by term. **Offered as needed.**

AQS186 Introduction to Scientific Diving

3 lab hrs/wk, 1 cr.

Introduces the technical and safety components of scientific diving. Includes underwater activities related to fish identification and behavior analysis.

Prerequisite: Enrollment in the Aquarium Science program and PE185SA or open-water diving certification from an internationally recognized certification agency or consent of instructor. **Sp**

AQS187 Scientific Diving

3 lab hrs/wk, 1 cr.

Continues the training of scientific divers in the safety aspects and techniques of underwater science activities. **Prerequisite:** AQS186. **Sp, Su**

AQS215 Biology of Captive Fish

3 class and 2 lab hrs/wk, 4 cr.

Examines the anatomy and physiology of freshwater and marine fishes and the constraints placed upon them in a controlled environment. Increases an understanding of fish behavior through the use of ethograms. **Prerequisite:** BI103 or consent of instructor. **Offered as needed.**

AQS220 Biology of Captive Invertebrates

3 class and 2 lab hrs/wk, 4 cr.

Reviews the life history and captive care requirements of invertebrates commonly cultured in the aquatic animal industry/profession. **Prerequisite:** BI103 or consent of instructor. **Offered as needed.**

AQS226 Biology of Diverse Captive Species

2 class and 2 lab hrs/wk, 3 cr.

Examines the basic husbandry requirements and the most commonly experienced health ailments of different phyla found in public aquarium animal collections. Reviews the natural history and wild-population status of selected species.

Prerequisite: BI103, enrollment in Aquarium Science program, or consent of instructor. **W**

AQS230 Fish and Invertebrate Nutrition

3 class and 2 lab hrs/wk, 4 cr.

Examines the nutritional requirements of fishes and invertebrates throughout their life history. Reviews the composition of fresh frozen feed and processed diets. Discusses industry standards for food handling and HACCP requirements.

Prerequisite: AQS215 and AQS220. **Offered as needed.**

AQS231 Fish and Invertebrate Reproduction

3 class and 2 lab hrs/wk, 4 cr.

Examines the reproductive strategies of fishes and invertebrates in a controlled environment and the manipulation of environmental and physiological parameters to initiate reproduction. **Prerequisite:** AQS215 and AQS220. **Offered as needed.**

AQS232 Reproduction and Nutrition of Aquatic Animals

3 class and 2 lab hrs/wk, 4 cr.

Examines the reproductive strategies of fishes and invertebrates in a controlled environment, and the manipulation of environmental and physiological parameters that initiate reproduction.

Explores the nutritional requirement of selected aquatic animals throughout their life history. Discusses industry standards for food handling and HACCP requirements. **Prerequisite:** AQS215 and AQS220. **F**

AQS240 Life Support System Design and Operation

3 class and 2 lab hrs/wk, 4 cr.

Examines the role of life support systems in maintaining a balanced, stable aquatic environment.

Presents how to design, construct, maintain and troubleshoot semi-closed, closed and open systems. **Prerequisite:** Concurrent enrollment in AQS215 and AQS220 or consent of instructor. **Offered as needed.**

AQS250 Principles of Exhibit Development

3 class and 2 lab hrs/wk, 4 cr.

Examines the processes involved in natural resources-related exhibit development. Presents the issues, materials and technologies associated with aquatic exhibit development. Emphasis is placed on integrating diverse goals, assimilating information and coordinating personnel to ensure an effective exhibit team. **Prerequisite:** Concurrent enrollment in AQS270. **Offered as needed.**

AQS270 Fish and Invertebrate Health Management

3 class and 2 lab hrs/wk, 4 cr.

Reviews the common infectious and non-infectious diseases of captive fish and invertebrates. Examines the common techniques of fish and invertebrate health management. **Prerequisite:** AQS215 and AQS220. **Offered as needed.**

AQS275 Aquarium Science Internship

400 lab hrs, 12 cr.

Exposes students to the daily diligence, responsibilities and rewards of the aquatic animal husbandry profession. Includes daily animal care and facility readiness routines, assisting life support staff and animal health management professionals and evaluation of operational aspects of the facility. **Prerequisite:** AQS111 and AQS270. **Offered as needed.**

ART

Art

See also Visual Communications.

ART101 Understanding Art

3 class hrs/wk, 3 cr.

Provides 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, W, Sp, Su**

ART115, 116, 117 Basic Design**2 class and 2 lab hrs/wk, 3 cr. each**

ART115, 116 and 117 form a three-term introduction to the basic principals of design, visual perception and organization of visual elements. ART115 is devoted to black and white two-dimensional design; ART116 is devoted to color and two-dimensional design; ART117 to three-dimensional design. ART115: **F, W, Sp, Su**; 116: **F, W, Sp, Su**; 117: **Sp**

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 lab 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 lab hrs/wk, 3 cr.**

Continues 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, Sp, Su**

ART154 Pottery 1-Handbuilding**6 lab hrs/wk, 3 cr.**

Introduces ceramics through handbuilding. Includes basic form and design considerations as well as pinch, coil, slab construction, press mold, decoration and glazing techniques. **F, W, Sp, Su**

ART155 Pottery 2-Beginning Wheel Throwing**6 lab hrs/wk, 3 cr.**

Learn basic techniques for producing pottery on the potter's wheel. Emphasis is on forming, trimming, decorating, glazing and firing of projects, as well as visual and functional form considerations. **F, W, Sp**

ART156 Pottery 3-Intermediate Techniques**6 lab hrs/wk, 3 cr.**

Expands 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. **Sp**

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. **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. **Sp**

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: Symbols and Meaning**2 class and 4 lab hrs/wk, 4 cr.**

Applies the principles and elements of design to the process of creating solutions to graphic design challenges. Introduces the use of illustration software on the Macintosh as a production tool. **Prerequisite:** ART115, ART116 and ART131; demonstrated ability to work with computers. **F**

ART222 Graphic Design 2: Logo Design**2 class and 4 lab hrs/wk, 4 cr.**

Builds on the concepts learned in ART221. Emphasizes symbol and logo design and corporate identification. **Prerequisite:** ART221. **W**

ART223 Graphic Design 3: Package Design**2 class and 4 lab hrs/wk, 4 cr.**

Builds on the concepts learned in ART221 and ART222. Continues exploration of graphic design with advanced projects emphasizing package design. **Prerequisite:** ART222. **Sp**

ART224 Type Design 1**2 class and 4 lab hrs/wk, 4 cr.**

Introduces the study of letterforms/typography and its importance in the design of visual communications. **Prerequisite:** VC111 and VC114 or consent of instructor. **F**

ART225 Type Design 2**2 class and 4 lab hrs/wk, 4 cr.**

Continues the study of letterforms/typography as a design element in visual communications. **Prerequisite:** ART224 or consent of instructor. **W**

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 of C or better in a college-level drawing class. **Offered as needed.**

ART233 Color Drawing Media**6 lab hrs/wk, 3 cr.**

Continues ART133. Emphasizes the development of personal style and expressive exploration of personal imagery, using color drawing tools and mixed media. **Prerequisite:** ART131 or consent of instructor. ART132 and ART133 are recommended. **Offered as needed.**

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. **F, W, Sp, Su**

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. **F, W, Sp, Su**

ART236 Figure Drawing 3**6 lab hrs/wk, 3 cr.**

Continues study and practice in drawing the human figure. **Prerequisite:** ART131, ART234 and ART235, or consent of instructor. **F, W, Sp, Su**

ART237 Photo Illustration**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. **Prerequisite:** ART261 or ART265 and PhotoShop experience. **W**

ART238 Introduction to Illustration**2 class and 2 lab hrs/wk, 3 cr.**

Introduces concepts of illustration in the graphic arts. Offers instruction in traditional (non-digital) illustration technique, for students with strong skills in drawing and/or painting. Course may be repeated for a maximum of six credits. **Prerequisite:** ART131, ART132, or any other 200 level drawing or painting course, or demonstrated experience in drawing and/or painting. ART115, ART116 and Art History courses are recommended; experience with color media is recommended. **W, offered as needed.**

ART239 Introduction to Computer Illustration**2 class and 2 lab hrs/wk, 3 cr.**

Introduces the basics of illustration using computers and graphic arts software. Course may be repeated for a maximum of six credits. **Prerequisite:** ART221 or VC139 or previous experience in vector graphics software and PhotoShop. **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 cane and copper foil. Students produce original designs based on sources selected by the student. **Prerequisite:** ART115 and ART116 recommended. **F, W, Sp, 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; ART115 and ART116 recommended. **F, W, Sp, Su**

ART246 Advanced Stained Glass**6 lab hrs/wk, 3 cr.**

Continues ART245. Projects will reflect an in-depth investigation of sources, including personal influences, and exhibit technical mastery of the medium. **Prerequisite:** ART244 and ART245; ART115 and ART116 recommended. **F, W, Sp, Su**

ART247 Glass Slumping and Fusing-Beginning**6 lab hrs/wk, 3 cr.**

Provides an introduction and technical information on using an electric kiln and refractory molds to flat fuse and form glass. **Prerequisite:** Completion of at least one of the following studio art classes: ART154; ART244, ART245, or ART246; ART291, ART292, or ART293. ART115 and ART116 recommended. **Offered as needed.**

ART248 Kiln Cast Glass-Beginning**6 lab hrs/wk, 3 cr.**

Provides an introduction and technical information on casting solid sculptural glass forms and hollow glass containing forms using open and closed face molds. Includes an extension of the glass chemistry and finishing techniques presented in ART247. **Prerequisite:** ART247 and at least one of the following studio art classes: ART154; ART244, ART245, or ART246; ART291, ART292, or ART293. ART115 and ART116 recommended. **Offered as needed.**

ART250 Flameworking-Beginning**6 lab hrs/wk, 3 cr.**

Provides an introduction and technical information on using a torch to model and shape hot glass. **Prerequisite:** ART247, ART248, and completion of at least one of the following studio art classes: ART154; ART244, ART245, or ART246; ART291, ART292, or ART293. ART115 and ART116 recommended. **F, W, Sp, Su**

ART250B Flameworking-Intermediate**6 lab hrs/wk, 3 cr.**

Provides intermediate flameworking skills to create solid, sculptural and blown forms. Covers techniques using hollow tubing incorporating montage, incalmo, filligrana, bits and Venetian glass. Continues the basic skills and techniques presented in ART250. **Prerequisite:** ART250 or consent of instructor. ART115 and ART116 recommended. **F, W, Sp, Su**

ART250C Flameworking-Advanced**6 lab hrs/wk, 3 cr.**

Provides advanced flameworking skills to create solid, sculptural and blown forms. Covers techniques using hollow tubing incorporating zanfrico, rondels, reticello, murrine, graal, and Venetian glass. Continues the skills and techniques presented in ART250B. **Prerequisite:** ART250B or consent of instructor. **Offered as needed.**

ART251 Glass Blowing-Beginning**6 lab hrs/wk, 3 cr.**

Provides an introduction and technical information necessary for blowing and shaping basic hot glass forms. **Prerequisite:** ART247, 248, ART250, and completion of at least one of the following studio art classes: ART154; ART244, ART245, or ART246; ART291, ART292, or ART293; ART115 and ART116 recommended. **Offered as needed.**

ART254 Pottery 4-Low-Fire Ceramics**2 class and 4 lab hrs/wk, 3 cr.**

Introduces low-fire ceramic materials, including both low-tech and high-tech application and processes. **Prerequisite:** ART154, ART155, ART156, or consent of instructor. **Offered as needed.**

ART256 Art as a Profession**3 class hrs/wk, 3 cr.**

Provides visual artists with the professional skills necessary to succeed in their own art business. Through a series of marketing, promotion, presentation, employment and education-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. **Offered as needed.**

ART261 General Photography**2 class and 4 lab hrs/wk, 4 cr.**

Introduces 35mm black and white photography. Includes the history of contemporary photography, use of camera equipment, correct exposure calibrations, film processing, darkroom techniques and presentation of enlargements. **F, W, Sp, Su**

ART262 Intermediate Photography**2 class and 4 lab hrs/wk, 4 cr.**

Introduces technical photography including studio lighting for portraits and product work, color, photojournalism and art direction. **Prerequisite:** ART261 or ART265. **Sp**

ART263 Photography: Special Topics**2 class and 4 lab hrs/wk, 4 cr.**

Emphasizes the freedom to experiment with photographic techniques. May include darkroom work, infrared black and white, toning techniques, compositing images and aesthetic issues. **Prerequisite:** ART261 or ART265 or consent of instructor. **Offered as needed.**

ART265 Digital Photography**2 class and 4 lab hrs/wk, 4 cr.**

Introduces digital photography, focusing on camera handling, capturing, editing, and printing and presentation of digital images. Investigates important themes and photographers in the history of photography. **F, W, Sp**

ART270 Printmaking: Screen Printing 1**6 lab hrs/wk, 3 cr.**

Introduces the methods, materials, and techniques of silkscreen printing, including the photostencil process. Includes designing and pulling prints. **Prerequisite:** ART131 or ART115 or ART261 or consent of instructor. ART116 recommended. **F, W, Sp, Su**

ART271 Printmaking: Photo-Etching**6 lab hrs/wk, 3 cr.**

Introduces the fundamental techniques used in making etchings as fine art prints. Includes contemporary photo processes, development of personal imagery, and technical understanding of the printing process. **Prerequisite:** ART131 or ART115 or ART261 or consent of instructor. **Offered as needed**

ART272 Printmaking: Woodcuts and Linocuts**6 lab hrs/wk, 3 cr.**

Offers studio experience and instruction in techniques used in making woodcuts and linoleum block prints. Emphasizes studio practice, experimentation, and development of style as a means of personal expression. **Prerequisite:** ART131 or ART115 or ART261 or consent of instructor. **Offered as needed.**

ART273 Printmaking: Monoprints**6 lab hrs/wk, 3 cr.**

Offers studio experience and instruction in techniques used in making monoprints and monotypes as fine art prints. **Offered as needed.**

ART274 Printmaking: Screen Printing 2**6 lab hrs/wk, 3 cr.**

Continues skill building in techniques of silkscreen printing introduced in ART270, including photographic processes. **Prerequisite:** ART270. **F, W, Sp**

ART275 Printmaking: Screen Printing 3**6 lab hrs/wk, 3 cr.**

Offers 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. **F, W, Sp**

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. **Offered as needed.**

ART284 Watercolor

6 lab hrs/wk, 3 cr.

Learn the 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. **Offered as needed.**

ART285 Intermediate Watercolor

6 lab hrs/wk, 3 cr.

Emphasizes skill building and technical control of the medium. **Prerequisite:** ART284 or consent of instructor. **Offered as needed.**

ART286 Advanced Watercolor

6 lab hrs/wk, 3 cr.

Continues projects and explorations begun in ART284 and ART285. A self-motivated contract class. **Prerequisite:** ART284 and ART285, or consent of instructor. **Offered as needed.**

ART291 Beginning Sculpture

6 lab hrs/wk, 3 cr.

Introduces the use of materials, tools, and methods of sculpture, and an exploration of the three-dimensional form. **Prerequisite:** ART117 recommended. **F**

ART292 Ceramic Sculpture

6 lab hrs/wk, 3 cr.

Introduces the characteristics and potential of clay as a sculptural material. **Prerequisite:** ART117 recommended. **W**

ART293 Wax to Bronze Sculpture

6 lab hrs/wk, 3 cr.

Introduces the casting and finishing of bronze sculpture through the lost wax process using ceramic shell technologies. **Prerequisite:** ART117 recommended. **Sp**

ASL

American Sign Language

ASL101 American Sign Language 1

3 class hrs/wk, 3 cr.

Introduces American Sign Language (ASL) and the culture and diversity of the deaf community. Covers the study and application of ASL vocabulary and grammar to real life contexts.

F, W, Sp, Su

ASL102 American Sign Language 2

3 class hrs/wk, 3 cr.

Continues ASL101 and the culture and diversity of the deaf community. Increases ASL vocabulary and grammar and offers increased depth of experience. **Prerequisite:** ASL101 and/or consent of instructor. Instructor can test student or require additional assignments to satisfy prerequisite skill/knowledge requirements. **W, Sp, Su**

ASL103 American Sign Language 3

3 class hrs/wk, 3 cr.

Continues ASL102 and the culture and diversity of the deaf community. Continues to increase ASL vocabulary and grammar. **Prerequisite:** ASL102 and/or consent of instructor. Instructor can test student or require additional assignments to satisfy prerequisite skill/knowledge requirements. **Sp, Su**

Astronomy

See **Physics**.

ATH

Anthropology

ATH101 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. **F, W, Sp, Su**

ATH102 Archaeology

3 class hrs/wk, 3 cr.

Presents 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. **F, W, Sp, Su**

ATH103 Introduction to Cultural Anthropology

3 class hrs/wk, 3 cr.

Offers a survey of culture and how it structures human nature, including an examination of cross-cultural methodology and anthropological theory. Presents a general overview of language, economic and political systems, technology, social orientation, art, religion, warfare, and the nature of play. Includes an examination of the problem of controlling culture and management society. **F, W, Sp, Su**

ATH153 Introduction to Field Archaeology

3 class hrs/wk, 3 cr.

Introduces the diverse theories, methods and goals of field or archaeology used throughout much of the world. Includes basic techniques of scientific archaeological excavation, artifact collection and documentation through classroom activities. **Offered as needed.**

ATH180 The Nature of Language

3 class hrs/wk, 3 cr.

Introduces 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.**

ATH201 Peoples of Africa

3 class hrs/wk, 3 cr.

Introduces anthropological study of peoples and cultures of Africa from earliest times to the present, emphasizing geography, history, politics, role of women, religion, literature, music, art, language, trends and prospects. **Offered as needed.**

ATH202 Peoples of the Middle East

3 class hrs/wk, 3 cr.

Introduces anthropological study of peoples and cultures of the Middle East from earliest times to the present, emphasizing geography, history, politics, role of women, religion, literature, music, art, language, trends and prospects. **Offered as needed.**

ATH203 Peoples of Asia

3 class hrs/wk, 3 cr.

Introduces anthropological study of peoples and cultures of Asia (China, Japan and Korea) from earliest times to the present, emphasizing geography, history, politics, role of women, religion, literature, music, art, language, trends and prospects. **Offered as needed.**

ATH207 Cultural Anthropology

3 class hrs/wk, 3 cr.

Analyzes 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.**

ATH208 Cultural Anthropology

3 class hrs/wk, 3 cr.

Explores 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.**

ATH209 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:** ATH207 and ATH208 recommended. **Offered as needed.**

ATH212 Aztec Civilization/ La Civilizacion Azteca

3 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.**

ATH214 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.**

ATH215 Introduction to Early Greek and Aegean Archaeology

3 class hrs/wk, 3 cr.

Explores early Greek culture (10,000 BC - 1000 BC) with an emphasis on the Bronze Age and the islands of the Aegean. Includes trade, exploitation of natural resources, material culture elaboration, and the development of maritime orientation and marine-based faunal ritualization and cosmologies. Also covers the role of Crete and other Aegean islands in trade and craft/specialty food production, and their relationships with Egypt, Syria, and the Mediterranean world. **Offered as needed.**

ATH231 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.**

ATH232 Native American Studies

3 class hrs/wk, 3 cr.

Focuses on the Prairie-Plains (Northern and Southern Plains) and Southwestern 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. Outlines environmental impact on traditional and contemporary Navajo and Hopi cultures. **Offered as needed.**

ATH233 Native American Studies

3 class hrs/wk, 3 cr.

Focuses on the Northwestern 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 their adaptations to Europeans while struggling to retain tribal sovereignty. Covers Kwakiutl and Haida masking arts and contemporary potlatch. **Offered as needed.**

AUM

Automotive Technology

AUM151 Basic Automotive Engines

3 class and 6 lab hrs/wk, 5 cr.

Covers construction, working principles, and methods of servicing a gasoline internal combustion engine. Stresses proper use of tools, torque wrenches, micrometers and equipment. Discusses theory and operation of the makeup of simple and complex machines involving levers, cams, inertia and momentum. **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, AUM157, and AUM184 or consent of instructor. **W**

AUM157 Automotive Brake Systems

2 class and 7 lab hrs/wk, 5 cr.

Covers the theory and principles of automotive brake systems. Includes service and repair of disc and drum brakes, manual and power brakes, brake system controls, indicating devices, and A.B.S. systems. **F**

AUM158 Automotive Steering and Suspension

2 class and 8 lab hrs/wk, 5 cr.

Presents the principles of automotive wheel, steering, and suspension systems. Includes front and rear suspension alignment, theory of suspension operation, and wheel service and balance. Applies accepted repair procedures on automotive suspension. **Prerequisite:** AUM151, AUM157, and AUM184 or consent of instructor. **W**

AUM161 Manual Drive Trains and Axles 1

3 class and 6 lab hrs/wk, 5 cr.

Introduces the theory and service of automotive power trains including: 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. Examines friction, gear reduction, and torque multiplication through use of gear sets, inertia, and momentum, as they apply to power train components. **Prerequisite:** AUM152 and AUM158 or consent of instructor. **Sp**

AUM168 Automotive Electrical Systems 1

3 class and 3 lab hrs/wk, 4 cr.

Introduces automotive electricity and electronics systems. Includes an overview of automotive circuits. **Prerequisite:** AUM152 and AUM158 or consent of instructor. **Sp**

AUM184 Automotive Materials and Resources

2 lab hrs/wk, 1 cr.

Covers various service manuals, service information, labor calculation and electronic manual systems. Focuses on the use of computerized manual systems commonly used in the automotive repair industry. **F, W, Sp**

AUM185 Automotive Machining Fundamentals

1 class and 3 lab hrs/wk, 2 cr.

Introduces the fundamentals of automotive machine processes and automotive fasteners, presses, pedestal grinders, arbor presses, and basic layout and tool sharpening. Includes use of appropriate charts and tables including decimal equivalent and drill and tap selection with speed and feed calculations. **F**

AUM186 Automotive Lathe Fundamentals

1 class and 3 lab hrs/wk, 2 cr.

Introduces turning operations as related to automotive machining with emphasis on work and tool holding methods. Covers related hole-making process, facing, tapping, grooving and parting. **Sp**

AUM187 Automotive Milling Machine Processes

1 class and 3 lab hrs/wk, 2 cr.

Covers basic milling processes, work-holding methods, cutter identification, selection and use, speeds and feeds, adapters, tool holders and application. Includes operation of milling machines as applied to typical automotive machining operations. **W**

AUM188 Automotive Machine Shop-Upper Engine

1 class and 4 lab hrs/wk, 3 cr.

Introduces theory and application used in automotive machining procedures. Includes use of precision measuring tools, torque wrenches, valve and seat grinding, valve guide and seat repairs, resurfacing, valve springs and cylinder head assembly. **F**

AUM189 Automotive Machine Shop-Lower Engine

1 class and 4 lab hrs/wk, 3 cr.

Introduces the theory and application used in automotive machining procedures. Emphasizes precision measuring tools, torque wrenches, cylinder block boring and honing, cylinder block resurfacing, mainline checks and repairs, and connecting rod reconditioning. **W**

AUM190 Automotive Machine Shop-Engine Assembly

1 class and 4 lab hrs/wk, 3 cr.

Covers theory and application in automotive machining procedures. Includes use of precision measuring tools, torque wrenches, camshaft timing checks, clearancing, blueprint measurement, and engine assembly and sealing techniques. **Sp**

AUM192 Automotive Diesel Engines

2 class and 3 lab hrs/wk, 3 cr.

Covers construction, working principles and methods of servicing automotive diesel engines. **Prerequisite:** AUM152 and AUM158 or consent of instructor. **Sp**

AUM253 Automotive Engines 2

1 class and 6 lab hrs/wk, 3 cr.

Focuses on repair and service of automotive internal combustion engines. Stresses speed and accuracy of diagnosis and repair. Builds on prior training. **Prerequisite:** AUM267, AUM277, AUM282, and AUM286 or consent of instructor. **Sp**

AUM262 Manual Drive Trains and Axles 2

1 class and 6 lab hrs/wk, 3 cr.

Continues the theory and service of automotive drive trains, concentrating on the diagnosis and repair of all components. Includes practical application of diagnosis, service and repair on clutches, drive shafts, universal joints, front-wheel-drive axles, manual transmissions, manual transaxles, rear axles, differentials, and four-wheel-drive transfer cases. **Prerequisite:** AUM161, AUM168 and AUM192 or consent of instructor. **F**

AUM263 Automatic Transmissions and Transaxles 1

3 class and 6 lab hrs/wk, 5 cr.

Introduces the fundamentals of automatic transmission operation. Explains methods of gear change, power flows, and basic hydraulic principles used in automatic transmissions. Emphasizes the service and overhaul of automatic transmissions. **Prerequisite:** AUM161, AUM168 and AUM192 or consent of instructor. **F**

AUM266 Basic Fuel Systems

3 class and 3 lab hrs/wk, 4 cr.

Covers basic principles of carburetion and carburetor circuits. Includes the basics of pressure differential, the venturi principle, fuel systems, gasoline, and engine variables pertinent to gasoline. Examines basic one-, two-, and four-barrel carburetor overhaul, service and adjustment, fuel pump testing and inspection, and introduces closed loop systems. **Prerequisite:** AUM161, AUM168 and AUM192 or consent of instructor. **F**

AUM267 Advanced Fuel Systems

3 class and 5 lab hrs/wk, 5 cr.

Focuses on automotive fuel systems, computer functions, inputs, commands, system diagnosis, causes of emissions, testing, and instrumentation studies and infrared, four-gas and five-gas analyzer testing. Covers turbocharging and supercharging. **Prerequisite:** AUM262, AUM263, AUM266 and AUM276 or consent of instructor. **W**

AUM273 Automatic Transmissions and Transaxles 2

1 class and 6 lab hrs/wk, 3 cr.

Focuses on diagnosis, repair, and service of automatic transmissions and automatic transaxles, including electronic transmissions. Emphasizes speed and accuracy in diagnosis and repair. Builds on prior training. **Prerequisite:** AUM267, AUM277, AUM282 and AUM286 or consent of instructor. **Sp**

AUM276 Automotive Electrical Systems 2

3 class and 3 lab hrs/wk, 4 cr.

Continues DC electrical systems for the repair and service of automotive vehicles. Focuses on body electrical systems and troubleshooting of individual systems. **Prerequisite:** AUM161, AUM168 and AUM192 or consent of instructor. **F**

AUM277 Automotive Electrical Systems 3

3 class and 5 lab hrs/wk, 5 cr.

Emphasizes testing, diagnosis, theory of ignition operations, charging, cranking systems, electronic ignitions, oscilloscope testing, meter usage, and vehicle computer systems and testing. Reviews basic electrical principles, laws and forces. **Prerequisite:** AUM262, AUM263, AUM266 and AUM276 or consent of instructor. **W**

AUM280A-L Cooperative Work Experience

See Cooperative Work Experience.

AUM281 Tune-Up and Driveability

3 class and 8 lab hrs/wk, 6 cr.

Covers tune-up and diagnosis procedures of the gasoline internal combustion engine, including use of diagnostic equipment. Emphasizes tune-up of computer-controlled vehicles. **Prerequisite:** AUM267, AUM277, AUM282 and AUM286 or consent of instructor. **Sp**

AUM282 Electronic Vehicle Controls

3 class and 4 lab hrs/wk, 5 cr.

Covers history and development of automotive computer-controlled systems. Focuses on operation, diagnosis, and repair of individual systems. **Prerequisite:** AUM262, AUM263, AUM266 and AUM276 or consent of instructor. **W**

AUM283 Advanced Electronic Vehicle Control Systems

3 class and 3 lab hrs/wk, 4 cr.

Provides advanced training in the operation and testing of automotive electronic control systems. **Prerequisite:** AUM267, AUM277, AUM282 and AUM286 or consent of instructor. **Sp**

AUM286 Automotive Heating and Air Conditioning

3 class and 5 lab hrs/wk, 5 cr.

Presents the theory and operation of automotive heating and air-conditioning systems. Covers methods for service, repair, and troubleshooting heating and air-conditioning systems. **Prerequisite:** AUM262, AUM263, AUM266 and AUM276 or consent of instructor. **W**

BA

Business Administration

BA051 Accounting Procedures 1

4 class hrs/wk, 4 cr.

Focuses on the accounting cycle using the double-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. **Offered as needed.**

BA052 Accounting Procedures 2

4 class hrs/wk, 4 cr.

Focuses on 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. **Offered as needed.**

BA053 Accounting Procedures 3

4 class hrs/wk, 4 cr.

Studies 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. **Offered as needed.**

BA062A AMA-Coaching for Top Performance

2.5 class hrs/wk, for 5 weeks, 1 cr.

Presents training, communication, and motivational skills to build a solid foundation of coaching techniques. Designed for managers and supervisors. **Offered as needed.**

BA062B AMA-Managing and Resolving Conflict

2.5 class hrs/wk, for 5 weeks, 1 cr.

Presents skills to resolve conflicts effectively and develop productive working relationships among staff. Designed for managers and supervisors. **Offered as needed.**

BA062C AMA-Communication Skills for Managers

2.5 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. Designed for managers and supervisors in business, industry and government. **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. **Offered as needed.**

BA062F AMA-What Managers Do**2.5 class hrs/wk, for 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. **Offered as needed.**

BA062G AMA-Getting Results with Time Management**2.5 class hrs/wk, for 5 wks, 1 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. **Offered as needed.**

BA062H AMA-How to Delegate Effectively**2.5 class hrs/wk, for 5 wks, 1 cr.**

Focuses on effective delegation methods. Designed for managers and supervisors in business, industry and government. **Offered as needed.**

BA062I AMA-A Manager's Guide to Human Behavior**2.5 class hrs/wk, for 5 wks, 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. **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. **Offered as needed.**

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. **Offered as needed.**

BA062M AMA-Writing for Management Success**2.5 class hrs/wk, for 5 wks, 1 cr.**

Focuses on methods to improve writing and grammar skills. Emphasizes writing, letter writing, memos, and reports. Designed for managers and supervisors in business, industry, and government. **Offered as needed.**

BA062N AMA-Total Quality Management**2.5 class hrs/wk, for 5 wks, 1 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. **Offered as needed.**

BA062O AMA-How to Make Teams Work**2.5 class hrs/wk, for 5 wks, 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. **Offered as needed.**

BA062P AMA-Effective Team-Building for Managers**2.5 class hrs/wk, for 5 wks, 1 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 methods of building trust, confidence and group work skills. Designed for managers and supervisors in business, industry and government. **Offered as needed.**

BA062Q AMA-First Level Leadership: Supervising in the New Organization**2.5 class hrs/wk, for 5 wks, 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. **Offered as needed.**

BA063 Call Center Customer Service Training with Computer Skills**3 class hrs/wk, 3 cr.**

Provides the necessary customer service, telephone, and computer operation skills for an entry-level call center/customer service representative. **Offered as needed.**

BA092 Federal Cost Principles, Monitoring and Reporting**1 class hr/wk, 1 cr.**

Study federal cost principles and allocation. Includes federal financial assistance reporting and monitoring of A-128 and A-133 subrecipients. **Offered as needed.**

BA095 State Financial Management System: RSTARS Intro**3 class hrs/wk, 3 cr.**

Covers 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: ADPICIS**2 class hrs/wk, 2 cr.**

Covers requisitions, purchase orders, receiving, invoices and voucher payables. One of two course offerings that are part of the State of Oregon accounting and reporting system. **Offered as needed.**

BA101 Introduction to Business**4 class hrs/wk, 4 cr.**

Introduces the inter-relationships of business, government and society. Examines the defined and/or established roles of the business community with an emphasis on ethic and social responsibilities. Looks at employment opportunities in various business fields. **Prerequisite:** College level reading and writing recommended. **F, W, Sp, Su**

BA102 Leadership Strategies**2 class hrs, 2 cr.**

Covers leadership strategies in communication, facilitating change, developing trust, and coaching and developing others for high performance. Designed for managers and supervisors in mid-level and first-line positions. **Offered as needed.**

BA121 Project Management 1-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 2-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 3-Estimating, Risk, Contracts and Procurement**3 class hrs/wk, 3 cr.**

Covers estimating, risk, contracts and procurement. **Offered as needed.**

BA124 Project Management 4-Simulation: Controlling the Project**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**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.**

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. **F, 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 6 lab hrs/wk, 3 cr.**

Studies 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 problem-solving, and presents strategies to assist the student in maintaining employment and in demonstrating a professional image and work behavior. **F, W, Sp**

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 recommended. **W, Sp**

BA204 Teamwork Dynamics**3 class hrs/wk, 3 cr.**

Introduces 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 recommended. **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:** College level reading and writing recommended. **F, W, Sp, Su**

BA208 Labor and Employee Relations**3 class hrs/wk, 3 cr.**

Examines the often opposing union-employer objectives. Explores situations from both management and the union's perspective relying on actual documents used in day-to-day labor relations. Includes union organizing campaigns, strikes, lockouts, picketing, negotiations and contract administration. **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 1**4 class hrs, 4 cr.**

Covers the complete accounting cycle for service and merchandising firms including recording transactions, adjustments, financial statements, worksheets, closing entries, cash and accounts receivable, notes and interest, and accounting for inventories. Designed for students enrolled in the Accounting program and/or students transferring to four-year institutions. **F, W, Sp, Su**

BA212 Financial Accounting 2**4 class hrs, 4 cr.**

Covers accounting theory, capital assets and depreciation, current and long-term liabilities, partnerships, corporations, investments, cash flow statements and ratio analysis. **Prerequisite:** BA101, BA211 and MTH070 or higher math 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 or consent of instructor. **F, W, Sp, Su**

BA214 Business Communications**3 lab hrs/wk, 3 cr.**

Applies principles of written, oral, and non-verbal communication. Covers preparation of good news, bad news, and persuasive messages in applied situation using properly formatted letters, memoranda, and reports. Includes development of resumes, job application letters, and job interviews. Emphasizes written and oral assignments that require individual and group work. **Prerequisite:** CA121 or equivalent skill and BT120 or WR121, or consent of instructor. **F, W, Sp, Su**

BA215 Cost Accounting**3 class hrs/wk, 3 cr.**

Analyzes methods of detailed and specific identification of cost elements in business. 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. **Offered as needed.**

BA218 Personal Finance**3 class hrs/wk, 3 cr.**

Introduces principles and concepts of consumer economics. Covers consumer decision making, money management, use of credit, food shopping, housing, family transportation, insurance, savings and investment. **Offered as needed.**

BA221 Production and Operations Management**3 class hrs/wk, 3 cr.**

Presents an overview of the functions an organization must perform to produce goods or services. Emphasis is 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**3 class hrs/wk, 3 cr.**

Covers 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. **F, W**

BA223 Principles of Marketing**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. **F, Sp**

BA224 Personnel Management**3 class hrs/wk, 3 cr.**

Covers the 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 1**3 class hrs/wk, 3 cr.**

Introduces 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 2**3 class hrs/wk, 3 cr.**

Covers legal aspects of personal property, sales, and commercial paper. Continues BA226.

Prerequisite: BA226 **F, W, Sp, Su****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 and CS125E or equivalent microcomputer experience; or BT090 and CA091 and CS125E or equivalent micro-computer experience. **F, Sp**

BA232 Introduction to Business Statistics**3 class hrs/wk, 3 cr.**

Covers 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.**

Emphasizes 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. **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. **Sp**

BA239 Principles of Advertising**3 class hrs/wk, 3 cr.**

Examines 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. **Offered as needed.**

BA240 Governmental/Non-Profit Accounting 1**3 class hrs/wk, 3 cr.**

Considers budgets, accounting for general funds, special revenue funds, revenue accounting, expenditure accounting, capital projects funds, debt-service funds, special assessment funds, enterprise funds, general fixed asset group of accounts, and summary of funds and groups. Comprehensive study of accounting for governmental and non-profit entities. **Prerequisite:** BA212. **F**

BA241 Risk and Insurance**3 class hrs/wk, 3 cr.**

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. 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. **Offered as needed.**

BA242 Investments**3 class hrs/wk, 3 cr.**

Explains the individual investment opportunities as part of an investor's portfolio. How investors may consolidate and coordinate previous experiences with basic information and data in order to survive in the marketplace. **Offered as needed.**

BA243 Introduction to Consumer Behavior**3 class hrs/wk, 3 cr.**

Discusses the influences of perception, personality, attitudes, culture, family life, and social class on how and why people buy and consume products. How behavioral science concepts, theories, and research observations apply to various aspects of consumer behavior. **Offered as needed.**

BA250 Small Business Management**3 class hrs/wk, 3 cr.**

Introduces basic aspects of managing a small business, including planning, organizing, staffing, actuating and controlling. General functions and procedures used in the operation of a small business. **Prerequisite:** Second-year standing or consent of instructor. **Offered as needed.**

BA251 Office Management**3 class hrs/wk, 3 cr.**

Presents the broad scope of responsibilities of the administrative office manager. Includes planning, organizing, and controlling of business services, systems, and procedures. **W, Sp**

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 1**4 class hrs, 4 cr.**

Presents the first of two introductory 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, Su**BA257 Income Tax Accounting 2****4 class hrs, 4 cr.**

Offers the second of two introductory 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:** BA256 or consent of instructor. **F**

BA258 Budgeting in the Public Sector**3 class hrs, 3 cr.**

Provides an overview of the techniques and politics of budget preparation, modification and implementation in the public sector. Includes the budget plan, budget process, budget approval process and budgeting control. **Prerequisite:** Knowledge of fund accounting and spreadsheets; BA240 or equivalent experience; and CS125E or equivalent experience. **Offered as needed.**

BA266 Intermediate Financial Accounting 1**4 class hrs/wk, 4 cr.**

Studies the environment and development of accounting principles, basic theory, accounting process, statement of income and retained earnings, statement of financial position, present value, monetary assets, valuation of inventories, and current liabilities. **Prerequisite:** BA213 or concurrent enrollment in BA213 or consent of instructor. **F**

BA267 Intermediate Financial Accounting 2**4 class hrs/wk, 4 cr.**

Studies plant assets, depreciation, depletion, intangible assets, long-term liabilities, issuance and reacquisition of capital stock, additional paid-in capital and retained earnings, dilutive securities and earnings per share calculations, long-term investments in securities and funds, and revenue recognition. **Prerequisite:** BA266 or consent of instructor. **W**

BA268 Intermediate Financial Accounting 3**4 class hrs/wk, 4 cr.**

Offers a comprehensive study of revenue recognition, accounting changes, error analysis, income taxes, pension plans, leases and cash flow statements. **Prerequisite:** BA267 or consent of instructor. **Sp**

BA271 Information Technology in Business**4 class hrs/wk, 4 cr.**

Studies 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**

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.**

Includes a comparative study of ethical and economic systems designed to increase decision-making capabilities. Emphasizes issues and policy formation in varied business settings. **W**

BA280A-L Cooperative Work Experience
See Cooperative Work Experience.**BA281 Consumer Lending****3 class hrs/wk, 3 cr.**

Covers 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: Current employment in a financial institution. **Offered as needed.**

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. **Sp**

BI071 Body Structure and Function 1**2 class and 2 lab hrs/wk, 3 cr.**

Introduces the 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. **Offered as needed.**

BI072 Body Structure and Function 2**2 class and 2 lab hrs/wk, 3 cr.**

Continues BI071. Prerequisite: BI071. **Offered as needed.**

BI100 Orientation to Marine Life of the Oregon Coast**2 class and 3 lab hrs/wk, 3 cr.**

Presents introductory information about marine organisms, including birds, mammals, fishes, 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 information related to the understanding of the physical exhibitory structure and life support systems in maintaining these animals in an aquarium environment. Provides background and practice in interpretation of the knowledge gained to members of the general public. **Sp**

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. **Prerequisite:** None. This sequence need not be taken in order, although some carryover from one term to the next does occur. **F, Sp, Su**

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. **Prerequisite:** None. This sequence need not be taken in order, although some carryover from one term to the next does occur. **F, 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. **W, Sp, 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. **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. **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. **Sp**

BI143 Marine Biology**3 class and 3 lab hrs/wk, 4 cr.**

Investigates a 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. **W**

BI200 Principles of Ecology-Field Biology**3 class and 3 lab hrs/wk, 4 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, BI102, or consent of instructor. **Su**

BI230 Introductory Microbiology**3 class and 3 lab hrs/wk, 4 cr.**

Surveys the history, anatomy and physiology of microorganisms emphasizing their impact on society. Examines microbe anatomy, metabolism, growth, genetics, taxonomy, selected diseases affecting humans and plants, immunity, and microbial control. Covers food microbiology, industrial microbiology, agricultural microbiology, environmental microbiology with applications to grape growing and winemaking and standard microbiological laboratory techniques. **Sp, offered as needed.**

BI231 Human Anatomy and Physiology**3 class and 3 lab hrs/wk, 4 cr.**

Presents an in-depth examination of the structure and function of the human body in the first of a three-term sequence. Includes a review of chemical principles, the study of cells, tissues and the integumentary, skeletal and nervous systems. **Prerequisite:** One term of accelerated college chemistry with a grade of C or better within the last seven years; CH110 or CH111; or successful completion of Chemistry Proficiency Exam; or completion of CH104 and concurrent enrollment in CH105; or completion of CH121 and concurrent enrollment in CH122. **F, W, Sp, offered Summer as needed.**

BI232 Human Anatomy and Physiology**3 class and 3 lab hrs/wk, 4 cr.**

Covers an in-depth examination of the structure and function of the human body in the second of a three-term sequence. Includes the study of the muscular, circulatory and respiratory systems. **Prerequisite:** BI231 with a grade of C or better within the last seven years; and concurrent enrollment in CH106 or CH123 if taking a chemistry sequence; or consent of instructor. **F, W, Sp, offered Summer as needed.**

BI233 Human Anatomy and Physiology**3 class and 3 lab hrs/wk, 4 cr.**

Covers an in-depth examination of the structure of the human body in the third of a three-term sequence. Includes the study of the endocrine, digestive, urinary and reproductive systems. Also includes an examination of body fluids, electrolytes, pH balance and medical genetics **Prerequisite:** BI232 with a grade of C or better within the last seven years or consent of instructor. **F, W, Sp, offered Summer as needed.**

BI234 Microbiology**3 class and 3 lab hrs/wk, 4 cr.**

Presents 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:** BI231 with a grade of C or better within the last seven years or consent of instructor. **F, W, Sp, offered Summer as needed.**

BL251 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 1

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 one- and two-family structures. **F**

BLD152 Building Codes 2

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 3

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**

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. **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. **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. **Sp**

BLD181 Mechanical Codes 1

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 2

3 class hrs/wk, 3 cr.

Studies 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 3

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**

BLD193A-F Building Inspection Lab

4 class hrs/wk, 2 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 on 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 percent of course). **F**

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:** BLD269. **W**

BLD267 Non-Structural Plan Review

2 class and 3 lab hrs/wk, 3 cr.

Examines the techniques and processes of non-structural 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.

Studies 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 1

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. **F**

BLD272 Plumbing Codes 2

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**

BLD280A-L Cooperative Work Experience

See Cooperative Work Experience.

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. **Sp**

BLD292A International Residential Code (Structural)

3 class hrs/wk, 3 cr.

Covers the structural portion of the One- and Two-Family Dwelling Specialty Code as it relates to residential constructional and other applicable codes. **W**

BLD292B International Residential Code (Mechanical)

3 class hrs/wk, 3 cr.

Covers the mechanical portion of the One- and Two-Family Dwelling Specialty 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.

Introduces the 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, or college equivalents recommended. **F**

BOT202 General Botany

3 class and 3 lab hrs/wk, 4 cr.

Introduces the study of plant life, emphasizing principles, theories and applications of plant biology. Includes the study of genetics, evolution, diversity of prokaryotes, fungi, and algae.

Prerequisite: High school biology and chemistry, or college equivalents recommended. **W**

BOT203 General Botany

3 class and 3 lab hrs/wk, 4 cr.

Introduces the study of plant life, emphasizing principles, theories and applications of plant biology. Includes the diversity, growth, development, and structure of vascular plants, including the effects of light, hormones, water and nutrients. Laboratory work includes the identification of flowering plants.

Prerequisite: High school biology and chemistry, or college equivalents recommended. **Sp**

BT

Business Technology

BT061 Electronic Calculators

2 class hrs/wk, 2 cr.

Covers the use of electronic printing calculators to solve simple business and mathematical problems. **Prerequisite:** MTH060. **F, W**

BT061A Electronic Calculators A

2 lab hrs/wk, 1 cr.

Introduces use of electronic calculators to solve problems involving addition, subtraction, multiplication, division and fractions. Includes speed and accuracy in touch operation of the calculator.

F, W, Sp, Su

BT061B Electronic Calculators B

2 lab hrs/wk, 1 cr.

Continues BT061A. Applies the functions of an electronic calculator to solve business problems. Covers the percentage formula, simple interest, trade discounts, payroll and consumer installment buying. Stresses speed and accuracy in touch operation of the calculator. **Prerequisite:** MTH060. **Offered as needed.**

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 business-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.

Emphasizes the personal and professional strengths sought by employers in hiring and promoting employees. Promotes individual self-assessment as a tool to compare those traits with the student's own personal and professional strengths and weaknesses. Offers opportunities to develop step-by-step approaches toward enhancing professional marketability. **Sp**

BT090 Bookkeeping

3 class hrs/wk, 3 cr.

Covers basic accounting principles and procedures to provide familiarity with financial records and current accounting terminology. 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. **F, W, Sp**

BT099 Proofreading/Editing

3 class hrs/wk, 3 cr.

Presents 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.

Presents 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 or concurrent enrollment. **F, W, Sp, Su**

BT099B Proofreading/Editing B

1 class hr/wk, 1 cr.

Presents 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, or equivalent as determined by instructor. **F, W, Sp**

BT099C Proofreading/Editing C

1 class hr/wk, 1 cr.

Presents 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, or equivalent as determined by instructor. **F, W, Sp**

BT116 Office Procedures

3 class hrs/wk, 3 cr.

Introduces 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:** BT085 or placement through the proficiency exam. **W, Sp**

BT128 Introduction to Records Management

3 class hrs/wk, 3 cr.

Introduces 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 geographic filing systems of correspondence and other papers. **F, Sp**

BT128A Introduction to Records Management A

1 class hr/wk, 1 cr.

Introduces 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, W, Sp**

BT128B Introduction to Records Management B

1 class hr/wk, 1 cr.

Presents 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, W, Sp**

BT128C Introduction to Records Management C

1 class hr/wk, 1 cr.

Covers principles and procedures for efficient organization and control of business records. Includes management of the creation, maintenance, storage and disposition of records. Also covers automation and micrographics in the study of information resource management. **Prerequisite:** BT128B. **Offered as needed.**

BT280A-L Cooperative Work Experience **See Cooperative Work Experience.**

CA

Computer Applications

CA091 QuickBooks - Computerized Bookkeeping

3 class hrs/wk, 3 cr.

Introduces computerized accounting principles using QuickBooks, including setup, managing revenue and expenses, payroll, bank reconciliation, financial statements, inventory, and file maintenance. **Prerequisite:** BT090 or BA051 or BA211. **F, W**

CA091A QuickBooks Part A-Computerized Bookkeeping

1 class hr/wk, 1 cr.

Provides an overview of bookkeeping tasks that can be performed via the computer program QuickBooks. Includes introductions to setup, managing revenue and expenses. **Prerequisite:** BT090 or BA051 or BA211, or consent of instructor. **Offered as needed.**

CA091B QuickBooks Part B-Computerized Bookkeeping

1 class hr/wk, 1 cr.

Provides an overview of bookkeeping tasks that can be performed via the computer program QuickBooks. Includes introductions to payroll, bank reconciliation and inventory. **Prerequisite:** BT090 or BA051 or BA211, or consent of instructor. **Offered as needed.**

CA091C QuickBooks Part C-Computerized Bookkeeping

1 class hr/wk, 1 cr.

Provides an overview of bookkeeping tasks that can be performed via the computer program QuickBooks. Includes introductions to budgets, financial statements, graphs, year-end procedures and file maintenance. **Prerequisite:** BT090 or BA051 or BA211, or consent of instructor. **Offered as needed.**

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 ability. **F, W, Sp, Su**

CA100M Microcomputer Basics for Macintosh

2 class and 1 lab hr/wk, 3 cr.

Introduces basic computer concepts and application skills using the Macintosh operating system. Covers word processing, spreadsheet, database and Internet applications. **Prerequisite:** Touch keyboarding ability. **Offered as needed.**

CA115 Introduction to Office XP

4 class hrs/wk, 4 cr.

Introduces three programs within the Microsoft Office Suite with emphasis on word processing, spreadsheet and presentation software. Includes exploring the Internet, managing documents and creating a Web page. **Prerequisite:** Computer literacy; Touch keyboarding ability; CS101 or other beginning computer class preferred. **Offered as needed.**

CA117 Microsoft Publisher

3 class hrs/wk, 3 cr.

Introduces Microsoft Publisher publication software. Includes formatting and enhancing text, working with art, using design gallery and drawing tools, and using the Catalog feature for creating publications. Includes using styles; flowing text into multiple columns; creating drop caps and reversed text; using BorderArt, WordArt, text wrap and mail merge. Covers features for improving publications design, creating multiple-page publications, and creating a web site.

Prerequisite: Computer literacy (prior experience with computer and mouse device) and touch keyboarding ability. **Offered as needed.**

CA117A Microsoft Publisher 1

1 class hr/wk, 1 cr.

Provides part one of a hands-on introduction to Microsoft Publisher publication software. Covers topics including formatting and enhancing text, working with art, Design Gallery and drawing tools, and using the Catalog feature for creating publications. **Prerequisite:** Computer literacy (prior experience with computer and mouse device) and touch keyboarding ability. **Offered as needed.**

CA117B Microsoft Publisher 2

1 class hr/wk, 1 cr.

Presents part two of a hands-on introduction to Microsoft Publisher publication software. Includes using styles, flowing text into multiple columns, and creating drop caps and reversed text. **Prerequisite:** CA117A or equivalent, computer literacy (prior experience with computer and mouse device) and touch keyboarding ability. **Offered as needed.**

CA117C Microsoft Publisher 3

1 class hr/wk, 1 cr.

Offers part three of a hands-on introduction to Microsoft Publisher publication software. Includes using special features such as BorderArt, WordArt, text wrap around objects, mail merge and preparation for commercial printing. Covers features for working efficiently and creating a Web site. **Prerequisite:** CA117B or equivalent, computer literacy (prior experience with computer and mouse device) and touch keyboarding ability. **Offered as needed.**

CA118A Microsoft Windows Basics

1 class hr/wk, 1 cr.

Introduces software currently used in business and industry. The brands of software in this class may change as industry standards evolve. Includes exploring and managing disk organization and using the accessories. **Prerequisite:** Computer literacy (prior experience with computer and mouse device) and touch keyboarding ability. **F, W, Sp, Su**

CA118B1 Excel Basics 1

1 class hr/wk, 1 cr.

Introduces building and editing worksheets, formatting and printing worksheets, working with formulas and functions, and charting using Microsoft Excel. **Prerequisite:** Computer literacy (prior experience with computer and mouse device), touch keyboarding ability, or consent of instructor. **F, W, Sp, Su**

CA118B2 Excel Basics 2

1 class hr/wk, 1 cr.

Covers use of special features including using and analyzing list data, using macros, enhancing charts, sharing Excel files and saving as a Web page. **Prerequisite:** Computer literacy (prior experience with computer and mouse device), touch keyboarding ability, or consent of instructor. **Offered as needed.**

CA118B3 Excel Basics 3

1 class hr/wk, 1 cr.

Focuses on "what-if" analysis, PivotTables, linking, embedding and customizing using Microsoft Excel. **Prerequisite:** Computer literacy (prior experience with computer and mouse device), touch keyboarding ability, or consent of instructor. **Offered as needed.**

CA118C1 Access Basics 1

1 class hr/wk, 1 cr.

Introduces database basics for forms design, data entry, queries and reports. **Prerequisite:** Computer literacy (prior experience with computer and mouse device), touch keyboarding ability, or consent of instructor. **F, W, Sp, Su**

CA118C2 Access Basics 2

1 class hr/wk, 1 cr.

Introduces multiple table and advanced queries; PivotTables and PivotCharts; forms and subforms; and importing, exporting and linking data. **Prerequisite:** Computer literacy (prior experience with computer and mouse device), touch keyboarding ability, or consent of instructor. **Offered as needed.**

CA118D Internet for the Office Environment

1 class hr/wk, 1 cr.

Introduces the Internet and demonstrates how this resource may be used effectively in a modern office. Emphasizes information currently needed by office professionals. **Prerequisite:** CA118A or CS101. **F, W, Su**

CA118E Outlook Basics

1 class hr/wk, 1 cr.

Introduces office software currently used in business and industry. The brands of software in this class may change as industry standards evolve. Covers electronic messaging, (e-mail management), use of the address book, calendar and task management. **Prerequisite:** Computer literacy (prior experience with computer and mouse device) and touch keyboarding ability. **F**

CA118F1 PowerPoint Basics 1

1 class hr/wk, 1 cr.

Introduces presentation software with an emphasis on designing and formatting business-related presentations. **Prerequisite:** Computer literacy (prior experience with computer and mouse device), touch keyboarding ability or consent of instructor. **F, W, Su**

CA119 Exploring Office Desktop Publishing

3 class hrs/wk, 3 cr.

Introduces publication planning, typography, publication design principles and desktop publishing for preparation of office publications. Includes an overview of duplication methods and working with print shops. **Prerequisite:** Touch keyboarding ability. **W**

CA121 Keyboarding

2 class and 3 lab hrs/wk, 3 cr.

Presents basic touch keyboarding skills on standard microcomputer keyboard. Emphasizes speed and accuracy, the basic vocabulary of entering or retrieving information, and the formatting business letters and reports. **F, W, Sp**

CA121A Keyboarding A

2 lab hrs/wk, 1 cr.

Covers basic touch keyboarding on a standard microcomputer keyboard. **F, W, Sp, Su**

CA121B Keyboarding B

2 lab hrs/wk, 1 cr.

Reviews alphabetic keyboarding and emphasizes the development of speed and accuracy in touch keyboarding. Introduces number and symbol keys. **Prerequisite:** CA121A. **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. **Offered as needed.**

CA122 Keyboard Skillbuilding

1 class and 4 lab hrs/wk, 3 cr.

Uses exercises to improve keyboarding proficiency, speed and accuracy on microcomputers. **Prerequisite:** Touch keyboarding ability of 25 words per minute; 30 wpm recommended. Course may be repeated for a maximum of six credits. **W, Sp**

CA122A,B,C Keyboard Skillbuilding A, B, C

2 lab hrs/wk, 1 cr. each

Improves keyboarding skill, including keyboard proficiency, speed and accuracy. May be taken any time after one has learned the keyboard and is keyboarding approximately 25 words per minute. **Prerequisite:** CA121 or consent of instructor. Each course may be repeated for a maximum of two credits each. **F, W, Sp, Su**

CA123 Formatting

2 class and 3 lab hrs/wk, 3 cr.

Studies formatting business documents, including letters, envelopes, tables, memorandums, reports, forms, financial statements and manuscripts. **Prerequisite:** CA122 and touch keyboarding ability of 35 words per minute. **Offered as needed.**

CA123A Formatting A

2 lab hrs/wk, 1 cr.

Includes formatting business and personal letters, memos and reports. **Prerequisite:** CA122A and CA201D1. Touch keyboarding ability is essential. **Offered as needed.**

CA123B Formatting B

2 lab hrs/wk, 1 cr.

Includes various format styles for business letters, tables and reports. **Prerequisite:** CA123A and CA201D1 and CA201D2. Touch keyboarding ability is essential. **Offered as needed.**

CA123C Formatting C

2 lab hrs/wk, 1 cr.

Presents additional format styles for tables, letters and reports, including minutes and itineraries. **Prerequisite:** CA123B and CA201D1 and CA201D2. Touch keyboarding ability is essential. **Offered as needed.**

CA201D Microsoft Word Processing 1

3 class hrs/wk, 3 cr.

Presents basic word processing training in the operation of Microsoft Word software. **Prerequisite:** Touch keyboarding ability of 30 words per minute. **F, W, Sp**

CA201D1-D3 Microsoft Word Processing 1-Parts 1-3

2 lab hrs/wk, 1 cr. each

Offers basic word processing training in the operation of Microsoft Word software. **Prerequisite:** CA201D1: Touch keyboarding ability of 25 words per minute. CA201D2: CA201D1. CA201D3: CA201D2. **F, W, Sp, Su**

CA202D Microsoft Word Processing 2

3 class hrs/wk, 3 cr.

Offers intermediate word processing training using Microsoft Word software for persons with prior basic skills and knowledge of word processing. **Prerequisite:** CA201D or equivalent and touch keyboarding ability of 35 words per minute. **F, W, Sp**

CA202D1-D3 Microsoft Word Processing 2-Parts 1-3

2 lab hrs/wk, 1 cr. each

Offers intermediate word processing training using Microsoft Word software for persons with prior basic skills and knowledge of word processing. **Prerequisite:** CA202D1: CA201D or equivalent and touch keyboarding ability of 35 words per minute. CA202D2: CA202D1. CA202D3: CA202D2. **Offered as needed.**

CA203 Advanced Formatting

1 class hr/wk, 1 cr.

Reviews correct formats for personal and business letters, envelopes, tables, memorandums, reports and business forms. Develops the skill to produce documents accurately within specified timed guidelines and touch type at a minimum of 40 words per minute. **Prerequisite:** CA201D and touch keyboarding ability of 35 words per minute. **Sp**

CA204D Microsoft Word Processing 3

3 class hrs/wk, 3 cr.

Offers advanced word processing training using Microsoft Word software, reviewing such topics as 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 equivalent and touch keyboarding ability of 35 words per minute. **Sp**

CA205 PageMaker 1

3 class hrs/wk, 3 cr.

Offers a hands-on microcomputer desktop publishing course providing beginning level training in the use of Adobe PageMaker desktop publishing software. Includes setting up and printing publications, importing and formatting text and graphics, using styles, using graphics tools, using spot color and tints, and using layers and frames. **Prerequisite:** Touch keyboarding ability of 25 words per minute; computer literacy (prior experience with computer and mouse device). **F**

CA206 PageMaker 2

3 class hrs/wk, 3 cr.

Presents a higher level, hands-on microcomputer desktop publishing course using Adobe PageMaker desktop publishing software. Includes a review of PageMaker software operation, additional basic design and typography for desktop publishing, and the production of publications which include PageMaker skills such as preparing process color, creating multi-chapter book publications with index and table of contents, and preparing publications for Internet viewing. **Prerequisite:** CA205 or equivalent. **Offered as needed.**

CA208 Workplace Presentations Using PowerPoint

3 class hrs/wk, 3 cr.

Introduces the production of computer presentations for the workplace. Includes software techniques, design and typography basics, and production techniques for slides, overheads and/or screen shows. **Prerequisite:** CS101 or equivalent or consent of instructor. **W, Sp**

CA213 Integrating Office Procedures
3 class hrs/wk, 3 cr.

Brings together the knowledge, skills and abilities required of one-year Business Technology students and serves as a review for students continuing for a degree. Uses a business simulation to reinforce and expand computer and other office skills. **Prerequisite:** CS101, CA118A, CA118B, CA118C, CA201D, BT116, BT128, and BT120 (or concurrent enrollment). **Sp**

CA225A Machine Transcription 1-A
2 lab hrs/wk, 1 cr.

Introduces 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. **Sp**

CA225B Machine Transcription 1-B
2 lab hrs/wk, 1 cr.

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. **Sp**

CA225C Machine Transcription 1-C
2 lab hrs/wk, 1 cr.

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. **Sp**

CA230 Executive Office Simulation
2 class and 2 lab hrs/wk, 3 cr.

Provides a work-flow simulation that gives students experience in working as team members with office co-workers. Includes practice in decision-making, prioritizing and time management. This course brings together skills acquired in prerequisite courses. **Prerequisite:** BA214 and CA213. **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:** CA118ABC, CA202D and CA213. **Offered as needed.**

CA280A-L Cooperative Work Experience
See Cooperative Work Experience.

CAM

Computer-Aided Manufacturing
See also Drafting.

CAM050 Orientation to Manufacturing Processes
24 hrs, 2 cr.

Provides basic knowledge of various manufacturing processes and materials. Covers processes involving hand tools, machine tools, measuring, inspection, and blueprints. Includes manufacturing procedures. Provides knowledge of industry standard roles in a manufacturing setting. **Offered as needed.**

CAM110 CNC/Manual Fundamentals
1 class and 3 lab hrs/wk, 2 cr.

Introduces the fundamentals of machining processes and measuring instruments. Covers the use of basic hand tools, drill presses, power saws, pedestal grinders, arbor presses, basic layout and layout tools and measuring tools. Includes proper use of measuring tools, the 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 with emphasis CNC and working in teams. **F**

CAM111 Industrial Safety Seminar
1 class hr/wk, 1 cr.

Details the joint responsibility of the company and employee in complying with federal and state safety regulations pertaining to business and industry and basic first-aid training. **F**

CAM115 Geometric Dimensioning/Tolerancing
2 class hrs/wk, 2 cr.

Covers geometric dimensioning and tolerancing principles based on ANSI/ASME standards. Computation of tolerance values required insuring proper fit and function. Emphasizes measurement and inspection required to match design specifications. **Prerequisite:** DRF130 and print reading experience or consent of instructor. **W**

CAM116 Geometric Dimensioning and Tolerancing for CNC Lab
3 lab hrs/wk, 1 cr.

Covers practical application of geometric concepts and practices related to surface plate and coordinate measuring machine technology. Emphasizes industry standard 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. **Prerequisite:** CAM115, concurrent enrollment in CAM115, or consent of instructor. **W**

CAM120 CNC/Manual Milling
2 class and 3 lab hrs/wk, 3 cr.

Covers basic milling processes, work-holding methods, cutter identification and selection and use, speeds and feeds, adapters, tool holders and application. Includes operation of CNC Vertical Machining Center and vertical and horizontal manual milling machines, applying related operational theory. **Prerequisite:** CAM110 or consent of instructor. **W**

CAM121 CNC/Manual Lathe
1 class and 3 lab hrs/wk, 2 cr.

Introduces turning operations as related to CNC machining with emphasis on work holding methods and tool holding/selection methods. Covers related hole-making process, facing, tapping, grooving and parting. Includes operation of CNC Turning Center and manual lathes, applying related operational theory. **Prerequisite:** CAM120 or consent of instructor. **Sp**

CAM130 CNC Machine Setup/Operation
2 class and 3 lab hrs/wk, 3 cr.

Focuses on application of the Computer Numerical Control (CNC) systems used in today's manufacturing environment. Includes hands-on experiences with both personal and manufacturing specific (CNC) computers to establish basic operational skills. **F**

CAM160 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:** Consent of instructor. **W**

CAM190 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:** CAM130 or consent of instructor. **Sp**

CAM230 CAM Applications/Mills
2 class and 3 lab hrs/wk, 3 cr.

Introduces the concepts and application of Computer Aided Manufacturing (CAM) software programs for creating CNC milling machine part programs. **Prerequisite:** CAM130, CAM160 or CAM190 or consent of instructor. **F**

CAM260 CAM Applications/Lathes
2 class and 3 lab hrs/wk, 3 cr.

Introduces the concepts and applications of Computer Aided Manufacturing (CAM) software programs for creating CNC lathe part programs. **Prerequisite:** CAM130, CAM160 or CAM190 or consent of instructor. **W**

CAM290 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 and fourth axis generated parts and transfer of Computer Aided Design (CAD) generated 2-D drawings solids and parametric models to a Computer Aided Manufacturing (CAM) system for manufacturing purposes. **Prerequisite:** CAM230 or CAM260 or consent of instructor. **Sp**

CG**Counseling and Guidance****CG003 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 four-year colleges. **Offered as needed.**

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 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. **F, W, Sp**

CG101 Planning College Finances**1 class hr/wk, 1 cr.**

Explores issues involved in creating a personal plan for financing higher education. Includes types of financial aid, scholarship searching, student loans, financial planning, and financial decision making strategies. **Offered as needed.**

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. **F, W, Sp**

CG114 Career and Life Development**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 long-range career plans.

Prerequisite: None. College-level reading and writing skills; some computer and World Wide Web/Internet experience is helpful. **F, W, Sp, Su**

CG130A Career Exploration and Planning**1 class hr/wk, 1 cr.**

Uses an individualized study approach to select and explore career identification and decision-making. 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 1**4 class hrs/wk, 4 cr.**

Presents overview of 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. **Offered as needed.**

CG218 Career Development Facilitator 2**4 class hrs/wk, 4 cr.**

Presents overview of 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. **Offered as needed.**

CG219 Career Development Facilitator 3**4 class hrs/wk, 4 cr.**

Presents overview of 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. **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, offered summer as needed.**

CH**Chemistry****CH104 and CH104R Chemistry for Allied Health****3 class, 2 lab and 1 recitation hrs/wk, 5 cr.**

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. 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. **Prerequisite:** MTH070.

Corequisite: CH104 with CH104R. **F, W, Sp****CH105 and CH105R Chemistry for Allied Health****3 class, 2 lab and 1 recitation hrs/wk, 5 cr.**

Covers 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. Second term of a three-term sequence.

Prerequisite: CH104. **Corequisite:** CH105 with CH105R. **W, Sp****CH106 and CH106R Chemistry for Allied Health****3 class, 2 lab and 1 recitation hrs/wk, 5 cr.**

Covers 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. Third term of a three-term sequence.

Prerequisite: CH105. **Corequisite:** CH106 with CH106R. **F, Sp****CH110 and CH110R Foundations of General, Organic and Biochemistry****3 class, 2 lab and 1 recitation hrs/wk, 5 cr.**

Serves as a minimum prerequisite for students entering beginning anatomy and physiology courses. 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.

Prerequisite: MTH070. No previous background in chemistry is required. **Corequisite:** CH110 with CH110R. **F, W, Sp, Su**

CH111 and CH111R Chemistry for Fire Science and Emergency Services**3 class, 2 lab and 1 recitation 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.

Corequisite: CH111 with CH111R. **Offered as needed.**

CH115 Consumer Chemistry**3 class and 2 lab hrs/wk, 4 cr.**

Provides a general education approach to chemistry. Emphasizes 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. **F**

CH116 Consumer Chemistry**3 class and 2 lab hrs/wk, 4 cr.**

Covers organic chemistry, polymers, energy and the future, air and its pollution, water and its pollution, agricultural chemistry and the starving Third World. Second of a three-term sequence for the non-science major. **Prerequisite:** CH115 or consent of instructor. **W**

CH117 Consumer Chemistry**3 class and 2 lab hrs/wk, 4 cr.**

Covers carbohydrates, fats, proteins, vitamins, brewing, baking, food additives, household chemicals, cosmetics, chemotherapy, drugs, sports medicine and chemical toxicology. Third of a three-term sequence for the non-science student.

Prerequisite: CH116 or consent of instructor. **Sp**

CH121 and CH121R College Chemistry**3 class, 2 lab and 1 recitation hrs/wk, 5 cr.**

Introduces 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. First of a three-term sequence. **Prerequisite:** MTH070 or equivalent as determined by instructor.

Corequisite: CH121 with CH121R. **F, W**

CH122 and CH122R College Chemistry**3 class, 2 lab and 1 recitation hrs/wk, 5 cr.**

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. Second of a three-term sequence. **Prerequisite:** CH121. **Corequisite:** CH122 with CH122R. **W, Sp**

CH123 and CH123R College Chemistry**3 class, 2 lab, and 1 recitation hrs/wk, 5 cr.**

Continues organic chemistry including aliphatic, aromatics, function groups and their reactions, structure and chemistry of carbohydrates, lipids, proteins, and nucleic acids. Third of a three-term sequence. **Prerequisite:** CH122. **Corequisite:** CH123 with CH123R. **F, Sp**

CH172 Chemical Methods for Analysis of Musts and Wines**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.

Offered as needed.

CH201 Chemistry for Engineers**3 class and 3 lab hrs/wk, 4 cr.**

Covers definitions, measurements, atomic nucleus, elements, compounds, binary nomenclature, gas laws, and chemical thermodynamics: heat, work and energy. First of a three-term sequence. **Prerequisite:** MTH095. **F**

CH202 Chemistry for Engineers**3 class and 3 lab hrs/wk, 4 cr.**

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. Second of a three-term sequence.

Prerequisite: CH201. **W**

CH203 Chemistry for Engineers**3 class hrs and 3 lab hrs/wk, 4 cr.**

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. Third of a three-term sequence. **Prerequisite:** CH202.

Offered as needed.

CH221 and CH221R General Chemistry**3 class, 3 lab and 1 recitation hrs/wk, 5 cr.**

Introduces chemical concepts and experimental techniques to students majoring in scientific, engineering and medical fields. Covers the history of chemical developments, measurements and their uncertainty, components of matter, chemical periodicity, chemical calculations using the mole concept, chemical reactions, kinetic-molecular theory of gases, energy flow, experiments on chemical systems and atomic structure.

Prerequisite: MTH111 or consent of instructor.

Corequisite: CH221 with CH221R. **F**

CH222 and CH222R General Chemistry**3 class, 3 lab and 1 recitation hrs/wk, 5 cr.**

Covers periodic properties; molecular bonding; hybridization; resonance; solutions and solids; intermolecular forces; rates of reactions and organic polymers. Second of a three-term sequence designed for students majoring in science and related professional fields. **Prerequisite:** CH221. **Corequisite:** CH222 with CH222R. **W**

CH223 and CH223R General Chemistry**3 class, 3 lab and 1 recitation hrs/wk, 5 cr.**

Covers the rates and mechanisms of chemical reactions; fundamentals of chemical equilibrium; acid-base equilibria; ionic equilibria in aqueous systems; free energy concepts; voltaic/electrolytic cells; and metallurgical processes. Third of a three-term sequence designed for students majoring in scientific, engineering and medical fields. **Prerequisite:** CH222. **Corequisite:** CH223 with CH223R. **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. **Offered as needed.**

CH241B Organic Chemistry Lab**3 lab hrs/wk, 1 cr.**

Accompanies CH241 Organic Chemistry as a laboratory for students majoring in the physical or life sciences. Emphasizes microscale laboratory experiments related to basic techniques of recrystallization, extraction, melting and boiling point determination, IR spectroscopy, extraction, chromatography and synthesis. Students requiring lecture and lab credit for transfer must take CH241 and CH241B. **Prerequisite:** CH123 or CH223. **Offered as needed.**

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. **Offered as needed.**

CH242B 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. Students requiring lecture and lab credit for transfer must take CH242 and CH242B. **Prerequisite:** CH241B. **Offered as needed.**

CH243 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 carboxylic acids and their derivatives, amines, condensation reactions, carboxylics, lipids, amino acids, proteins and nucleic acids. **Prerequisite:** CH242 or consent of instructor. **Offered as needed.**

CH243B Organic Chemistry Lab

3 lab hrs/wk, 1 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. Students requiring lecture and lab credit for transfer must take CH243 and CH243B. **Prerequisite:** CH242B or consent of instructor. **Offered as needed.**

CIS

Computer Information Science

CIS120 Computer Information Science 1

4 class hrs/wk, 4 cr.

Introduces 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. First in a three-course sequence. **Prerequisite:** MTH070 and RD115, or equivalent level of skill as demonstrated by satisfactory score on placement test. **F, W, Sp**

CIS121 Computer Information Science 2

4 class hrs/wk, 4 cr.

Introduces the fundamental logic in designing specific algorithms for processing information typified by management information systems. Concepts are reinforced in a laboratory environment. Second in a three-course sequence.

Prerequisite: CIS120 or concurrent enrollment, or consent of instructor. **F, W**

CIS122 Computer Information Science 3

4 class hrs/wk, 4 cr.

Introduces software and languages that are used in today's network environment. Covers features of object-oriented design and programming concepts and contrasts them with structured methodology and related language. Serves as the third in a three-part sequence. **Prerequisite:** CIS121 or consent of instructor. **Sp, Su**

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.

Reviews 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.

Covers the development and conceptualization of crime including historical perspective, social and legal definitions, and classifications. Includes an overview of criminology, research, data gathering, and analysis. Introduces major theoretical perspectives on the nature of crime, criminals, and victimization. Identifies current trends and patterns of crime typologies as well as societal and institutional responses. **Offered as needed.**

CJ110 Introduction to Law Enforcement

3 class hrs/wk, 3 cr.

Introduces the history and philosophy of law enforcement and the administration of justice. Provides a preview of a professional career in law enforcement and how an agency functions in relation to public relations and professional and political ethics. **Offered as needed.**

CJ112 Field Operations and Patrol Procedures

3 class hrs/wk, 3 cr.

Introduces the nature and purpose of patrol activities. Examines routine and emergency procedures and types of patrol. Focuses on force continuum, officer survival, arrest procedures, field interviews and ethics. Explores methods of safely responding to various calls and individuals. Includes scenarios on occupational exposure to bloodborne pathogens. Covers equipment, technology and vehicle operation. Identifies gangs, drug-use indicators, threat groups, and responses to civil disturbances. Emphasizes report document, courtroom testimony and police tactical communications. **Offered as needed.**

CJ123 Spanish for Law Enforcement Personnel

3 class hrs/wk, 3 cr.

Offers a practical, learner-friendly Spanish language course for law enforcement students and personnel. Emphasizes officer safety, increased community safety, enhanced job performance and protection from legal liability. Requires no prior knowledge of Spanish. **Prerequisite:** None; however, coursework in CJ110 or CJ112 is recommended unless already have prior practical experience as a cadet, reserve, or certified law enforcement officer. **Offered as needed.**

CJ130 Introduction to Corrections Process

3 class hrs/wk, 3 cr.

Introduces the corrections process, including historical development through contemporary issues. Identifies variations in correctional institutions, levels of custody, administration practices, correctional staff's roles and responsibilities, institutional policies, procedures, and programs. Covers changing inmate demographics, special-needs inmates, safety/security concerns, and current issues. **Offered as needed.**

CJ132 Introduction to Parole and Probation

3 class hrs/wk, 3 cr.

Introduces 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 and pressures impacting corrections options. **Offered as needed.**

CJ150 Unarmed Private Security Operations and Procedures

3 class hrs/wk, 3 cr.

Introduces a historical perspective on unarmed private security, types of personnel, and physical and procedural controls. Covers types of security such as computer, industrial, retail, commercial, institutional and specialized security. Includes future development and needs of private security. **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, social forces and police image. **Offered as needed.**

CJ203 Crisis Intervention Seminar

1 class hr/wk, 1 cr.

Introduces an overview of the techniques and approaches to crisis intervention for entry-level criminal justice professionals. Covers initial intervention, defusing 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.

Studies crime and delinquency rates and typologies focusing on data variations impacted by age, sex, race/ethnicity, socio-economic and educational status, urbanization, and other key factors as independent variables. Introduces major theoretical perspectives and their application in the study of juvenile delinquency. Covers key concepts affecting juvenile victimization. **Offered as needed.**

CJ207 Seminar in Criminal Justice

3 class hrs/wk, 3 cr.

Covers diversity issues as they relate to the criminal justice system. Explores current population and demographic shifts and their implications to both law enforcement and corrections. Focuses specific attention on racial, cultural, class, and gender issues in criminal justice. Examines specific strategies for law enforcement and corrections personnel to increase their effectiveness in working with diverse populations. **Prerequisite:** Current enrollment in Criminal Justice program with personal history clearance or consent of instructor. **Offered as needed.**

CJ210 Introduction to Criminal Investigations 1: Crimes vs. Persons

3 class hrs/wk, 3 cr.

Covers historical development of criminalistics. Introduces current basic techniques and components involved in major persons-related crime scene investigations. Includes skills necessary to process the scene. Identifies specialized procedures and technology used to identify, profile, locate and apprehend offenders. Covers interviewing/interrogation techniques. Stresses importance of field notes and case documentation. Emphasizes escalation-cycling patterns of serious offenders. Includes factual case studies. Focuses on qualities of a successful investigator. Examines development of confidentially reliable informants. **Offered as needed.**

CJ211 Introduction to Criminal Investigations 2: Crimes vs. Property

3 class hrs/wk, 3 cr.

Introduces basic techniques and components involved in major property-related crime scene investigations. Includes skills necessary to process scene. Identifies specialized procedures/technology used to identify, locate, and recover stolen property. Covers methods to identify and apprehend individuals. Emphasizes correlation between property crimes and drug use. Includes preparation of the investigator as a witness. **Offered as needed.**

CJ212 Police Report Writing

3 class hrs/wk, 3 cr.

Provides the necessary information to become a knowledgeable and successful writer 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. Re-emphasizes basic writing skills and spelling accuracy related to criminal justice terminology. **Prerequisite:** None; however, coursework in CJ110 or CJ112 is highly recommended. **Offered as needed.**

CJ215 Criminal Justice Administration

3 class hrs/wk, 3 cr.

Surveys 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

3 class hrs/wk, 3 cr.

Introduces the origin and structure of common-law crimes and procedures and statutory crimes. Covers definitions and distinctions between criminal and civil law, criminal court procedures, criminal law case reading, federal and state law, and selected Oregon criminal code sections. **Offered as needed.**

CJ226 Introduction to Constitutional Law

3 class hrs/wk, 3 cr.

Presents an intensive study and analysis of the U.S. Constitution and court decisions that interpret the Constitution. Studies court decisions that determine the admissibility of evidence in criminal cases and affect police procedures. Considers the criminal procedure process with an emphasis on the role of law enforcement in this process. **Offered as needed.**

CJ230 Introduction to Juvenile Corrections

3 class hrs/wk, 3 cr.

Introduces 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, community-based corrections, and custodial facilities. Includes an overview of the ongoing debate concerning rehabilitation vs. punishment philosophies in the juvenile justice system, especially as it relates to safety/security issues and public concerns. **Offered as needed.**

CJ232 Introduction to Corrections Casework

3 class hrs/wk, 3 cr.

Presents an overview of casework in corrections settings. Includes introduction to behavior modification theories and methods, contemporary counseling methods, assessment processes, and the development of officer-client relations. Emphasizes observation skills, perception issues, information gathering, interpersonal communication skills, and interviewing strategies and techniques as part of corrections casework. **Offered as needed.**

CJ235 Youth, Drugs and Corrections

3 class hrs/wk, 3 cr.

Studies current trends, programs, and philosophies regarding addiction, treatment options, and assessment processes and related behavioral issues for youth offenders specifically in correctional settings and in 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. Includes a detailed examination of prison conditions, administrative practices, classification and custody, as well as corrections staff responsibilities, recruitment, training and retention. Focuses on inmate demographics, special-needs inmates, basic prison programs, visitation, prisoner's rights and legal issues. **Offered as needed.**

CJ280A-L Cooperative Work Experience **See Cooperative Work Experience.**

CLA

Chicano/Latino Studies

CLA201 Introduction to Chicano/Latino Studies 1: Historical Overview

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 Mexicans' role in American labor, economics, Bracero Program and the Chicano Movement. **F**

CLA202 Introduction to Chicano/Latino Studies 2: Political and Economic Overview

4 class hrs/wk, 4 cr.

Introduces the social, educational, political and economic status of Latinos in the context of United States institutions and structures. Examines demographic profiles and current issues within a Chicano/Latino perspective. **W**

CLA203 Introduction to Chicano/Latino Studies 3: 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.**

COM

Communication Skills

See also Human Development, Reading, Study Skills Program, Writing.

COM051 Communication Skills 1

3 class hrs/wk, 3 cr.

Improves writing skills. Focuses on writing intended to replicate projects in occupational and technical fields. **F, W, Sp, Su**

COM052 Communication Skills 2

3 class hrs/wk, 3 cr.

Improves student's reading, writing, speaking and listening skills using a variety of oral and written formats. **Prerequisite:** COM051 or equivalent as determined by instructor. **W, Sp**

COM053 Technical Report Writing

3 class hrs/wk, 3 cr.

Prepares students to write reports in a variety of styles, emphasizing clarity, coherence, conciseness and accuracy. For those following a vocational (non-transfer) track of study. **Prerequisite:** COM051 or equivalent as determined by instructor. For those following a vocational (non-transfer) track of study. **Sp**

CPL

Credit for Prior Learning

CPL120 Prior Learning Resume

3 class hrs/wk, 3 cr.

Provides means to obtain credit hours for prior learning. Focuses on identifying career and educational goals; defining college level learning; identifying, documenting and describing prior learning; writing competency statements; and preparing a resume for credit evaluation. **F, W, Sp**

CS

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. **Sp**

CS061 Computer Lab Assistant

3 lab hrs/wk, 1 cr.

Working with students in a microcomputer lab. **Prerequisite:** Second-year standing in Computer Programming program. **Offered as needed.**

CS100 Beginning Microcomputer Use

1 class hr/wk, 1 cr.

Introduces 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. **Offered as needed.**

CS101 Introduction to Microcomputer Applications

3 lab hrs/wk, 3 cr.

Introduces the basic microcomputer hardware/software system. Covers the concepts of system software and application software, including word processing, spreadsheet, database, presentation and introduction to Internet. **Prerequisite:** None; Touch keyboarding ability and college textbook reading (RD090 or equivalent) recommended. **F, W, Sp, Su**

CS103 Microcomputer Skills Problem Solving

3 class hrs/wk, 3 cr.

Improves 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. **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 multi-tasking environment, including multiple window interface, common user access (CUA) pull-down menus, and the interaction of RAM memory and PC hardware. **Prerequisite:** CS101. **F, W, Sp, Su**

CS125A Micro Database Software-Access

3 class hrs/wk, 3 cr.

Studies microcomputer database software 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. **F, W, Sp**

CS125E Excel-Workbooks

4 class hrs/wk, 4 cr.

Presents electronic spreadsheets in a multi-worksheet environment using Excel. **Prerequisite:** CS101 or consent of instructor. **F, W, Sp, Su**

CS133C COBOL 1

4 class hrs/wk, 4 cr.

Introduces ANS COBOL programming. Presents how simple business-oriented programs are coded, debugged and documented. Emphasizes language structure and problem solving by applying top-down structured programming techniques. **Prerequisite:** CIS121 or equivalent as determined by the instructor. **Sp**

CS133E EASYTRIEVE PLUS

3 class hrs/wk, 3 cr.

Introduces coding for simple business-oriented programs. Emphasizes language structure and rules, file management and retrieval.

Prerequisite: CS233C or equivalent as determined by the instructor. **Offered as needed.**

CS133J Fundamentals of Java Programming 1

4 class hrs/wk, 4 cr.

Introduces Java programming language. Provides a conceptual understanding of object-oriented programming using Java. Covers the structure of the language, the manipulation of data and arrays, how to handle input and output, and how to create classes, objects and applications.

Prerequisite: MTH060, CS101, or consent of instructor. **F**

CS133U C++ Language

4 class hrs/wk, 4 cr.

Introduces 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. **Sp**

CS133VB Visual Basic-Event-Driven Programming

4 class hrs/wk, 4 cr.

Continues in the use of 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 VB programming experience as determined by the instructor. **W, Sp**

CS135AC Advanced Microcomputer Database Software Using Access

3 class hrs/wk, 3 cr.

Presents an advanced course in development of an application system using Access with the main emphasis on forms and macros executed by the forms. At a minimum, the system is to include (1) a startup menuing form; (2) update form with subform where the two forms interact with at least two tables with options of adding, changing and deleting records; (3) inquiry and reporting options on the forms. **Prerequisite:** CS125A or consent of instructor. **Offered as needed.**

CS140A OS Concepts and Facilities

3 class hrs/wk, 3 cr.

Covers the concepts and facilities of the IBM MVS operating system including an introduction to job control language (JCL) syntax and use. Stresses construction of MVS job streams to accomplish such tasks as are typical in an IBM mainframe COBOL environment. **Offered as needed.**

CS140B Microcomputer Operating Systems

3 class hrs/wk, 3 cr.

Studies operating systems currently used on larger microcomputers and small minicomputers. Includes experience in using these operating systems to access files and communicate with other microcomputers. **Prerequisite:** CS101, CIS120, or equivalent. **W**

CS140S Solaris-UNIX Operating Systems

3 class and 4 lab/wk, 5 cr.

Covers the basic concepts of the Solaris Operating System and provides practical experience using UNIX components. **Prerequisite:** CS101 or equivalent experience. **Offered as needed.**

CS140U Unix/Linux

3 class hrs/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. **F, Sp**

CS145 Microcomputer Hardware**3 class and 2 lab hrs/wk, 4 cr.**

Studies the hardware concepts necessary to install and maintain computers and computer peripherals. Explains the interface between software and hardware and incorporates the requirements for A+ certification. **Prerequisite:** CS240 or concurrent enrollment, or CS140B, or NET123. **W**

CS160 Introduction to Computer Science
3 class hrs/wk, 3 cr.

Presents the history of, as well as the current and future trends in, computer science, and hardware and software development. Surveys campus computing resources, and introduces use of Internet facilities and network basics. Computer science transfer students should co-enroll in CS161.

Prerequisite: CS101 or consent of instructor. **F****CS161 Computer Science 1****4 class hrs/wk, 4 cr.**

Introduces computer science concepts for computer science majors and other students desiring a foundation in computer programming.

Prerequisite: Grade of C or better in MTH111 or equivalent, and concurrent enrollment in CS160. **F****CS162 Computer Science 2****4 class hrs/wk, 4 cr.**

Includes searching and sorting algorithms, stacks, queues, linked lists, dynamic memory allocation and file I/O. The second term of computer science concepts emphasizing the appropriate use of style and algorithms. **Prerequisite:** Grade of C or better in CS161 or equivalent as determined by instructor. **W**

CS171 Principles of Computer Organization**3 class and 3 lab hrs/wk, 4 cr.**

Introduces 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:** MTH105. **W**

CS178I Introduction to the Internet/World Wide Web**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. **F, W, Sp, Su**

CS178W Fundamentals of Web Design**3 class and 4 lab hrs/wk, 5 cr.**

Covers fundamentals of web design using Adobe Systems software. Focuses on the overall production processes surrounding web design. Emphasizes design elements involving layout, navigation and interactivity. Includes hands-on web design exercises using Adobe PhotoShop, Adobe Illustrator, Adobe GoLive, Adobe LiveMotion and Adobe Premiere. **Prerequisite:** CS101 or CIS120 or equivalent. **F, Sp**

CS179 Introduction to Client-Server Networks**4 class hrs/wk, 4 cr.**

Introduces computer networks from an end-user perspective. Provides experience installing, administering and managing network software and resources, including user accounts, in a client-server environment. **Prerequisite:** CS140B or NET123. **F, Sp**

CS233C COBOL 2**4 class hrs/wk, 4 cr.**

Continues 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. **Offered as needed.**

CS233J Fundamentals of Java Programming 2**4 class hrs/wk, 4 cr.**

Continues the Fundamentals of Java Programming 1 course. Provides a conceptual understanding of encapsulation, polymorphism and inheritance related to the object-oriented programming paradigm and Java. Covers the use of java.lang, java.util, java.applet, java.awt and java.io packages to create program code. Includes documenting program code using the Javadoc interface and creating a Graphical User Interface (GUI) application using a visual Interface Development Environment (IDE). **Prerequisite:** CS133J or consent of instructor. **W**

CS233U Advanced C**4 class hrs/wk, 4 cr.**

Continues CS133U. Studies features and instructions of the C language. Emphasizes application-oriented programs that produce printed reports, maintain files and modify an operating system. **Prerequisite:** CS133U. **Offered as needed.**

CS234C COBOL/CICS Programming Techniques**4 class hrs/wk, 4 cr.**

Presents an advanced study of 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. **Offered as needed.**

CS234J Fundamentals of Java Programming 3**4 class hrs/wk, 4 cr.**

Continues the Fundamentals of Java Programming 2 course and serves as a capstone project course. Provides an overview of the Abstract Windowing Toolkit (AWT) from the Java platform to create programs with graphical user interface (GUI) components (buttons, checkboxes, text fields, etc.). Presents the mechanics for handling events and exceptions generated by GUI components. Covers a conceptual overview of connecting to a database and retrieving information from a database using the Java JDBC API. **Prerequisite:** CS234J or consent of instructor. **Sp**

CS234L On-Line Programming Techniques**4 class hrs/wk, 4 cr.**

Studies CICS on-line application programming using the COBOL language. **Prerequisite:** CS233C or consent of instructor. **Offered as needed.**

CS240 Advanced Operating Systems**3 class hrs/wk, 3 cr.**

Studies 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. **W**

CS240U Advanced Unix/Linux**4 class hrs/wk, 4 cr.**

Covers an advanced course covering the concepts used for installing, administering and maintaining a Unix/Linux system. Students will install and manage a version of Linux in their laboratory experience. **Prerequisite:** CS140U or equivalent. **Sp**

CS244 Systems Analysis 1**3 class hrs/wk, 3 cr.**

Covers 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 2**3 class hrs/wk, 3 cr.**

Presents the 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 3: Data Structures**4 class hrs/wk, 4 cr.**

Presents a further analysis of topics in CS162 with additional concepts in recursion, binary trees and object-oriented programming. **Prerequisite:** Grade of C or better in CS162 or equivalent as determined by the instructor. **Sp**

CS275 Database Management

4 class hrs/wk, 4 cr.

Addresses database development, a concept which includes data modeling, database design and database implementation. Identifies the entity-relationship and object data modeling techniques and the importance of normalizing data models. Presents techniques of implementing these models into a relational database scheme. Designed to be broader than teaching specific database products or fourth generation languages. Discusses SQL.

Prerequisite: CS244. **F**

CS276A Introduction to Oracle: SQL

4 class hrs/wk, 4 cr.

Offers an extensive introduction to data server technology. Examines the concepts of both relational and object relational databases and the Structured Query Language (SQL) programming language. Covers creating and maintaining database objects and storing, retrieving, and manipulating data. Also covers retrieving data by using advanced techniques such as ROLLUP, CUBE, set operators, and hierarchical retrieval. Includes writing SQL and SQL*Plus script files using the iSQL*Plus tool to generate report-like output.

Prerequisite: CS275 or consent of instructor. **W**

CS276B Oracle: Program with PL/SQL

4 class hrs/wk, 4 cr.

Introduces Procedural Language/Structural Query Language (PL/SQL) and the benefits of this Oracle programming language. Covers creating PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Also covers creating procedures, functions, packages, and database triggers. Uses iSQL*Plus to develop program units. Includes managing PL/SQL program units and database triggers, managing dependencies, manipulating large objects, and using some of the Oracle-supplied packages. **Prerequisite:** CIS121 or equivalent and CS276A, or consent of instructor. **Sp**

CS277A Oracle Database Administration Fundamentals 1

4 class hrs/wk, 4 cr.

Offers a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Covers how to create an operational database and properly manage the various structures in an effective and efficient manner. **Prerequisite:** CS276A or consent of instructor. **Offered as needed.**

CS277B Oracle Database Administration Fundamentals 2

4 class hrs/wk, 4 cr.

Covers transporting data between databases and the utilities used to perform these activities. Introduces networking concepts and configuration parameters, as well as solving some common network problems. Also addresses backup and recovery techniques, and examines various backup, failure, restore and recovery scenarios. Examines backup methodologies based on business requirements in a mission-critical enterprise. Covers multiple strategies and Oracle Recovery Manager to perform backups, and restore and recovery operations. **Prerequisite:** CS277A or consent of instructor. **Offered as needed.**

CS278 Data Communications

3 class hrs/wk, 3 cr.

Introduces the 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. **W**

CS279 Network Management

3 class and 4 lab hrs/wk, 5 cr.

Studies 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 NET151. **Sp**

CS280A-L Cooperative Work Experience See Cooperative Work Experience.

CS285 Introduction to Structured Query Language-SQL

3 class hrs/wk, 3 cr.

Introduces new users of relational databases to Structured Query Language (SQL). Covers building a database and accessing stored information by performing queries. Includes retrieving, adding, and deleting data from an SQL-compliant database. **Prerequisite:** CS275 or consent of instructor. **W**

CS286 Web Server Configuration and Management

3 class and 2 lab hrs/wk, 4 cr.

Explains the process to design and build an Internet 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. **Sp**

CS288 Advanced Client-Server Networks

3 class and 2 lab hrs/wk, 4 cr.

Provides experience installing, configuring, customizing, administering and maintaining a server and its resources in a client-server network.

Prerequisite: CS179. **F, W**

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. **Sp**

CVL

Civil Engineering Technology

CVL130 Work Zone Safety and First Aid

1 class/wk, 1 cr.

Covers signage and cone setup standards related to basic traffic control for short-term work zones. Presents introductory flagging procedures with additional coursework in basic first aid and CPR.

Prerequisite: Consent of instructor. **F**

CVL143 Introduction to Civil Survey

2 class and 3 lab hrs/wk, 3 cr.

Introduces a broad variety of office- and field-based activities associated with the work of a professional land surveyor. Emphasizes professional-technical development. **Prerequisite:** Concurrent enrollment in MTH070 or MTH081 or higher, or consent of instructor. **F**

CVL161A Plane Surveying 1-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: CVL143 and concurrent enrollment in MTH082 or MTH112 or higher, and concurrent enrollment in CVL161B, or consent of instructor. **W**

CVL161B Plane Surveying 1-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:** CVL143 and concurrent enrollment in CVL161A, or consent of instructor. **W**

CVL162A Plane Surveying 2-Lecture

2 class hrs/wk, 2 cr.

Continues Plane Surveying. Studies distance and direction measurement, employing total stations with external data collectors, traversing and associated office computations, areas and volumes, circular and vertical curves, and outlines of public land surveys. Introduces electronic distance-measuring devices. **Prerequisite:** CVL161A, CVL161B and concurrent enrollment in CVL162B or consent of instructor. **Sp**

CVL162B Plane Surveying 2-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:** DRF131, CVL161A, CVL161B, and concurrent enrollment in CVL162A, or consent of instructor. **Sp**

CVL230 Applied Statics

3 class hrs/wk, 3 cr.

Analyzes the forces induced in structures and machines by various types of loading. **Prerequisite:** DRF160 or CS125E, and MTH082 or MTH112, or consent of instructor. **F, W**

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, Sp**

CVL260 Survey Project Planning

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:** CVL162A, CVL162B and DRF245 or consent of instructor. **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 or MTH112, and DRF245 or consent of instructor. **W**

CVL263A Construction and Route Surveying-Lecture

2 class hrs/wk, 2 cr.

Covers design and layout of typical route survey and site construction projects. Applies state plane coordinate systems, GPS observation, and in-process field computations. **Prerequisite:** CVL162A, CVL162B, and MTH082 or MTH112, concurrent enrollment in CVL263B, or consent of instructor. **Sp**

CVL263B Construction and Route Surveying-Lab

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:** DRF245 and concurrent enrollment in CVL263A or consent of instructor. **Sp**

CWE

Cooperative Work Experience

Cooperative Work Experience 280A-L
1-12 cr.

Places students in a business, industry or agency for on-the-job training and experience related to instruction. Field experience supervised by college instructors and work experience coordinators. See program advisors. Class fees vary. **Offered as needed.**

Dance

See **Physical Education**.

DEN

Dental Assisting

DEN050 Dental Sciences

3 class hrs/wk, 3 cr.

Focuses on 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 standards, anesthesia and pharmacology. **Prerequisite:** Enrollment in the Dental Assisting program or consent of instructor. **F**

DEN051 Introductory Concepts in Dental Assisting

2 class and 3 lab hrs/wk, 3 cr.

Provides a basic study of the dental assistant's role with emphasis on terminology, instruments and equipment, professional regimen, chairside techniques and patient communication. Emphasizes the qualifications necessary for success in the dental assistant field. **Prerequisite:** Enrollment in the Dental Assisting program or consent of instructor. **F**

DEN052 Dental Anatomy

2 class and 2 lab hrs/wk, 3 cr.

Introduces dental anatomy. Particular attention is directed toward the oral cavity and its associated structures and anatomical terminology. Identification, form and function of the adult dentition is included. Deciduous dentition is introduced. Includes dental charting for conditions of the oral cavity. **Prerequisite:** Enrollment in the Dental Assisting program or consent of instructor. **F**

DEN053 Dental Materials 1

2 class and 3 lab hrs/wk, 3 cr.

Introduces 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. **F**

DEN054 Preventive Dentistry

1 class hr/wk, 1 cr.

Introduces the basic techniques and information relevant to prevention of plaque-related disease. Includes causative factors, 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 Specialties

3 class hrs/wk, 3 cr.

Studies the various fields of specialized dentistry recognized by the American Dental Association. Includes principles and armamentarium related to each dental specialty as well as the role of the dental auxiliary during specialty procedures.

Prerequisite: Second-term standing in the Dental Assisting program. **W**

DEN061 Dental Assisting Practicum 1

1 class and 7 lab hrs/wk, 3 cr.

Provides supervised clinical experience in basic chairside assisting procedures, including material manipulation, oral evacuation, instrument transfer, charting and patient management at the Oregon Health and Sciences University School of Dentistry. **Prerequisite:** Second-term standing in the Dental Assisting program and proof of current health care provider CPR card. **W**

DEN062 Intermediate Clinical Skills

1 class and 3 lab hrs/wk, 2 cr.

Presents the theory and practice of intermediate clinical responsibilities delegated to dental auxiliary personnel. Includes discussion, demonstration and practical application of the following: intra- and extra-oral examination, alginate impressions, bite registration, oral hygiene instruction, dietary analysis, and rubber dam placement and removal.

Prerequisite: Second-term standing in the Dental Assisting program. **W**

DEN063 Dental Materials 2

2 class and 3 lab hrs/wk, 3 cr.

Introduces the principles of laboratory procedures related to fixed and removable prosthetics. The utilization 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. **W**

DEN064 Dental Radiology 1

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; 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 and exposed films are processed and evaluated.

Prerequisite: Second-term standing in the Dental Assisting program. **W**

DEN065 Dental Office Emergency Management

1 class hr/wk, 1 cr.

Emphasizes prevention and treatment of the most common medical emergencies in the dental office. Covers the preparation of the office and staff to deal with these emergencies, including gathering patient information, such as a health history and vital signs. Discusses the use of emergency equipment and supplies. **Prerequisite:** Enrollment in the Dental Assisting program or consent of instructor. **F**

DEN070 Dental Office Management

2 class hrs/wk, 2 cr.

Introduces management of the dental office, including business office procedures and techniques, written and electronic communications, computer use, dental insurance, inventory control, accounts receivable, recall systems and staff and patient management. **Prerequisite:** CS101. **W**

DEN071 Dental Assisting Practicum 2

1 class and 24 lab hrs/wk, 9 cr.

Consists of observation and practice in an ethical dental office. Students develop communication rapport with the dental team and patients; perform specified basic, intermediate, and expanded function chairside procedures; complete reception and business office 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. **Sp**

DEN072 Expanded Functions

2 class and 3 lab hrs/wk, 3 cr.

Presents the theory and practice of legal Expanded Functions for dental assistants. Includes discussion, demonstration and practical application of the following: coronal polish, topical fluoride, amalgam polish, provisional coverage, suture removal, cement removal, and pit and fissure sealant placement. **Prerequisite:** Third-term standing in the Dental Assisting program. **Sp**

DEN074 Dental Radiology 2

1 class and 3 lab hrs/wk, 2 cr.

Continues DEN064 Dental Radiology 1. Allows students to take additional adult and pediatric (pedodontic) manikin films using low-dose technique. Students develop skills in patient management and perfect radiographic techniques by completing two full mouth patient x-ray series. Includes information in taking pediatric 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 and 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. **Sp**

DEN080 Dental Assistant Seminar

2 class hrs/wk, 2 cr.

Prepares students for the General Chairside and Infection Control components of the Dental Assisting National Board Certification Examination. Also prepares students for successful employment by incorporating resume writing, completion of a job application, and interview techniques.

Prerequisite: Third-term standing in the Dental Assisting program. **Sp**

DRF

Drafting Technology

See also **Computer-Aided Manufacturing.**

DRF051 Technical Graphics

1 class and 6 lab hrs/wk, 3 cr.

Covers fundamentals of graphics communication. Includes multiview and pictorial representation, dimensioning and section and auxiliary views.

Prerequisite: DRF130 or consent of instructor.

Offered as needed.

DRF054 Drafting 1

1 class and 3 lab hrs/wk, 2 cr.

Introduces 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. **Offered as needed.**

DRF095A,B,C Special Projects in Drafting and Design

Variable hours/1-3 credits

Allows student and instructor to identify a 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 student-instructor 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:** 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. **F, W**

DRF102 Print Reading

1 class and 3 lab hrs/wk, 2 cr.

Focuses on reading drawings of residential and commercial construction. Covers symbol designation used in construction. Stresses construction methods, terminology and reference sources.

Offered as needed.

DRF103 Advanced Print Reading

1 class and 3 lab hrs/wk, 2 cr.

Focuses on advanced reading and interpreting 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.

Offered as needed.

DRF110 Applied Engineering Computations

2 class hrs/wk, 2 cr.

Covers computation and presentation of technical data to solve typical problems found in mechanical, civil, design and related areas. **Prerequisite:** MTH060 or consent of instructor. **F, W**

DRF112 Sketching

3 labs/wk, 1 cr.

Develops basic freehand technical sketching skills and techniques used in drafting and practical pictorial communication. **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. **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. **Offered as needed.**

DRF130 AutoCAD 1

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 commands for 2-DIM drawings. **F, W, Sp, Su**

DRF131 AutoCAD 2

2 class and 3 lab hrs/wk, 3 cr.

Incorporates hands-on experience with AutoCAD, PC based computer-aided drafting program. Includes standard graphics commands for 2-DIM drawings. **Prerequisite:** DRF130 or consent of instructor. **F, W, Sp, Su**

DRF132 AutoCAD 3

2 class and 3 lab hrs/wk, 3 cr.

Utilizes 3-D capabilities to generate three-dimensional models of mechanical parts. Covers surfaces, solids and rendering, and projecting multiple 2-D views from models. **Prerequisite:** DRF131 or consent of instructor. **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:** DRF131 or consent of instructor. **Sp**

DRF150 Architectural Drafting 1

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:** DRF131 or consent of instructor. **F, W, 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:** DRF131 or consent of instructor. **Sp**

DRF160 Technical Software Applications

2 class and 3 lab hrs/wk, 3 cr.

Covers 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 DRF131. **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:** DRF131 or consent of instructor. **Sp**

DRF170 AutoCAD Certification

Preparation

1 class and 2 lab hrs/wk, 2 cr.

Presents preparation for Level 1 AutoCAD Certification Exam administered by AutoDESK. **Prerequisite:** DRF132. **Sp**

DRF201 CMOS 1

2 class and 6 lab hrs/wk, 4 cr.

Covers entry-level integrated circuit design in CMOS (Complimentary Metal Oxide Silicone) Technology. Emphasizes creating the layout for IC circuits based on logic and schematic diagrams. **Prerequisite:** DRF101, ELT151, MT110 or consent of instructor. **F, W**

DRF202 CMOS 2

1 class and 6 lab hrs/wk, 3 cr.

Covers advanced concepts of Integrated Circuit Mask design using specialized CAD tools. Focuses on producing an integrated circuit layout project as a member of a project team. **Prerequisite:** DRF201 or consent of instructor. **W, Sp**

DRF203 CMOS 3

1 class and 6 lab hrs/wk, 3 cr.

Focuses on the design and layout of masks for IC Circuits. Covers how to: interpret schematics; create a floor plan; divide responsibility among team members to produce the layout for IC sub-systems. **Prerequisite:** DRF202 or consent of instructor. **Sp, Su**

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:** DRF132 or consent of instructor. **F, W**

DRF220 GIS ArcView

1 class, 3 lab hrs/wk, 2 cr.

Uses ArcView software to view geographic relationships. Study of GIS and social concepts. Covers physical, climactic and social attributes of various regions of the world. **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. **Sp**

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:** DRF131. **F, W, Sp, Su**

DRF231 Advanced MicroStation

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. **Sp**

DRF240 Architectural Drafting 2

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. **W, Sp**

DRF241 Structural Drafting

1 class and 6 lab hrs/wk, 3 cr.

Covers production of working drawings using AutoCAD software. Covers drafting practices applied with the building materials of steel, CMU and concrete. Uses the steel manual as a reference. **Prerequisite:** DRF131 or consent of instructor. **F**

DRF242 3-D Studio

1 class and 6 lab hrs/wk, 3 cr.

Covers how to produce objects and scenes as 3-D computer images, incorporating various materials and lights. **Prerequisite:** DRF132 or consent of instructor. **F**

DRF243 Architectural Design

1 class and 6 lab hrs/wk, 3 cr.

Covers elements and principles of aesthetic design are studied and applied to assigned laboratory projects. **Prerequisite:** DRF240 or consent of instructor. **Sp**

DRF245 Civil Drafting and Design

1 class and 9 lab hrs/wk, 4 cr.

Introduces AutoCAD Land Development Desktop. Develops residential subdivision and typical utility design documentation. **Prerequisite:** DRF131 and DRF155 or consent of instructor.

DRF246 Project Development

1 class and 6 lab hrs/wk, 3 cr.

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.

Studies the 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:** DRF132 or consent of instructor. **Sp**

DRF256 AutoLISP Programming

2 class and 3 lab hrs/wk, 3 cr.

Introduces AutoLISP functions. Focuses on development of programs to increase AutoCAD productivity. **Prerequisite:** DRF131. **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. **W**

DRF262 Machine Design

1 class and 6 lab hrs/wk, 3 cr.

Presents 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. **Sp**

DRF280A-L Cooperative Work Experience
See **Cooperative Work Experience**.

EC

Economics

EC200 Introduction to Economics

3 class hrs/wk, 3 cr.

Introduces the economic concepts of scarcity and choice, supply and demand, business cycles, unemployment, inflation, taxes, work and welfare.

Prerequisite: MTH070. **Offered as needed.**

EC201 Introduction to Microeconomics

3 class hrs/wk, 3 cr.

Introduces the concepts 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, Sp, Su**

EC202 Introduction to Macroeconomics

3 class hrs/wk, 3 cr.

Introduces the concepts of aggregate spending, fiscal and monetary policies, money and banking, the Federal Reserve, business cycles, unemployment and inflation. **Prerequisite:** MTH095.

F, W, Sp, Su

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, and international development. **F, W, Sp, Su**

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

Observes 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

Covers four infant/toddler training modules. A: Social-emotional growth and socialization; B: Group care; C: Cognitive learning and developing; D: Culture and families. **Offered as needed.**

ECE086 Family Day Care 1 (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 2 (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.

Reviews 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 lecture-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 lab hrs/wk, 3 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. **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. **Sp**

ECE154 Children's Literature and Literacy

3 class hrs/wk, 3 cr.

Offers an overview of what is available in quality children's literature, along with a rationale for the purposes of such literature, ways to implement its use and ways to evaluate its appropriateness in a given school situation. Includes the evaluation and reading of children's books and holding groups with children. Explores in depth how children develop literacy. **Sp**

ECE155 Child Nutrition

2 class hrs/wk, 2 cr.

Introduces human nutrition and health with emphasis on the nutritional needs and food experiences of the young child. Includes practical application in the day care setting, planning snacks and meals for preschool children. **W**

ECE161 Infant/Toddler Practicum

1 class and 6 lab hrs/wk, 3 cr.

Provides experience working with infants and toddlers in a laboratory setting and assisting with supervision of the various daily activities.

Prerequisite: HDF249 or consent of instructor. **F, W, Sp**

ECE162 Early Childhood Educator Orientation

1 class and 3 lab hrs/wk, 2 cr.

Studies the 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. **F, W, Sp**

ECE163 Preschool Practicum

1 class and 9 lab hrs/wk, 4 cr.

Provides experience working with young children in a laboratory preschool setting. Assists with supervision of the various activities in a preschool program. Includes some planning, executing and evaluating of curriculum materials appropriate for the young child. **Prerequisite:** Grade of C or better in HDF225, HDF249, ECE062, ECE151 and ECE162. **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:** Second-year standing in the Early Childhood Education program or consent of instructor. **F**

ECE261 Student Teaching 1, Early Childhood Education

2 class and 12 lab hrs/wk, 6 cr.

Offers supervised teaching of young children in a laboratory setting. **Prerequisite:** Grade of C or better in ECE163, second-year standing in the Early Childhood Education program, and consent of instructor. **F, W, Sp**

ECE262 Student Teaching 2, Early Childhood Education

2 class and 12 lab hrs/wk, 6 cr.

Offers supervised teaching of young children in a preschool laboratory. **Prerequisite:** Grade of C or better in ECE261, and consent of instructor. **F, W, Sp**

ECE280A-L Cooperative Work Experience

See **Cooperative Work Experience**.

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. **Sp**

ED

Education

See also **Speech Language Pathology Assistant.**

ED101 Introductory Observation and Experience

2 class and 3 lab hrs/wk, 3 cr.

Introduces the role and work of educators. Presents Oregon Education Standards and covers occupational and career development opportunities. Provides direct experience with educational settings and opportunities to examine attitudes and work habits which influence job effectiveness and satisfaction. **F, W, Sp**

ED102 Practicum

1 class and 6 lab hrs/wk, 3 cr.

Focuses on field experience in a variety of classroom activities directly related to assisting and supervising children in school settings. Applies knowledge, methods and skills gained from prior education courses. Seminars cover classroom experience, problem-solving techniques, and materials. **Prerequisite:** ED101 or equivalent experience. **W**

ED103 Advanced Practicum

1 class and 15 lab hrs/wk, 6 cr.

Focuses on field experience in a variety of classroom settings closely paralleling duties regularly assigned to an instructional assistant on a school team. Applies in-depth knowledge, methods and skills gained from prior education courses. Seminars cover classroom experience and problem-solving techniques. **Prerequisite:** ED102. See advisor for writing, math and computer science prerequisites. **Sp**

ED110 Psychology of Learning

3 class hrs/wk, 3 cr.

Presents modern theories of behavior, motivation, and human development as applied to the classroom. Includes techniques derived from these theories. **F, W**

ED123 Classroom Techniques in Reading and Language

3 class hrs/wk, 3 cr.

Introduces the nature of the reading process, and 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 cueing systems. Includes comprehension strategies, developing sight and meaning vocabulary, connecting reading and writing, and understanding appropriate uses of graphophonics. **F, W**

ED124 Classroom Techniques in Mathematics and Science

3 class hrs/wk, 3 cr.

Focuses on preparing 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. Includes math concepts in patterns, estimation, graphing, addition, subtraction, multiplication, division and fractions. **W, Sp**

ED125 Techniques for Tutoring Adults

1 class and 4 lab hrs/wk, 3 cr.

Presents basic tutoring theory and techniques to prepare tutors to work with adult learners primarily in professional-technical content areas. **Offered as needed.**

ED131 Teaching Techniques

3 class hrs/wk, 3 cr.

Introduces a variety of teaching techniques and provides practice in instructional design. Emphasizes student planning and teaching lessons to small groups of peers and participating in self-evaluation and peer-evaluation of others' teaching. **W, Sp**

ED133 Instructional Media and Materials

3 class hrs/wk, 3 cr.

Covers the preparation and use of instructional media and materials commonly found in public schools. Includes an introduction to computers and other new learning technologies and how to design lessons using these materials. Develops an understanding of the place and importance of these instructional tools. **F, W**

ED205A Tutoring Principles and Practices

1 class and 2 lab hrs/wk, 2 cr.

Teaches principles and practices of effectively tutoring adult learners in skill areas of basic reading, writing and English as a Second Language. Includes additional instruction in tutoring basic math, advanced grammar, conversation and pronunciation following completion of basic course. **Offered as needed.**

ED205B Tutoring Principles and Practices

1 class and 4 lab hrs/wk, 3 cr.

Presents the 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

1 class and 6 lab hrs/wk, 3 cr.

Introduces the field of education to students exploring education as a career. **Sp, offered as needed.**

ED209C Professional Technical Practicum 1

1 class and 15 lab hrs/wk, 6 cr.

Prepares students for extended teaching responsibilities in professional technical education in a public school setting. Students assess, plan and implement a five-day unit of instruction at the practicum placement site. **Prerequisite:** ED209B. **W**

ED209D Professional Technical Practicum 2

2 class and 21 lab hrs/wk, 9 cr.

Prepares students for full teaching responsibility in professional technical education in a public school setting. Students assess, plan and implement all instructional programs for a period of four weeks at the practicum placement site. **Prerequisite:** ED209B and ED209C. **Sp**

ED209V1-V4 Advanced Education Practicum

1 class and 6-16 lab hrs/wk, variable 3-6 cr.

Provides an educational field experience in a classroom setting for students pursuing careers in instructional assisting, professional-technical, or education settings. **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 an opportunity to develop a professional portfolio which will document experience and effectiveness as an educator. **Offered as needed.**

ED212 Schools and Society

3 class hrs/wk, 3 cr.

Provides an overview of public education in the United States today. Explores contemporary purposes and practices in relation to historical trends and philosophical issues. Covers organization, financing and operation of local school districts. **Sp**

ED213 Advanced Instructional Techniques in Reading

3 class hrs/wk, 3 cr.

Covers the use of 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. **W**

ED214 Advanced Instructional Techniques in Mathematics and Science

3 class hrs/wk, 3 cr.

Covers the use of a variety of instructional strategies, which build upon the foundations of mathematics in ED124. Explores manipulative mathematics across the curriculum as well as the integration of science into the curriculum. **Prerequisite:** ED124. **Sp**

ED217 Comprehensive Classroom Management

3 class hrs/wk, 3 cr.

Provides current theory and methodology for managing small and large groups of students so that students choose to be productively involved in instructional activities. Covers the four major factors or skill areas of effective classroom management: (1) understanding students' personal/psychological and learning needs, (2) establishing positive teacher-student relationships, (3) implementing instructional methods that facilitate optimal learning, and (4) using organizational and group management methods that maximize on-task student behavior. **W, Sp**

ED235 Instructional Technology

3 class hrs/wk, 3 cr.

Introduces current advanced technology available in education. Emphasizes the tools to evaluate, select and implement appropriate technology in the instructional setting. **W**

ED236 Introduction to Library/Media Services

3 class hrs/wk, 3 cr.

Introduces the role of the Instructional Assistant in library/media centers. Focuses on common features in the organization of these centers and the performance of routine duties to maintain the collection and provide service to library/media center patrons. **Offered as needed.**

ED251 Overview of Students with Special Needs

3 class hrs/wk, 3 cr.

Introduces the disabling conditions that teachers in the public and private sector must recognize and understand in order to plan for instruction. Includes coverage of learning disabilities, mental retardation, severe emotional disturbances, speech and language impairments, vision impairments, hearing impairments, physical and other health disabilities, autism, traumatic brain injuries, and Tourette's Syndrome. Also examines attention deficit disorder and the needs of at-risk youth. **F**

ED253 Current Issues in Special Education

3 class hrs/wk, 3 cr.

Provides students interested in special education an opportunity to explore in more depth current issues in special education. Includes current philosophical frameworks, legislative changes, emerging conditions and technological advances. **Prerequisite:** ED251 or consent of instructor. **Sp, Su**

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. **W, Su**

ED258 Multicultural Education

3 class hrs/wk, 3 cr.

Covers philosophy, activities and materials used in developing a culturally-sensitive classroom and curriculum. **F**

ED259 Bilingual Methodology

3 class hrs/wk, 3 cr.

Covers the 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. **Sp**

ED268 Educating the Mildly and Severely Disabled

3 class hrs/wk, 3 cr.

Presents the theory and techniques of working with students with disabilities. Studies services and funding provided for students with mild and severe disabilities. **Prerequisite:** ED251 or consent of instructor. **Sp**

ED270 Teaching at the Community College

3 class hrs/wk, 3 cr.

Assists new, continuing or adjunct instructors develop and refine 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. In addition, participants will gain an understanding of the historical and current perspective of the role of community colleges in a seamless education system. **Offered as needed.**

ED291 Natural Resource Institute

5 class hrs and 35 lab hrs/wk, 2 cr.

Studies 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 are made toward program development at schools. **Su**

ED292 Occupational Analysis, Curriculum and Evaluation

3 class hrs/wk, 3 cr.

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 **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.**

EGR

Engineering

See also General Engineering.

EGR201 Electrical Fundamentals 1

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 and natural responses of circuits. Also includes operational amplifier theory. **Prerequisite:** MTH252 or consent of instructor. **F**

EGR202 Electrical Fundamentals 2

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 three-phase circuits, electric circuits which contain mutually coupled coils, functions of transformers in circuits, characteristics of resonant circuits, and use of operational amplifiers to perform various functions in circuits with periodic inputs. **Prerequisite:** MTH252 and EGR201 or consent of instructor. **W**

EGR203 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, MTH256 and EGR201 or consent of instructor. **Offered as needed.**

EGR211 Statics

3 class and 2 lab hrs/wk, 4 cr.

Analyzes the forces induced in structures and machines by various types of loading. **Prerequisite:** MTH252 or consent of instructor. **F**

EGR212 Dynamics

3 class and 2 lab hrs/wk, 4 cr.

Studies kinematics, Newton's laws of motion, work energy, and impulse-momentum relationships applied to engineering systems. **Prerequisite:** EGR211, MTH252 and PH211 or consent of instructor. **W**

EGR213 Strength of Materials

3 class and 2 lab hrs/wk, 4 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:** EGR211 and MTH252 or consent of instructor. **Sp**

EGR248 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:** DRF130 or consent of instructor. **F, W**

Electronics Technologies

See also **Industrial and Network Technology**.

ELT056 Concepts of Electronics

4 class and 4 lab hrs/wk, 6 cr.

Covers DC and AC theories, troubleshooting concepts, use of test equipment and safety principles. **Prerequisite:** MTH070 or equivalent. **Offered as needed.**

ELT100 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, high school Algebra 2 or instructor consent. **F**

ELT111 Electronics Orientation

2 lab hrs/wk, 1 cr.

Provides an introduction to the field of electronics and its opportunities. Covers career opportunities and requirements, basic vocabulary, soldering, static awareness, tool identification, safety, hardware and chemicals used in electronics. **F, W**

ELT113 Electronic Problems 1

2 lab hrs/wk, 1 cr.

Introduces electronic problem solving techniques with an emphasis on calculations, scientific and engineering notations, formula manipulation, and use of the calculator in solving problems associated with electronics. **Prerequisite:** Enrollment in the Electronics Technologies program and concurrent enrollment in MTH081 or MTH111 or consent of instructor. **Offered as needed.**

ELT121 Programming Concepts 1

3 class and 2 lab hrs/wk, 4 cr.

Introduces computer programming and computer operating systems using Java language. **Prerequisite:** MTH081 or consent of instructor. **F**

ELT122 Programming Concepts 2

3 class and 2 lab hrs/wk, 4 cr.

Offers the second course in the Programming Concepts sequence. Surveys the various professional software applications. Includes learning and demonstrating one major software application. **Prerequisite:** ELT121 or any high-level programming class. **Offered as needed.**

ELT131 Electronic Concepts 1

3 class and 4 lab hrs/wk, 4 cr.

Covers atomic and direct current (DC) theory applicable to the field of electronics. Includes series, parallel and series-parallel resistive circuit analysis theorems. **Prerequisite:** MTH070, high school algebra and concurrent enrollment in an advanced algebra class, such as MTH111 or MTH081, or consent of instructor. **F, W**

ELT132 Electronic Concepts 2

3 class and 4 lab hrs/wk, 4 cr.

Covers atomic and alternating current (AC) electrical theory applicable to resistors, capacitors, and inductors. Stresses reactive circuit theorems used for circuit analysis. **Prerequisite:** ELT131 or consent of instructor and concurrent enrollment in a trigonometry class. **W, Sp**

ELT133 Electronic Concepts 3

3 class and 3 lab hrs/wk, 4 cr.

Covers electric circuit theory and analysis applicable to passive RLC reactive circuits. Includes transformers, polyphase AC, resonance, passive filters, and other RLC series/parallel circuit applications. Applies fundamental AC/DC concepts developed in ELT131 and ELT132. **Prerequisite:** ELT132. **Sp, Su**

ELT141 Transistor Fundamentals

3 class and 6 lab hrs/wk, 5 cr.

Introduces semiconductor physics and covers the fundamental principles of diodes, bipolar transistors and field effect transistors. **Prerequisite:** Concurrent enrollment in ELT132. **W, Sp**

ELT142 Semiconductor Devices

2 class and 3 lab hrs/wk, 3 cr.

Covers the fundamentals of basic diode rectifier, multiplier, transistor voltage regulators and current limiting circuits. Introduces the operating principles of solid-state devices such as unijunction transistors, special purpose diodes, thyristors and optoelectronic devices. **Prerequisite:** ELT141 or consent of instructor. **Sp, Su**

ELT143 Pulse Circuit Fundamentals

2 class and 3 lab hrs/wk, 3 cr.

Introduces the theory, analysis and operation of discrete pulse waveform circuits. **Prerequisite:** ELT141 or consent of instructor. **Sp, Su**

ELT151 Digital Fundamentals

3 class and 2 lab hrs/wk, 4 cr.

Introduces digital logic theories: number systems and conversions, Boolean algebra, simplification theorems, combinational logic, and arithmetic. **Prerequisite:** ELT131 or consent of instructor. **W, Sp**

ELT161 Linear IC Fundamentals

3 class and 3 lab hrs/wk, 4 cr.

Introduces linear integrated circuit amplifiers. Emphasizes device parameters and basic circuit operating characteristics. Includes linear integrated circuit amplifying devices for comparison and evaluation through laboratory experiments. **Prerequisite:** ELT132 and ELT141. **Corequisite:** ELT133 and ELT142. **Sp, Su**

ELT244 Electronic Circuit Analysis

2 class and 6 lab hrs/wk, 4 cr.

Covers basic electronic devices and circuit design. Emphasizes verifying and analyzing the designs, using the "R" parameters. Includes Small-Signal Amplifiers, Bipolar Circuits, FET Circuits, Oscillators and Power Amplifiers. Some circuits are analyzed using simulation software, while other circuits are constructed and analyzed, using laboratory test equipment. **Prerequisite:** ELT141 and ELT133 or consent of instructor. **F**

ELT252 Digital Circuit Applications

2 class and 3 lab hrs/wk, 3 cr.

Covers theory and emphasizes hands-on laboratory application of sequential digital logic circuits, which build upon the fundamentals of combinational digital logic developed in ELT151. Includes flip-flops, counters, registers, encoders and decoders, and bus logic. Introduces memory devices, analog-to-digital and digital-to-analog converters (ADCs/DACs), and programmable logic devices. **Prerequisite:** ELT151. **F**

ELT253 Microprocessor Systems

3 class and 6 lab hrs/wk, 5 cr.

Covers hardware and software concepts used with microcomputers. Stresses theory and laboratory application of interfacing criteria, hardware and software troubleshooting techniques, writing machine language programs and using programs for testing hardware and system interfaces. **Prerequisite:** ELT244 and ELT252. **W**

ELT254 Computer Hardware

3 class and 3 lab hrs/wk, 4 cr.

Covers hardware concepts fundamental to all computers and computer peripherals. Explains the interface between software and hardware. Also covers troubleshooting techniques. **Prerequisite:** CS140B or NET123. **W**

ELT255 Advanced Data Communication

3 class and 6 lab hrs/wk, 5 cr.

Covers theory of data communications and concepts of information exchange between computers, via data networks. Emphasizes configuration, maintenance and management of data communication network systems. Constructs and tests multiple network hardware configurations using the Novell NetWare Operating System. **Prerequisite:** ELT253, CS278, DOS and a high level programming language or consent of instructor. **Sp**

ELT256 Advanced Computer Architecture

3 class and 3 lab hrs/wk, 1 cr.

Emphasizes system installation and troubleshooting of both hardware and software in lab sessions. For students with a solid foundation in digital logic, microprocessors and programming. Explains advanced computer system theory. **Prerequisite:** ELT253. **Sp**

ELT262 Linear IC Applications

2 class and 3 lab hrs/wk, 3 cr.

Covers design and industrial applications using the integrated circuit amplifier and special function IC devices to study basic circuits. Includes laboratory evaluation of selected basic circuit designs. **Prerequisite:** ELT161 and ELT244. **W**

ELT280A-L Cooperative Work Experience See Cooperative Work Experience.

ELT281 Antennas and Transmission Lines

2 class hrs/wk, 2 cr.

Covers the practical and theoretical aspects of basic transmission lines and antennas. Includes characteristics and properties of open-wire, coaxial and special purpose transmission lines, plus those of vertical and horizontal antennas, and the coupling of source, transmission lines, and antennas. **Prerequisite:** ELT244 and ELT252. **W**

ELT282 Telecommunications

2 class hrs and 3 lab hrs/wk, 3 cr.

Covers communications theory and systems. Develops practical skills and reinforces theoretical concepts through laboratory experiments and field trips. **Prerequisite:** Concurrent enrollment in ELT281. **W**

ELT283 Logical Troubleshooting

3 class and 6 lab hrs/wk, 5 cr.

Introduces and applies industry recognized standards, procedures and practices for logical-troubleshooting and analysis of electronic systems. Includes lab activities such as system-level, board-level and component-level troubleshooting and diagnosis, using live systems and real world circuit faults. **Prerequisite:** ELT244 and ELT161, or equivalent with consent of instructor. **Sp**

ELT291 Advanced Industrial Electronics

3 class and 3 lab hrs/wk, 4 cr.

Covers principles and concepts of electronic and electrical control and sensing devices used in industry. Introduces electric motors, three-phase electricity, control devices and circuits, process control systems and servos, measurement transducers and programmable controllers (PLCs). **Prerequisite:** ELT142 and ELT262, or consent of instructor. **Sp**

EMT

Emergency Medical Technology

EMT151 Emergency Medical Technician Basic, Part 1

4 class and 3 lab hrs/wk, 5 cr.

Provides instruction at the level of Emergency Medical Technician Basic. Includes all skills necessary for the individual to provide emergency medical care as outlined by scope of practice established by the Oregon Board of Medical Examiners. Serves as the first of a two-part course in a series of courses making up a national and state EMS training program. Failure of this course will require retaking the full sequence of EMT-Basic courses. **Prerequisite:** Completion of placement testing for writing skills at WR040 or higher, reading at RD090 or higher and math at MTH020 or higher. Must currently be certified in CPR for BLS Health Care Providers as issued in accordance with current national standard curriculum. Must meet standards as set by the Oregon State EMS Office for certification which includes health, driving, immunization and criminal record check. **F, offered as needed.**

EMT152 Emergency Medical Technician Basic, Part 2

3 class and 3 lab hrs/wk, 4 cr.

Continues instruction at the level of Emergency Medical Technician Basic. Includes all skills necessary for the individual to provide emergency medical care as outlined by scope of practice established by the Oregon Board of Medical Examiners. Serves as the second in a series of courses making up a national and state EMS training program. Failure of this course will require retaking the full sequence of EMT-Basic courses. **Prerequisite:** Successful completion of EMT151 and concurrent enrollment in EMT280A. Must meet standards as set by the Oregon State EMS Office for certification which includes health, driving, immunization and criminal record check. **W, offered as needed.**

EMT165 Emergency Medical Technician Intermediate, Part 1

4 class and 2 lab hrs/wk, 5 cr.

Covers intermediate emergency medical procedures. Includes the roles and responsibilities of the technician, patient assessment, and procedures related to airway, oxygen, ventilation, shock, intravenous, intraosseous, and ECG monitoring, defibrillation, pharmacology and field protocols. Failure of this course will require retaking the full sequence of EMT-Intermediate courses. **Prerequisite:** Completion of placement testing for writing skills at WR040 or higher, reading at RD090 or higher and math at MTH020 or higher. Current Oregon EMT Basic certification and 80% or better on pre-test. **Offered as needed.**

EMT166 Emergency Medical Technician Intermediate, Part 2

4 class and 2 lab hrs/wk, 5 cr.

Continues study of intermediate medical procedures for technicians. Gives students successfully completing Part 2 a recommendation to the Oregon Health Division for the certification process. Failure of this course will require retaking the full sequence of EMT-Intermediate courses. **Prerequisite:** EMT165. **Offered as needed.**

EMT169 EMT Rescue

2 class and 3 lab hrs/wk, 3 cr.

Presents technical information on various rescue situations. Covers tools and equipment, ropes and knots, trench rescue, shoring, warehouse searches, outdoor searches, rescue in situations involving elevation differences, package patients, water and ice rescues, and vehicle extrication. **Offered as needed.**

EMT170 Emergency Communication and Patient Transportation

2 class and 3 lab hrs/wk, 3 cr.

Covers ambulance operation, laws, maintenance, and safety; emergency response driving and route planning; communication systems, radio types, HEAR system, codes, and correct techniques. **Sp, offered as needed.**

EMT175 Introduction to Emergency Medical Service

3 class hrs/wk, 3 cr.

Covers the role and responsibilities of the paramedic, emergency medical services systems, medical-legal considerations, major incident response, hazardous materials awareness, and stress management. **Offered as needed.**

EMT280A-L Cooperative Work Experience

See Cooperative Work Experience.

EMT296 EMT Paramedic, Part 1

11 class and 9 lab hrs/wk, 14 cr.

Offers first term of a three-term course, which includes EMT296, EMT297 and EMT280F. Focuses on patient assessment; airway/ventilation; pathophysiology of shock; general pharmacology; respiratory, cardiovascular, neurologic, behavioral emergencies, and acute abdominal emergencies. Applies didactic knowledge to campus-based laboratory skills practice and clinical patient care in the hospital setting. Failure of this course will require retaking the full sequence of Paramedic courses (EMT296, EMT297 and EMT280F).

Prerequisite: Fourth-term standing in the Emergency Medical Technology program. **F, Sp**

EMT297 EMT Paramedic, Part 2

6 class and 24 lab hrs/wk, 14 cr.

Offers second part of a three-term course, which includes EMT296, EMT297 and EMT280F. Focuses on anaphylactic, toxicologic, environmental, geriatric, pediatric, obstetric, gynecologic, neonatal, and endocrine emergencies; infectious diseases and trauma care. Applies didactic knowledge to campus-based laboratory skills practice and clinical patient care in the hospital setting. Failure of this course will require retaking the full sequence of Paramedic courses (EMT296, EMT297 and EMT280F). **Prerequisite:** EMT296. **W, Su**

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, W, Sp, Su**

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 poetry'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. **Sp**

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. **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. **Sp**

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. **Sp**

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**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. **Sp**

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. **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. **Sp**

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. **W**

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. **Offered as needed.**

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. **Offered as needed.**

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. **Offered as needed.**

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. **Offered as needed.**

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.**

ENL

English as a Non-Native Language

ENL055 Listening and Speaking C

5 class hrs/wk, 5 cr.

Focuses on improving interpersonal and small-group 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. **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 a writing sample. **F, Sp, Su**

ENL058 Reading and Vocabulary

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. **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 and a writing sample. **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:** ESL Level 3 Reading and Writing, or CELSA score of 35 and a writing assessment. **F**

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 a writing assessment. **W, Su**

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 a writing assessment. **F, W, Sp, Su**

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+. **F, W, Sp**

ENL104 Academic Listening and Speaking

4 class hrs/wk, 4 cr.

Introduces the effective listening and speaking skills needed for success in academic and professional settings, including interpersonal, small-group communication, and intercultural communication. 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. **F, W, Sp, Su**

ENL106 American Business Language

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+ and a writing sample. **Offered as needed.**

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. **F, W, Sp**

ENL109 Academic Reading and Writing

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+. **F, W, Sp, Su**

ENL113 Advanced Grammar 1

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 non-native speakers of English who wish to improve their academic skills. **Prerequisite:** Completion of ESL level 4 or CELSA score of 50+ and a writing sample. **F, Sp**

ENL114 Advanced Grammar 2

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+ and a writing sample. **W, Sp**

ENL116 Writing for College

4 class hrs/wk, 4 cr.

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. A comprehensive writing course which introduces the English composition concepts of WR121. **Prerequisite:** ENL114 or CELSA score of 55+ and a writing sample. **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+ and a writing sample. **Offered as needed.**

ES

Emergency Services

ES071 Workplace Safety Skills 3 lab hrs/wk, 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. **F, W, Sp, Su**

ES072 Introduction to Emergency Services

4 class hrs/wk, 4 cr.

Explores the philosophy and history of emergency services. Presents the history of loss of life and property in fire, major medical emergencies and natural disasters. Covers the responsibility of emergency services in a community, the roles and responsibilities of a paramedic and firefighter, an overview of the ICS system, and the organization and function of emergency services agencies and allied organizations, education and certification. Includes sources of professional literature, awareness and identification of hazardous materials, emergency services apparatus, fire behavior, detection and protection systems, cultural diversity, harassment in the workplace, survey of professional career opportunities and requirements, and development of a resume. **Offered as needed.**

ES115 Crisis Intervention

3 class/wk, 3 cr.

Provides a theoretical background for understanding crisis intervention and offers an arena to experience a variety of crisis management styles. Assists the emergency service worker or healthcare provider to evaluate their emotional reactions and methods of coping in order to stay healthy on the job. **F, Sp, Offered as needed.**

FA

Film Arts

FA255 Understanding Movies: Film Styles 3 class and 2 lab hrs/wk, 4 cr.

Introduces the art of cinema. Emphasizes the feature-length film. Focuses on ways in which a person can come to understand the meaning of a movie. Includes a weekly film screening lab that accompanies the lecture. **F**

FA256 Understanding Movies: The Great Film Directors

3 class and 2 lab hrs/wk, 4 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. **W**

FA257 Understanding Movies: Themes and Genres

3 class and 2 lab hrs/wk, 4 cr.

Explores the meanings a film conveys within the context of a specific film genre, national movement or thematic topic. There is a weekly film screening lab that accompanies the lecture. This course may be repeated for a maximum of 12 credits total. **Sp**

FE

Field Experiences

FE185 Service Learning Seminar

1 class hr/wk, 1 cr.

Provides structured activities for students enrolled in service learning options to share, evaluate, and reflect on their experiences while examining the larger dimensions of community service. **Prerequisite:** Linked to other courses offering a service learning option. **F, W, Sp**

FE205B Resumes and Job Search Correspondence

1 class hr/wk, 1 cr.

Shows you 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, Sp, Su**

FE205C Interviewing for Success

1 class hr/wk, 1 cr.

Focuses on how to interview for the job you want. Focuses on development of interviewing techniques and effective methods of follow-up. **F, W, Sp, Su**

FE220 Preparing for the Changing Workplace

3 class/wk, 3 cr.

Explores issues of difference, power, and responsibility in the workplace. Focuses on skills, values, and social and cultural work issues, including workplace communication. Offers experience working in a service-learning project. **F, W, Sp**

FE280A-L Cooperative Work Experience See Cooperative Work Experience.

FN

Foods and Nutrition

See Nutrition and Food Management.

FR

French

FR101, 102, 103 First Year French, Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Introduces 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. Instructor and students use French as the primary language of the class. **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. FR101: **F**; FR102: **W**; FR103: **Sp**

FR201, 202, 203 Second Year French, Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Practice in all four language skills (reading, writing, speaking, 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's understanding of Francophone culture. All classroom interaction (both by instructor and students) takes place in French. **Prerequisite:** These classes are to be taken sequentially. FR201: FR103, three years of high school French, or consent of instructor; FR202: FR201, or consent of instructor; FR203: FR202, or consent of instructor. FR201: **F**; FR202: **W**; FR203: **Sp**

FRP

Fire Protection Technology

FRP050 Introduction to Fire Protection 3 class hrs/wk, 3 cr.

Introduces the 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 1

9 lab hrs/wk, 3 cr.

Provides an introductory orientation to Fire Incident Related Experience that fulfills the requirements of OR-OSHA and the Department of Public Safety Standards and Training for Entry Level 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. **Offered as needed.**

FRP052 Fire Incident Related Experience 2

9 lab hrs/wk, 3 cr.

Provides continuing 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, refilling SCBA bottles, the use of cascade systems, live-fire attack practices, salvage operations, overhaul practices, fire cause investigation, the firefighter's responsibility, district familiarization, map book use, radio procedures, driving laws and practices, power tool operation and maintenance, ventilation principles and vertical ventilation. Includes a practicum for "Driver" certification and driving portions of "Pumper Operator." **Prerequisite:** FRP051. **Offered as needed.**

FRP053 Fire Incident Related Experience 3

9 lab hrs/wk, 3 cr.

Introduces new skills and a practicum to function safely and effectively as an integral member of a firefighting team and successfully pass testing for Firefighter I. Includes a practicum for "Driver" and "Pumper Operator" certification. **Prerequisite:** FRP052. **Offered as needed.**

FRP054 Water Supply Operations

3 class hrs/wk, 3 cr.

Covers the scope of water supply operations in the fire service. Includes pre-planning operations, water supply requirements, 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:** FRP052, MTH070, or consent of instructor. **Offered as needed.**

FRP056 Fire Service Rescue Practices

2 class and 4 lab hrs/wk, 4 cr.

Presents technical information on various fire department rescue situations. Covers tools and equipment, ropes and knots, trench rescue, shoring, warehouse searches, outdoor searches, rescue in situations involving elevation differences, package patients, water and ice rescues, and vehicle extrication. **Prerequisite:** FRP051, FRP052, or consent of instructor. **Offered as needed.**

FRP058 Fire Pump Construction and Operation

2 class and 2 lab hrs/wk, 3 cr.

Covers the theory of pump operation, types and features of various pumps, practical operation of fire pumps and accessories. Includes drafting, hydrant and tanker operations and rule-of-thumb 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.

Covers the 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. Develops an awareness of and positive attitude toward fire prevention as a method of accomplishing the fire department mission. **Offered as needed.**

FRP061 Fire Incident Related Experience 4

9 lab hrs/wk, 3 cr.

Introduces additional skills and provides a practicum to function safely and effectively as an integral member of a firefighting team and successfully pass testing for Firefighter 1. Includes a practicum for "Driver" and "Pumper Operator" certification. **Prerequisite:** FRP053. **Offered as needed.**

FRP061H, 062H, 063H Fire Incident Related Experience Honors

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. **Offered as needed.**

FRP062 Fire Incident Related Experience 5

9 lab hrs/wk, 3 cr.

Introduces new skills and provides a practicum for Firefighter 2, "Driver," and "Pumper Operator" certifications. Assists with entering the job market and in becoming more successful in competitive fire service entry processes. **Prerequisite:** FRP061. **Offered as needed.**

FRP063 Fire Incident Related Experience 6

9 lab hrs/wk, 3 cr.

Offers additional skills and provides a practicum for Firefighter 2, "Driver," and "Pumper Operator" certifications. Prepares students for entering the job market and assists them in becoming more successful in competitive fire service entry processes. Introduces contemporary issues regarding the furnishing of emergency services. Students completing the course will take written and task performance tests for Firefighter 2. **Prerequisite:** FRP062. **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. Also provides skills to operate in offensive fashion for some common flammables (gasoline, propane, etc.).

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.

Focuses on the importance of the legal and court systems to 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**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 Uniform Fire Code**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's and member's rights, duties, liabilities. Provides 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 Crash/Rescue for Non-Commercial Aircraft****1 class hr/wk, 1 cr.**

Provides basic knowledge of aircraft types and systems, rescue equipment, airfield characteristics, and aircraft rescue and firefighting procedures (ARFF) for general aviation/non-commercial type aircraft. Emphasizes structural firefighters responding to accidents at non-indexed airports and procedures to follow in the event of a downed aircraft within a fire district. Course does not meet the training requirement for FAA firefighter position at indexed airports. **Offered as needed.**

FRP079 Wildland Urban Interface**3 class hrs/wk, 3 cr.**

Studies causes, standard firefighting orders, urban interface problems, fire suppression methods, fire ground management and structure triage. Designed to meet some of the competencies as set forth by DPSST for Wildland Interface Engine Boss. **Prerequisite:** FRP051, FRP052, FRP053 or consent of instructor. **Offered as needed.**

FRP080 Hazardous Materials for Inspectors**3 class hrs/wk, 3 cr.**

Covers 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.**

Covers methods of contemporary fire prevention inspection practices. Includes preparation, pre-approach 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.**

Covers 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**3 class hrs/wk, 3 cr.**

Provides participants with the ability to identify public and proprietary information to form media releases and develop and maintain positive relations with media representatives. **Prerequisite:** FRP073, FRP074, or consent of instructor. **Offered as needed.**

FRP086 Advanced Detection and Protection Systems**3 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.**

Covers 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**3 class hrs/wk, 3 cr.**

Uses fire data to analyze the prevention needs in a community and to design a public fire education program directed to preventing or mitigating certain fires in that community. **Offered as needed.**

FRP089 Fire Codes and Ordinances 2**3 class hrs/wk, 3 cr.**

Studies 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

1 class hr/wk, 1 cr.

Introduces the role of public relations, public information and public education as tools to provide and enhance public safety awareness.

Offered as needed.

FRP166 Firefighter's Law

1 class hr/wk, 1 cr.

Covers the legal responsibilities and rights of firefighters in driving, inspection, emergency operations, communication, and fire prevention. Includes a firefighter's rights as a civil service employee. **Offered as needed.**

FRP277 NFPA Fire Instructor 1

3 class hrs/wk, 3 cr.

Provides training to instructor candidates from multi-discipline activities found within Public Safety (fire, law enforcement, wildland, emergency medical services, etc.). Prepares the program participants for planning instruction, using a variety of instructional methods, teaching diverse learners, and evaluating course outcomes. Includes guidelines for addressing the critical issues of safety and the legal issues of training, and provides opportunities for participants to take part in application activities. This course meets the competency standards established by the National Fire Protection Association (NFPA) 1041 Standard for Fire Service Instructor Professional Qualifications, Instructor I. **Offered as needed.**

FRP278 NFPA Fire Instructor 2

3 class hrs/wk, 3 cr.

Provides training to instructor candidates from multi-discipline activities found within Public Safety (fire, law enforcement, wildland, emergency medical services, etc.). Uses an intensive instructional methodology program to prepare the participant for planning and developing all aspects of course curriculum. Includes needs analysis, task analysis, course goals and objectives, lesson plan development, instructional support materials and evaluation instruments. **Offered as needed.**

FRP280A-L Cooperative Work Experience

See Cooperative Work Experience.

Food Service

See Hospitality and Tourism Management.

FT

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. **Sp**

FT111 Introduction to Forest Resources

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. **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. **F**

FT141A Oregon Tree and Shrub Identification 1

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. **F**

FT141B Oregon Tree and Shrub Identification 2

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. **Sp**

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. **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. **Sp**

FT210A Forest Surveying 1

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. **W**

FT210B Forest Surveying 2

3 class and 6 lab hrs/wk, 5 cr.

Continues Forest Surveying 1. Studies distance and direction measurement, employing transit, theodolites, electronic distance measuring (EDM), and Global Positioning Systems (GPS). **Prerequisite:** FT210A or consent of instructor. **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. **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. **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. **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. **Sp**

FT270A Silviculture 1

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. **F**

FT270B Silviculture 2

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. **W**

FT280A-L Cooperative Work Experience

See Cooperative Work Experience.

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. **Sp**

GE

General Engineering

See also Engineering.

GE101 Engineering Orientation

2 class and 2 lab hrs/wk, 3 cr.

Introduces the engineering profession and engineering problem-solving. **Prerequisite:** MTH111 or consent of instructor. **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 and routines will be developed and used by students in the solution of typical engineering problems. Structured programming techniques will be emphasized. **Prerequisite:** MTH111 or consent of instructor. **W**

GE103 Engineering Computations

2 class and 2 lab hrs/wk, 3 cr.

Develops 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. **Sp**

GE115 Engineering Graphics

2 class and 3 lab hrs/wk, 3 cr.

Covers graphic communication, multiview and pictorial representation, graphical analysis and solutions, and computer-aided drafting.

Prerequisite: DRF130. **Offered as needed.**

GEG

Geography

GEG105 Physical Geography

3 class and 2 lab hrs/wk, 4 cr.

Focuses on the physical subsystems of the earth (atmosphere, biosphere, hydrosphere, and lithosphere), with emphasis on human-environment relations. Includes basic map skills, latitude/longitude, weather, climate, biogeography, volcanism, erosion and desert landscapes. **F, W, Su**

GEG106 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**

GEG107 Global Lands and Livelihoods

3 class hrs/wk, 3 cr.

Introduces economic geography, including the study of development and under-development, agriculture, industry, settlement, urban landscapes, and natural resource problems. **F, Sp**

GEG140 Map Reading and Interpretation

3 class hrs/wk, 3 cr.

Introduces basic concepts in reading, interpreting and analyzing information from a variety of maps. Topics include map projections, map misuse, grid systems, map scale, route planning, Global Positioning System (GPS), Geographic Information System (GIS), contour reading, satellite imagery and computer-based mapping. **W**

GEG190 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.**

GEG201 World Regional Geography: The Developed World

3 class hrs/wk, 3 cr

Introduces the physical and cultural geography of the developed world (Europe, Russia, Japan, North America, and Australia). Emphasizes major geographic themes and concepts, including population change, natural resource use, environmental concerns, economic development, geopolitical conflicts and cultural perceptions. **Offered as needed.**

GEG202 World Regional Geography: The Developing World

3 class hrs/wk, 3 cr.

Introduces the physical and cultural geography of the developing world (Middle East, Sub-Saharan Africa, Latin America, and South, East and Southeast Asia). Emphasizes regional survey of the geography of developing countries, major geographic themes and concepts, including population change, natural resource use, environmental degradation, economic development, geopolitical conflict and cultural perceptions. **Offered as needed.**

GEG206 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.**

GEG207 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.**

GEG220 Middle East Geopolitics

3 class hrs/wk, 3 cr.

Focuses on recent geopolitical disputes in the Middle East with an emphasis on examining these disputes geographically. Gives special attention to the Arab-Israeli conflict, including the formation of a Palestinian state. Studies the Iran-Iraq War, the 1991 Gulf War, the 2003 war in Iraq, and rivalries over water and other resources. **Offered as needed.**

GEO

Geology

GEO130 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.**

GEO142 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.

Offered as needed.

GEO143 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. **Offered as needed.**

GEO144 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. **Offered as needed.**

GEO201 Geology

3 class and 3 lab hrs/wk, 4 cr.

Studies the nature and origin of common rocks and minerals. Identification techniques applied in laboratory and on field trips. **F**

GEO202 Geology

3 class and 3 lab hrs/wk, 4 cr.

Offers a broad non-quantitative, descriptive survey of geologic landforms. Map interpretation activities applied in laboratory and on field trips. **W**

GEO203 Geology

3 class and 3 lab hrs/wk, 4 cr.

Offers a geophysical study of earth history, interpreted through geophysics and plate tectonics, coupled with laboratory field study of paleontology. **Sp**

GER

German

GER101, 102, 103 First Year German, Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Introduces 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. Instructor and students use German as the primary language of the class. **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. GER101: **F**; GER102: **W**; GER103: **Sp**

GS**General Science****GS104 Physical Science****3 class and 3 lab hrs/wk, 4 cr.**Integrates the study of forces and motions in the physical world. **F, W, Sp, Su****GS105 Physical Science****3 class and 3 lab hrs/wk, 4 cr.**Offers a broad, nonquantitative, descriptive survey of chemical principles which are relevant to everyday life. **F, W, Sp, Su****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. **F, W, Sp, Su****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. **F, W, Sp, Su****GS111 Integrated Science 1****3 class and 3 lab hrs/wk, 4 cr.**Integrates study of fundamental forces, energy and matter. Suitable for students planning a future in elementary education. Emphasizes classroom activities to teach these concepts. **Offered as needed.****GS120 Rudiments of Meteorology****3 class hrs/wk, 3 cr.**Describes the 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.**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. A telecourse, the class includes video viewing, written worksheet lessons, at-home quizzes, topical outside reading summaries and an on-campus exam. **Offered as needed.****GS142 Earth Revealed****3 class and 3 lab hrs/wk, 4 cr.**An introductory telecourse or modern geology course. Studies the Earth as a system. A textbook, study packet, and lab component are closely integrated with video components. **F, W, Sp, Su****GS143 The Earth's Oceans****3 class and 3 lab hrs/wk, 4 cr.**Focuses on the marine environment as a unique feature of Planet Earth. This telecourse includes video viewing, journal writing, class projects and site-based labs. **Sp****HD****Human Development****HD220 Life Skills Seminar 1****3 class hrs/wk, 3 cr.**Helps adults re-entering education or the workforce identify their abilities, interests and values and develop an individual career plan. Includes personal assessment, career exploration and decision-making, identification and removal of barriers to success. **Prerequisite:** Concurrent enrollment in HD221. Individual intake interview and consent of instructor required. **F, W, Sp****HD221 Life Skills Seminar 2****3 class hrs/wk, 3 cr.**Helps re-entering adults develop goals, skills and support systems that promote success in education and careers. Topics include building self-confidence, balancing work and family, assertiveness, communication skills, stress, time management, and development of an individual action plan. **Prerequisite:** Concurrent enrollment in HD220. Individual intake interview and consent of instructor required. **F, W, Sp****HDF****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. **F, W, 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. **F, W, Sp****HDF222 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). Emphasizes understanding the role of the family and its consequent role in the development of the individual. **F****HDF225 Prenatal, Infant and Toddler Development****3 class hrs/wk, 3 cr.**Studies the basic principles of development, prenatal through two years of age. Emphasizes physical, intellectual, emotional, and social growth and development of young children. **F****HDF226 A Time to Grow****3 class hrs/wk, 3 cr.**Presents an overview of children, ages birth through adolescence, from a developmental perspective. Includes how children change as a result of age and experience. Examines the interplay of biology, experience, and the child's current stage of development. **Offered as needed.****HDF227 The Whole Child****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.****HDF229 Development in Middle Childhood****3 class hrs/wk, 3 cr.**Studies growth and development in 6- through 12-year-old children. Emphasizes physical, intellectual, emotional, and social growth of the school-aged child. **Sp****HDF242 Balancing School, Work, and Family****1 class hr/wk, 1 cr.**Presents information on balancing the demands of school, work and family. Covers the work-family lifestyle, handling stress, communication skills, and time and money management. **F, W, Sp****HDF247 Preschool Child Development****3 class hrs/wk, 3 cr.**Examines the principles of development as they apply to the young child, primarily ages 2 1/2 through 5. Emphasizes physical, intellectual, emotional and social growth in children. **W****HDF248 Learning Experiences for Young Children****4 class hrs/wk, 4 cr.**Focuses on planning and implementing preschool curriculum based on development theory. Involves 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). **Prerequisite:** HDF225 and HDF247 or consent of instructor. **Sp**

HDF249 Introduction to Working and Living with Infants and Toddlers

3 class hrs/wk, 3 cr

Assists child care practitioners who work with infants and toddlers in child development centers and home settings. Focuses on understanding, facilitating, and respecting infant and toddler development. Appropriate environmental planning, activities, and observation skills will be discussed, demonstrated, and practiced. **F**

HDF257 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**

HDF258 Teaching In An Anti-Bias Classroom

3 class hrs/wk, 3 cr.

Focuses on a process that leads to understanding and developing practices for teaching young children in culturally relevant and inclusive ways. Provides an understanding of identity development in relation to gender, race and other biases that influence and affect children and families. Includes uncovering and naming biases. Examines the social context that contributes to biases that affect teaching attitudes and practices. **W**

HDF260 Child Abuse and Neglect

3 class hrs/wk, 3 cr.

Introduces problems of child abuse and neglect for professionals in situations where children are cared for, such as child care centers and schools. This course may also be useful to other professionals who come into contact with children and need to be aware of issues regarding child abuse and neglect. Includes examining the causes of abuse, the abused child, the abusive parent and adult, the role of the teacher, areas of treatment, and education. **W, Sp**

HDF285 Professional Issues in Early Childhood Education

3 class hrs/wk, 3 cr.

Prepares early childhood educators to fill the many professional roles that require basic knowledge of ethics, conflict resolution, understanding of the special needs child, advocacy, governmental processes, and development of an anti-bias professional attitude. Also covers historical perspectives relating to early childhood education. **Prerequisite:** Second-year standing in the Early Childhood Education program or consent of instructor. **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. **Offered as needed.**

HE204 Nutrition, Weight Control and Physical Fitness

3 lab hrs/wk, 3 cr.

Presents methods of maintaining or improving fitness through consideration of diets and dieting, obesity, types of exercise, cardiovascular fitness and nutritional concepts. **F, W, Sp, Su**

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 HIV, AIDS and other STDs (Human Immunodeficiency Virus, Acquired Immunodeficiency Syndrome and other Sexually Transmitted Diseases/Infections)

1 class hr/wk, 1 cr.

Presents basic information about HIV, AIDS, and other sexually transmitted diseases/infections. Explores newest research available. Focuses on decision-making and behaviors which help prevent contracting sexually transmitted diseases/infections. **Offered as needed.**

HE250 Personal Health

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 health-enhancing skills and behaviors. Provides an opportunity to apply and practice decision-making models regarding personal health issues. **F, W, Sp, Su**

HE262 Cardiopulmonary Resuscitation Instruction

2 class 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. **Offered as needed.**

HM

Health Services Management

See also Allied Health and Medical Office Assisting.

HM101 Medical Law and Ethics

3 class hrs/wk, 3 cr.

Explores 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. **F, W or Sp**

HM105 Professional Development A

1 class hr/wk, 1 cr.

Develops leadership qualities, enhances awareness of diversity in the healthcare workplace, develops interpersonal communication skills and provides a setting for self-improvement. **F**

HM106 Professional Development B

1 class hr/wk, 1 cr.

Develops leadership qualities, provides opportunities for community participation, enhances awareness of diversity in the healthcare workplace, explains employment rights and provides a setting for self-improvement. **W**

HM107 Professional Development C

1 class hr/wk, 1 cr.

Develops job search, including life and work goals, and resume writing skills, interviewing abilities, including letter writing, diversity awareness and provides a setting for self-improvement. **Sp**

HM110 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. **F**

HM112 Health Information Systems Procedures 2

3 class and 4 lab hrs/wk, 5 cr.

Provides entry-level skills for Health Record Technician/Medical Transcription students and other students in the Health Services Management programs. Offers basic knowledge of health information systems and the skills necessary for health clerical functions. Focuses on the health care delivery system, the health information field, the content of a medical record, and the health record processing of a variety of medical reports. **Prerequisite:** HM110 or consent of instructor. **W**

HM114 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:** HM120, concurrent enrollment in HM121, or consent of instructor. **W**

HM115 ICD-9-CM Coding/Reimbursement

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 fundamental application of coding in basic forms, computerized billing, and state and federal agencies. **Prerequisite:** HM120, HM121, or consent of instructor. **Sp**

HM116 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**

HM120 Medical Terminology 1

3 class hrs/wk, 3 cr.

Emphasizes the terminology related to the healthcare professions and specialties, equipment, drugs, symbols and abbreviations. Includes the anatomy, physiology and pathophysiology of the musculoskeletal, integumentary, nervous systems as well as the sensory organs. Provides practical application in the workplace using case studies, operative, autopsy, diagnostic and laboratory reports. **F, W, Sp, Su**

HM121 Medical Terminology 2

3 class hrs/wk, 3 cr.

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 case-based and experiential learning techniques. **Prerequisite:** HM120. **F, W, Sp, Su**

HM122 Medical Terminology 3

3 class hrs/wk, 3 cr.

Presents an advanced course using the language of clinical medicine in a variety of settings including oncology, diagnostic radiology, the clinical laboratory and pharmacology. Focuses on the reading, analyzing and use of clinical research and literature to explore advanced topics in medical terminology and the diseases and conditions of medical science. Emphasizes written and verbal presentation of the findings of individual and group student research projects. **Prerequisite:** HM121. **F, W, Sp, Su**

HM130 Health Information Systems Office Practice

16 lab hrs/wk, 5 cr.

Includes practices in clinical situations of health information methods and techniques. **Prerequisite:** Third-term standing in the Health Information Technician program with a grade of C or better in all required courses in the first two terms of the program. **F, W, Sp**

HM131 Health Information Systems Seminar

1 class hr/wk, 1 cr.

Studies the relationship of practicum in a health care setting with theoretical course content, as well as its application to career and personal goals. **Prerequisite:** HM130. **F, W, Sp**

HM140 Medical Transcription

2 class and 2 lab hrs/wk, 3 cr.

Introduces 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:** HM120, keyboarding of 40 words per minute, basic word processing skills, or consent of instructor. **F, W, Sp**

HM141 Medical Transcription 1

1 class and 4 lab hrs/wk, 3 cr.

Introduces in-depth transcription in all fields of medicine. Emphasizes spelling, grammar, punctuation and formatting. Includes production goals that will be assessed regularly with timed tests. **Prerequisite:** HM120 or HM121 (may be taken concurrently) or consent of instructor and touch keyboarding ability of 40 words per minute. **F, W, Sp, Su**

HM142 Medical Transcription 2

1 class and 4 lab hrs/wk, 3 cr.

Includes transcription of comprehensive dictation in medical specialty areas including radiology, pathology, and cardiology using American Association of Medication Transcriptionist course tapes. **Prerequisite:** HM141 and touch keyboarding ability of 55 words per minute. **F, W, Sp, Su**

HM143 Medical Transcription 3

1 class and 4 lab hrs/wk, 3 cr.

Includes transcription of 20 actual advanced tapes in all fields. **Prerequisite:** HM142 and touch keyboarding ability of 65 words per minute. **F, W, Sp, Su**

HM144 Medical Transcription Seminar

1 class hr/wk, 1 cr.

Assists the student in relating classroom theory to practical experience and to discuss self-evaluations of work environment experiences. **Prerequisite:** Concurrent enrollment in HM280. **Offered as needed**

HM210 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**

HM214 Advanced CPT-IV Coding

3 class hrs/wk, 3 cr.

Builds on previous experience or instruction to further develop ability and skills in CPT-IV coding practices and principles. Expands resources for further coding problem solving. **Prerequisite:** H114; H120, H121 or basic knowledge of medical terminology. **Sp (as needed).**

HM215 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:** HM115 or basic coding experience on the job, HM120, and HM121 or basic knowledge of medical terminology. **W or Sp**

HM230 Health Services Externship

16 lab hrs/wk, 6 cr.

Provides one hundred sixty hours of workplace experience in a health care or related setting. **Prerequisite:** HM210, HM250 and HM251, or consent of instructor, and concurrent enrollment in HM231. **F or W, Sp**

HM231 Health Services Seminar

1 class hr/wk, 1 cr.

Studies 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 HM230, or consent of instructor. **F or W, Sp**

HM250 Health Services Management 1

3 class hrs/wk, 3 cr.

Introduces the management functions, concepts, and principles used as well as managerial roles in the context of the health services organization and the health services delivery system. **F**

HM251 Health Services Management 2

3 class hrs/wk, 3 cr.

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:** H2M50. **W**

HM252 Health Services Management 3
3 class hrs/wk, 3 cr.

Provides a working knowledge of basic statistical techniques and their application to various healthcare literature and clinical environments. Uses the concepts of experiential and case-based learning to facilitate the learning process.

Prerequisite: MTH095 or BA211 and HM116 or HM251 or consent of instructor. **Sp**

HM280A-L Cooperative Work Experience
See Cooperative Work Experience.

HOR

Horticulture

HOR111 Introduction to Horticulture
3 class and 2 lab hrs/wk, 4 cr.

Provides a broad view of the horticulture industry, with emphasis on greenhouse and nursery production. Introduces the basic requirements for plant growth. Explores environmental and social aspects of horticulture. **F, Sp**

HOR121 Ecology in Horticulture
4 class hrs/wk, 4 cr.

Introduces basic environmental factors that influence horticulture. Explores ecological implications in the horticulture industry. Presents ecologically sound management options. **F, Sp**

HOR211 Plant Propagation
2 class and 2 lab hrs/wk, 3 cr.

Presents theory and methodology for reproducing plants by seed and by a variety of cloning methods. Covers anatomy, physiology and genetics related to plant reproduction. **F, W, Sp**

HPE

Health and Physical Education See also Physical Education.

HPE184 Sports Medicine: Prevention and Care of Athletic Injuries
3 class hrs/wk, 3 cr.

Covers the basic concepts of athletic injury prevention, including taping and bracing techniques. Addresses injury recognition and management, including common mechanisms of athletic injury, signs and symptoms, and proper care and rehabilitation of common athletic injuries. **F**

HPE270 Sport Psychology
3 class hrs/wk, 3 cr.

Introduces mental, physical, and social aspects of sports. Presents basic psychological mechanics and discusses how they are part of athletic performance. Explores newest research available. Focuses on decision making and behaviors which help promote team cohesion. **F, W, Sp**

HPE295 Health and Fitness for Life
3 lab hrs/wk, 3 cr.

Provides information on personal levels of health, lifelong fitness and wellness. **F, W, Sp, Su**

HPE296 Health and Fitness 2
3 lab hrs/wk, 3 cr.

Provides an in-depth study of wellness components with a focus on individual promotion of healthy behaviors, lifestyles and disease prevention. **Prerequisite:** HPE295 or equivalent. **F, W, Sp, Su**

High School Completion See page 36.

HS

Human Services

HS101 Addiction Pharmacology and Physiology
4 class hrs/wk, 4 cr.

Explains 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. **F, W, Sp**

HS103 Ethics for Human Service Workers
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 considers the issues faced by helpers-in-training. 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. **F, Sp**

HS120 Alzheimer's Disease: Coping and Caring
3 class hrs/wk, 3 cr.

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 that can precipitate certain behaviors. Describes communication techniques and legal and financial planning strategies for families, caregivers and case managers. A telecourse class. **Offered as needed.**

HS121 Introduction to Hospice Care
3 class hrs/wk, 3 cr.

Introduces care of terminally ill patients in the hospice environment. Covers palliative care techniques, with emphasis on social and psychological needs. Includes the practical, ethical and philosophical aspects of death, dying and bereavement. **Offered as needed.**

HS122 Gender Specific Women's Addiction Treatment
2 class hrs/wk, 2 cr.

Explores the historical, sociological and physiological implications for women and addiction. Introduces a holistic model of gender-specific treatment for this population group. **Offered as needed.**

HS140 Handling the Violent Client
1 class hr/wk, 1 cr.

Introduces 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**

HS150 Personal Effectiveness for Human Service Workers
3 class hrs/wk, 3 cr.

Develops knowledge and skills to improve personal effectiveness. Uses individual and small group exercises to improve skills in self-awareness, communication, values clarification, problem solving and conflict management. **Prerequisite:** Admission to Human Services program; recommended concurrent enrollment in HS154 and HS170. **F, W**

HS151 Compulsive Gambling
1 class hr/wk, 1 cr.

Covers basic information concerning problem gambling and its consequences. Focuses on the stages of progression from recreational to pathological gambling. Addresses screening, diagnosis, intervention and treatment. **Prerequisite:** HS101 or consent of instructor. **W**

HS152 Stress Management
1 class hr/wk, 1 cr.

Provides information on managing stress in all settings. Teaches relaxation techniques and their impact on health and well-being. Covers a variety of the major relaxation techniques and emphasizes the analysis of life stressors and the development of a personalized stress management plan. **F, W, Sp, Su**

HS154 Community Resources
3 class hrs/wk, 3 cr.

Explores the history and values that are the basis of present community resources designed to meet the needs of people experiencing specific barriers in their life. Familiarizes students with local social service agencies/organizations and provides a process for making appropriate referrals to these services. **Prerequisite:** Recommended concurrent enrollment in HS150 and HS170 for Human Services program students and for students designated pre-human services. **F, W**

HS155 Interviewing Theory and Techniques
3 class hrs/wk, 3 cr.

Provides the theory and specific techniques required for entry level interviewing in human service settings. **Prerequisite:** Grade of C or better in HS150. **Sp**

HS156 Counseling Theories
3 class hrs/wk, 3 cr.

Introduces the major counseling theories that have demonstrated effectiveness with substance disorders and a variety of mental health issues. Presents an overview of ten specific theories, their founders, key concepts, techniques and appropriate applications. **F**

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. **F**

HS170 Introduction to Practicum

3 class hrs/wk, 3 cr.

Provides the background and specific skills needed to select and succeed in the practicum placement. Serves as a prerequisite for Human Services practicum courses (HS284-HS288A,S).

Prerequisite: Admission to Human Services program and recommended concurrent enrollment in HS150 and HS154. **F, W**

HS201 Family Addiction

3 class hrs/wk, 3 cr.

Presents the basic information regarding chemical dependency and its effects on the whole family. Focuses on the family dynamics and treatment of alcoholic/addictive families. **Prerequisite:** Grade of C or better in HS101 or consent of instructor. **Sp**

HS205 Youth Addiction

3 class hrs/wk, 3 cr.

Assists students in working with chemically-dependent youth. Includes prevention, intervention, assessment, and continuing recovery techniques for individuals and groups. **Prerequisite:** HS101 or consent of instructor. **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 or consent of instructor. **W**

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 that surface in adulthood. Includes discussion of family dynamics, denial, relationships, work, social skills and feelings. **F, W, Sp, Su**

HS209 Co-occurring Disorders

2 class hrs/wk, 2 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 these areas in a blended format. **Prerequisite:** HS101 or consent of instructor. **Offered as needed.**

HS211 HIV, TB and Infectious Diseases: Risk Assessment, Harm Reduction and Counseling

1 class hr/wk, 1 cr.

Explores the relationship between alcohol and other drug abuse and infectious diseases, including HIV/AIDS, tuberculosis, sexually-transmitted diseases and hepatitis. Provides counseling techniques for assisting clients to identify personal risk and practice harm reduction. Also addresses special issues affecting diverse populations. Examines personal issues/discomforts arising from frankly discussing sexual behaviors of clients.

Prerequisite: None. HS101, HS150 and HS155 recommended. **F, Sp, Su**

HS213 Multicultural Counseling

3 class hrs/wk, 3 cr.

Explores the ways membership in a cultural group affects the counseling process for the client and for the counselor. Encourages increased levels of intercultural sensitivity and skills; develops a plan to increase abilities in cross-cultural counseling situations. Focuses on factors affecting major ethnic minorities in the U.S. including, African Americans, Asian groups, Latinos and Native Americans. Addresses factors affecting other minority groups, such as gays and lesbians and the elderly. Students will complete a cultural assessment that meets Oregon Administrative Rule (OAR) requirements. **F, W, Sp**

HS214 Advanced Interviewing and Counseling Skills

3 class hrs/wk, 3 cr.

Second of a two-course sequence designed to introduce intentional interviewing. Focuses on developing advanced skills and strategies with significant opportunity for hands-on practice. **Prerequisite:** HS155 or consent of instructor. Concurrent enrollment in HS284-288 is highly recommended. **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.**

HS216 Clinical Screening, Assessment and Treatment Planning

3 class hrs/wk, 3 cr.

Introduces diagnostic criteria for substance use disorders as well as a number of other major mental health disorders often seen in substance abusing clientele. Provides a systematic approach to screening, assessment and treatment planning in order to determine the most appropriate initial course of action given the client's needs, characteristics and available resources. Provides significant opportunity for hands-on practice.

Prerequisite: HS214 or consent of instructor. Concurrent enrollment in HS284-288 is highly recommended. **W**

HS217 Group Counseling Skills

3 class hrs/wk, 3 cr.

Presents strategies from accepted and culturally appropriate models for group counseling with clients with a variety of disorders including substance abuse. Focuses on the ethical use of groups as an effective therapeutic intervention. Addresses leadership behaviors, group formation and group stages. **Prerequisite:** HS155 and HS260 or consent of instructor. Concurrent enrollment in HS284-288 is highly recommended. **W**

HS218A Group Processes A

1 class hr/wk, 1 cr.

Provides experiential group training designed for actual experience with the power of group process. Provides opportunities to learn about leadership, group stages, rules and norms as well as self-disclosure, roles and group skills. First course in a three-term sequence. **Prerequisite:** Admission into the Human Services program, HS155 and HS260 or consent of instructor. Concurrent enrollment in HS284-288 is highly recommended. **F**

HS218B Group Processes B

1 class hr/wk, 1 cr.

Provides experiential group training designed for actual experience with the power of group process. Provides opportunities to learn about leadership, group stages, rules and norms as well as self-disclosure, roles and group skills. Second course in a three-term sequence. **Prerequisite:** Admission into the Human Services program and HS218A. Concurrent enrollment in HS284-288 is highly recommended. **W**

HS218C Group Processes C

1 class hr/wk, 1 cr.

Provides experiential group training designed for actual experience with the power of group process. Provides opportunities to learn about leadership, group stages, rules and norms as well as self-disclosure, roles and group skills. Third course in a three-term sequence. **Prerequisite:** Admission into the Human Services program and HS218B. Concurrent enrollment in HS284-288 is highly recommended. **Sp**

HS219 Case Management and Client Records

3 class hrs/wk, 3 cr.

Covers the preparation of clinical documentation related to screening and intake processes, assessments, treatment plans, reports, progress notes, discharge summaries and other client-related data. Applies State, ASAM and other professionally relevant standards. Concurrent enrollment in HS284-288 is highly recommended. **Sp**

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 older adults. Also covers the description, diagnosis, assessment, and treatment of common organic and functional mental disorders. **W**

HS260 Group Dynamics

3 class hrs/wk, 3 cr.

Provides students with the theory and experience to work as effective members of small task groups. Styles of leadership, member roles, problem solving, decision-making and resolving conflicts/controversy are defined and studied. Offers the opportunity to evaluate personal performance within a group. **Prerequisite:** Grade of C or better in HS150. **W, Sp**

HS262 Misuse and Abuse of Alcohol and Drugs Among the Elderly

1 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 or consent of instructor. **Sp**

HS265 Casework Interviewing

3 class hrs/wk, 3 cr.

Provides training in the casework interviewing skills needed for cross-cultural human services work. Includes interviewing, problem solving and assessment, case management, and applied theory. **Prerequisite:** Grade of C or better in HS155 and HS824-288 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:** Grade of C or better in HS265 and HS284-288 or concurrent enrollment. **W**

HS267 Systems Strategies

3 class hrs/wk, 3 cr.

Provides intervention strategies needed for human service work. Includes theory and practice in the use of family, group and community intervention strategies. **Prerequisite:** Grade of C or better in HS266 or HS216. **Sp**

HS284-288A,S Practicum-Human Services

11-23 lab hrs/wk, 4-8 cr.

Provides experience working on-site in a human service agency to integrate field and classroom experience. Offers students two different practicum sites, each at least two terms in length, during the program. The second-year practicum is more comprehensive and provides an opportunity to develop more advanced skills. **Prerequisite:** Grade of C or better in HS150 and HS170.

F, W, Sp (Su as needed).

HST

History

HST110, 111, 112 History of World Civilization

3 class hrs/wk, 3 cr. each

Surveys 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. **F, W, Sp, Su**

HST157 History of the Middle East and North Africa

3 class hrs/wk, 3 cr.

Surveys cultural, social, economic and political development in the Middle East and North Africa. **Offered as needed.**

HST158 History of Latin America

3 class hrs/wk, 3 cr.

Surveys cultural, social, economic and political development in Latin America. **Offered as needed.**

HST159 History of Asia

3 class hrs/wk, 3 cr.

Surveys 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

Studies the cultural, economic, social, and political development of the United States. HST201: 1492 to 1840; HST202: 1840 to 1900; HST203: 1900 to the present. **F, W, 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 Native American societies have 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.

Focuses on the racial, cultural, educational, economic, and political development of Latino Americans in the United States. **Offered as needed.**

HST262 Women in U.S. History

3 class hrs/wk, 3 cr.

Studies the transformation of the role of women in American society. **Offered as needed.**

HTM

Hospitality and Tourism Management

HTM100 Introduction to the Hospitality Industry

3 class hrs/wk, 3 cr.

Introduces the hospitality industry as a single, interrelated industry composed of food and beverage, travel and tourism, lodging meeting and planning, leisure and recreation, recreational entertainment, eco and heritage tourism. Includes industry components, their current issues and future trends. Assesses the impact of North America's changing demographics and lifestyles. Discusses economic impact, career opportunities and service ethics. **F, Su**

HTM101 Customer Service Management

3 class hrs/wk, 3 cr.

Provides an in-depth study of the methods and techniques employed by the hospitality and tourism industry to accomplish effective and efficient operation. Includes combined discussions of management theory, systems, decision-making and leadership directly relevant to the hospitality profession. Also covers the business facets of human resource management, finance, ethics and marketing within the hospitality environment. **W**

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. **Sp**

HTM103 Marketing in the Hospitality Industry

3 class hrs/wk, 3 cr.

Studies how marketing activities direct the flow of goods and services from product to consumer in the hospitality and tourism industry. Covers satisfaction of customer's needs and wants; nature of marketing; sequential steps in marketing; key role of marketing research; interdependence of hospitality and travel organizations, and organization-wide and multi-department efforts. Analyzes various industry marketing strategies. **W, Sp**

HTM104 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, region, state or local area. Discusses the fundamentals of the tourism system and the key costs and benefits of a tourism economy. Promotes understanding and knowledge of the diverse elements that comprise the travel and tourism industry and the factors that influence growth and development. Uses examples of tourism development practices in Oregon. **F, Sp**

HTM105 Introduction to the Food and Beverage Industry**3 class hrs/wk, 3 cr.**

Covers the food service industry, including its structure, organization, size, economic impact, regulatory industries and peripheral industries; managerial problems and practices; trade journals and resources. Reviews food service segments. Discusses current industry operational topics. **W**

HTM106 Introduction to the Lodging Industry**3 class hrs/wk, 3 cr.**

Introduces the lodging industry, including its structure, size, and scope; managerial problems and practices. Covers the structure and organization within the individual lodging firm's front office procedures. Explores career opportunities. **Sp**

HTM107 Sanitation and Safety for Managers**3 class hrs/wk, 3 cr.**

Uses the Educational Foundation of the National Restaurant Association's ServSafe training and certification coursework. Covers current principles and practices of sanitation and safety for managers. Discusses Oregon's recent enactment of statewide food handler training: the Hazard Analysis Critical Control Point (HACCP) system. Includes potable water systems, waste treatment, lodging facilities, recreational facilities, swimming pool and spa regulations, and hazardous materials. Certificate of completion will be issued by the National Restaurant Association upon completion. **Sp**

HTM108 Introduction to the Leisure and Recreation Industry**3 class hrs/wk, 3 cr.**

Covers 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. **Offered as needed.**

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. **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. **Offered as needed.**

HTM112 Bed and Breakfast Operations**3 class hrs/wk, 3 cr.**

Covers 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. **F**

HTM113 Club Management**3 class hrs/wk, 3 cr.**

Covers 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. **Offered as needed.**

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. **F**

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. **W**

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 in-depth geographical, political and cultural data on the countries emphasized. **Sp**

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. **Offered as needed.**

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. **Sp**

HTM123 Global Distribution Systems**3 class hrs/wk, 3 cr.**

Surveys travel agency computer reservation systems (CRS)-(APOLLO, SABRE, WORLDSPAN, PARS). Includes use of reservation system simulations to identify flights, auto rentals, lodging and associated travel information. Emphasizes problem solving in the workplace. **W**

HTM126 Meeting and Event Planning**3 class hrs/wk, 3 cr.**

Focuses on the management and operations of the meeting, convention and event market in the hospitality and tourism industry. Introduces the meetings industry, promotional activities, and negotiations for meeting services. Covers convention market salesmanship, customer service, and convention servicing. Incorporates facilities, technology and media. **W**

HTM127 Travel Sales and E-Commerce**3 class hrs/wk, 3 cr.**

Prepares travel and tourism students for a successful career selling travel. Applies concepts and techniques to sample sales dialogues, examples and case studies. Assess the impact of the Internet and e-commerce trends on the travel industry and the functionality of travel e-commerce sites. Focuses on how e-commerce travel sites integrate with Global Distribution Systems and the changing value chain in the travel marketplace. **F**

HTM128 Spanish for Hospitality Professionals**4 class hrs/wk, 4 cr.**

Provides non-Spanish speaking hospitality professionals with functional communication skills in Spanish. Utilizes phonetic encoding to address the most important Spanish commands, questions and phrases critical to professional hospitality industry work. No prior knowledge of Spanish is necessary. **Sp**

HTM150 Sales and Customer Service Foundation Skills**3 class hrs/wk, 3 cr.**

Explores the process of learning about oneself, progressing to relating to customers. Develops an understanding for the use of learning styles and strategies, effective communication processes, and active listening and speaking skills. Identifies perceived barriers to employment including: locus of control, community roles and family life. Develops initial competency in identifying and applying customer service skills and sales strategies in appropriate work situations. **Offered as needed.**

HTM151 Personalized Customer Service 3 class hrs/wk, 3 cr.

Stresses how to provide personalized customer service. Focuses on establishing immediate rapport with customers, creating enjoyable shopping experiences and building customer relationships. Explores career opportunities within industries requiring sales and customer service skills. Develops an individualized career path plan of action. **Offered as needed.**

HTM152 Selling and Promoting Products 3 class hrs/wk, 3 cr.

Focuses on methods for developing product knowledge, identifying and demonstrating product features. Stresses ways to gain customer and client commitment, close sales and create competitive advantage. Explains how customers and clients will benefit from products. **Offered as needed.**

HTM280A-L Cooperative Work Experience

See Cooperative Work Experience.

HUM

Humanities

HUM106 British Life and Culture 3 class hrs/wk, 3 cr.

Offers a broad overview of British culture and civilization. Examines traditions and institutions to help understand the British way of life in the 20th century. Lectures by British guest lecturers and related field trips. This course (taught in London) is only for students participating in the London program of the Oregon International Educational Consortium. **Sp**

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. **F**

HUM252 The Art of Discovery 3 class hrs/wk, 3 cr.

Explores 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.

Explores 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. **Sp**

HUM259 Death and Dying 3 class hrs/wk, 3 cr.

Introduces 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. **F, W, Sp**

JNL

Journalism

JNL215 Publications Lab 4 lab hrs/wk, 2 cr.

Applies reporting skills, photojournalism and production principles through work on the student newspaper. **Prerequisite:** JNL224 or consent of instructor. Course may be repeated for a maximum of 12 credits. **F, W, Sp**

JNL216 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: Familiarity with keyboarding. **F**

JNL217 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:** JNL216 or consent of instructor. Familiarity with keyboarding. **W**

JNL224 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**

JNL225 Advertising/Public Relations 3 class hrs/wk, 3 cr.

Covers communications and production aspects of advertising and public relations. Criticism and analysis combined with assignments in copywriting, design and marketing strategy. **W**

JNL226 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:** JNL224 or consent of instructor. The ability to type and a basic understanding of English grammar and syntax also are strongly recommended. **Sp**

JNL227 Media 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**

JPN

Japanese

JPN101, 102, 103 First Year Japanese, Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Introduces 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. Instructor and students use Japanese as the primary language of the class. **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. JPN101: **F**; JPN102: **W**; JPN103: **Sp**

Job Search

See Field Experience.

Literature

See English.

Management

See Business Administration.

Mechanical Design

See Drafting Technology.

MED

Medical Office Assisting

See also Allied Health and Health Services Management.

MED120 Medical Office Procedures 3 class and 3 lab hrs/wk, 4 cr.

Covers basic procedures and principles of administrative duties used in medical facilities. Includes medical practice systems, the role of team members, human relations, patient reception, telephone techniques, appointment systems, correspondence, dictation, computer applications, filing and medical record management. Presents a brief history of medicine and medical ethics and law. **F**

MED124 Medical Assisting, Basic Procedures 3 class and 3 lab hrs/wk, 4 cr.

Surveys 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 care setting. **Prerequisite:** High school graduate or equivalent. Admission to the Medical Office Assisting program. **F**

MED125 Medical Assisting, Advanced Procedures

4 class and 4 lab hrs/wk, 6 cr.

Surveys advanced clinical/laboratory knowledge and skills required of the medical office assistant. Emphasizes 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. 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 of C or better in all required courses. **W**

MED127 Medical Assisting Advanced Administrative Procedures

3 class hrs/wk, 3 cr.

Offers advanced administrative procedures and principles used in the medical office. Focuses on health information management issues including professional fees, health insurance, managed care, coding and claim processing, assisting with library research, scheduling travel and meetings, and planning and organizing the facility's environment. Covers management responsibilities.

Prerequisite: Second-term standing in the Medical Assisting program with a grade of C or better in all required courses. **Offered as needed.**

MED128 Introduction to Medical Science

3 class hrs/wk, 3 cr.

Surveys the disease processes that lead to specific impairments of the human body. **Prerequisite:** HM120, HM121. **Sp**

MED130 Medical Assisting Practice

16 lab hrs/wk, 5 cr.

Assigns 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 of C or better in all required courses. Current Standard First Aid card and Healthcare Provider CPR card on file with the instructor. **Sp**

MED131 Medical Assisting Seminar

1 class hr/wk, 1 cr.

Studies 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**

MED280A-L Cooperative Work Experience

See Cooperative Work Experience.

MFG

Manufacturing Engineering Technologies

MFG061 Practical Applications 1

3 lab hrs/wk, 1 cr.

Offers an open lab course for the Manufacturing Technology program student who wishes additional time to work in the shop or on lab equipment to refine previously learned skills. Projects or exercises to be determined by student and instructor. **Prerequisite:** Consent of instructor. **F, W, Sp**

MFG062 Practical Applications 2

6 lab hrs/wk, 2 cr.

Provides an open lab course for the Manufacturing Technology program student who wishes additional time to work in the shop or on lab equipment to refine previously learned skills. Projects or exercises to be determined by student and instructor. **Prerequisite:** Consent of instructor. **F, W, Sp**

MFG088A Intermediate Hydraulics

3 class hrs/wk, 3 cr.

Covers the symbols, systems and trouble-shooting procedures of fluid power. **Prerequisite:** MFG231 or completion of a basic hydraulics course. **Sp**

MFG200 Advanced Lab Practice

6 lab hrs/wk, 2 cr.

Provides advanced lab practice to hone skills required for Manufacturing Technology. Students work singly or in small groups on projects agreed upon by the student and instructor. **Offered as needed.**

MFG223 Industrial Systems

2 class and 3 lab hrs/wk, 3 cr.

Introduces the methods and application of transmitting power used in the manufacturing industry. **Offered as needed.**

MFG231 Hydraulics

3 class hrs/wk, 3 cr.

Covers the theory, symbols, components, systems, and troubleshooting procedures related to fluid power technology. Includes lecture and hands on instruction. **Offered as needed.**

MFG280A-L Cooperative Work Experience

See Cooperative Work Experience.

MT

Microelectronics/Industrial

MT110 Microelectronics

3 class hrs/wk, 3 cr.

Surveys the field of microelectronics. Covers an overview of the technology and manufacturing processes used and its economic and social impacts. Applies to students considering a career in Oregon's high growth semiconductor industry.

Prerequisite: MTH070, or High School Algebra 2, or consent of instructor. **F**

MT221 Fluid and Vacuum Systems

3 class and 3 lab hrs/wk, 4 cr.

Covers theory, operation and application of hydraulic, pneumatic and vacuum systems. Includes operation, diagnosis, service, maintenance and repair of components and systems. **Prerequisite:** MTH070, High School Algebra 2, or consent of instructor. **Sp**

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 2, or consent of instructor. **Sp**

MT227A Pneumatics and Hydraulics Fundamentals

2 class hrs and 3 lab hrs/wk, 3 cr.

Covers theory, operation and application of hydraulic and pneumatic systems. Includes diagnosis, service, maintenance repair of pneumatic components and systems. **Prerequisite:** MTH070, High School Algebra 2, or consent of instructor. **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 of C or better in MTH020 or equivalent. **F, W, Sp, Su**

MTH053 Introduction to Trigonometry with Geometry

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 of C or better in MTH052 or equivalent. **F, W, Sp, Su**

MTH055 Fundamentals of Mathematics for the K-8 Classroom

3 class hrs/wk, 3 cr.

Includes mathematical problem-solving strategies while focusing on the five strands of the Oregon Mathematics Standards: Calculations and Estimations, Measurement, Statistics and Probability, Algebraic Relationships, and Geometry. Emphasizes developing ways to assist student learners with the core state standards for mathematics. Utilizes manipulatives to deepen understanding. **Prerequisite:** Grade of C or better in MTH020 or equivalent as determined by instructor. **F, W, Sp, Su**

MTH060 Introductory Algebra

4 class hrs/wk, 4 cr.

Gives students with no algebra background 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 better in MTH020 or equivalent. **F, W, Sp, Su**

MTH062 Business Applications Using Mathematics

4 class hrs/wk, 4 cr.

Covers application of mathematics to the world of business. Includes applications involving securities, profit distribution, overhead allocation, business statistics, simple interest, notes and bank discounts, compound interest, multiple payment plans, annuities, depreciation, single discount equivalents, markup, markdown, inventory valuation, and financial statement analysis with ratios. Uses manual, hand-held calculator, and spreadsheet computational tools. **Prerequisite:** Grade of C or better in MTH060 or higher or equivalent and CS101 or CA118B1 or CS125E or equivalent, or consent of instructor. **F, W, Sp**

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 better in MTH060 or equivalent. **F, W, Sp, Su**

MTH075 Applied Geometry

1 class hr/wk, 1 cr.

Offers an individualized course that may be started and completed at any time during the term. Covers the basic concepts of points, lines, planes, angles, triangles, congruence, similarity and polygons, all from an intuitive point of view. Uses applied problems involving these concepts. **Prerequisite:** Grade of C or better in MTH060 or equivalent. **F, W, Sp, Su**

MTH076 Applied Geometry

1 class hr/wk, 1 cr.

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. Individualized course which students may start and complete any time during the term. **Prerequisite:** Grade of C or better in MTH075 or equivalent. **F, W, Sp, Su**

MTH078 Applied Trigonometry

1 class hr/wk, 1 cr.

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. This individualized course may be started and completed at any time during the term. **Prerequisite:** Grade of C or better in MTH070, MTH075, and MTH076 or equivalent. **F, W, Sp, Su**

MTH079 Applied Trigonometry

1 class hr/wk, 1 cr.

Covers trigonometric ratios of obtuse angles, law of sines, law of cosines, vectors and radian measure. Includes applied problems involving these concepts. This individualized course may be started and completed at any time during the term. **Prerequisite:** Grade of C or better in MTH078 or equivalent. **F, W, Sp, Su**

MTH081 Technical Mathematics 1

4 class hrs/wk, 4 cr.

Designed to meet the needs of technology students from various disciplines and lay the groundwork for applying mathematical concepts and problem solving in the technical fields of engineering, drafting, mechanical design, forestry and electronics. Covers fundamental algebra concepts, graphing, ratio, proportions and variation, basic right angle trigonometry, statistics and empirical methods, operations with linear, quadratic and rational expressions, solutions of linear, quadratic and rational equations. Emphasizes using mathematics and technology to solve applied problems. First course of a two-term technical mathematics sequence. **Prerequisite:** Grade of C or better in MTH070 or equivalent. **F, W**

MTH082 Technical Mathematics 2

4 class hrs/wk, 4 cr.

Offers the second course of a two-term technical mathematics sequence designed to meet the needs of technology students from various disciplines and provide the mathematical skills for solving applied problems in the technical fields of engineering, drafting, mechanical design, forestry and electronics. Covers trigonometric functions, oblique triangles, vectors, solutions of trigonometric equations and graphing of trigonometric functions, exponents and radicals, complex numbers, logarithmic and exponential functions and their applications. **Prerequisite:** Grade of C or better in MTH081. **W, Sp**

MTH095 Intermediate Algebra

4 class hrs/wk, 4 cr.

Gives students the opportunity to actively participate in the study and applications of linear, quadratic, rational and exponential functions. **Prerequisite:** Grade of C or better in MTH070 or equivalent. **F, W, Sp, 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 of C or better in MTH095 or equivalent. **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 better in High School Algebra 2 or MTH095. **F, W, Sp, Su**

MTH112 Trigonometry

5 class hrs/wk, 5 cr.

Covers quadratic relations, circular functions, and trigonometric functions. In this pre-calculus course, applications and the use of a graphing calculator are emphasized. Group activities, writing assignments, and laboratory activities may be required. Graphing calculator required. **Prerequisite:** Grade of C or better in both MTH111 and MTH075 (or High School Geometry). **F, W, Sp, Su**

MTH211 Foundations of Elementary Mathematics

4 class hrs/wk, 4 cr.

Introduces the first course of a three-course sequence designed for liberal arts students, especially prospective elementary teachers. Emphasizes problem solving and covers basic concepts about whole numbers, integers, sets, and number theory. Uses manipulatives to deepen conceptual understanding. **Prerequisite:** Grade of C or better in MTH095 or equivalent. **F**

MTH212 Foundations of Elementary Mathematics

4 class hrs/wk, 4 cr.

Offers the second course of a mathematics sequence designed for prospective elementary teachers. Covers basic concepts about rational numbers, real numbers, statistics, and probability. Uses manipulatives to deepen conceptual understanding **Prerequisite:** Grade of C or better in MTH211 or equivalent. **W**

MTH213 Foundations of Elementary Mathematics

4 class hrs/wk, 4 cr.

Presents the third course in a mathematics sequence designed for prospective elementary teachers. Covers topics in geometry. Utilizes computer programs and manipulatives to deepen conceptual understanding **Prerequisite:** Grade of C or better in MTH212 or equivalent. **Sp**

MTH231 Discrete Mathematics

4 class hrs/wk, 4 cr.

Introduces computer science and mathematics majors. Introduces logic, sets, functions, algorithms, matrices, graph theory and trees, with applications. **Prerequisite:** Grade of C or better in MTH111 or equivalent. **Offered as needed.**

MTH232 Discrete Mathematics

4 class hrs/wk, 4 cr.

Applies fundamentals from MTH231 to number theory, counting techniques, relations and Boolean algebra. A second course for computer science and mathematics majors. **Prerequisite:** Grade of C or better in MTH231 or equivalent. **Offered as needed.**

MTH241 Elementary Calculus

4 class hrs/wk, 4 cr.

Emphasizes techniques of calculus in applied problem solving. The course is primarily for non-math majors. A one-term terminal course with an intuitive approach to differential and integral calculus. **Prerequisite:** Grade of C or better in MTH111 or equivalent. **F, W, Sp**

MTH243 Probability and Statistics 1

4 class hrs/wk, 4 cr.

Offers 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 one-sample hypothesis testing. **Prerequisite:** Grade of C or better in MTH111 or equivalent. **F, W, Sp, Su**

MTH244 Probability and Statistics 2

4 class hrs/wk, 4 cr.

Offers a second course open to all majors covering testing two-sample problems, linear regression and correlation, chi-squared goodness of fit tests, one-way and two-way analysis of variance. **Prerequisite:** Grade of C or better in MTH243 or equivalent. **Sp**

MTH245 Finite Mathematics

4 class hrs/wk, 4 cr.

Focuses on mathematics for business and finance, economics, management, life and social sciences. Includes linear models and systems, matrix algebra, linear programming, sets and counting techniques, and probability and statistics. **Prerequisite:** Grade of C or better in MTH111 or equivalent. **W**

MTH251 Differential Calculus

5 class hrs/wk, 5 cr.

Provides the first course in 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 of C or better in MTH112 or equivalent. **F, W, Sp, Su**

MTH252 Integral Calculus

5 class hrs/wk, 5 cr.

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 of C or better in MTH251 or equivalent. **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 of C or better in MTH252 or equivalent. **Sp, Su**

MTH254 Vector Calculus 1

4 class hrs/wk, 4 cr.

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. First of two courses in multivariable calculus. **Prerequisite:** Grade of C or better in MTH252 or equivalent. **F**

MTH255 Vector Calculus 2

4 class hrs/wk, 4 cr.

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. Second course in multivariable calculus. **Prerequisite:** Grade of C or better in MTH254, or equivalent. **W**

MTH256 Applied Differential Equations

4 class hrs/wk, 4 cr.

Covers solutions of linear and first order non-linear differential equations. Includes Laplace transforms and convolutions. Graphing calculator required. **Prerequisite:** Grade of C or better in MTH254 or equivalent. **Sp**

MUP and MUS

Music

MUP100 Individual Lessons

1 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, Sp, Su**

MUP105 Jazz Ensemble

3 lab hrs/wk, 1 cr.

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 or an audition. **F, Su**

MUP174 Voice

1 class hr/wk, 1 cr.

Gives 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. **F, W, Sp**

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. **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.

Offer 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. **F, W, Sp**

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 Haydn, Mozart, and Beethoven. **F**

MUS202 Introduction to Music and Its 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 Literature

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.

Explores jazz music with an emphasis on the historical and social perspectives of jazz as an American cultural phenomenon. **Offered as needed.**

NET

Network Technology

See also **Microelectronics/Industrial.**

NET120 Network Media Fundamentals

3 class and 2 lab hr/wk, 4 cr.

Focuses on types of transmission media used in computer network environments. Covers transmission line theory and discusses the characteristics of coaxial cables, twisted-pair cables, single-mode and multi-mode fiber. Compares the specification for cables and connectors used in networking. **Prerequisite:** ELT100 or consent of instructor. **W**

NET123 Computer Operating Systems

3 class and 2 lab hrs/wk, 4 cr.

Introduces computer operating systems using the command line. **Prerequisite:** CS101 or equivalent experience. **F**

NET151 Networking Essentials

3 class and 4 lab hrs/wk, 5 cr.

Provides the first course of a four-part sequence in a Cisco curriculum directed toward the Cisco Certified Network Associate Certification (CCNA). Gives 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. **F**

NET152 Network Router Configurations

3 class and 4 lab hrs/wk, 5 cr.

Provides 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:** NET151. **F**

NET153 LANs and Internetwork Design

3 class and 4 lab hrs/wk, 5 cr.

Provides the third 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 that includes LAN segmentation using bridges, routers and switches to control network traffic. **Prerequisite:** NET152. **W**

NET154 WAN Design

3 class and 4 lab hrs/wk, 5 cr.

Provides the fourth course of a four-part sequence directed toward the Cisco Certified Network Associate Certification (CCNA). Introduces WAN services. Covers ISDN, ATM, Frame Relay and Dial-Up Services. **Prerequisite:** NET153. **Sp**

NET171 Fundamentals of Wireless LANs

3 class and 4 lab hrs/wk, 5 cr.

Introduces the fundamentals of wireless LANs. Focuses on the design, planning, implementation, operation and troubleshooting. Includes a comprehensive, hands-on overview of wireless LAN technologies, security, and design best practices. Prepares students to achieve the Cisco Wireless LAN Support Specialist designation.

Prerequisite: NET152, equivalent experience, or consent of instructor. **Sp**

NET251 Advanced Routing Configuration

3 class and 4 lab hrs/wk, 5 cr.

Provides the first course of a four-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:** NET154 or consent of instructor. **F**

NET252 Remote-Access Networks

3 class and 4 lab hrs/wk, 5 cr.

Presents the second course of a four-part sequence in the Cisco Certified Network Professional (CCNP) certification. 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: NET251 or consent of instructor. **F**

NET253 Multi-Layer Switching

3 class and 4 lab hrs/wk, 5 cr.

Offers the third of a four-part sequence in the Cisco Certified Network Professional (CCNP) certification. Provides students with advanced experience in switched multi-layer network design. Focuses on designing, installing, configuring, and troubleshooting of complex switched networks.

Prerequisite: NET252 or consent of instructor. **W**

NET254 Network Troubleshooting

3 class and 4 lab hrs/wk, 5 cr.

Continues the fourth course of a four-part sequence in the Cisco Certified Network Professional (CCNP) certification. Provides students with advanced experience troubleshooting networks. Focuses on problem isolation and use of troubleshooting tools. **Prerequisite:** NET253 or consent of instructor. **Sp**

NET261 Fundamentals of Network Security

3 class and 4 lab hrs/wk, 5 cr.

Explains network security processes and equipment with a hands-on emphasis. Covers security policy design and management; security technologies, solutions, and products; security appliance firewalls and secure router design; AAA and VPN implementation. **Prerequisite:** NET154 or current CCNA certification or consent of instructor. **W**

NET281 Networks for Educators 1

3 class and 4 lab hrs/wk, 5 cr.

Provides the first course in a four-part sequence directed toward Cisco Certified Network Associate Certification (CCNA). 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 networking fundamentals, ISU/OSI model and TCP/IP protocols. **Prerequisite:** One year experience in technical instruction. **Offered as needed.**

NET282 Networks for Educators 2

3 class and 4 lab hrs/wk, 5 cr.

Provides the second course in a four-part sequence directed toward Cisco Certified Network Associate Certification (CCNA). 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. Includes router fundamentals and network topology. **Prerequisite:** NET281. **Offered as needed.**

NET283 Networks for Educators 3

3 class and 4 lab hrs/wk, 5 cr.

Provides the third course in a four-part sequence directed toward 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. Designed for educators/ trainers to discuss issues related to teaching networking concepts. **Prerequisite:** NET282. **Offered as needed.**

NET284 Networks for Educators 4

3 class and 4 lab hrs/wk, 5 cr.

Provides the fourth course in a four-part sequence directed toward the Cisco Certified Network Associate Certification (CCNA). Introduces WAN services. Covers ISDN, ATM, Frame Relay and Dial-up Services. Designed for educators/trainers to discuss issues related to teaching networking concepts. **Prerequisite:** NET283. **Offered as needed.**

NFM

Nutrition and Food Management

NFM219 Introduction to Dietetics Practice

3 class hrs/wk, 3 cr.

Analyzes strategies in promoting products, services or ideas. Focuses on market research, trends, and strategies. Emphasizes advertising, customer service, public relations and negotiating prices. Covers customer satisfaction and public policy. **F**

NFM225 Nutrition

4 class hrs/wk, 4 cr.

Covers nutrients, their sources and body utilization to promote optimum health. Includes development of eating patterns, current dietary trends, nutrition information in mass media, and current national and international problems. **F, W, Sp, Su**

NFM240 Nutrition in the Lifecycle

3 class hrs/wk, 3 cr.

Covers the sources and utilization of nutrients to promote optimum health during each stage of life, from infancy to older age. Emphasizes nutritional concerns, health issues and metabolic disorders. Summarizes appropriate food selections. **Prerequisite:** NFM225. **Sp**

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 they relate to the nursing curriculum. Note: Students may repeat this course once without instructor approval. **Prerequisite:** Consent of instructor. **F, W**

NUR106 Fundamentals of Nursing

5 class and 12 lab hrs/wk, 9 cr.

Presents concepts and skills that lay a foundation for socialization into the nursing profession. Students are provided with opportunities to attain the knowledge and skills that are necessary to promote health, prevent disease, and deliver basic nursing care to individual patients across the lifespan. **Prerequisite:** Admission to the Nursing program. 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 also required. **Corequisite:** BI232 and PSY201. Corequisites may be completed prior to enrollment in NUR106. **F**

NUR106A Skills Applications for NUR106

3 lab hrs/wk, 1 cr.

Provides practical application and hands-on learning for basic nursing skills, including hygiene skills, transmission-based and standard precautions, moving and positioning, transferring, administering intramuscular injections (IMs), data collection, tubes and specimens, and medication administration. **Prerequisite:** Concurrent enrollment in NUR106. **F**

NUR108 Care of Acutely Ill Patients and Developing Families 1

5 class and 12 lab hrs/wk, 9 cr.

Provides students with opportunities to attain the knowledge and skills that are necessary to implement the roles of a practical nurse in providing care to acutely ill patients across the lifespan. The focus is on the care of individual patients with health problems related to the respiratory, cardiovascular, endocrine, and musculoskeletal systems. Pathophysiological effects, such as fluid and electrolyte imbalances and pain, and treatment modalities, such as pharmacology and surgery, associated with these health problems are included. Students are also provided with opportunities to learn concepts related to the care of developing families. **Prerequisite:** NUR106. 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 also required. **Corequisite:** BI233 and PSY237. Corequisites may be completed prior to enrollment in NUR108. **W**

NUR108A Skills Applications for NUR108

3 lab hrs/wk, 1 cr.

Provides practical application and hands-on learning for nursing skills, including enteral nutrition; subcutaneous injections; scrubbing, gowning and gloving; changing intravenous (IV) bags and tubing; sterile dressing changes; urinary catheterization; and medication administration. **Prerequisite:** Concurrent enrollment in NUR108. **W**

NUR109 Care of Acutely Ill Patients and Developing Families 2

6 class and 15 lab hrs/wk, 11 cr.

Provides students with opportunities to obtain the knowledge and skills that are necessary to implement the roles of a practical nurse in providing care to patients across the lifespan who are acutely ill. The focus is on the care of patients with health problems related to the neurological, hematological, gastrointestinal, and genitourinary systems, as well as conditions related to cancer, mental health, infectious diseases, and complications of OB. Students are also provided with opportunities to implement the roles of a practical nurse in providing care to developing families. **Prerequisite:** NUR108. 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 also required. **Corequisite:** BI234 and WR121. Corequisites may be completed prior to enrollment in NUR109. **Sp**

NUR109A Skills Applications for NUR109

3 lab hrs/wk, 1 cr.

Provides practical application and hands-on learning for nursing skills, including previously learned skills, converting an intravenous (IV) infusion to an intermittent device, saline flushes via an intermittent venous access device, intradermal injections, wound care, nasogastric tube insertion and removal, suctioning and tracheostomy care. **Prerequisite:** Concurrent enrollment in NUR109. **Sp**

NUR206 Care of Patients with Complex Health Problems

6 class and 15 lab hrs/wk, 11 cr.

Provides the foundation for practice as an associate degree registered nurse. The course builds on the curriculum of the first year of the Nursing program and socializes students into the nursing roles at the registered nurse level of responsibility. Students are provided with opportunities to learn and to apply the knowledge and skills that are necessary to implement these roles in giving care to patients with complex physical and mental health problems. **Prerequisite:** NUR109. 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 also required. **Corequisite:** CS101. Corequisite may be completed prior to enrollment in NUR206. **F**

NUR206A Skills Applications for NUR206

3 lab hrs/wk, 1 cr.

Provides practical application and hands-on learning for nursing skills, including caring for central venous access devices, focused patient assessments, chest tubes, intravenous piggyback medication administration (IVPB), patient controlled analgesia (PCA) and assisting physicians during procedures. **Prerequisite:** Concurrent enrollment in NUR206. **F**

NUR208 Care of Patients in Situations of Crisis and in Community-Based Settings
5 class and 15 lab hrs/wk, 10 cr.

Provides students with opportunities to learn and to apply the knowledge and skills that are necessary to implement the roles of an associate degree registered nurse in providing care to patients experiencing a health-related crisis such as a critical illness, an acute exacerbation of a chronic illness, or an end-stage disease. Students will also have the opportunity to gain knowledge and explore nursing practice in community-based settings.

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 also required. **Corequisite:** Social Science elective and sociology elective. Corequisites may be completed prior to enrollment in NUR208. **W**

NUR208A Skills Applications for NUR208

3 lab hrs/wk, 1 cr.

Provides practical application and hands-on learning for nursing skills, including review of all previously learned skills, blood transfusions, intravenous (IV) push medications and team medications. **Prerequisite:** Concurrent enrollment in NUR208. **W**

NUR209 Preparation for Entry into Practice

3 class and 15 lab hrs/wk, 8 cr.

Provides students with opportunities to demonstrate mastery of the concepts and skills inherent in the beginning practice roles of an associate degree registered nurse. The course focus is on the first-level management skills necessary for providing nursing care to groups of patients in acute or sub-acute care settings. As the culmination of the Nursing program clinical sequence, NUR209 incorporates a four-week preceptorship during which students demonstrate achievement of Program Outcomes. **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 also required. **Corequisite:** Humanities/Fine Arts/Communication elective and General Education elective. Corequisites may be completed prior to enrollment in NUR209. **Sp**

NUR268 Drug Therapy and Nursing Implications

3 class hrs/wk, 3 cr.

Trains students in the 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

OC133 Introduction to Oceanography
3 class hrs/wk, 3 cr.

Discusses four main areas of oceanography: chemical, physical, geological and biological. Covers plate tectonics, ocean circulation, physical properties of seawater, chemical cycles, marine ecosystems, sedimentation, land and sea cycles, and climate effects. **Offered as needed.**

Photography

See Art and Visual Communications.

PE

Physical Education

PE131 Introduction to Physical Education
3 class hrs/wk, 3 cr.

Covers 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. **Sp**

PE185AA,AB,AC Sports Conditioning
3 lab hrs/wk, 3 cr.

Offers a conditioning program for specific athletic activities. Improves fitness, speed, and coordination with various protocols including plyometrics, agility, games, strength, and conditioning exercises. **F, W, Sp**

PE185AD,AE,AF Back Care and Conditioning
Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Studies the use of 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. **F, W, Sp**

PE185BG Baseball-Advanced
3 lab hrs/wk, 1 cr.

Introduces the fundamentals of baseball. **F, W**

PE185BJ,BK,BL Basketball-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Emphasizes fundamental skills, team play and a knowledge of the sport. **F, W, Sp**

PE185BS,BT,BU Body Building-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Develops a strength and body building program to fit particular needs. **F, W, Sp**

PE185BV,BW,BX Bowling-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Familiarizes students with the fundamentals, rules and etiquette of bowling. Develops specific skills necessary for successful recreation or lifetime sports activity. **F, W, Sp, Su**

PE185CA,CB,CC Conditioning-Beginning, Intermediate, Advanced
3 lab hrs/wk, 3 cr.

Offers a conditioning program designed to complement individual interests, needs, and goals. May improve some or all of the areas of physical fitness: cardiovascular, muscular, body composition, and flexibility. **F, W, Sp, Su**

PE185CD,CE,CF Correctives-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Provides 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. **F, W, Sp**

PE185CM,CN,CP Cross Country Skiing-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Provides the opportunity to learn cross country skiing on tracked and untracked terrain. **W**

PE185CW,CX Cycling-Beginning, Intermediate
3 lab hrs/wk, 1 cr.

Explores how to maintain or improve fitness through participation in a regular schedule of bicycle riding. Examines cycling techniques, basic bicycle maintenance, and safety factors. **Offered as needed.**

PE185DA,DB,DC Aerobics, Low Impact-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Studies how 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. **F, W, Sp, Su**

PE185DE,DF,DG Dance, Folk-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Includes basic steps, skills, and training in dances reflecting cultural tradition such as Schottische and Polka. **Offered as needed.**

PE185DM,DN,DO Aerobics-Beginning, Intermediate, Advanced
3 lab hrs/wk, 1 cr. each

Covers how 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. **F, W, Sp, Su**

PE185DR,DS,DT Ballroom Dance-Beginning, Intermediate, Advanced
3 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. **Offered as needed.**

PE185FD,FE,FF Soccer-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Covers the fundamentals of soccer and basic conditioning. F, W, Sp

PE185GJ,GK,GL Golf-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Offers training 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. F, Sp, Su

PE185JA,JB,JC Dance, Jazz-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Covers basic warmups at the barre, stretching, isolations and floor movement with emphasis on technique, alignment and contemporary jazz style. F, W, Sp

PE185JJ,JK,JL Jogging-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Covers jogging to gain and maintain cardiovascular fitness. F, Sp

PE185KA,KB,KC Karate-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Develops the basic language and movements of martial arts. F, W, Sp, Su

PE185PA,PB,PC Personal Defense-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Introduces the student to preventive measures and basic moves relating to personal defense.

Offered as needed.

PE185RA,RB,RC Racquetball-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Familiarizes students with racquetball fundamentals, including grip, swing mechanics, rules, strategy and etiquette. F, W, Sp

PE185RW,RX,RY Running for Fitness-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Covers running for those who want to go beyond jogging and may want to participate in road racing. F, W, Sp

PE185SA,SB,SC Scuba Diving-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Promotes and encourages 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; PE185SA; PE185SC; PE185SB. F, W, Sp, Su

PE185SD,SE,SF Swim for Fitness-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Develops cardiovascular endurance through swimming. Stroke technique, interval training and lap swimming are covered. **Prerequisite:** Beginning swimming. 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

PE185SR Softball-Advanced

3 lab hrs/wk, 1 cr.

Covers 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. F

PE185SS,ST,SU Swimming-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Develops and improves swimming skills and fitness levels through a pool workout. Covers stroke improvement and swim conditioning. F, W, Sp

PE185TE,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. F, Sp, Su

PE185TI,TJ,TK Tai Ji-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Teaches 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. F, W, Sp

PE185TL,TM,TN Track and Field-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Incorporates the fundamentals, rules and training techniques in track and field events. **Offered as needed**

PE185VJ,VK,VL Volleyball-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Includes the fundamentals, rules and strategy of volleyball. Develops specific skills necessary for successful recreational and/or competitive experience in volleyball. F, W, Sp

PE185WA,WB,WC Weight Management-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Educates, supports and motivates individuals interested in managing their weight. Includes nutrition information, weigh-in, class discussion and daily exercise management. F, W, Sp, Su

PE185WD,WE,WF Weight Training-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Develops and executes a strength-improvement program to meet individual goals. F, W, Sp, Su

PE185WG Osteoporosis Risk Reduction

3 lab hrs/wk, 1 cr. each

Covers an active lifestyle that helps prevent osteoporotic fractures by maintaining or increasing muscle strength, improving balance and coordination, decreasing rate of bone loss, and decreasing the incidence and severity of falls. F, W, Sp

PE185WK,WL,WM Walking Fitness-Beginning, Intermediate, Advanced

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. F, W, Sp

PE185WN,WO,WP Water Exercise-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Includes warm-up, stretching, strength, aerobic and cool down periods so that students may improve flexibility, muscular strength, endurance and cardiovascular fitness. For non-swimmers and swimmers. Emphasizes safe exercise for each individual. F, W, Sp, Su

PE185YA,YB,YC Yoga-Beginning, Intermediate, Advanced

3 lab hrs/wk, 1 cr. each

Introduces Hatha physical yoga. Includes the background, safety precautions and value of yoga. Stretching postures, proper breathing techniques and stress reduction will be emphasized. F, W, Sp, Su

Professional Physical Education

PE194TF Tennis-Professional

1 class and 2 lab hrs/wk, 2 cr.

Demonstrates to students how to teach tennis. For physical education majors. Sp

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.

Introduces 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. F

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. **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.

Offered as needed.

PE294WP Professional Activities-Weight Training

1 class and 2 lab hrs/wk, 2 cr.

Prepares students to teach or coach weight training. Emphasizes safe lifting techniques. **Prerequisite:** PE185WD or consent of instructor.

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 consent based on math placement score. **F**

PH081 Applied Physics

3 class and 2 lab hrs/wk, 4 cr.

Teaches 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. **F, W**

PH082 Applied Physics

3 class and 2 lab hrs/wk, 4 cr.

Covers 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. **Offered as needed.**

PH111 and PH111R Physical Science for Fire Science and Emergency Services

3 class, 2 lab, and 1 recitation hrs/wk, 5 cr.

Covers 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. **Corequisite:** PH111 with PH111R. **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. **F**

PH202 General Physics

3 class and 3 lab hrs/wk, 4 cr.

Description and content change, formerly PH203. Topics include fluids, oscillations, waves, thermodynamics and electricity. **Prerequisite:** PH201. **W**

PH203 General Physics

3 class and 3 lab hrs/wk, 4 cr.

Description and content change, formerly PH202. Topics include circuits, magnetism, electromagnetic waves and optics. **Prerequisite:** PH202. **Sp**

PH207 Astronomy

3 class and 2 lab hrs/wk, 4 cr.

Describes 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 C or better in MTH070. **F**

PH208 Astronomy

3 class and 2 lab hrs/wk, 4 cr.

Describes stellar coordinates and sidereal time, the nature of light and the spectroscope, and the birth and death of stars. **Prerequisite:** Grade of C or better in MTH070. **W**

PH209 Astronomy

3 class and 2 lab hrs/wk, 4 cr.

Describes 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 of C or better in MTH070. **Sp**

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. **F**

PH212 Physics for Engineers and Scientists

4 class and 3 lab hrs/wk, 5 cr.

Description and content change, formerly PH213. Topics include fluids, oscillations, waves, thermodynamics and electricity. **Prerequisite:** MTH252 and PH211. **W**

PH213 Physics for Engineers and Scientists

4 class and 3 lab hrs/wk, 5 cr.

Description and content change, formerly PH212. Topics include circuits, magnetism, electromagnetic waves and optics. **Prerequisite:** PH212. **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, W, Sp**

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, Sp**

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. **W, Sp**

PHL204 Critical Thinking and Logic

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.**

PHL206 Faith and Reason: Philosophy of Religion

3 class hrs/wk, 3 cr.

Explores the complex relationship between faith and reason. Analyzes classical and contemporary texts that address the uneasy relationship between the two phenomena. Focuses on both rational attacks against, and rational defenses of, reason, and thereby, on the nature and the scope-the limits-of rational thought. Also examines the character of religious belief, and the ways in which reason has been used both to attack and to defend religious faith. **W**

PS**Political Science****PS151 Introduction to State of Oregon Legislative Process****1 class hr/wk, 1 cr.**

Covers 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.**

Introduces 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, W, Sp, Su**

PS202 American Government**3 class hrs/wk, 3 cr.**

Continues PS201. Examines the three branches of government. 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. **F, W, Sp, Su**

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 as needed.**

PS205 International Relations**3 class hrs/wk, 3 cr.**

Introduces world politics. Deals with the nature of global conflict, nationalism, U.S. foreign policy, the role of multinational corporations in international decision making, North-South relations, and the mechanisms of conflict resolutions. Examines current global issues facing nation-states. **Offered as needed.**

PSY**Psychology****PSY100 Introduction to Psychology****3 class hrs/wk, 3 cr.**

Introduces 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, Su**

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, Su**

PSY104 Psychology in the Workplace**3 class hrs/wk, 3 cr.**

Integrates documented principles from psychology and human relations and applies them to the workplace of the 21st century. Includes 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. **Prerequisite:** None. **F, W, Sp, Su**

PSY119 Human Potential Seminar**3 class hrs/wk, 3 cr.**

Presents selected psychology theory concepts on the humanistic branch of psychology. Translates theory into practical application, and applies concepts for increasing self-determination, self-motivation and self-affirmation to enhance life satisfaction and success. **Offered as needed.**

PSY201 General Psychology-Biological 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. **F, W, Sp, Su**

PSY202 General Psychology - Cognitive Emphasis**3 class hrs/wk, 3 cr.**

Presents an overview to the operation of cognitive processes. Includes principles of learning, memory, cognition, motivation and emotion. 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.**

Covers principles and theories of personality, psychological disorders, psychotherapy, social influence and stress. Third of three introductory courses in psychology. Recommended that students take PSY201 prior to this course. **F, W, Sp, Su**

PSY206 Introduction to Social Psychology**3 class hrs/wk, 3 cr.**

Covers 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.**

Surveys human growth and development from genetics and conception to death. Recommended that students take PSY201 prior to this course **F, W, Sp, Su**

PSY239 Introduction to Abnormal Behavior**3 class hrs/wk, 3 cr.**

Discusses theories, diagnosis and treatment of the major psychopathological syndromes. Covers specific disorders such as anxiety, depression, schizophrenia, psychophysiological disorders, personality disorders, and sexual variations and dysfunctions. Recommended that students take PSY201 prior to this course. **F, W, Sp, Su**

QS**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)**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.**

Simulates work environment 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)

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, self-assessments, 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, self-assessments, 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.

Shows how the continuous improvement of product and service quality has become the primary driver for increasing productivity, customer satisfaction and employee involvement. This training module 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.**

QS062O 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)

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.**

RD

Reading

See also Communication Skills, Study Skills Program.

RD080 Effective Reading

3 class hrs/wk, 3 cr.

Focuses on active reading by identifying main ideas and major details in a variety of materials. Improves comprehension by understanding vocabulary clues and patterns of organization. Introduces outlining, mapping, and summarizing to improve learning. **Prerequisite:** Recommendation of college placement test or consent of instructor. **Offered as needed.**

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, Sp, Su**

RD115 Accelerated Reading Tactics 1

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 of C or better in RD090, recommendation of college placement test or consent of instructor. **F, W, Sp, Su**

RD116 Accelerated Reading Tactics 2

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 better in RD115, recommendation of college placement test or consent of instructor. **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. Students will analyze the structure of arguments and their fallacies. **Prerequisite:** College placement score at or above RD115 or consent of instructor. **Offered as needed.**

REL

Religion

REL201 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. **F, W, Sp**

REL202 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**

REL203 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. **Sp**

RUS

Russian

RUS101, 102, 103 First Year Russian, Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Introduces 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. Instructor and students use Russian as the primary language of class.

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. RUS101: **F**; RUS102: **W**; RUS103: **Sp**

RUS201, 202, 203 Second Year Russian, Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Provides 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. All classroom interaction (both by instructor and students) takes place in Russian. **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. **Offered as needed.**

Secretarial

See Business Technology.

SLP

Speech Language Pathology Assistant

See also Education.

SLP180 Survey of Speech and Language Disorders

3 class hrs/wk, 3 cr.

Provides students with an overview of the profession of speech language pathology. Describes the nature of various speech, language, voice and hearing; covers communication development in children and descriptions of language differences. Includes the training, scope and practice of a speech language pathologist and a speech language pathology assistant. **F, offered as needed.**

SLP181 Phonetics for Language

3 class hrs/wk, 3 cr.

Covers the listening/discrimination and transcription skills required to identify normal and disordered speech behaviors. Describes the motoric and linguistic acquisition of normal and disordered speech along with basic approaches to intervention that can be used by speech and language pathology assistants. Focuses on transcription of American English speech sounds and the physical and linguistic development of speech. The second will target the implementation of speech treatment programming expected of an assistant. **W, offered as needed.**

SLP182 Intervention Strategies for SLP Assistants

3 class hrs/wk, 3 cr.

Focuses on approaches to intervention that speech and language pathology assistants can use with children, adolescents and adults within the limits of a specified scope of practice. Covers data and record keeping methodologies along with types of materials and approaches that are motivating for students/clients in different age groups. **Prerequisite:** SLP180. **Sp, offered as needed.**

SLP183 Introduction to Language Development

3 class hrs/wk, 3 cr.

Introduces language development for students pursuing training as a speech language pathology assistant, and those in early childhood education. Provides an overview of basic linguistics and practical applications of the theoretical explanations of language acquisition. Includes observation of infants, children, and adolescents are the major focus for the identifying and the milestones of language development. **W, offered as needed.**

SLP184 Language Therapy

3 class hrs/wk, 3 cr.

Offers an advanced clinical course for students pursuing training as speech language pathology assistants. Focuses primarily on the age groups of early childhood, childhood, and adolescence. Includes intervention approaches that can be used successfully with adults. Provides directed application of language, cognitive, and behavioral therapy techniques in individual and group intervention modalities. Stresses integration of interpersonal and paraprofessional knowledge and skills into clinical activities. **Prerequisite:** SLP180, SLP182, SLP183. **F, offered as needed.**

SLP185 Anatomy and Physiology of Speech and Language

3 class hrs/wk, 3 cr.

Focuses on the anatomy and physiology specific to speech as a medium of communication, and to the underlying modalities of language. Presents the anatomical structures and the physiology fundamental to various speech disorders, along with the role of anatomy and physiology in speech and language rehabilitation. Provides differentiation when appropriate among the anatomy and physiology of infants, children, adolescents, and adults. **Su**

SLP186 Speech Intervention with Children, Adolescents and Adults

3 class hrs/wk, 3 cr.

Presents an advanced clinical intervention course for speech language pathology assistants. Covers the various uses of group and individual therapy. Discusses treatment content and pacing. Includes the application of reinforcement schedules along with effective use of various speech sound teaching and correction strategies. **Prerequisite:** SLP180, SLP181. **Sp**

SLP187 Clinical Documentation and Materials Management for the SLPA

3 class hrs/wk, 3 cr.

Covers the development and use of therapeutic teaching materials based on knowledge of communication disorders, speech production, clinical intervention, and normal language and cognitive development. Includes various approaches to documenting the results of intervention. Focuses on the use of developmental and behavioral models to produce materials and assessment of various intervention programs. **Prerequisite:** SLP180. **Su**

SLP188 Communication Disorders in Low Incidence Populations

3 class hrs/wk, 3 cr.

Focuses on the nature of communication and on swallowing and feeding disorders in groups of children with various types of disabilities that occur with a low frequency in the general population. Describes the specific communication, swallowing, and feeding disorders manifested in these various groups, along with the approaches to and types of intervention. Emphasizes the role of the assistant in the administration of behavioral treatment and methods and the tracking of progress with various data methods as a major key to success for these clients in both group and individual treatment models. Includes an overview of the various genetic disorders. **Prerequisite:** SLP180. **Sp**

SLP189 SLPA Practicum 1

1 class and 6 lab hrs/wk, 3 cr.

Focuses on guided practice in speech language pathology assisting. Includes working with a speech language pathologist supervisor at one or more sites of service. Emphasizes skill shaping and improvement using input from the supervising clinician and the college instructor.

Prerequisite: Successful completion of all SLPA courses or consent of instructor. **Sp**

SLP190 SLPA Practicum 2

1 class and 6 lab hrs/wk, 3 cr.

Focuses on guided practice in speech language pathology assisting. Includes working with a speech language pathologist supervisor at one or more sites of service. Emphasizes skill shaping and improvement using input from the supervising clinician and the college instructor. **Prerequisite:** SLP189 or consent of instructor. **Sp**

SOC**Sociology****SOC204 General Sociology-Introduction**
3 class hrs/wk, 3 cr.

Covers 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, Sp, Su**

SOC205 General Sociology-Institutions
3 class hrs/wk, 3 cr.

Analyzes 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. **F, W, Sp, Su**

SOC206 General Sociology-Social Problems
3 class hrs/wk, 3 cr.

Uses 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. **F, W, Sp, Su**

SOC210 Marriage and Family Relationships
3 class hrs/wk, 3 cr.

Uses a 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.

Examines 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.

Analyzes of some of the classical sociological theories and their relevance in understanding the management of forests and natural resources by a society. **W**

SOC291 Introduction to Data Collection and Interpretation
3 class hrs/wk, 3 cr.

Surveys 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. **F, W, Sp**

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
3 class hrs/wk, 3 cr.

Designed to improve speech efficiency, self-confidence, 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.

Introduces 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**

SP229 Reader's Theater
3 class hrs/wk, 3 cr.

Provides opportunities for students to explore literature through interpretive reading with emphasis on characterization, emotional response and analysis of literary structure and function. **Offered as needed.**

SPN**Spanish****SPN101, 102, 103 First Year Spanish, Terms 1, 2, 3**

4 class hrs/wk, 4 cr. each

Introduces 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. Instructor and students use Spanish as the primary language of the class. **Prerequisite:** These classes are to be taken sequentially. SPN101: None; SPN102: SPN101, one year of high school Spanish, or consent of instructor; SPN103: SPN102, two years of high school Spanish, or consent of instructor. SPN101: **F**; SPN102: **W**; SPN103: **Sp**

SPN111, 112, 113 Beginning Spanish Conversation Terms 1, 2, 3

3 class hrs/wk, 3 cr. each

Covers 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. Instructor and students use Spanish as the primary language of the class. **Prerequisite:** These classes are to be taken sequentially. SPN111: None; SPN112: SPN111 or consent of instructor; SPN113: SPN112 or consent of instructor. SPN111: **F**; SPN112: **W**; SPN113: **Sp**

SPN121, 122, 123 Espanol para nativos (Spanish for Native Speakers) Terms 1, 2, 3

4 class hrs/wk, 4 cr. each

Studies Spanish 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. SPN121: Native Spanish speaker. No previous college coursework in Spanish is required. However, students are expected to have had some contact with the written language; SPN122: SPN121 or consent of instructor; SPN123: SPN122 or consent of instructor. SPN121: **F**; SPN122: **W**; SPN123: **Sp**

SPN150, 151 First Year Spanish, Accelerated Terms 1, 2
6 class hrs/wk, 6 cr. each

Introduces 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 SPN101, 102, 103. Instructor and students use Spanish as the primary language of the class. **Prerequisite:** SPN150: None. It is recommended that the student have had some experience studying a foreign language; SPN151: SPN150, one year of high school Spanish, or consent of instructor. SPN150: **W**; SPN151: **Sp**

SPN201, 202, 203 Second Year Spanish, Terms 1, 2, 3
4 class hrs/wk, 4 cr. each

Practice in 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. All classroom interaction (both by instructor and students) takes place in Spanish. **Prerequisite:** These classes are to be taken sequentially. SPN201: SPN103, SPN123, three years of high school Spanish, or consent of instructor; SPN202: SPN201 or consent of instructor; SPN203: SPN202 or consent of instructor. SPN201: **F**; SPN202: **W**; SPN203: **Sp** or SPN201-203: Summer Program in Ecuador.

SPN211, 212, 213 Intermediate Spanish Conversation Terms 1, 2, 3
3 class hrs/wk, 3 cr. each

Covers 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. All classroom interaction (both by instructor and students) takes place in Spanish. **Prerequisite:** These classes are to be taken sequentially. SPN211: SPN113, SPN102 or consent of instructor; SPN212: SPN211 or consent of instructor. SPN213: SPN212 or consent of instructor. SPN211: **F**; SPN212: **W**; SPN213: **Sp**

SSC

Social Science

SSC100 Foundation of American Indian Languages
3 class hrs/wk, 3 cr.

Introduces the diversity and cultural contexts of American Indian Languages. Explores historic migrations, ways of word-borrowing, humor, and musical texts. Also covers gender issues, ecological concerns, spirituality, and political views of speakers, combined with rudiments of linguistics, phonetics, writing systems and efforts to revitalize indigenous languages. **Offered as needed**

SSC101 Introduction to Deaf Studies: History, Cultural, and Linguistic/Sociological
3 class hrs/wk, 3 cr.

Introduces the diverse sociological, historical, cultural and linguistic experiences of the Deaf Community. Emphasizes the Deaf Community's norms and values and how both deaf and hearing individuals interact in American society. American Sign Language is not required. **Offered as needed.**

SSC150 Ethnic Cultures of the Northwest United States
3 class hrs/wk, 3 cr.

Introduces the major ethnic groups currently residing in the northwest United States, focusing on Native Americans, Hispanics/Latinos, African-Americans and Asian-Americans. **Offered as needed**

SSC206 Introduction to Diversity Studies
3 class hrs/wk, 3 cr.

Promotes awareness and knowledge of the differences and similarities among diverse groups and individuals in society. Focuses on discussion and analysis of national demographic trends, immigration policy, sociological concepts of race, ethnicity, social class, age, gender, and the dynamics of social interaction and power. **Offered as needed**

SSP

Study Skills Program

See also Reading.

SSP013A,B,C Phonics for Spelling

1 class hr/wk, 1 cr. each

Provides instruction in phonetic principles and syllabication as an aid to spelling. In addition, students will master personal spelling lists.

Prerequisite: Determined by in-class placement test or consent of instructor. **F, W, Sp, Su**

SSP014A,B,C Spelling Rules

1 class hr/wk, 1 cr. each

Provides individualized instruction which includes rules of spelling and exceptions to the rules, as well as practice in pronunciation, writing of sentences and development of a personal spelling list. Spelling rules include use of final e, apostrophes and ie/ei. **Prerequisite:** Determined by in-class placement test or consent of instructor. **F, W, Sp, Su**

SSP015A,B,C Vocabulary Building

1 class hr/wk, 1 cr. each

Focuses on improving vocabulary by learning strategies for remembering new words. Determine the meanings of new words by using context clues, word parts (prefix, suffix, root) and word history. Relates these strategies to the terminology in college textbooks. **Prerequisite:** Determined by in-class placement test or consent of instructor. **F, W, Sp, Su**

SSP030A,B,C Advanced Vocabulary Building

1 class hr/wk, 1 cr. each

Provides instruction in vocabulary analysis in order to increase general and/or technical vocabulary. A one-credit option applies word-part strategies in medical terminology. **Prerequisite:** Determined by in-class placement test or consent of instructor. **F, W, Sp, Su**

SSP051 Studying for College

3 class hrs/wk, 3 cr.

Focuses on implementing positive changes in behavior for pre-program technical students who feel challenged in getting organized and studying effectively. Provides strategies for learning effectively in a college setting. **Offered as needed.**

SSP101 Creating College Success

3 class hrs/wk, 3 cr.

Presents strategies which contribute to success in college. Students will create a personal and academic plan and learn how to maintain motivation, form a support system and manage time.

Offered as needed.

SSP112 Study Skills

3 class hrs/wk, 3 cr.

Develops practical and efficient strategies for learning in order to succeed in college. Focuses on note-taking, listening, textbook study-reading and time management. Covers test-taking skills, test anxiety, concentration, and memory strategies. Identifies campus resources and learning styles. **Prerequisite:** Reading placement test score at or above RD090 or consent of instructor.

F, W, Sp, Su

ST

Occupational Skills Training

ST050A-P Occupational Skills Training

40-600 lab hrs/term, variable 1-15 cr. per term

Primary component course for a worksite-based, short-term training program. Student receives training at a worksite based on an individualized curriculum developed to meet student needs and skill requirements of the chosen occupation. Student must meet with an OST staff member to determine training objectives, site and curriculum. Tuition is based on number of hours training on-site. See information in the Programs of Study section of this catalog for costs and pertinent information regarding enrollment and non-credit options. Open entry at any time. **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-Beginning

3 class hrs/wk, 3 cr.

Introduces the basic skills of acting. Defines the common terminology used in acting and demonstrates the similarities between different systems of acting. Offers an overview of the ancient history of western acting, including the roots of acting and a respect for its traditions.

F, W, Sp, Su

TA122 Fundamentals of Acting-Intermediate

3 class hrs/wk, 3 cr.

Reinforces the ideas and systems covered in TA121. Focuses on enforcing the habit of instant recall of key concepts and physical patterns. Includes extensive work on movement systems such as the Alexander system. Provides experience in actors being exposed to cold readings. Also guides student actors in more complex and demanding scenes and monologues. **Prerequisite:** TA121.

F, W, Sp, Su

TA123 Fundamentals of Acting-Advanced

3 class hrs/wk, 3 cr.

Emphasizes the human voice as a key part of training. Exposes actors to improv comedy, to audition techniques, and discusses where to go for further experience. Includes video taping of final projects to prepare actors for TV or film work. Covers strategies for becoming an extra in local films and recommends additional training at university or private programs. **Prerequisite:** TA122. **F, W, Sp, Su**

TA130A,B,C Acting Production Workshop: First Year

3-9 lab hrs/wk, 1-3 cr.

Introduces the study of rehearsal and performance techniques to include blocking, memorization, character development and public performance. Course may be repeated for a maximum of nine credits. **Prerequisite:** Consent of the instructor, dependent upon audition and selection for a role (chorus, support or lead) or responsible duties, e.g. stage manager, house manager.

F, W, Sp, Offered as needed.

TA140A,B,C Technical Production Workshop: First Year

3-9 lab hrs/wk, 1-3 cr.

Introduces the skills required in technical theatre production. Covers scenery construction and painting, lighting, sound, properties and stage management. Content and practical experiences change each term based on the public performance productions that are being produced. Course may be repeated for a maximum of nine credits. This course is the stage technician's equivalent of TA130A, TA130B and TA130C.

F, W, Sp, Offered as needed.

TA230A,B,C Acting Production Workshop: Second Year

3-9 lab hrs/wk, 1-3 cr.

Continues first year TA130A, TA130B, TA130C. Covers the study of rehearsal and performance techniques to include blocking, memorization, character development and public performance. Course may be repeated for a maximum of nine credits. **Prerequisite:** Completion of TA130A, TA130B, TA130C for three terms, plus consent of instructor, dependent upon audition and selection for a role (chorus, support or lead) or responsible duties, e.g. stage manager, house manager, etc. **F, W, Sp, Offered as needed.**

TA240A,B,C Technical Production Workshop: Second Year

3-9 lab hrs/wk, 1-3 cr.

Continues TA140A, TA140B and TA140C with an increase in skill level and responsibility such as crew leader, assistant technical director, or design project. Course may be repeated for a maximum of nine credits. **Prerequisite:** Completion of TA140A, TA140B, TA140C for at least three terms. **F, W, Sp, 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

3 lab hrs/wk, 1 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. **Offered as needed.**

VC

Visual Communications

See also Art.

VC101-103 Special Topics in Visual Communications

1-3 class hrs/wk, 1-3 cr.

Offers a variable format class to gain an enhanced knowledge of software, current graphic arts issues, and industry standards. Presents different topics each term. Examples include graphics software, papers and inks, and Web page design. Course may be repeated for a maximum of six credits.

Prerequisite: Enrollment in the Visual Communications program may be required for some topics and will be identified in the schedule of classes each term. **Offered as needed.**

VC111 Survey of Graphic Arts

4 class hrs/wk, 4 cr.

Presents an overview of the graphic arts and the Visual Communications program. Includes the history of communications and graphic arts, the evolution of digital graphics and current career possibilities. **Prerequisite:** Concurrent enrollment in VC114 and admission in the Visual Communications program. **F**

VC114 Introduction to Computers for Graphics

2 class and 4 lab hrs/wk, 4 cr.

Introduces software for the graphic arts. Includes page layout, illustration and photo manipulation software, file formats, linked and exported files, scanned images, memory, hardware, and output. **Prerequisite:** CS101 or equivalent and enrollment in the Visual Communications program. **F**

VC121 Layout 1: Principles of Page Layout

2 class and 4 lab hrs/wk, 4 cr.

Introduces the basic skills required in the layout and design process. Presents principles of page layout and page layout software. **Prerequisite:** Successful completion of VC111 and VC114. **Sp**

VC122 Layout 2: Intermediate Page Design

2 class and 4 lab hrs/wk, 4 cr.

Develops the basic skills required in the design and layout process of the graphic arts. Includes assignments in advanced electronic page layout with type, photographs and other graphic elements. **Prerequisite:** Successful completion of VC121. **F**

VC126 Information Graphics

1 class and 2 lab hrs/wk, 2 cr.

Introduces the clear, honest and aesthetically appealing presentation of numerical, technical and conceptual information in graphic form. Includes the use of illustration software to create graphics. **Prerequisite:** Computer experience; successful completion of MTH060 or equivalent. **Offered as needed.**

VC130 PhotoShop 1

1 class and 2 lab hrs/wk, 2 cr.

Introduces the concepts and techniques of digital image manipulation and correction. **Prerequisite:** Previous computer experience. **F, W, Sp, offered as needed.**

VC131 PhotoShop 2

1 class and 2 lab hr/wk, 2 cr.

Refines and expands the concepts and techniques of digital imaging tools with application to digital illustration. **Prerequisite:** VC130 **Sp**

VC133 Beginning Quark XPress

1 class and 2 lab hrs/wk, 2 cr.

Introduces basic page layout using Quark XPress. **Prerequisite:** Previous computer experience. **Offered as needed.**

VC134 Macromedia Dreamweaver

1 class and 2 lab hrs/wk, 2 cr.

Introduces the use of Macromedia Dreamweaver software for the creation of Web pages and maintaining a Web presence. **Prerequisite:** Previous computer experience. **Offered as needed.**

VC135 Beginning Macromedia Flash

1 class and 2 lab hrs/wk, 2 cr.

Introduces the concepts and techniques of creating animation, sound and interactivity for Web sites. **Prerequisite:** Previous computer experience. **Offered as needed.**

VC136 Macromedia Flash 2

1 class and 2 lab hrs/wk, 2 cr.

Covers intermediate concepts and techniques of creating animation. Includes sound and interactivity for web sites. **Prerequisite:** VC135 or consent of instructor. **Offered as needed.**

VC137 PhotoShop for the Web 1

1 class and 2 lab hr/wk, 2 cr.

Develops the techniques and skills needed to create, edit, save and post basic images on the World Wide Web. Investigates the basic reasons for using graphics on a Web page and explores the various types of usage. **Prerequisite:** VC130 or equivalent experience. **Offered as needed.**

VC138 PhotoShop for the Web 2

1 class and 2 lab hr/wk, 2 cr.

Further develops the techniques and skills needed to create, edit, save and post complex images on the World Wide Web. **Prerequisite:** VC137 or consent of instructor. **Offered as needed.**

VC139 Beginning Vector Graphics

1 class and 2 lab hrs/wk, 2 cr.

Introduces the use of vector graphic software for graphic arts. **Prerequisite:** Previous computer experience. **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. **Prerequisite:** VC111 and VC114. **W**

VC171-173 Special Projects

1 class and 2-4 lab hrs/wk, 1-3 cr.

Provides the opportunity to work on special projects agreed upon by contract between student and instructor. Topics may include individualized tutorial study of software, independent work on projects, or in-depth study of graphic arts processes and procedures. Course(s) may be repeated for a total of six credits. **Prerequisite:** Enrollment in the Visual Communications program. **F, W, Sp**

VC201-203 Advanced Topics in Visual Communications

1-3 class hrs/wk, 1-3 cr.

Presents variable formats, discussions and demonstrations. Topics vary each term. Examples include trapping, freelance work, pre-flighting, graphics software, papers and inks, 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 evidence of equivalent experience required by topic. **Offered as needed.**

VC221 Layout 3: Publication Design

2 class and 4 lab hrs/wk, 4 cr.

Applies the concepts and skills of the design and layout process to the principles of publication design. **Prerequisite:** VC122. **W**

VC237 Web Design 1

2 class and 4 lab hrs/wk, 4 cr.

Introduces the techniques and skills needed to plan and create basic graphics and pages for the World Wide Web using industry standard coding practices, Web editors and graphics applications. **Prerequisite:** Computing and Internet browsing basics. **F, offered as needed.**

VC238 Web Design 2

2 class and 4 lab hrs/wk, 4 cr.

Develops the techniques and skills needed to plan Web sites and create complex graphics and pages for the World Wide Web using industry standard Web editors and graphics applications. **Prerequisite:** VC237. **W, offered as needed.**

VC241 Introduction to Multimedia

2 class and 2 lab hrs/wk, 3 cr.

Introduces the planning and production of multimedia projects using various software programs. Topics include the art of storytelling, digital sound and video, animation, interactivity, incorporating text and still images, and interactive presentations. **Prerequisite:** Second-year standing in the Visual Communications program or consent of instructor. **Sp**

VC246 File Prep

1 class and 2 lab hrs/wk, 2 cr.

Builds knowledge of preparing digital files for film output and printing. Presents common file problems and their solutions. **Prerequisite:** Second-year standing in the Visual Communications program or equivalent work experience; working knowledge of the Mac Operating System and graphic arts software. **Corequisite:** VC221. **W**

VC251 Electronic Imaging 2

2 class and 2 lab hrs/wk, 3 cr.

Continues work in digital photography, color scanning and photo manipulation on the Macintosh. Includes color correction.

Prerequisite: VC111, VC114, and VC151. **Sp**

VC271-273 Studio Practices

1 class and 3-6 lab hrs/wk, for variable 1-3 credits

Offers the opportunity to work with an instructor on the production of live jobs. **Prerequisite:** Second-year standing in the Visual Communications program. **Offered as needed.**

VC280A-L Cooperative Work Experience

See Cooperative Work Experience.

VC283 Business of Graphic Arts

4 class hrs/wk, 4 cr.

Introduces running a creative business. Emphasizes graphic arts trade practices, production schedules, estimating, working with clients, markups, hourly rates, record keeping and billing procedures. **Prerequisite:** Second-year standing in the Visual Communications program. **Sp**

VC284 Portfolio Preparation

2 class and 4 lab hrs/wk, 4 cr.

Serves as a capstone course for all students in the Visual Communications program. Includes portfolio building, job markets, resumes and business stationery, and mock interviews. Participation in a class portfolio show is a graduation requirement. **Prerequisite:** Second-year standing in the Visual Communications program; concurrent enrollment in FE205B and VC283. **Sp**

VMW

Vineyard Management/ Winemaking

VMW100 Spanish in Agriculture

1 class hr/wk, 1 cr.

Covers practical Spanish terms and phrases specific to agricultural work. Surveys cultural information about Spanish speaking people. Includes pronunciation, technical vocabulary, greetings and basic grammar. No prior knowledge of Spanish is necessary. **F, W**

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. **F**

VMW111 Winter Vineyard Practices

3 class and 2 lab hrs/wk, 4 cr.

Surveys winter vineyard management practices. Covers training, pruning, propagation, bench grafting and simple trellis designs. **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. **Sp**

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. **Su**

VMW122 Introduction to Winemaking
3 class hrs/wk, 3 cr.

Surveys the history of wine, wine grape varieties, and world wine regions. Covers the annual cycle of vine growth and berry ripening; wine grape processing practices; and fermentation of wines. Examines the winemaking practices used for white, red, sparkling, and dessert wines. Introduces the application of sensory science to wine quality evaluation. Reviews wine and health issues. **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. **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. **W**

VMW134 Wines of the Pacific Northwest
3 class hrs/wk, 3 cr.

Focuses on the viticultural regions of the United States Pacific Northwest and the sensory evaluation of representative wines. Emphasizes knowledge of the winemaking history of the area. Promotes a basic understanding of the wines of the regions. **Prerequisite:** VMW131 or consent of instructor. Student must be 21 years of age. **Sp**

VMW222 Science of Winemaking

3 class hrs/wk, 3 cr.

Focuses on the scientific principles of wine production. Covers the physiology of grape berry development and wine grape processing. Stresses wine microbiology; the chemical composition of juice and wines; wine stabilization and clarification; fining and filtration; maturation; aging; and bottling. **Prerequisite:** CH122, CH122R, CH172, VMW122, or consent of instructor. Student must be 21 years of age. **Sp**

VMW232 Sensory Evaluation of Wine Varietals

3 class hrs/wk, 3 cr.

Reviews sensory evaluation procedures. Focuses on wine varietal evaluation through sensory methods. Covers major worldwide wine varietals; distinguishing wine styles; and blending wines. Identifies wine defects. **Prerequisite:** VMW131 or consent of instructor. Student must be 21 years of age. **W**

VMW233 Sensory Evaluation of Wine Components

3 class hrs/wk, 3 cr.

Stresses sensory evaluation of wine components. Surveys the most important components commonly found in table wines. Emphasizes identification of components through tasting a series of wines which have been constructed to show the effects of steadily increasing the amount of the component in a wine. **Prerequisite:** VMW232 or consent of instructor. Student must be 21 years of age. **Sp**

VMW244 Wine Production and Quality Control 1

3 class and 6 lab hrs/wk, 6 cr.

Focuses on wine processing practices and quality control management. Presents harvest and pre-fermentation processing decisions. Covers equipment operation, maintenance, sanitation and safety. Examines juice analysis, additions, selection of wine microorganisms, and managing fermentations. Presents post fermentation management practices, managing malolactic fermentation, and new wine analysis.

Prerequisite: CH123, CH123R, CH172, VMW222 or consent of instructor. Student must be 21 years of age. **F**

VMW245 Wine Production and Quality Control 2

2 class and 4 lab hrs/wk, 4 cr.

Focuses on wine processing practices and quality control management. Covers physical, chemical, and microbial stabilization of new wines. Includes tartrates, proteins, oxidation, reduction, color and phenols, microbial stability, use of fining agents, and causes and corrections of wine defects.

Prerequisite: CH123, CH123R, CH172, VMW244 or consent of instructor. Student must be 21 years of age. **W**

VMW246 Wine Production and Quality Control 3

2 class and 4 lab hrs/wk, 4 cr.

Focuses on wine processing practices and quality control management. Covers wine transfer methods and wine filtration using pad, diatomaceous earth, and membrane filters. Presents aging and barrel storage, bottling practices and equipment, and required wine analysis. **Prerequisite:** CH123, CH123R, CH172, VMW245 or consent of instructor. Student must be 21 years of age. **Sp**

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. **Sp**

VMW252 Vineyard/Winery Business Management

3 class hrs/wk, 3 cr.

Introduces vineyard and winery business management practices. Covers annual plans, budgets, and winery and vineyard development. Examines labor management, contracts, legal compliance, record keeping and problem solving. **Sp**

VMW253 Winery Planning, Design and Operations

3 class hrs/wk, 3 cr.

Focuses on winemaking systems, winery operations, utilities and equipment. Covers process technologies and systems used in wineries, winery design and layout. Stresses regulatory issues in planning and operating a winery and work place safety. **Sp**

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. **Sp**

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. **W**

VMW280A-L Cooperative Work Experience

See Cooperative Work Experience.

WFB

Welding Fabrication

WFB087 Fabrication Practices 3

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. **W**

WFB088 Fabrication Practices 4

1 class and 6 lab hrs/wk, 3 cr.

Includes instruction and experience in production-type welding with use of jigs, fixtures and positioners. **Prerequisite:** WFB087 or consent of program chair. **Sp**

WFB096 Shop Projects

1 class and 3 lab hrs/wk, 2 cr.

Emphasizes 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. **Sp**

WFB280A-L Cooperative Work Experience

See Cooperative Work Experience.

WLD

Welding

WLD051 Basic Arc Welding

2 class and 9 lab hrs/wk, 5 cr.

Studies 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. F

WLD052 Intermediate Arc Welding

2 class and 9 lab hrs/wk, 5 cr.

Continues 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. W

WLD053 Advanced Arc Welding

1 class and 6 lab hrs/wk, 3 cr.

Prepares for welding, under code-type procedures, on plate. 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. Sp

WLD056 Blueprint Reading and Sketching

6 lab hrs/wk, 2 cr.

Covers basic sketching techniques and reading of three-view drawings for welders. Includes dimensioning practices, scaling, line alphabet notes and symbols. Emphasizes developing skills in reading detail and welding drawings. F

WLD057 Layout Practices

3 lab hrs/wk, 1 cr.

Studies the 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. W

WLD058 Weld Shop Problems

2 class and 15 lab hrs/wk, 7 cr.

Offers 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. Sp

WLD059 Ornamental Iron Work

1 class and 3 lab hrs/wk, 2 cr.

Introduces the design and creation of metal sculpture and decorative structures through welded fabrication. F, offered as needed.

WLD061 Basic Gas Metal Arc Welding (MIG)

1 class and 6 lab hrs/wk, 3 cr.

Introduces basic skills in semiautomatic metal inert gas (MIG) welding processes. Covers principles involved in equipment, material and procedures, combined with demonstrations and supervised practical experience, using standard industrial equipment. Uses solid and flux-core wire in typical industrial applications. F

WLD062 Intermediate Gas Metal Arc Welding (MIG)

1 class and 6 lab hrs/wk, 3 cr.

Builds upon WLD061 and includes a study of and practice in welding of carbon steel. Emphasizes production in welding situations, using large diameter electrodes (solid and flux-cord) with mixed shielding gases in flat or horizontal positions. **Prerequisite:** WLD061 or consent of program chair. W

WLD063 Advanced Gas Metal Arc Welding (MIG)

1 class and 6 lab hrs/wk, 3 cr.

Continues 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. Sp

WLD070 Oxyacetylene Processes

1 class and 6 lab hrs/wk, 3 cr.

Familiarizes the student with the safe use, care, and operation of oxyacetylene welding, brazing and cutting equipment. F

WLD071 Basic Oxyacetylene Welding

1 class and 3 lab hrs/wk, 2 cr.

Teaches the fundamentals of oxyacetylene welding including brazing. Offered as needed.

WLD072 Oxyacetylene Cutting

5 lab hrs/wk, 2 cr.

Covers the use and care of oxyacetylene cutting equipment. Offered as needed.

WLD073 Basic Gas Tungsten Arc Welding (TIG)

1 class and 9 lab hrs/4 cr.

Covers the 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. **Prerequisite:** Current enrollment in second-year Welding Technology program or consent of instructor. W

WLD077 Welding Processes

2 class and 6 lab hrs/wk, 4 cr.

Introduces the fundamentals of shielded metal arc welding, oxyacetylene welding and cutting, metallic inert gas welding (MIG), and arc-air procedures. **Prerequisite:** Current enrollment in manufacturing program or consent of program chair. Sp

WLD081 Welding Metallurgy 1

2 class hrs/wk, 2 cr.

Covers the 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 2

2 class hrs/wk, 2 cr.

Continues 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.

Covers the fundamentals and application of arc welding, oxyacetylene welding, brazing and cutting pertaining to the automotive industry. **Prerequisite:** Current enrollment in second year Automotive Technology program or consent of instructor. Sp

WLD280A-L Cooperative Work Experience

See Cooperative Work Experience.

WR

Writing

See also Study Skills Program.

WR040 Writing Skills

3 class hrs/wk, 3 cr.

Focuses on writing at the sentence level. Develops the ability to write complete, coherent sentences that effectively employ syntactical choices of coordination and subordination and accepted conventions of grammar, punctuation, usage and spelling. These abilities are developed in the context of paragraphs and longer pieces of writing. Reading selections are used to model effective writing, enhance vocabulary, and develop the ability to read for information and understanding. Sentence-related terminology is introduced to prepare students for the terminology prerequisites of WR121. F, W, Sp, Su

WR090 Fundamentals of Writing

4 class hrs/wk, 4 cr.

Focuses on writing essentials that will build confidence in writing for a variety of purposes. Examines the role that language mastery plays using discussion, reading, lectures, and extensive writing practice. Presents and reinforces all sentence concepts in the context of student-written paragraphs and longer pieces of writing. Applies all concepts directly to both academic and workplace writing and are also connected to outside reading. Offered as needed.

WR091 Writing Essentials

1 class hr/wk, 1 cr.

Covers the mechanical and linguistic aspects of writing and other skills needed in college writing courses. Course may be repeated for a maximum of two credits. Offered as needed.

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. Student's writing will be a product of real-life experiences such as interviews, workplace visitations; the course therefore blends observations with research and the writer's own opinions. **Prerequisite:** WR090 or equivalent as determined by the instructor. **Offered as needed.**

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. F, W, Sp, Su

WR121 English Composition-Exposition

3 class hrs/wk, 3 cr.

Emphasizes clear, detailed informative writing, critical thinking, and active reading. **Prerequisite:** Ability to organize thoughts and competency in standard written English as demonstrated by (a) qualifying score on a standard placement test or (b) grade of C or better in WR115 or (c) grade of C or better in COM051. 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; use of stylistic elements; awareness of and consideration for different audiences; elementary research and citation skills; and critical reading. **Prerequisite:** Grade of C or better in WR121. F, W, Sp, Su

WR123 English Composition-Research Writing

3 class hrs/wk, 3 cr.

Emphasizes the acquisition and evaluation of evidence; integration of source material and personal opinion; and a process research method as well as appropriate process forms for developing and writing an analytical/argumentative research paper. **Prerequisite:** Grade of C or better in WR121 and WR122. F, W, Sp, Su

WR227 Technical Writing

3 class hrs/wk, 3 cr.

Covers writing a variety of reports. Addresses issues of organization, supplements, bibliography, illustration, and document design. Emphasizes detailed, factual content, objective presentation, and a defined purpose for specific readers. For some programs, WR227 is the only writing course required at Chemeketa other than WR121. Therefore, there is a research component to the course that incorporates formal documentation. **Prerequisite:** Grade of C or better in WR121 or BA214. F, W, Sp, Su

WR241, 242, 243 Imaginative Writing

3 class hrs/wk, 3 cr. each

Provides help to writers of fiction, poetry and drama, using discussions of student writing and explorations of texts by established writers. Students are encouraged to submit work for publication. Prose fiction is covered in the fall, drama in the winter and poetry in the spring. WR241: F; WR242: Sp; WR243: W

WR244 Advanced Imaginative Writing-Fiction

3 class hrs/wk, 3 cr.

Further develops the techniques and skills of creating and revising prose fiction that were introduced in WR241, and examines in greater complexity both the foundational theories of imaginative writing and the current methods of finding print and electronic audiences for works of fiction. Employs a workshop format of presenting and critiquing student work. Requires at least one new, original work of fiction. Helps students to develop or refine personal aesthetic guidelines for fiction and to prepare their original work for submission to electronic and/or print publications. **Prerequisite:** WR241 or consent of instructor. W

WS

Women's Studies

WS101 Introduction to Women's Studies: Women in American Society

3 class hrs/wk, 3 cr.

Introduces the sociology of women in American society throughout the life cycle. Focuses on the search for identity and positive, meaningful relationships as well as theories of gender role socialization and covers the new scholarship concerning women in western civilization, their history and alternative futures. F

WS102 Introduction to Women's Studies: Women, Work and Family

3 class hrs/wk, 3 cr.

Examines 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.

Surveys 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 ecofeminism, environmental consciousness and ecological awareness. Sp

ZOO

Zoology

ZOO201 General Zoology

3 class and 3 lab hrs/wk, 4 cr.

Introduces 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. F

ZOO202 General Zoology

3 class and 3 lab hrs/wk, 4 cr.

Introduces the major invertebrate phyla emphasizing the diversity of living organisms and adaptations to their environment. Principles and concepts studied in ZOO201 will be applied to the study of the invertebrates. **Prerequisite:** ZOO201. W

ZOO203 General Zoology

3 class and 3 lab hrs/wk, 4 cr.

Introduces vertebrate animals emphasizing the diversity of living organisms and adaptations to their environment. Includes comparative anatomy and physiology of selected body systems. **Prerequisite:** ZOO202. Sp

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, Chair

Zone Two—Marilyn Crouser

Zone Three—JoAnne Beilke

Zone Four—Dan Ostlund

Zone Five—Ray Beaty

Zone Six—Gerald Watson, Vice Chair

Zone Seven—Gwen VanDenBosch

Staff as of June, 2004

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

Aebi, Eric—Instructor, Hospitality

Agee, Steve—Program Chair, Instructor, Automotive Technology

Alfaqueh, Nuri—Instructor, Mathematics

Allison, Kathe—Program Chair, Tutoring Services

Alvarez, Maria (Cleo)—Program Chair, Counselor

Anderson, D. Craig—Director, Agriculture Programs

Anderson, Gwen Ellyn—Counselor, New WorkForce, Instructor

Anderson, Kenneth—Program Chair, Mathematics

Andrea, Ara—Program Chair, Forestry

Andrews, Peggy—Instructor, Emergency Medical Technology

Antoine, Patricia—Instructor, Sociology

B

Bagwell, Mary Jane—Coordinator, ABE/GED/ESL

Balyo, Mike—Instructor, History

Balassa, Agnes—Executive Director, Enterprise for Employment and Education

Barber, Wayne—Program Chair, Mathematics

Bassett-Smith, Ron—Dean, Chief Information Officer

Bates, Michael—Instructor, Computer Science

Beck, Sally—Instructor, Reading

Behmard, Sheeny—Instructor, Mathematics

Bennett-Connolly, Gerri—Coordinator, Occupational Skills Training

Benson, June—Instructor, Adult Basic Education and GED

Berston, Tom—Instructor, Chemistry

Bibler, Carol—Instructor, Art

Bolesky, Jeremy—Instructor, Visual Communications

Bone, Andrew—Instructor, Accounting

Booth, Karleen—Program Chair, Occupational Skills Training

Borden, Tiffany—Counselor

Bowman, Bobbi—Program Chair, Study Skills and American Sign Language

Boyington, Gary—Program Chair, Electronics, Network Technology

Brase, Don—Director, Humanities and Communications

Brooks, W. David—Instructor, Accounting

Brummond, Candis—Counselor

Buchanan, Mary Ann—Program Chair, Outreach Learning Center

Bunnenberg-Boehmer, Kay—Program Chair, Art

Burns, Barbara—Instructor, Nursing

Bush, Lori—Director, Winema Center

Bynum, Randall—Instructor, Speech

C

Cammack, Janice—Instructor, Physical Science

Campbell, Kathy—Director, Financial Aid and Enrollment Services

Campbell, Lorraine—Workforce Integration Specialist

Canoy, David—Instructor, Life Science

Carnegie, Kay—Director, Dental Assisting, Nursing

Carver, Donna—Distance Education

Chancey, Fred—Instructor, Writing and Literature

Cheyne, Larry—Coordinator, College Credit Now and Youth Programs

Clark, Lori—Instructor, Health and Physical Education

Cochrane, Linda—Director, Learning Resource Center

Concepcion, Paul—Program Chair, Social Science

Cortez, Julio—Counselor, CAP

Craven, Linda—Instructor, Early Childhood Education

Crossler-Laird, Janice—Program Chair, English as a Second Language

Cudmore, Wynn—Instructor, Life Science

Culveyhouse, James—Instructor, Training and Economic Development

Currin, Cynthia—Program Coordinator, Workforce Integration

D

Darby, Sydney—Instructor, English

Davidson, Mollie—Instructor, Human Services

Decker, Michele—Instructor, Nursing

Desel, Theodore—Program Chair, Speech, Theater, Philosophy, Music, Religion

Dobay, Deborah—Instructor, Psychology

Duncan, Nancy—Coordinator, Hospitality Programs

Dye, Kevin—Instructor, English

E

Edge, Barbara—Coordinator, Grants Development

Edholm, Len—Counselor

Ehlers, Deborah—Instructor and Counselor, New Workforce

Elias, Marilyn—Team Coordinator, Nursing

Eppler, Carol—Instructor, Business Technology

Eustrom, James—Dean, Student Development and Learning Resources

F

Faircloth, Kathleen—Instructor, Psychology

Falk, Cheryl—Dean, Regional Education Services

Fallow, Gary—Instructor, ESL

Farjami, Javad—Instructor, Mathematics

Ferguson, Mark—Instructor, Mathematics

Ferry, Marjorie—Instructor, English

Fifer, Pamela—Instructor, Nursing

Finholt, James—Instructor, Computer Science

Fish, Susan—Director, Developmental Education

Fishfader, Randy—Instructor, Early Childhood Education

Florence, William—Instructor, Journalism;
Adviser, Student Newspaper

Forslund, Larry—Instructor, Life Science

Frank, Andrew—Program Chair, Physical Science

Franklin, Harvey—Director, Woodburn Campus

Frey, Phil—Manager, Auxiliary Services

Furey, Kevin—Instructor, Economics

Furr, Laney—Instructor/Coordinator—Dallas H.S.

G

Gaul-Miller, Debra—Program Chair, Literacy Volunteer

Gelder, Minna—Assistant Registrar

Gilbert, Jeremy—Instructor, Psychology

Goulard, Liz—Vice President, Chief Academic Officer

Graham, Jerry—Instructor, Adult Basic Education

Green, Constance—Special Projects Administrator

Green, Nancy—Project Specialist, Corrections Education

H

Hardesty, David—Program Chair, ABE/GED

Hardwick, Justin—Instructor, Emergency Medical Technology

Hare, Nancy—Instructor, Business Technology

Harris, Rodney—Instructor, Electronics

Harvey, Jean—Program Chair, Alternative High School

Hassoun, Judith—Counselor/Instructor, Life Skills

Hawkins, John—Director, College Advancement

Heryford, Stella—Instructor, Nursing

Hillyer, Rebecca—Director, College Safety and
Risk Management

Hirt, Donna—Instructor, Human Services

Hodgson, Traci—Instructor, History

Holler, Barbara—Instructor, Clerical Basics

Holmes, Darrel—Program Chair, Building Inspection

Hopkins, Susan—Instructor, ABE

Horn, Terry—Director, Business Management, Health Services
Management and Electronics

Howard, Jeffrey—Counselor

Huckestein, Julie—Director, Assistant Chief Financial Officer

Hulett, Ronald—Director, Training & Economic
Development Programs

Hunter, Robert—Manager, Information Technology Operations

I

Irving, Jan—Team Coordinator, Nursing

J

Jabin, Tammy—Instructor, English

Jacobson, Lee—Instructor, Art

Jantzi, Ron—Director, Trades and Technologies, Science
and Mathematics

Jasper, Sally—Program Chair, Nursing

Johnson, Robert—Program Chair, Computer Science

Jones, Anetta—Instructor, Business Technology

Jones, Dan—IT Support Manager

K

Kapan, Teter—Coordinator, Student Life

Karbginsky, Darrel—Instructor, Computer Science

Kelly, Mike—Instructor, Architectural Drafting

Kizziah, John—Instructor, Welding Technology

Klein, Bill—Program Chair, Fire Protection Technology

Knowles, Wayne—Instructor, Visual Communication

Kuhn, Gary—Program Chair, Cooperative Work Experience

L

Lacy-Tang, Jean—Counselor

Lander, Gregg—Program Chair, Emergency Medical
Technology

Lang, William—Program Chair, Counseling

LaVine, Phil—Instructor, Farm Business Management

Lazzara, Edward—Program Chair, Foreign Languages

Leonard, Phyllis—Program Chair, Mathematics

LeRoy, Robert—Instructor, Composition and Literature

Lightfoot, Dick—Coordinator, Career Center – Newberg

Limbird, Marty—Instructor, Physical Education

Linder, Christine—Program Chair, Visual Communications

Lopez, Carlos—Instructor, Sociology

M

MacDonald, Al—Instructor, Vineyard Management

Mack, Johnny—Director, Emergency Services,
Criminal Justice

Mack, Laura—Instructor, Art

Malone, Patricia—Instructor, Business Technology

Martin, Dean—Instructor, Fire Protection Technology

Martin, Joel—Counselor

Martin, Kim—Counselor

Martinez, Yolanda—Counselor

McCormack, Michele Dishong—Instructor, Speech

McCullough, Linda—Instructor, Accounting

McDonough, Thomas—Instructor, Physical Science

McGill, Diane—Director of Development,
Chemeketa Foundation

McGill, Meg—Coordinator, Salem Area Programs

McGlynn, Maureen—Director, Curriculum and Instruction

McKay, Karen—Counselor, CAP

McKnight, Kelli—Instructor/Counselor, New WorkForce

McLaughlin, Suzanne—Instructor, Spanish

McLaughlin, Terrence—Instructor, Physical Education

McLearn, Brian—Instructor, Automotive

Mendenhall, Mike—Instructor, Building Inspection

Meyers, Dianne—Instructor, Nursing

Miller, Glen—CWE Coordinator

Miller, Mark—Instructor, Engineering and Mathematics

Miller, Selania—Coordinator, Career Center—Santiam Campus

Mohn-Brown, Elaine—Team Coordinator, Nursing

Monson, Bryan—Program Chair, Business Technology,
Woodburn Campus

Moore, Eugene—Instructor, Electronics

Moothart, Janine—Director, Santiam Campus

Moxley, Doug—Coordinator, Institutional Effectiveness

Murphy, Lori—Director, Social Science, Early Childhood
Education, Education, Human Services and Corrections
Education

Murray, Susan—Instructor, ABE/GED Coordinator

N

Newton, Kristi—Program Chair, Accounting and Management

Nickodemus, Audrey—Instructor, Nursing

Niebuurt, Kathleen—Program Chair, Nursing

Nilklad, Lakana—Instructor, Mathematics
Noah, Mark—Employment Specialist, Occupational Skills Training
Nord, Christopher—Instructor, Mathematics
Northam, Ashley—Program Chair, Speech Pathology Language Assistant

O

O'Hara, Rick—Instructor, Life Science
O'Higgins, Michael—Instructor, Inst. Corrections Ed
Olheiser, Dean—Instructor, Automotive Technology
Ottaway, Carol—Instructor, Clerical Basics

P

Paeye, Keith—Instructor, Automotive
Page, Fran—Director, New Workforce
Peters, Julie—Program Chair—Civil Engineering Technology, Drafting Technology/CAD
Peterson, Kelly—Instructor, English
Peterson, Mike—Instructor, Computer Science
Pintler, Michael—Program Chair, Welding Technology
Plett, John—Director, McMinnville Campus and Dallas Center
Poston, Susan—Instructor, Mathematics
Premo, Elaine—Instructor, Criminal Justice
Prentice, Cynthia—Program Chair, Life Science
Prothero, Marilyn—Instructor, English as a Second Language

R

Rasmussen, Douglas—Program Chair, Mathematics
Rediske, Mark—Instructor, Education Certificate
Reed, Marilyn—Coordinator, Evening On-Campus and Apprenticeship Programs
Reeves, David—Instructor, Vocation ESL
Richardson, Steve—Instructor, Writing and Literature
Risan, Cynthia—Director, Mid-Willamette Education Consortium
Roelofs, Gary—Instructor, English as a Second Language
Rogers, Tim—Director, Information Technology
Rupert, Jill—Instructor, English

S

Salgado, Monica—Program Chair, Adult Basic Education
Salinas-Oliveros, Rebecca—Program Chair, Cooperative Work Experience
Saxowsky, Gail—Instructor, Emergency Medical Technology
Schill, Denise—Team Coordinator, Nursing
Schmitt, Loraine—Director, Chemeketa Online
Schuetz, Gretchen—President
Scott, Belinda—Coordinator, Curriculum Resource Center
Sekafetz, Charles—Instructor, Electronics
Sessions, Patricia—Program Chair, Business Technology
Skirvin, Charles—Counselor
Slemenda, Steve—Program Chair, English and Film
Smith, Craig—Vice President, Chief Financial Officer
Soliday, Peggy—Program Chair, Human Services
Sprenger, John—Instructor, Corrections Education
Stam, Bruce—Program Chair, Early Childhood Education
Stephens, Debra—Program Chair, Criminal Justice
Stillinger, Ken—Coordinator, Career Center
Sunderland, David—Instructor, Farm Business Management

Swearingen, Dell—Dean, Institutional Services
Swenson, David—Instructor, Computer Science

T

Tardaewether, Virginia—Program Chair, Outreach: Learning Center
Ten Tyck, Lorna—Instructor, Mathematics
Thorp, Anne—Instructor, Adult Basic Education and GED
Trattner, Tamara—Instructor, Early Childhood Education
Trabue, Jeremy—Instructor, English
Truesdell, Joanne—Executive Dean/Ombudsman

U

Urban, Wanda—Instructor, Human Services
Ure, Douglas—Program Chair, Life Science

V

Valdivia, Armandina—Instructor/Coordinator, ESL/ABE
Van Houten, Debra—Instructor, Life Science
Van Slyke, Timothy—Instructor, Multi Media Language Center
Vaughn, Joyce—Instructor, Dental Assisting
Veldhuisen, Kathleen—Reference Librarian
Vessello, Jerry—Director, Facilities and Operations
Villegas, Elias—Coordinator, High School Equivalency
Vogel, Allan—Instructor, Life Science
Vollmar, Lorene—Program Chair, Dental Assisting

W

Wachal, Ken—Instructor, Management and Accounting
Wahner, Royal—Instructor, Manufacturing and Drafting Technology
Ward, H. Jill—Director, Counseling and Career Services
Waring, Pam—Coordinator, Title III
Wasson, Barbara—Instructor, Study Skills Program
Watkins, Carmen—Instructor, Mechanical Engineer Technology
Watson, Barney—Instructor, Enology
Wenzig, Terri—Instructor, Nursing
Wetle, Victoria—Program Chair, Health Services Management and Medical Office Assisting
Wheeler, Claire—Instructor, Developmental Education
White, Roger—Instructor, Electronics and Network Technology
Whitney, John—Instructor, English as a Second Language
Whitton, Louanne—Coordinator, Opportunity Center
Whyte, Catherine—Program Chair, Education Certificate
Wieczorek, Emily—Instructor, Health Services Management
Wilkins, Jimmie—Coordinator, Small Business Development Center
Willis, Vicki—Assistant to the President, Organizational Development and Planning
Wolfe, Steven—Instructor, Geography
Wood, Josie—Instructor, Speech
Woods, Rebecca—Coordinator, Disability Services

Y

Yancy, Theresa—Reference Librarian
York, Robin—Instructor, Study Skills Program

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 possess any firearm, or knife with a blade exceeding four inches, or illegal weapon (see ORS Chapter 166), with or without a concealed weapon permit.
 - 2.5.3 Students shall not abuse alcohol or other drugs.
 - 2.5.4 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 Guidelines.
 - 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 confidentiality.
 - 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 perceived treatment, members of the Chemeketa community are encouraged to seek resolution directly with the individual with whom the conflict exists or his/her supervisor. If the issue involves alleged discrimination or harassment, the college's Affirmative Action Officer 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 individual's supervisor or appropriate dean should be contacted.
- 4.3 The dean has multiple informal processes to assist in resolving 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 staff trained in dispute 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 conflict resolution team, especially designed to achieve resolution. The team will be composed of members who are approved by the parties involved in the dispute.
 - 4.2.4 The dean may conduct an investigation of the situation to achieve resolution.
- 4.4 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:
1. The nature of the charge(s).
 2. Possible sanctions or sanctions imposed based on evidence.
 3. The student's right to counsel, who may assist the student for advising purposes only.
 4. The student's rights under college policy.
- 5.3.2 The student charged may:
1. 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.
 2. Request alternate resolution by notifying the college ombuds-person in writing within five working days.
 3. 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.
- 6.3 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

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.

- 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 ombuds-person 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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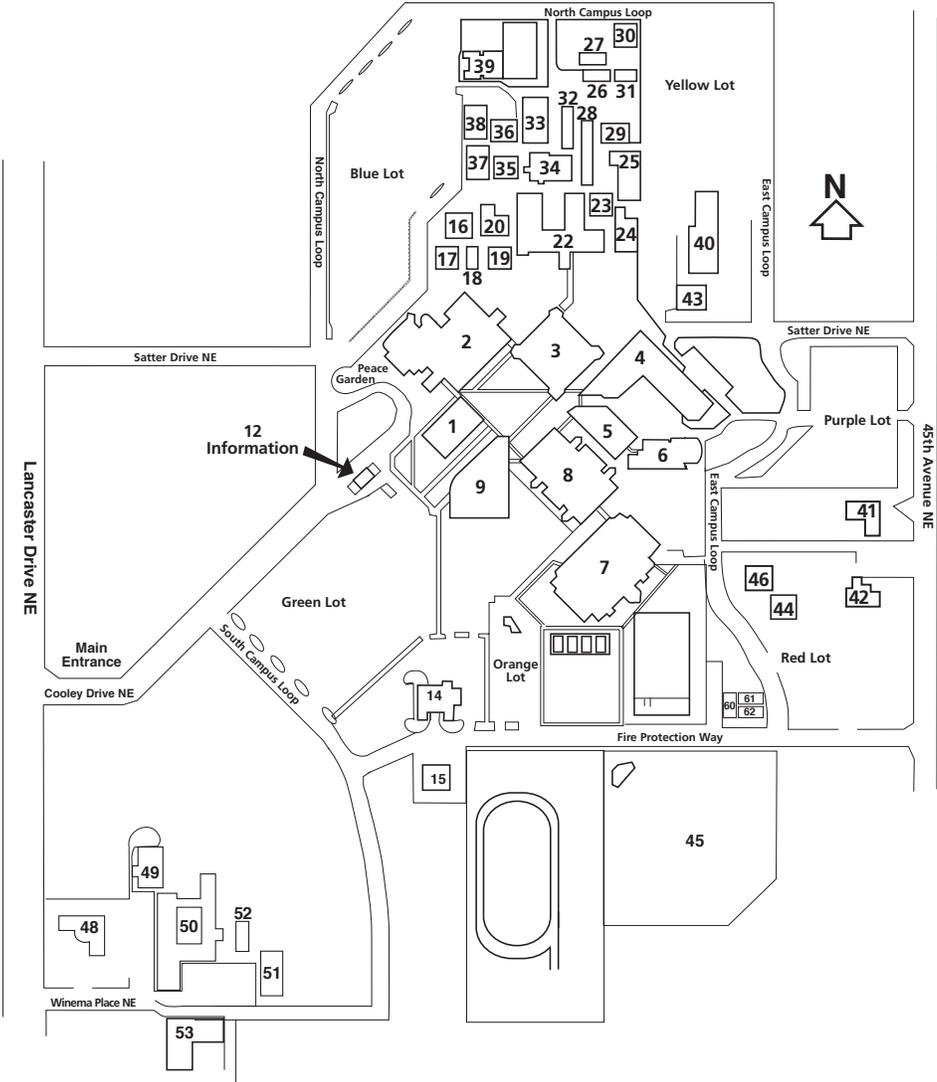
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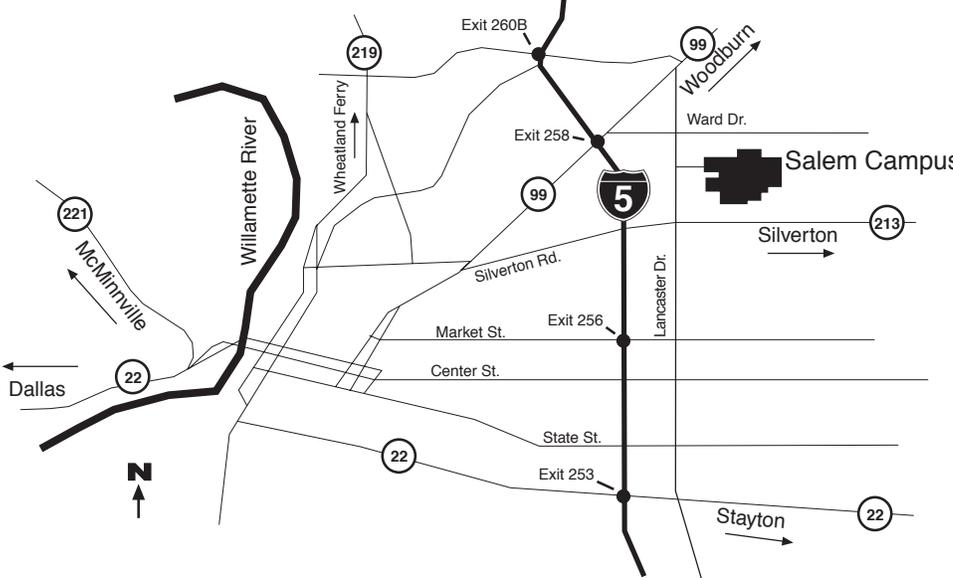
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Campus Map Legend

1. Bookstore and staff offices
2. Counseling & Career Services, Testing Services, Business Office, Financial Aid, Human Resources, President's Office, College Advancement, Purchasing, Enrollment Services, Student Records, Tutoring, Food Court, Disability Services, Student Life and Academic Support Services Office, Public Safety, College Access Programs, Convenience Store, College Support Services
3. Academic Services office, General classrooms, Math lab, Extended Learning
4. Professional-Technical classrooms/labs, Crossroads Cafe
5. Professional-Technical classrooms/labs and Art classrooms
6. Technology Classroom Building, Computer Lab
7. Physical Education, Gym
8. Science and Allied Health classrooms, labs
9. Learning Resource Center
12. Information
14. Fire Station
15. Emergency Operations and Research Facility
16. Classrooms, HEP Program
17. ESL, High School Equivalency Program, Volunteer Literacy Program
18. Classrooms
19. Classrooms
20. New Workforce and Occupational Skills Training
22. Information Technology, Developmental Ed classrooms
23. Life Skills classroom
24. Machine Shop
25. Welding Shop
26. Classrooms A-B
27. Classrooms A-B
28. Classrooms A-F
29. Classroom
30. Classrooms
31. Classroom
32. Classrooms A-F
33. Northwest Innovations
34. Food Service Kitchen and Meeting Rooms
35. Writing Center and classrooms
36. Classrooms
37. Staff offices
38. Staff offices
39. Child Development Center
40. Maintenance/Facilities Services
41. Classrooms
42. Vacant
43. Shipping, receiving, recycling, Copy Center
45. Activity Field
46. Greenhouse
48. Office Building (MaPS) Credit Union, Winema Career Center, Workforce Integration, Mid-Willamette Workforce Network, Blue Moon Café
49. Northwest Center (PSU/Linfield)
50. Conference Rooms, Winema School, Apprenticeship, Enterprise, Mid-Willamette Education Consortium, Northwest Innovations
51. Apprenticeship
52. Classrooms
53. Adult and Family Services (state offices)
60. Agriculture and Hospitality Programs
61. Classrooms
62. Classrooms



How to get there



Student Record 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 the inside back cover of the schedule of classes 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 Record Office (Admissions) for additional information.

Social Security or ID Number

Name: _____
Last First MI (Previous last name)

Mailing address: _____

City State Zip

County: _____

Telephone: _____
Day Evening

E-mail address: _____
Preferred

Term I plan to enroll at Chemeketa Community College: (check one)
 Fall (Sept.) Winter (Jan.) Spring (Mar.) Summer (Jun.)

I plan to enroll in the following courses at CCC (check all that apply): Noncredit Credit

Gender: Male Female Date of Birth: _____ Age: _____
Month/Day/Year

Please circle one: (voluntary)
 American Indian or ⁴ Alaskan Native Asian⁵ Black or African² American Hispanic or³ Latino Native Hawaiian or⁶ Pacific Islander White¹

Are you a citizen of the United States? yes no

Select a program from the list on this page that best describes your area of study or area of interest.
 Program title: _____

Will you have lived in Oregon for the 90 days just prior to the term you begin? yes no

Answer the following questions that apply to you:

Do you plan to earn a degree or certificate/diploma at Chemeketa Community College? (check one)
 Yes, certificate or associate degree^{CD}
 Yes, high school diploma or GED^{HS}
 No, here to take classes^{NO}
 Undecided^{UN}

High school information:
 School name: _____
 City: _____ State: _____

I have completed high school as follows: (check one)
 Did not complete high school^{NC}
 Still in high school^{SH}
 High school graduate^{HS} Year: _____
 GED^{GE} Year _____
 Alternative high school diploma^{AH}
 Certificate of Initial Mastery^{CI}
 Certificate of Advanced Mastery^{CA}
 External diploma program^{ED}
 Attendance completion^{AC}
 Proficiency exam^{PE}

Prior to Chemeketa, I have completed college as follows: (check one)
 Have not attended college^{NOC}
 Short-term training, private vocational school award, or other^{VOC}
 One-year certificate from a community college^{CER}
 Associate degree^{AD}
 Bachelor's degree^{BD}
 Master's degree^{MD}
 Doctorate or professional degree^{PD}

Name of last college attended other than Chemeketa:
 Name: _____
 City: _____
 State: _____

Pick the one main reason you are here this term: (check one)

- Take classes to transfer to a 4-year college^{TR}
- Learn skill to get a job^{LS}
- Improve job skills^{IS}
- Explore career or educational options^{EC}
- Take classes to finish high school or GED^{FH}
- Improve writing, reading or math skills^W
- Learn English^{LE}
- Personal enrichment^{PE}
- Other^{OT}

Are you currently employed? (check one)

- Yes, 35+ hrs/wk⁰¹
- Yes, under 35 hrs/wk⁰²
- No, not at this time⁰³
- Retired⁰⁴

Chemeketa Community College releases only very limited information regarding students: enrollment status, dates of enrollment, degree or certificate, program of study, athletic status, or honors awarded. If you do **not** want any person outside the college, including prospective employers, to know any of these, you must file a Request for Non-Disclosure of Student Information Form with Admissions.

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. Submitted materials will not be returned nor duplicated.

 Signature

Date: _____

Please send this form to:
 Enrollment Services – Bldg. 2-200
 Chemeketa Community College
 PO Box 14007
 Salem, OR 97309-7070
 Phone: 503-399-5006 • Fax: 503-399-3918

www.chemeketa.edu

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



Personal Enrichment (non-degree seeking)

Non-credit only

Use only if *all* courses are non-credit

Credit classes

Professional/Technical Programs

Some programs listed below may have special admission requirements, prerequisites and/or require assessment before admission. Contact Counseling and Career Services at 503-399-5120 for information.

Accounting
Aquarium Science
Automotive Body Repair
Automotive Machine
Automotive Technology
Building Inspection - 1 & 2 Family Plans Examiner (One-year)
Building Inspection - Mechanical Inspector (One-year)
Building Inspection - Structural Inspector (One-year)
Building Inspection - Structural Plans Examiner (One-year)
Building Inspection (Two-year)
Business Technology - Accounting Administrative Asst.
Business Technology - Administrative Asst.
Business Technology - Business Support Specialist
Business Technology - Business Software (One-year)
Business Technology - Business Technology (One-year)
Business Technology - Clerical Basics
Business Technology - Medical Administrative Asst.
Civil Engineering Technology
Computer-Aided Design/Computer-Aided Manufacturing
Computer Electronics
Computer Programming
Computer Programming - Microcomputer Support Specialist
Criminal Justice
Dental Assisting
Drafting Technology - CAD Computer Assisted Drafting
Early Childhood Education (One- and Two-year)
Education Certificate
Electronic Engineering
Electronics Technologies
Emergency Medical Technology - Paramedic
Employment Skills Training
Fire Protection Technology – Advanced Fire Officer (One-year)
Fire Protection Technology – Fire Prevention
Fire Protection Technology – Fire Suppression
Forest Resource Technology
Health Services Management - Health Information Technology
Health Services Management - Health Services Management
Health Services Management - Medical Transcription
High School Completion
Hospitality and Tourism Management (One- and Two-year)
Human Services - Addiction Studies and Social Services
Human Services - Addiction Counselor Certification Preparation
IC Mask Design (One- and Two-year)
Industrial Electronics
Industrial Technology
Juvenile Corrections Certificate (One- and Two-year)
Management
Mechanical Design
Medical Office Assisting
Network Technology
Nursing
Pre-Nursing
Occupational Skills Training
Pre-Professional/Technical
Professional Technical Teacher Preparation (One- and Two-year)
Speech Language Pathology Assistant (One- and Two-year)
Survey Technology
Travel Systems Operations
Visual Communications
Vineyard Management
Vineyard Operations
Welding Technology
Welding Fabrication
Winemaking
Winemaking Certificate

Lower division courses which may be transferred to Oregon's four-year colleges and universities.

LDC-BUSINESS

Accounting
*** Business Administration

LDC-COMPUTER SCIENCES

*** Computer Science

LDC-EDUCATION

*** Elementary
*** Secondary

LDC-ENGINEERING

*** Engineering

LDC-FORESTRY

*** Forestry

LDC-GENERAL STUDIES

*** Exploratory
General Studies
Undecided Majors

LDC-HEALTH

Community Health
*** Health Education
*** Nursing

LDC-HOME ECONOMICS

Child Development
*** Home Economics

LDC-HOTEL, RESTAURANT AND RESORT MANAGEMENT

*** Hotel Business Management
*** Hotel, Restaurant and Resort Management

LDC-HUMANITIES

Architecture
*** Art
*** English
*** Foreign Languages
*** Journalism
Literature
*** Music
*** Philosophy
*** Speech
*** Theater

LDC-MATHEMATICS

*** Mathematics

LDC-PHYSICAL EDUCATION / HUMAN MOVEMENT STUDIES

*** Physical Education

LDC-SCIENCE

*** Agriculture
*** Biology
*** Botany
*** Chemistry
*** Chiropractic
*** Dental Hygiene
Environmental Science
*** Geology
Horticulture
*** Oceanography
Physical Science
*** Physics
*** Pre-Professional Study
(Medicine, Dentistry, and Veterinary Medicine)
*** Zoology

LDC-SOCIAL SCIENCES

*** Anthropology
*** Criminal Justice
*** Economics
Ethnic Studies
*** Geography
*** History
*** Political Science
Pre-Law
*** Psychology
*** Sociology

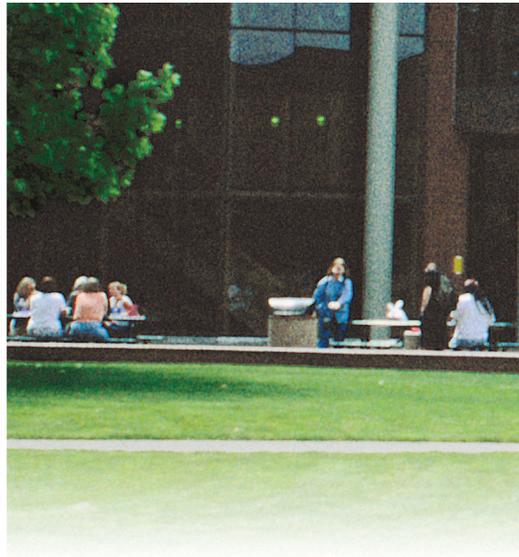
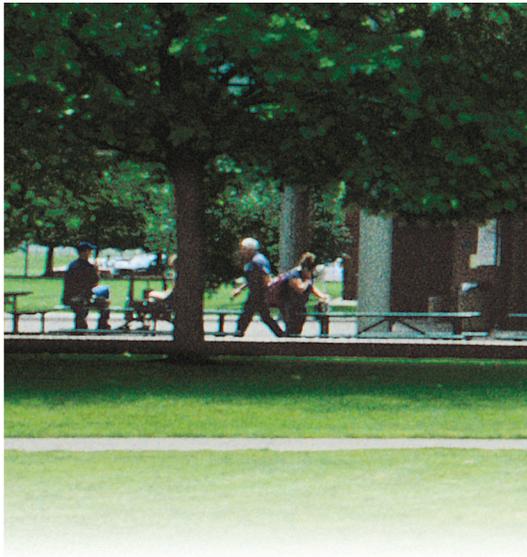
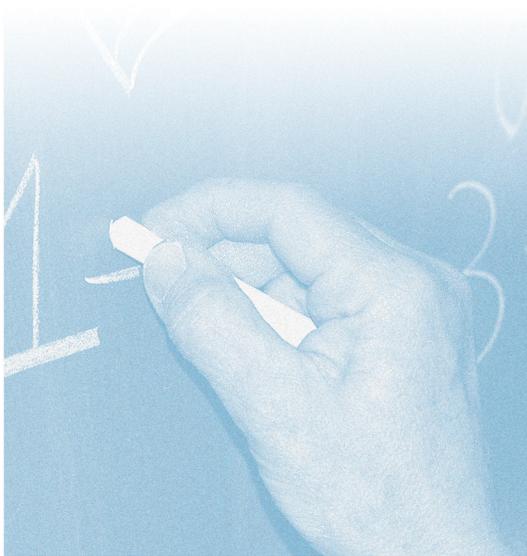
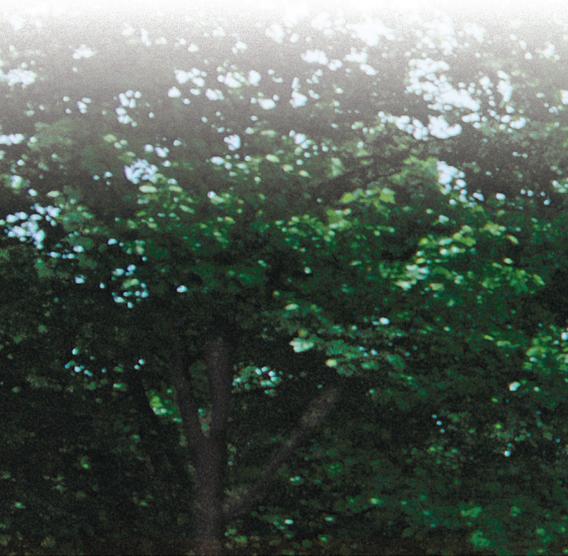
Three stars (***) indicate courses of study included in the college catalog. For use with the Student Record Form.

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