

CENTRAL OREGON COMMUNITY COLLEGE

2010–2011 Catalog

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photo by David Morris

WELCOME TO COCC

Central Oregon Community College's mission is to "be a leader in regionally and globally responsive adult, lifelong, postsecondary education for Central Oregon." For more than 60 years, COCC has accomplished this by providing a wide range of learning opportunities for the citizens of the COCC District, a geographic area that covers more than 10,000 square miles.

One of the principal attributes of COCC is its emphasis on quality instruction. This is complemented by small classes and the opportunity for all students to enjoy close, caring relationships with the College's faculty and staff.

HISTORY

Central Oregon Community College was founded in 1949 as part of the Bend School District. It is the longest standing community college in Oregon. The College District was formed in 1959 and officially established as the Central Oregon Area Education District by a vote of residents in 1962. The original Bend campus was built in 1963.

Don P. Pence served first as director of the College (from 1950 to 1957) and then as the first president (from 1957 to 1967). Dr. Frederick H. Boyle was president from 1967 through 1990. Dr. Robert L. Barber was the third president in the College's history and served through 2004. Dr. James E. Middleton is now president.

OUR DISTRICT

The Central Oregon Community College District encompasses all of Crook, Deschutes and Jefferson counties, as well as the southern part of Wasco and northern portions of Klamath and Lake counties. A seven-member board of directors governs the College, with members of that board elected from geographic zones in the District. The District covers a 10,000-square-mile area, making it larger than eight of the U.S. states.

OUR CAMPUS

The College's main campus is located on the western edge of Bend, a city known for its natural beauty and its proximity to diverse recreational opportunities. The 200-acre Bend campus offers quiet, peaceful surroundings for study and reflection. With its location on the western slope of Awbrey Butte, students have a spectacular view of the Oregon Cascade mountain range from nearly every point on the grounds. The campus contains 23 buildings with a total of 453,982 square feet under roof. The newest building, the Campus Center, opened in 2009.

On the 25-acre Redmond Campus, there are three buildings, housing College administration, classrooms, a computer lab and the manufacturing program.

Following voter approval of a bond measure in 2009 and legislative allocations for construction, COCC will soon be

constructing a new classroom wing and two instructional buildings on the Bend campus, a technology center in Redmond and facilities for new campuses in Madras and Prineville.

BOARD VISION AND GOALS

Mission statement

COCC will be a leader in regionally and globally responsive adult, lifelong, postsecondary education for Central Oregon.

Vision statement

Because of COCC, Central Oregonians will . . .

- be a districtwide community that holds and promotes lifelong postsecondary education and ongoing professional growth and personal development for adults as values;
- be able to connect actively with other communities, the state, the nation and the world in order to attain both locally strong and globally responsible perspectives;
- view education as integral to a sense of well-being, security and responsibility; and
- look to COCC to lead the region in achievement of these ends.

Ends statements/goals

Because of COCC, Central Oregon communities will . . .

- have an adult population with the proficiencies and learning skills necessary for lifelong employment at a family wage level.
- have an adult population with academic achievements and learning skills necessary to successfully pursue education at and beyond the community college level.
- work collaboratively to achieve shared purposes.
- have wide-ranging opportunities to enhance learning, wellness, quality of life, and cultural appreciation.
- support diversity, and interact effectively with state, regional, national and global communities.

CORE THEMES

As stated in the COCC Vision Concept Paper, the College is dedicated to "serving students by providing opportunities for individual learners to grow. The College will continue its primary focus on serving adult learners in its traditional community college programs: associate degree and transfer programs; applied degrees and certificates; adult basic and developmental education; and a wide range of community education offerings."

In accordance with these considerations, the Board adopted four core themes at the Board Retreat. These themes manifest the essential elements of COCC's mission as articulated in the Board Goals. The core themes are:

Transfer and Articulation

Courses and programs paralleling the freshman and sophomore courses of colleges and universities for those who seek to transfer and then earn a baccalaureate degree.

Workforce Development

Career and Technical Education (CTE) education

One- and two-year professional training programs for those who seek certificates or degrees that lead to employment in business, industry, the trades or government service as technicians or skilled workers.

Business, Professional and Employee Development

Noncredit business classes, resources, workshops and information to help you and your business succeed. Learn how to write a business plan, train your employees, further your career or gain new skills to help you succeed in the competitive job market.

Basic Skills

Several academic departments and the College's Adult Basic Education program offer courses that prepare students for college-level classes that will count toward degree completion and are transferable to other institutions. These classes are frequently available online or in classrooms on the Bend and Redmond campuses or other sites throughout Central Oregon.

Lifelong Learning

Noncredit learning opportunities at times and places convenient to adult students, using traditional and nontraditional instructional techniques. Course topics range from computers to cooking and language instruction to gardening and other outdoor activities.

BOARD PRIORITIES FOR 2009-11

The COCC Board of Directors expects tangible progress across a broad spectrum of the Strategic Plan. It expects college staff to make significant focused progress on the following priorities and, relative to these priorities, expects communication, assessment and identification of policy issues which require further Board review.

Access and Success

Strengthen student and community access to educational opportunity and success.

- By expanding access in outlying communities including strategies for educational services in geographic areas which may be underserved.
- By expanding strategies which respond to students' scheduling challenges and diverse learning styles.
- By refining and implementing a Strategic Enrollment Management plan with data-driven enrollment targets.
- By supporting enrollment of student groups that have been traditionally underserved.
- By minimizing financial barriers to the extent possible.

To achieve targeted progress with access and success, the Board believes that strategic partnerships will be increasingly important. Therefore, the Board expects continuing progress in partnerships with:

- K-12 partners
- University partners - improve partnerships and articulation with OSU-Cascades and explore appropriate partnerships with other universities
- Regional employers
- Regional organizations, state agencies and the Oregon Community College system

Design and implement systems for tracking and strengthening student retention and achievement of academic goals.

Facility Development

Expand and improve institutional facilities to support enrollment growth, enable innovative programming in response to community/student needs, strengthen sense of campus community and link with the broader community.

- Finalize bond construction project plans and implement construction of Health and Science Centers, Technology Education Center, Madras and Prineville campuses, and renovations for expanding general purpose classrooms - including appropriate project staff to ensure project success and long-term cost-effectiveness.
- Finalize plans and construct the Culinary Center and the related Campus Village project.
- Evaluate options for improved and expanded student housing and establish and implement a construction plan if the Board endorses the project.
- Design and construct sustainable institutional facilities and establish third-party sustainability certification as appropriate.
- Assess and implement, as appropriate, partnerships to support facility initiatives.
- Attract alternative financial contributions to support priority facility initiatives.

Assessment

Develop and implement comprehensive planning and assessment systems that define institutional direction, assess student learning, and modify programs, systems and activity based on that assessment.

- Integrate planning and assessment into accreditation activities and potential programs sponsored under pending federal legislative support for community colleges. Articulate Core Themes and develop the broad objectives and indicators for measuring performance as consistent with new Northwest Commission on Colleges and Universities standards.

Institutional Viability

- Develop and implement sustainable systems which balance comprehensive quality programs and services with appropriate tuition and fee levels.
- Develop alternative revenue streams for the College.
- Ensure efficient and cost-effective operations.
- Work to maximize to the extent possible fiscal and other support from the state.

Respond to regional student and business needs.

Maintain open communication with various community groups and businesses.

- Define potential new or modified programs and services.
- Assess the operational and fiscal viability of such programs and services.
- Implement as possible within fiscal and operational capacity.
- Link College staff and initiatives to the community through support and leadership roles in organizations and community activities.

BARBER LIBRARY

COCC's three-story, 72,000-square-foot Barber Library opened in March 1998 and serves the students, faculty and staff of COCC and OSU-Cascades Campus.

The Barber Library collection contains more than 76,400 book titles and 400 periodical titles, including 16 newspapers, as well as an open-stacks collection of audio-visual materials including videos, DVDs, CDs and audiotapes. The Library is a selective depository for U.S. federal documents and databases. In addition, it offers a wide array of electronic resources, all accessible through the main Library Web page at <http://campuslibrary.cocc.edu/>.

COCC is a member in the Orbis Cascade Alliance, a consortium of college and university libraries in the Northwest that provides such services as the Summit union catalog, Summit Borrowing, and database licensing opportunities. Summit catalog is accessible from the main Library Web page at <http://campuslibrary.cocc.edu/>. Current, credit-enrolled students, faculty and staff of COCC and OSU-Cascades Campus may search and self-initiate loan requests for most of the 25 million Summit items. Once patrons identify material that they want to borrow, they simply follow the on-screen instructions. Materials are then delivered for pick up at the Library circulation desk within a few working days.

In addition to traditional research tools such as encyclopedias and other print reference sources, the Barber Library offers a variety of research tools via the Web. These include general and subject-specific periodical databases (many of which provide full-text articles), electronic encyclopedias, statistical databases and a variety of other online tools. There are more than 170 electronic resources accessible from its databases Web page. The Barber Library collection also includes many electronic journals and books. Students can access most of these resources off campus via the Internet.

The Barber Library is equipped to provide wireless network access to registered users including COCC and OSU-Cascades patrons as well as community patrons and campus visitors. For more information, please refer to the Wireless Network Web page at <http://its.cocc.edu/services/wireless/>.

Each year the Barber Library hosts art exhibitions in the Rotunda Gallery, as well as literary events through the Library Scholar in Residence program, poetry readings and special events in the Reading Room and the Oregon Room.

ACCREDITATION

Central Oregon Community College is accredited by the Northwest Commission on Colleges and Universities. This accreditation is an official expression of full confidence in the integrity of COCC's instructional and administrative practices. It means that the transferable credits earned are accepted at any other accredited college or university in the United States. This full accreditation was reaffirmed in 2002. COCC is in the process this year of beginning the renewal process for accreditation.

A copy of COCC's official accreditation documentation is on reserve and available for review in the COCC Library during regular Library hours. Questions regarding accreditation should be addressed to the vice president for instruction.

OUR FACULTY

COCC has 110 full-time faculty members, 45 adjunct faculty (semi-permanent faculty on annual contracts) and approximately 200 part-time instructors. The College's faculty is a committed, professional group of educators which provides stimulating and meaningful learning experiences for the College's students. Faculty members serve as advisors to individual students, assisting them in planning academic programs and schedules. All COCC faculty are required to have at least a master's degree or equivalent training. Within the institution, there is strong motivation for continuing professional improvement by all faculty and administrators. About 40 percent of the faculty have doctorates in their disciplines, a very high percentage for a community college.

OUR STUDENTS

More than 10,000 students enrolled in credit classes at COCC last year. Each quarter, close to 3,000 full-time and 3,500 part-time students enrolled. While half of the students are under the age of 24, another quarter are 32 and older. About 40 percent of the students enroll in career and technical education programs and take career-oriented courses of study. The remainder enrolls in courses which form the freshman and sophomore years of a four-year college program. Students in such a program usually intend to transfer to another college or university for their junior and senior years.

THE COCC FOUNDATION

The COCC Foundation's purpose, as stated in the articles of incorporation, is to exist exclusively for the benefit of Central Oregon Community College, its faculty and students in the furtherance of the educational and charitable activities of the College. It does so through providing financial assistance to students, fiscal support for college programs, and running campaigns in support of needed college capital improvements.

The COCC Foundation is the oldest community college foundation in Oregon. Its assets have grown significantly over the years, from the first gift of \$500 in 1955 to nearly \$11 million in assets today. In addition to scholarship support, these assets, primarily endowment funds, provide support in a variety of ways, from supporting faculty positions to providing support for the Nancy R. Chandler Visiting Scholar Program. For 2009-2010, the Foundation awarded more than 540 scholarships totaling more than \$750,000. For more information, call 541-383-7225.

COMMUNITY LEARNING

Community Learning offers a wide variety of innovative, high-quality, community-driven, affordable classes and events to adults throughout the District. Classes include opportunities to stay current in one's job skills, engage in a new hobby or expand outdoor activities.

Registration

Registration times and locations are provided on the College Web site, www.cocc.edu, and in the Community Learning class schedule, published each term. Registrations are processed as received. Students may register by phone, mail, fax, e-mail or in person.

Fees

Full payment of fees is required at the time of registration. Students may pay with Visa/MasterCard/Discover, check or cash.

Age requirements

Anyone age 16 or older may attend classes or workshops.

Contact information

Community Learning can be reached at 541-383-7270, by e-mail at ceinfo@cocc.edu or online at <http://noncredit.cocc.edu>.

COCC also provides high-quality and highly interactive online class opportunities at <http://ed2go.com/cocc>. Every course offered has been carefully engineered to provide quick and easy access to all course materials – no matter what kind of computer or how slow an Internet connection.

BUSINESS DEVELOPMENT CENTER

The Business Development Center helps build businesses by providing management assistance and resources to the business community, including:

- advising and workshops
- the expertise of area business people
- education and training opportunities
- business plan workbooks, videotape programs and other business management resources.

The Small Business Management program combines education and training (monthly workshops) with on-site business counseling to help small businesses reach their goals. Contact information: 541-383-7290.

ADULT BASIC EDUCATION/COLLEGE PREPARATION (ABE/CP)

The Adult Basic Education/College Preparation (ABE/CP) program provides basic skills instruction in reading, writing, math, study skills and basic computer technology; General Education Development (GED) test preparation; and high school completion courses leading to a COCC high school diploma. English Language Learning (ELL) classes are offered for those students who speak little or no English. Assessments are available to help students determine current skill levels and learning styles. Students may attend day or evening sessions. Students usually sign up for classes during class time. Please call the ABE/CP office, 541-504-2950, or see the Web site at www.cocc.edu/abe for exact times and locations.

ABE/CP curriculum is designed to lead students to college entry-level skills and knowledge in all secondary subject areas including reading, writing, math, study skills and basic computer technology. Students are frequently assigned trained volunteer tutors who assist the instructor and provide individual attention. Adults may earn high school diplomas by combining previously earned high school credits, completed coursework and documented life experiences. English language classes focus on listening and speaking skills and advance to reading and writing.

ABE/CP Learning Centers provide access to GED practice testing, skills enhancement, and distance learning through computer study programs. ABE/CP classes and services are offered throughout the district: Bend, La Pine, Madras, Prineville, Redmond, and Warm Springs.

REDMOND CAMPUS

COCC's Redmond Campus is located across from the Redmond airport. It lies in the center of the northern region of COCC's service district, a short commute from Prineville, Madras, Bend and Sisters. The Redmond Campus offers a variety of credit classes designed to provide general education requirements leading toward an Associate of Arts Oregon Transfer degree or related training for specialized degrees. Through instructional excellence, innovative programs and responsive services, the campus also provides classes in Manufacturing Technology, Composites, Manufacturing, Structural Fire Science, Wildland Fire Science, Business, personal enrichment, basic skills development, English Language Learning, computer and job training, as well as Small Business Development services.

Student services available at the Redmond Campus include admissions information, placement testing, financial aid assistance and Foundation scholarship information, registration, cashiering, academic advising, tutoring, career services and a drop-in computer lab. For more information about programs, services and computer lab hours at COCC's Redmond Campus call 541-504-2900 or visit the Web site at <http://redmondcampus.cocc.edu/>.

OREGON STATE UNIVERSITY-CASCADES CAMPUS

Oregon State University-Cascades Campus is led by Oregon State University, the only Oregon university to hold the Carnegie Foundation's prestigious designation reserved for universities with "very high research activity." OSU is also Oregon's land, sea, sun and space grant university. OSU-Cascades, the state's only branch campus, is a unique partnership among OSU, Central Oregon Community College and the University of Oregon. It offers an affordable and personal experience for students seeking an undergraduate or graduate degree. Faculty members pursue a teaching philosophy that encourages graduates to make a difference in their communities and in the world. Many faculty have been recognized for excellence in research, teaching and community service.

Designed for those starting, transferring or returning to college, OSU-Cascades is located on the Bend campus of COCC. The university offers both OSU and UO degree programs in 12 majors, plus three graduate programs. Referred to as Oregon's "transfer university," OSU-Cascades is an ideal next step after community college and for returning students. It is also a welcome haven for local high school students, who can be admitted as freshmen and, under the guidance of an OSU-Cascades advisor, take lower-division courses at COCC then transition to OSU-Cascades to complete their degree. Student opportunities include research and internship programs with Central Oregon's business, government and non-profit communities, as well as international programs in more than 80 countries. For information call 541-322-3100 or visit www.OSUcascades.edu

OSU-CASCADES PROGRAMS

UNDERGRADUATE

American Studies¹

Major

Art¹

BA/BS/BFA/Minor

Art History¹

Minor

Biology²

Minor

Business Administration¹

BA/BS

- General Business Option
- Hospitality Management Option
- International Business Option

Business and Entrepreneurship¹

Minor

Chemistry²

Minor

Early Childhood Development and Education¹

Minor

English¹

Minor

General Science²

BA/BS

- Biology Minor
- Chemistry Minor

General Social Science²

BA/BS

Geology²

Minor

History²

Minor

Human Development and Family Sciences¹

BA/BS

- Early Childhood Development and Education Option
- Human Services Option

International Studies¹

BA

Liberal Studies¹

BA/BS

- Pre-Education Option
- American Studies
- Community, Identity and Place
- Environmental Communication, Identity and Place
- Law and Politics
- Gender and Politics

Mathematics²

BA/BS/Minor

Military Science¹

Minor

Natural Resources¹

BS/Minor

- Natural Resource Policy Option
- Resource Conservation Option

Political Science¹

Minor

Psychology²

BA/BS/Minor

Speech Communication¹

Minor

Tourism and Outdoor Leadership¹

BS/Minor

- Adventure Leadership and Education Option
- Ecotourism and Adventure Tourism Option
- International Ecotourism Option

Visual Arts¹

Minor

GRADUATE

Counseling¹

MS

- Clinical Mental Health Counseling
- School Counseling

Education¹

MAT

- Early Childhood/Elementary School Authorization
- Middle/High School Authorization

¹ Oregon State University program

² University of Oregon program

ENROLLMENT SERVICES – ADMISSIONS AND RECORDS/REGISTRATION

Central Oregon Community College is an open-door, equal-access institution. Enrollment Services is located in the Boyle Education Center. Services include admission, registration, student payment, financial aid, veterans' benefits, degree/certificate evaluation, student records, grade reports and transcript requests. Most services are also available at COCC's Redmond Campus.

COCC students can register for classes online and in person at specific dates during each term. Registration dates and times are available online and will be e-mailed to current students approximately three weeks prior to the beginning date. For a step-by-step guide to registration, see the current COCC class schedule.

ADMISSION CRITERIA

New students

To qualify for admission, students must be 18 years of age or older, or possess a high school diploma or GED. Applications are available on the College Web site, www.cocc.edu, in the Boyle Education Center and at the Redmond Campus. Note: All new students (those who have never taken credit courses at COCC) are required to submit a \$25 nonrefundable application fee at the time of application. Applications will not be processed without this fee.

Students returning after an absence

Students who have attended COCC but have been absent for four quarters or more must submit a new application as early as possible in order to receive timely registration information. No application fee is required.

Transfer students

Students transferring from another college or university must submit an application for admission and a \$25 application fee. In addition, all official transcripts from previous institutions must be submitted prior to advising and/or registration.

Students not seeking a certificate or degree

Many students take college credit courses at COCC, yet are not planning to earn a certificate or degree. Such students apply through the regular application process and are required to take the placement test prior to registration. Some students may be exempt from the placement test; see the College Web site for exemption criteria. Non certificate/degree-seeking students are not required to participate in advising but are welcome to do so.

APPLICATION DATES

COCC accepts applications on a continuing basis and prospective students are encouraged to apply early in order to receive early new student registration information. For new student advising and registration dates, check the College Web site, www.cocc.edu. The application deadline for each COCC term is the Wednesday before the start of courses. **COCC reserves the right to close admission prior to the application deadline. Students are strongly encouraged to apply early.**

PLACEMENT TESTING

Prior to registering for courses, all COCC credit students must take COCC's placement test to determine their skills in writing, reading and math. Scores from the test will serve as tools for students and advisors to use when choosing courses and planning academic schedules. The placement test is offered year-round and takes about two hours.

Students are exempt from the test if they:

- have an associate's, bachelor's or higher-level college degree and have submitted a copy of their transcript prior to advising and registration;
- have completed reading, writing and math courses with a "C" or better at another college and have submitted a copy of their transcript prior to advising and registration;
- have taken the placement test within the last two years and have submitted a copy of their testing scores prior to advising and registration; or
- are taking only HD 110 (Career Planning), HD 190 (Latino Leadership), studio art, foreign language, computer skills, music performance or HHP activity courses.

Note: Placement test scores are recommendations only, with the exception of WR 121, MTH 105 and MTH 244.

See the COCC Web site, www.cocc.edu ("Prospective Students," "Getting Started"), for placement testing dates and reservations.



ADVISING

Once placement testing is complete, all certificate- and degree-seeking students meet with an academic advisor. For new students, dates and times of group advising options are available on the COCC Web site. Current students should contact their advisor directly to schedule an advising appointment. Students can confirm the name of their advisor by contacting the CAP Center (located in the lower level of the Barber Library) or by logging on to their Student Online Services account. All students who participate in group advising sessions will be e-mailed the name of an individual academic advisor, based on the major stated on their admission application, shortly after the start of each term. Students can change their advisor by contacting the CAP Center, 541-383-7200.

Note: Current students may choose to be self-advised, meaning that the advising requirement is waived and students are responsible for choosing their courses and making sure that those courses fit their degree goal. To apply for and review the requirements for receiving self-advising status, visit the COCC Advising Web site, <http://cap.cocc.edu>.

REGISTRATION

After submitting an application for admission, taking the placement test and meeting with an advisor (if applicable), students may register for courses based on the dates and times listed in the COCC class schedule. Students' registrations are complete only when courses are Web- or data-entered into COCC's computer system. A student may not register if a debt is owed to the College. Students must be registered in order to attend class. Students may not take more than 19 credit hours per term without permission from Admissions and Records.

HIGH SCHOOL STUDENTS

High school students 15 years and older are eligible to register in up to 11 credits at COCC. High school students who register at COCC are fully responsible for complying with all policies and procedures of the College. As such, parents cannot access student records (grades, class schedule, attendance, etc.) without written permission from the student. Although members of the College staff can provide academic advising, they cannot interpret high school requirements or act in a supervisory role.

Students who are still attending high school, but wish to take credit courses at COCC, have these options:

Concurrent enrollment

High school students who wish to take college courses while still attending high school may take up to 11 credits each term. The student is responsible for all tuition, fees, books and related expenses.

Special admission

High school students who wish to take more than 11 credits must meet with and receive permission from the director of Admissions/registrar or designee prior to registering for courses. Requirements for gaining special admission status include minimum placement test scores and support of their high school counselor. Special admission is for students who demonstrate excellent preparation and unqualified readiness for college-level work.

College Now/CTE

The College Now/CTE program is an opportunity for high school students to complete and receive COCC credit for certain COCC career-technical education courses completed in high school. COCC currently offers classes through in-district high schools in allied health, automotive, business, criminal justice, culinary, drafting, computer information systems, dental assisting, forestry, manufacturing and nursing. There is a fee of \$10 per course. Courses offered vary by high school and are designed for high school juniors and seniors. For more information, call COCC's College Now office at 541-504-2930, contact the high school counseling office or visit the College Now/CTE Web page at <http://dualcredit.cocc.edu/cte>.

College Now/Transfer

COCC works with area high schools to offer college-level general education transfer courses in the high schools, taught by high school instructors, exclusively for high school students. The fee is \$15 per credit, a savings of more than \$200 for a COCC four-credit course. Classes can be used to meet COCC certificate or degree requirements, as well as for transfer to community colleges and most universities across the U.S. For complete details and a listing of courses offered in a specific high school, contact the high school counselor, call 541-504-2930 or visit the College Now/Transfer Web site at <http://dualcredit.cocc.edu/transfer>. Courses are limited to high school juniors and seniors.

Expanded Options

High school students have the opportunity to take credit courses at COCC with no charge to them for tuition, fees, supplies and books (transportation to and from COCC not included). Students interested in the Expanded Options program must submit an “Intent to Enroll” form to their high school counselor and meet the high school’s participation requirements. Check with the high school counselor or ASPIRE coordinator for more information on eligibility requirements.

STUDENTS UNDER AGE 15

Students under the age of 15 must meet with the director of Admissions/registrar or designee to assess readiness for college-level work prior to applying for admission. Students must meet minimum placement test scores, provide a statement of support from their school counselor and obtain permission from each instructor every term. If admission is approved, the student must submit a concurrent enrollment form at the time of registration. See <http://new.cocc.edu/hsoptions> for complete details.

Students under age 15 who register at COCC are fully responsible for complying with all policies and procedures of the College. As such, parents cannot access student records (grades, class schedule, attendance, etc.) without written permission from the student. Although College staff members can provide academic advising, they cannot interpret high school requirements or act in a supervisory role.

TUITION AND FEES

Tuition and fees are due by the second Friday of the term. Payment may be made online with checking or savings account information, Visa or MasterCard; or in person with cash, check, VISA, Discover or MasterCard. Students who cannot meet this deadline should apply for a tuition payment plan through Enrollment Services by the tuition deadline. A tuition payment plan does not relieve the student of an obligation to meet registration and/or withdrawal (drop) deadlines for refund purposes.

Payment of the stipulated tuition and fees entitles all registered credit students, full-time or part-time, to all services maintained by the College. These services include use of the Library, Tutoring Center, laboratories and equipment in connection with courses for which the students are registered, access to the student newspaper and admission to special events sponsored by the College. No reduction in tuition and fees is made for students who do not intend to use these services.

The College reserves the right to make changes in tuition and fees without notice; however, any changes made during a term

will not become effective until the next term. Courses with unusually high costs associated in its offering may include fees higher than the normal rate.

TUITION PAYMENT PLAN

A tuition payment plan is available in Enrollment Services, Boyle Education Center, for students registered in six or more credits. To initiate a payment plan, students must complete a contract and pay \$20 plus one-third of tuition and fees by the tuition due date. The balance will be due by August 11 for summer term, by Nov. 10 for fall term, by Feb. 23 for winter term and by May 18 for spring term. A \$50 late fee is charged for payments made after the deadline.

TUITION FOR CREDIT COURSES

For 2010-2011

Fall, winter and spring

In district	\$70 per credit hour
Out of district	\$96 per credit hour
Out of state ¹	\$195 per credit hour
Audit	same as for credit

(¹CA, ID, NV and WA residents are charged out-of-district tuition)

Check the COCC credit class schedule for courses that require additional tuition and fees. There are program fees in the following areas: art, career/life planning, culinary, dental assisting, emergency medical services, health and human performance, massage therapy, nursing and all online courses.

Full time: For the purposes of financial aid, veterans’, social security and other benefit programs, 12 credits is considered full time.

Fees for students enrolled in credit courses

ASCOCC fee (max. \$21 per term)	\$1.50 per credit
Technology fee (max. \$20 per term)	\$2 per credit
Green Energy fee	25¢ per credit
Online course fee (applies to online courses only)	\$10 per credit
Optional Mazama user fee (per term)	\$16
Late registration (after the second week of class)	\$30 per transaction
Late-late registration (after exam rosters are run)	\$50 per transaction
Late tuition and fee payment—each week after deadline up to three weeks maximum	\$30 \$90

Fees for other courses

Adult Basic Education basic skills courses ²	\$20
English Language Learning classes ²	\$20
GED prep classes ²	\$20 per class
High school completion ²	\$100 per half credit

(²Proposed fees pending approval)

NSF CHECKS

If a payment is made with a check that is returned to the College due to insufficient funds, the student's account will be charged a \$20 returned check fee. Additionally, the student (or payee) will be required to pay tuition and fees with cash for one year.

COLLECTIONS POLICY

If a student fails to pay his/her tuition by the end of the term, the balance due amount will be turned over to the Oregon Department of Revenue for collections. At that time, a collections fee will be applied to the student's account and the student may make payment(s) directly to the ODR or to the College. Once payment is received in full, the student will be allowed to register for courses and order official transcripts.

ATTENDANCE/ADMINISTRATIVE WITHDRAWAL

In order to assure that all available class seats are filled with students — both registered students and students from the waiting lists — COCC enforces an attendance policy.

All instructors will administratively withdraw a student from full-term courses if the student does not attend 100 percent of course meetings and associated labs during the first week of each term. Additionally, all instructors will administratively withdraw a student from part-term courses (those which do not span the entire term) if the student does not attend the first class session. Students who are unable to attend the first class meeting must contact the instructor by phone, fax, e-mail or in person prior to the first class meeting if they wish to avoid administrative withdrawal.

The College is not responsible for liabilities associated with the administrative withdrawal of students.

The Administrative Withdrawal policy does not relieve students from full responsibility for officially dropping a course within the given deadline to not incur tuition charges and to not receive a grade for the course.

ADDING AND AUDITING COURSES/WAIT LISTS

Courses may be added until 7 a.m. on the day of the first class session. After this time, an instructor's permission is required to add a course. Students may add courses via their Student Online Services account (with electronic instructor approval) or in person at the Boyle Education Center or at the Redmond Campus. A late registration fee of \$30 will be assessed for any course added after the second week of the term; \$50 will be assessed for an approved petition to add a course after the final exam rosters have been run.



photo by Eugen Helmbrecht

Students may not begin attendance in a new class after the first week of the term.

Note that students may not register for two sections of the same course. If students wish to register for courses that overlap in time, they must receive permission from both course instructors.

Auditing courses

Full-term courses may be changed to/from audit through the seventh week of the term. Such changes must be done in person or online. Audited courses do not apply toward financial aid. Note: Different deadlines exist for short-term courses; contact Admissions and Records, 541-383-7500, for details.

Wait lists

Students who are on a wait list for a course will need to take a registration form to the first class session. If a seat is available, the instructor must sign the registration form. The student then submits the registration form in person to Enrollment Services within two days. Names will not be added to wait lists after noon the Sunday before the start of term.

DROPPING COURSES/COMPLETE WITHDRAWAL

Students registered in courses are considered in attendance. Students who stop attending class but do not submit a drop form will receive a grade for that course and will owe all tuition and fees. This grade will be a permanent part of the student's academic record.

To drop one or more courses, complete the drop section on a registration form and submit it in person at the Boyle Education Center or at the Redmond Campus. Drop forms may not be mailed or faxed, but students may call Admissions and Records, 541-383-7500, and drop a course over the phone.

Short-term courses

- For a refund or credit for courses with only one, two or three class meetings, students must submit a drop form at least seven (7) days before the first class meeting.
- For a refund or credit for courses with four or more class meetings, but which do not span the full term, students must drop the course prior to the start of the second class.

Full-term courses

Students may drop a course during the first two weeks of the term and receive a full refund, and no grade will appear on the student transcript. Between the third week and the end of the seventh week of the term, students can drop a course; no refund is available, but no grade will appear on the transcript. From the eighth week of the term through the Wednesday before finals week, a student may submit a drop form, with an instructor's signature; no refund is available and a "W" will appear on the student transcript. No withdrawals will be accepted after this time or after a course has ended. See the COCC Web site for specific dates. Note that different deadlines exist for short-term courses; contact Admissions and Records, 541-383-7500, for details.

Complete withdrawal

Students receiving federal financial aid may owe a repayment if they completely withdraw from courses. See Enrollment Services – Financial Aid (pages 15-16) for details.

TUITION REFUNDS FOR CREDIT COURSES

To qualify for a refund, the student is responsible for submitting a drop form to Enrollment Services by 5 p.m. on the deadline day; see the inside front cover of this publication for drop deadlines. (Note that drop deadline dates are also posted on the student's "Detailed Class Schedule," available by logging into the student's Student Online Services account.) Any debt owed the College will be processed against the refund first, with the net balance remitted to the student within a reasonable processing period.

Please review carefully the attendance policy on page 10 of this catalog.

Short-term course refunds

To receive a tuition refund for courses with only one, two or three class meetings, students must submit a drop form at least seven (7) days before the course begins.

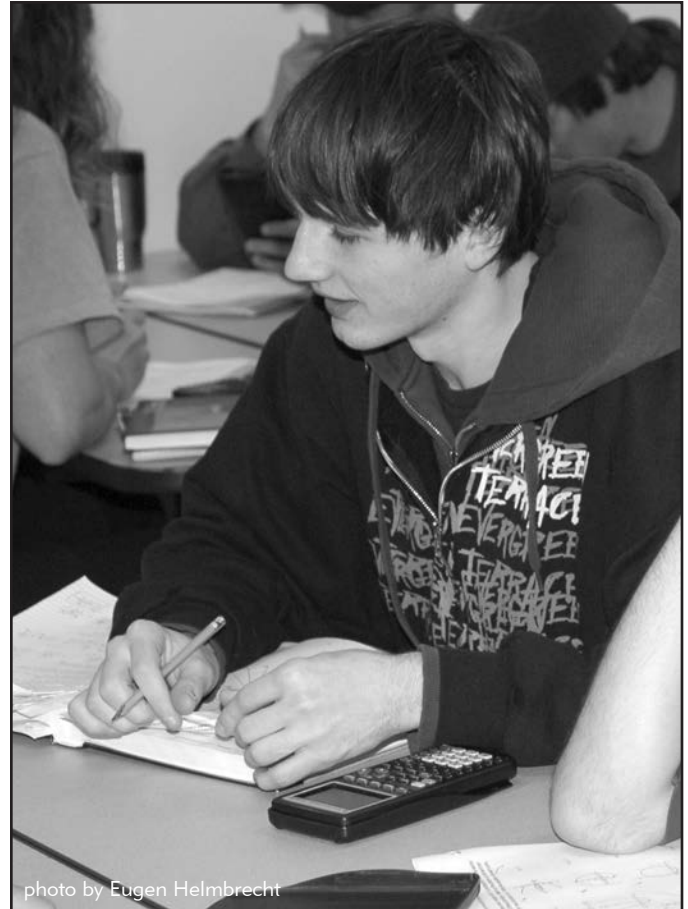


photo by Eugen Helmbrecht

For courses that have four or more class meetings, but do not span the full term, tuition is refundable up to the beginning of the second class meeting. Some specially priced courses do not follow this policy.

Full-term course refunds

Tuition is refundable up to 5 p.m. on Friday of the second week of the term. No portion of the tuition is refundable after this date. Students who fail to drop a course by this deadline will be responsible for tuition payment, and late payment fees will be charged to their account.

Students with federal financial aid may owe a repayment if they completely withdraw from courses. See Enrollment Services - Financial Aid, pages 15 and 16, for details.

COCC TRANSCRIPTS

Transcripts must be requested by students via their secure online student account, in person in the Enrollment Services office, or in writing. Transcript requests to be held until after grades or degrees are posted must be requested in person or in writing (option not available via the Web). The transcript processing fee must be paid before transcripts are mailed. No transcript requests will be processed during the first week of each term.

Processing fees

Online request (processed next business day)	\$5 per transcript
In-person, faxed or mailed request (processed 7-10 working days)	
first transcript	\$5
each additional transcript ordered at same time	\$1
Rush or faxed transcript	\$5 additional

COCC reserves the right to withhold transcripts from students who are in debt to the institution. For OSU-Cascades Campus students, official transcripts will be available between COCC and OSU-Cascades at no charge to the student.

RESIDENCY POLICY

Determination of residency for purposes of tuition will be made according to the following definitions. Students applying to COCC's nursing program must satisfy in-district residency requirements, as outlined in the nursing program application packet, prior to the application deadline.

In-district residency

An individual who owns property (or if under the age of 24, whose parent/guardian owns property) or who has maintained a permanent and continuous residence in the district for one full year prior to the beginning of credit courses will be classified as an in-district resident. The COCC District consists of all of Deschutes, Crook and Jefferson counties, the northern portions of Klamath and Lake counties, and the Warm Springs Indian Reservation in Jefferson and Wasco counties.

Out-of-district (in-state) residency

An individual who has maintained a permanent and continuous residence in the state of Oregon but outside of the COCC district during the year prior to the beginning of credit courses, or if under the age of 24, whose parent/guardian has maintained such residence, will be classified as an out-of-district resident. The student will remain an out-of-district student for two calendar years after the term in which the student began courses; at that time, the student will convert to in-district residency.

Out-of-state residency (WA, ID, NV, CA residents see exemption below)

An individual who has not maintained a permanent and continuous residence in the state of Oregon during the year prior to the beginning of the first term of enrollment will be classified as an out-of-state resident. The student will remain an out-of-state student for two calendar years after the term in which the student began courses; at that time the student will convert to in-district residency.

Exemption

Per Oregon Administrative Rules, residents of California, Idaho, Nevada and Washington will be charged in-state (out-of-district) tuition.

**Verification**

Residency of each applicant for college credit courses is determined from information provided at the time of application. When there appears to be an inconsistency, the College staff may require documentation to verify residency.

Transferring to another Oregon institution

In-state residency classifications are different at Oregon community colleges than at Oregon University System schools and can affect tuition rates. Students are encouraged to educate themselves before beginning their education in Oregon to avoid surprises later.

Oregon University System schools often classify people who move to Oregon to go to school as non-residents even if they have resided in the state for a year, attended a community college as an in-state resident, have registered to vote and own property in this state.

Students who moved to Oregon to attend school, with plans to start at a community college and then transfer to a university, should visit this Web page to plan a transfer: www.ous.edu/stucoun/prospstu/files/residencepolicies.pdf.

Military personnel

Out-of-district or out-of-state chapter 30, 33, 35, 1606 and 1607 veteran students will be classified as "non-resident veteran" students for residency/tuition classification purposes.

The non-resident veteran tuition rate will be calculated to be the in-district tuition rate plus 50 percent of the difference between COCC's in-district rate and out-of-district/border state rate and complies with Oregon legislation. In order to receive this benefit,

veteran students must have submitted all required paperwork to the COCC veteran student coordinator by the Friday prior to the term's start. Requests received after this date will be considered for the following term. Per the College's standard residency policy, a non-resident Veteran student will be classified as an in-district resident after two years of enrollment.

Residency status will be determined using the same criteria as the Oregon University System residency policy for armed forces personnel. For details, visit the OUS Web site at <http://www.ous.edu>.

Tuition waiver for students 65 years of age and older

Students 65 years of age and older are eligible for a tuition waiver for COCC credit classes based on the following conditions:

- The student must have a current term application on file in order to register. The application deadline is the Wednesday before the term begins. (Under certain circumstances, COCC may close admission prior to this deadline. Students are encouraged to apply early.)
- The student must be 65 years or older at the beginning of the term in which the course is offered.
- Space is available in the course(s). Student may only add courses under this policy during the first two weeks of the term; instructor permission is required.
- The tuition waiver is valid for eight or fewer credits per term.
- The student is auditing the course(s).
- The student is responsible for all fees (application fee, student fees, course fees, etc.).
- Tuition waiver forms will not be accepted after the tuition due date of the term.

Students requesting a tuition waiver must register in person and complete a tuition waiver form (available in the Admissions and Records office). At the time of tuition waiver form submission, students must show photo identification that includes date of birth. All fees must be paid in full by the tuition deadline in order to avoid late payment fees. Tuition waiver forms will not be accepted after the tuition deadline.

Native American students

Students who are enrolled members of federally recognized tribes of Oregon or of a Native American tribe which had traditional and customary tribal boundaries that included part of Oregon or which had ceded or reserved lands within the state of Oregon shall be charged in-state tuition regardless of their state of residence. (Note that residents of the Confederated Tribes of Warm Springs are automatically charged in-district tuition.) For a listing of eligible tribes, visit COCC's Web site at <http://current.cocc.edu/tuition>. Note that students must provide a copy of tribal enrollment documents prior to starting courses.

Residency appeals

Students may appeal their residency status by completing a residency petition, available through the Admissions and Records office. Residency petitions and supporting documentation must be submitted within 30 days of receipt of letter of admission or the Friday prior to the start of the term, whichever is sooner. Petitions received after the deadline will be considered for the following term; any change in residency status will not be retroactive.

MATRICULATION/ABILITY-TO-BENEFIT

Matriculation status is awarded to registered students who have earned a high school diploma or GED, or who demonstrate "ability to benefit" by earning the following minimum scores on the ASSET placement test: Reading, 35; Writing, 35; and Numerical Skills, 33.

Non-matriculated students may attend courses and earn credits, but may not receive financial aid until matriculation criteria are satisfied. Contact Admissions and Records, 541-383-7500, for further information.

STUDENT RIGHT-TO-KNOW ACT

In order for students to make more informed decisions about attending college, Central Oregon Community College makes the following information available in accordance with the federal Student Right-to-Know Act and related regulations:

- Institutional information: name of accrediting associations, services for disabled students, cost of attendance and additional program costs, refund policy, withdrawal policy and associated financial aid implications, degree programs, GED options, transfer credit policy, retention rates, vaccinations, copyright infringement, improving academic programs, placement statistics, campus academic facilities, faculty and staff contact information, academic warning standards, study abroad financial aid opportunities, deferment options for Peace Corp and related service organizations;
- Financial aid information: types of aid, how to apply for aid, how aid is disbursed, rights and responsibilities of students receiving aid, work study terms and conditions, loan repayment terms and schedule, academic progress criteria, FEEL disclosure;
- Campus Crime Report/Safety, Alcohol/Drug Policy, Fire and Safety Standards, Emergency Procedures;
- COCC graduation and transfer rates;
- Students' rights under the Family Education Rights and Privacy Act (FERPA).

Student Right-To-Know information is available on the College's Web site.

ENROLLMENT SERVICES – FINANCIAL AID

Central Oregon Community College makes every effort to ensure that students with financial need have access to its programs and courses of study. Students with general questions may find their answers on the Financial Aid Web site at <http://finaid.cocc.edu>. For more specific questions, contact the Financial Aid office located in the Boyle Education Center. Students are encouraged to submit their Free Application for Federal Student Aid (FAFSA) as soon after January 1 as possible to be considered for maximum eligibility. The federal school code for COCC is 003188.



photo by David Morris

WHO MAY BE CONSIDERED FOR FINANCIAL AID?

In order to comply with general federal eligibility provisions at COCC, students must

- be U.S. citizens or eligible noncitizens with appropriate documentation;
- have a high school diploma, a GED certificate, or meet “ability to benefit” provisions;
- be enrolled as certificate-seeking or degree-seeking students with declared majors at COCC;
- maintain satisfactory academic progress;
- certify that they are not in default on a federal student loan and that they do not owe money on a federal student grant; and
- be registered with the Selective Service, if required.

In order to receive aid from COCC, students must complete the application materials, including the Free Application for Federal Student Aid (FAFSA) each year, be eligible according to applicable criteria, and be enrolled in and attend credit classes at COCC.

HOW STUDENT AID IS DISTRIBUTED

Yearly awards are normally divided equally among terms (fall/winter/spring). On the second Friday of each term (except summer), financial aid disbursements are credited to the student’s account. Credit is applied first to tuition and fees and then bookstore charges, if authorized. The bookstore credit process allows eligible students to charge up to \$500 in books and supplies against their federal student aid account. Remaining aid for the term is refunded to the student by check. Work-study earnings are paid each month through the College’s normal payroll process.

SATISFACTORY ACADEMIC PROGRESS

COCC’s Financial Aid Satisfactory Academic Progress (SAP) requirements include the Financial Aid Academic Eligibility Standard and the Institutional Academic Warning Standard. (See page 28 for the COCC Academic Warning policy.)

FINANCIAL AID ACADEMIC ELIGIBILITY STANDARD

To maintain eligibility for financial aid, a student must comply with the following standard. Failure to meet any of the standard requirements may result in probation or denial of federal financial aid at COCC.

1. Certificate-seeking students must have a cumulative GPA of 2.0 and a cumulative completion rate of 66.67 percent of their **calculated hours** at the end of each term. Degree-seeking students must have a cumulative GPA of 2.0 and a cumulative completion rate of 66.67 percent of their **calculated hours** at the end of each academic year (evaluated annually when spring term grades are posted). The term “**calculated hours**” is defined as credits for which a student has received a financial aid disbursement and/or attempted hours if the student did not receive financial aid. If a student fails to meet these eligibility standards, an automatic probationary status is enforced. In addition, he/she must have an academic standing consistent with the institutional requirements for graduation. (Grades of A, B, C, D and P only will be evidence of completion of coursework for purposes of calculating institutional percentage completion rates.)
2. Aid eligibility is limited to 150 percent of a program’s credit length (approximately 140 credits for a two-year degree and

75 credits for a one-year certificate) even if a degree/certificate is not earned. As soon as it is clear that a student cannot graduate within this period, the student becomes ineligible for aid. Change of major or program may not be sufficient reason to extend the credit limit.

Measurement point/times standard applied

Measurement of Satisfactory Academic Progress is taken at the end of each academic year (spring term) for degree-seeking students. Certificate-seeking students are evaluated at the end of each term. Financial aid eligibility is denied at any measurement point if the standard is not met. COCC is not responsible for any actions the student has taken in anticipation of aid.

Probationary status

When a student first fails to meet the eligibility standards for either completion rate or GPA, an automatic probationary status is enforced. A student in this status must meet both the 2.0 GPA and 66.67 percent completion rate minimums each term. If a student fails to meet the minimum standards while in the probation period, the student becomes ineligible for aid.

Reinstatement of aid eligibility

Financial aid eligibility is also based on successfully completing the COCC Academic Warning requirements. A student may apply for any other re-determination of eligibility through the COCC Financial Aid petition process. A student may submit a petition for reinstatement on the basis of (1) mitigating circumstances or (2) successful completion of at least 12 credit hours of COCC coursework with a 2.0 GPA or better and 66.67 percent completion in each term of enrollment of all attempted credits without financial aid funding.

Petition procedures

1. Reinstatement of aid is never automatic. A student must apply for re-determination of aid eligibility by completing a COCC Financial Aid petition form.
2. A student may use the petition process to appeal any financial aid action that the law allows. The basis of a petition action must be for reasons that are outside the student's control.
3. Petitions are made through the Student Financial Aid office, on the official form.
4. Petitions are acted on by the Financial Aid director or, at the discretion of the director, referred to a petition committee.

Transfer student requirements

1. Coursework taken at another institution that is accepted and officially transcribed as transfer credit by COCC, will count toward the 150 percent credit maximum. If the limit is exceeded, the student must submit a petition to determine aid eligibility. GPAs from other schools are not considered in COCC's financial aid satisfactory progress policy.
2. Students enrolled in Oregon State University-Cascades Campus and other programs under consortium agreements are subject to the home institution's SAP standards.



photo by Andy Tullis

Repeat coursework

Repeat coursework will be allowed according to institutional academic policy and procedures (see pages 27 and 28). All coursework at COCC, whether repeated or not, will count toward the maximum credit-hour eligibility.

Developmental coursework

Students will be allowed a maximum of 45 quarter credit hours of developmental coursework in addition to the 140/75 credit-hour maximum. Developmental coursework is defined as Writing 60 through Writing 95, Math 10 through 95, and CIS 70.

APPEAL PROCEDURES

A student may petition a decision made by the Financial Aid office. All financial aid appeals will be considered within applicable regulations and College policy. The student will be notified of the petition decision within a reasonable time. Financial aid petition forms and written procedures must be used and are available in the Boyle Education Center.

WITHDRAWAL PENALTY/REPAYMENT REQUIREMENTS

Students who receive federal financial aid and subsequently completely withdraw, are expelled or cease to attend classes may be subject to a repayment of unearned financial aid. A Title IV return calculation determines, based on withdrawal date, the amount of federal aid that the student has earned. The amount of federal aid earned, under the federal aid return policy, may be less than tuition and other charges. This means that upon complete withdrawal, a student may owe COCC tuition and other charges in excess of net student aid. The student is responsible

for payment of charges not covered by student aid. Withdrawal from classes after the tuition due date affects completion rates that are required for Satisfactory Academic Progress.

At the time of complete withdrawal, students can request an estimated Title IV refund/repayment calculation from the Financial Aid office.

APPLICATION PROCEDURE

The Free Application for Federal Student Aid (FAFSA) may be submitted as early as January 1 for the upcoming summer, fall, winter and spring academic year. Students are encouraged to apply before March 1 because some funding is limited. Students apply on the Web at www.fafsa.ed.gov. A paper FAFSA is available by calling the Department of Education at 800-433-3243.

The COCC Financial Aid office can provide additional and detailed information about various financial aid programs. For further information, students should:

- go to the Web page, <http://finaid.cocc.edu>;
- send an e-mail to coccfinaid@cocc.edu;
- send a letter to COCC Financial Aid, 2600 NW College Way, Bend, OR 97701;
- telephone 541-383-7260.

Students should include their name and COCC ID number in all correspondence to the Financial Aid office.

WHAT TYPES OF AID ARE AVAILABLE?

Financial aid is money awarded to students to help them pay for tuition, fees, books, room and board, and transportation while they are working on a certificate or degree. There are four types of financial aid programs available: scholarships, grants, loans and work-study. These funds come from various sources. Program details, including eligibility criteria and dollar amounts, may differ from the following descriptions if applicable laws or regulations governing such programs change after printing of this material.

SCHOLARSHIPS

The purpose of a scholarship program is to encourage academic excellence and to recognize achievement. The scholarship program at COCC is comprised of three gift aid programs: COCC Foundation scholarships, honor scholarships and private scholarships.

Central Oregon Community College Foundation Scholarships

The Central Oregon Community College Foundation is comprised of a board of directors, administrative staff members and a group of interested and concerned private citizens from throughout the College District who donate their time and money to help COCC's students and to improve College programs. Each

year, the COCC Foundation raises funds to finance a number of scholarships. A scholarship application is required. Applications are submitted online at <http://finaid.cocc.edu> beginning in mid-December for the upcoming academic year. Eligibility is determined by the COCC Scholarship Selection Committee and may be based on need, academic achievement, residency or other donor-specific criteria. The COCC Foundation Scholarship is not available for summer term.

Honor scholarships

Honor scholarships are awarded on the basis of academic excellence to the highest-ranking seniors graduating from in-district high schools. This scholarship may be renewed at COCC for second-year students with a minimum 3.5 cumulative grade-point average and completion of 12 credits per term totaling 36 credits during their first year. All honor scholarship recipients must meet the College definition for full-time enrollment.

Private scholarships

A growing number of private scholarship opportunities are available to students. For a list of available scholarships and scholarship search engines, visit: <http://finaid.cocc.edu> or contact the Financial Aid office. High school seniors are encouraged to explore scholarship opportunities with the help of their high school counselors.

GRANTS

Grants are awarded on the basis of financial need. Grants do not have to be repaid and are another type of gift aid. Student financial aid packages include grant funds whenever student eligibility and funding levels permit. Funding for the grant programs administered at COCC comes from the federal Department of Education and the state of Oregon.

Federal Pell Grant

The Federal Pell Grant program was established to provide financial aid for eligible undergraduate students with financial need. Eligibility for other federal aid is determined after the Pell Grant is taken into consideration. Grant awards in 2009-2010 ranged from \$976 to \$5,350 annually depending on financial eligibility and enrollment. Students with a prior bachelor's degree are not eligible.

Federal Supplemental Education Opportunity Grant (FSEOG)

FSEOG awards are federally funded. COCC is responsible for selecting eligible students and determining the amount of the award. The FSEOG is for undergraduates with exceptional financial need and gives priority to students who receive Federal Pell Grants. Annual FSEOG awards were \$360 in 2009-10 depending on federal funding allocations. The FSEOG is not available for summer term.

Oregon Opportunity Grant (OOG)

The state of Oregon provides funds for this grant program. Eligibility is based on financial need as defined by the Oregon Student Assistance Commission using the FAFSA information and is limited to 12 cumulative quarters. Students must have a minimum of one-year legal residency in Oregon and be enrolled in at least six credit hours each term. Students with a prior bachelor's degree are not eligible. Students enrolled in a course of study leading to a degree in theology, divinity or religious education are not eligible. Oregon Opportunity Grant awards are set by the state of Oregon. The Oregon Opportunity Grant is not available for summer term.

LOANS

Note: Students are encouraged to borrow only the amount needed to cover educational expenses. Loan entrance and exit counseling are required.

DIRECT LOAN PROGRAMS (DL)

To be eligible for a Direct Loan, students must be enrolled in at least six credit hours and must not be in default on a prior loan or owe a grant repayment. All loans must be repaid. Students must sign a promissory note (a legal agreement to repay) with the Department of Education before any loan money can be disbursed. The promissory note contains detailed information about the terms, responsibilities and repayment of the loan. Because students must repay educational loans, this kind of assistance is generally referred to as self-help aid. Direct loans are accessed through the normal financial aid process. (For details, go to <http://finaid.cocc.edu/loan>.)

Two specific types of Direct Loans are available:

Subsidized Direct Loan program

The subsidized loan program provides fixed interest, long-term federal loans through the Department of Education. Maximum annual loan limits are based on financial need, but cannot exceed \$3,500 for freshmen and students in certificate programs and \$4,500 for sophomores. Loans are interest-free until repayment begins. Loan repayment begins six months after a student ceases to be enrolled at least half time. Monthly payment amount and length of repayment depend on the cumulative amount of loans, with a 10-year repayment time limit.

Unsubsidized Direct Loan program

The unsubsidized loan program provides fixed interest, long-term federal loans through the Department of Education. The unsubsidized loan is available to students who do not qualify for need-based Subsidized Federal Stafford loans or who are not eligible for the full Subsidized Federal Stafford loan amount. Awards cannot exceed \$3,500 for freshmen and students in certificate programs and \$4,500 for sophomores for

an academic year. In addition, dependent students as defined by the Department of Education are eligible to borrow up to \$2,000 in unsubsidized loans, and independent students, up to an additional \$6,000. Student borrowers will be responsible for payment of the interest that accrues on these loans while they are in school and during periods of deferment. Loan repayment begins six months after a student ceases to be enrolled at least half time. Monthly payment amount and length of repayment depend on the cumulative amount of loans, with a 10-year repayment time limit.

Federal PLUS (Parent Loan to Undergraduate Students) program

The PLUS is a non-need based interest-bearing loan to parents. Loans may range up to the published cost of attendance for the institution minus other student aid. Interest accumulated during in-school time is variable, capped at 9 percent, and subject to change annually. For more information on the PLUS loan and other publications, visit www.studentaid.ed.gov/. In addition to the PLUS application, a FAFSA is required at COCC; both are available online at <http://finaid.cocc.edu/loan/plus>.

WORK-STUDY AND STUDENT EMPLOYMENT

Many students help finance their education by securing part-time employment either on or off campus. Since students work in order to receive funds from employment, this kind of assistance is considered a form of self-help aid.

COCC Career Services maintains a list of off-campus job opportunities for students seeking employment outside the Federal Work-Study program. Check their Web site for more information, www.cocc.edu/careerservices/.

Federal Work-Study (FWS)

This program provides employment opportunities to students who apply for financial aid and are eligible for the Federal Work-Study Program. Availability is based on federal fund limits. In addition to providing income, students may acquire work experience in jobs related to their academic interests.

Students cannot be placed in a work-study job until they receive a financial aid award that includes work-study. Students will not receive any Federal Work-Study funds until they are actually placed and working in a work-study job. Due to the need to match job requirements with student skills, the College cannot guarantee employment to all eligible FWS recipients.

At COCC, work-study jobs provide experience in a variety of fields including physical education, library work, the sciences, health service and office work. Community service jobs are also available. For more information, visit <http://finaid.cocc.edu/workstudy>.

VETERANS EDUCATION BENEFITS

Students who believe they may be eligible for veterans educational benefits, such as a veteran or a widow or dependent of a disabled veteran, should contact the veterans coordinator at 541-383-7264.

All veteran students at COCC must meet the same academic standards as other students to remain in good standing. However, to remain eligible for educational benefits, veterans and other students eligible for these benefits must comply with the following additional requirements.

To receive educational benefit payments, students must attend classes. It is the responsibility of the registered veteran to notify the veterans coordinator when any changes are made to their schedule (add or drop classes). Failure to do so may result in incorrect payments to the student. Overpayments must be repaid.

Program of study

To be eligible for veteran educational benefits, students must be enrolled in a degree or certificate program offered by COCC and be approved by the State Approving Agency. Only courses applicable toward that degree or certificate program may be certified for benefit payment.

Transfer of credits

Veterans who enter as transfer students, or who have completed any college-level coursework, are required to have all official transcripts forwarded to Enrollment Services – Admissions and Records for evaluation. Certification will not continue past the first term if transcripts from all other sources have not been received by COCC. Veterans may also be eligible for credit from their military training. Documentation must be provided to Enrollment Services – Admissions and Records.

Credit hour requirements

To receive full-time pay, students must take a minimum of 12 credit hours per term; for three-quarter time pay, students must take nine to 11 credit hours per term; and to receive half-time pay, students must take six to eight credit hours per term. Chapter 33 students have different requirements.

Satisfactory academic progress

Veteran students are considered in good academic standing with the College when they maintain a GPA of 2.0 or better (each term) and complete 66.67 percent of their graded courses. A 0.0 GPA results in immediate termination.

- All students are notified at the end of the term in which they have not made satisfactory progress. Veteran students may continue on probation for only one term, after which time unsatisfactory progress will be reported to the Department of Veterans Affairs (VA) and benefits will be terminated.



photo courtesy of Wally Kempe & Associates

- In the event of extenuating circumstances, veteran students may submit a petition to the veterans coordinator who will forward it for review. Extenuating circumstances must be described on an official student petition form. In reviewing petitions, consideration is given to:
 - a. comments from instructors, advisors and counselors;
 - b. medical reasons;
 - c. any evidence of improvement over past terms;
 - d. degree of difficulty of courses; and
 - e. graduation requirements for major.
- Once certification is canceled, veterans must enroll for and complete a minimum of 12 credit hours required for their degree, at their own expense, and receive a 2.0 or better GPA to become recertified.

Institutional responsibility

COCC is responsible for reporting to the VA if the student is no longer pursuing his or her educational objectives as certified.

STUDENT SERVICES

All prospective students are encouraged to contact Enrollment Services – Admissions and Records, 541-383-7500, or www.cocc.edu, for information and assistance in planning their education at COCC.

ACADEMIC SUPPORT SERVICES

Students can take advantage of COCC's academic support services in these areas:

- Academic Advising (CAP Center)
- Bookstore
- Career Services (CAP Center)
- Computer labs
- Copy Center/Mail Services
- Counseling (CAP Center)
- Developmental Studies
- Digital Production Services
- Services for Students with Disabilities
- Library
- Multicultural Center
- Native American Program
- Student e-mail/network account
- Study Abroad Program
- Tutoring and Testing Center

ACADEMIC ADVISING (CAP CENTER)

Academic advising at COCC is provided by both the CAP Center (Career services, Academic advising, and Personal counseling) and by faculty members in each department. The purpose of academic advising is to guide students toward achieving their educational goals and to help students become self-reliant in understanding College policies and practices. Various advising requirements are in place to support this purpose.

Prior to registering for classes, new certificate- and degree-seeking (CDS) students and students who have not attended for more than a year participate in small-group advising sessions. After the first advising session, students are assigned an advisor in their declared major and e-mailed contact information. Students are encouraged to meet with their advisor to develop long-range academic and career plans and are required to do so before the next term's registration. All CDS students are required to meet with an advisor prior to registration (1) if they participated in a group advising session the previous term or (2) as determined by the advisor and at least once a year.

Students are responsible for monitoring their advising requirement and for completing the advising steps in a timely manner. COCC recommends that students plan their advising appointments well in advance of the opening of registration. Students who want to find their assigned advisor's name and contact information and see if they have an advising requirement for an upcoming term,



should look in their Student Online Services account. To do so, go to www.cocc.edu and select "My Login." After logging in, select "Student Services and Financial Aid," then "Registration," and then the "Can I Register for Credit Classes?" page.

Students may request a specific advisor or a change in advisors if their major changes. Students not seeking a certificate or degree are not required to meet with an advisor, but are welcome to meet with a CAP Center advisor. Contact the CAP Center, Barber Library lower level, 541-383-7200, for advising options.

BOOKSTORE

The Campus Bookstore, located on the Bend campus, sells textbooks, class materials, educational and personal supplies, gifts, convenience food and beverage items. Textbooks can be ordered 24 hours a day at www.cocc.edu/bookstore. For more information about the Bookstore, call 541-383-7570 or visit its Web site, listed above.

CAP CENTER (CAREER SERVICES, ACADEMIC ADVISING, PERSONAL COUNSELING)

The CAP Center offers a variety of student services to support COCC students in setting and meeting their educational goals. The CAP Center is located in the lower level of the Barber Library. Call the CAP Center for more information about each of these services, 541-383-7200, or go online, <http://cap.cocc.edu>.

CAREER SERVICES (CAP CENTER)

COCC Career Services assists students with career planning and exploration, finding part-time student employment (including work-study job placement), developing job search skills and locating career placement resources. Local employers can use these services to locate students and graduates with the specialized knowledge and skills needed in today's workplace. Career Services is part of the CAP Center, located in the lower level of the Barber Library and offers personal appointments, print-based and Web-based resources, and workshops open to COCC students and alumni. Call the CAP Center at 541-383-7200 or visit <http://cap.cocc.edu> for more information.

COMPUTER LABS

COCC offers a variety of computing resources to students registered in its credit classes, Community Learning classes or Oregon State University-Cascades Campus programs.

Drop-in computer labs are located on the Bend campus in the Barber Library, Pioneer Hall and Cascades Hall and on the Redmond Campus in Building 3. There are computer labs specific to Networking, Computer-Aided Drafting and Design, Science, and Geographic Information Systems on the Bend campus and additional computer classrooms located on both campuses.

Student workers who offer assistance logging on and answering general questions staff the drop-in labs. All of COCC's computers use the Windows operating system and most Microsoft Office programs along with class-specific programs. Labs are equipped with black-and-white and color laser printers, flatbed scanners, and adaptive workstations. All computer labs have a pay-to-print fee. Payment is by COCC/OSU-Cascades Campus student ID card or COCC print card.

COPY CENTER AND MAIL SERVICES

The Copy Center, located in the Bookstore on the Bend campus, is a full-service copy center. Services include black and white as well as color copies, transparencies, binding and general mail services including UPS. For more information about the Copy Center and/or Mail Services, call 541-383-7579.

COUNSELING (CAP CENTER)

Professional counselors are available at no charge to help COCC students identify and resolve personal issues. Counselors can help with stress management, depression, test anxiety, eating disorders, substance abuse, relationship issues or any other problems that may affect college success. All students who are enrolled in at least one credit or in Adult Basic Education/English Language Learning courses are eligible to receive short-term counseling at no charge. For further information visit <http://cap.cocc.edu>. Counseling appointments are confidential and can be made through the CAP Center (Career services, Academic advising, and Personal counseling) in the lower level of the Barber Library or at 541-383-7200.

DEVELOPMENTAL/TRANSITIONAL STUDIES

For those who find that their basic skills need sharpening, the College maintains a Developmental Studies program designed to equip students with the basic writing, mathematics and reading skills needed to succeed at the college level. Using placement test results, advisors will recommend courses that will provide the most help; some of these courses may be pre-college level. These courses are nontransferable but may be extremely valuable for those who need preparation for success in retraining or re-entry into academic studies. See page 34 for more information.

DIGITAL PRODUCTION SERVICES

The Digital Production Services department, located in the lower level of the Library, offers students the following:

- audiotape/CD duplication of foreign language tapes;
- eight individual DVD/VCR video-viewing stations available on a first-come, first-served basis;
- an editing booth where students can videotape interview sessions for class presentation;
- editing booths where students can use video/audio editing software for class projects;
- videotape/DVS/CD duplication following strict copyright laws;
- video camera checkout with instructor approval. Use limited to in-class COCC related project.

Visit <http://media.cocc.edu/> or call 541-383-7744 for more information.

LIBRARY

The Barber Library serves the research and information needs of the College, Oregon State University-Cascades Campus and its partners, and residents of Oregon. Staff can be reached at 541-383-7560. The Library's Web page address is <http://campuslibrary.cocc.edu/>. The Library catalog and research databases are available from the Web page.

Information help desk

A librarian or staff member is available at the reference desk to assist with reference and research questions. Help is also accessible online via e-mail or through L-Net's 24/7 chat service. Please see the "Ask a Librarian" link on the Library Web page (<http://campuslibrary.cocc.edu/>).

Computer workstations and wireless access

The Barber Library has 40 networked computer workstations available to students for their own research, as well as wireless accessibility for registered users including COCC and OSU-Cascades patrons, community patrons and campus visitors. For more information please refer to the Wireless Network Web page at: <http://its.cocc.edu/services/wireless/>. The Library also houses an electronic classroom and a 38-workstation computer lab.

Library collection

The Barber Library collection consists of reference sources, print and electronic books, print and electronic journals, magazines, Web resources and databases supporting COCC and OSU-Cascades academic programs.

Books and articles from other libraries

Students can submit requests for materials not available in the Barber Library. The Library is a member of the Orbis Cascade Alliance, a consortium of college and university libraries in the Northwest.

The Summit union catalog provides access to approximately 25 million books, audiovisual materials and more. It is accessible from the main Library Web page, <http://campuslibrary.cocc.edu/>. Current, credit-enrolled students, faculty and staff of COCC and OSU-Cascades Campus may search and self-initiate loan requests for most Summit items which arrive in two to three working days.

Other interlibrary loan services are also available to COCC students for journal articles not found in the Library or on the Library's full text database.

Materials on reserve for classes

Students may also retrieve a number of reserve materials available 24 hours a day, seven days a week, through the electronic reserves. Print reserves are available at the circulation desk at the front of the Library.

Government documents

The Barber Library is a selective depository library for U.S. federal documents. The Library also collects material related to the history and culture of Central Oregon.

Library instruction

Faculty librarians work closely with faculty in all disciplines to provide research instruction in classes when appropriate. The Library also offers stand-alone credit courses in research skills.

Library events

Poetry readings and art exhibitions are held regularly in the Barber Library. Watch for announcements in *The Broadside* student newspaper and on the campus and Library Web pages.

MULTICULTURAL CENTER

The Multicultural Center is located in Room 217, Campus Center Building. The Center fosters cross-cultural understanding and respect by providing a welcoming setting for learning, sharing and connection. It is open to the public and offers cultural activities and information during the academic year.

Visit the Multicultural Center Web site at www.cocc.edu/mcc. For more information, contact Karen Roth, director of multicultural activities, at 541-383-7412, or kr Roth1@cocc.edu.

NATIVE AMERICAN PROGRAM

The Native American Program provides academic support and mentorship to all Native Americans seeking to further their educational goals. The three main goals of the Native



photo by Eugen Helmbrecht

American Program are recruitment, retention, and enrichment for Native American students. The Program coordinator offers students individualized assistance as they navigate academic and administrative aspects of student life.

The Native American Program works in conjunction with various campus events aimed at supporting campus diversity and college success including Campus Mosaic, College 101, various on- and off-campus recruiting events, and the Diversity Program's "Season of Nonviolence." The Native American Program also works in partnership with the Educational Committee of the Confederated Tribes of Warm Springs. The Native American Program coordinator acts as advisor to the Native American Club. The club members provide their volunteer efforts in the Native American community and the Central Oregon community at large.

For more information, contact the Native American Program coordinator at 541-318-3782. The Native American Program operates September through June and maintains a Web site at <http://nativeamerican.cocc.edu>.

SERVICES FOR STUDENTS WITH DISABILITIES

The Services for Students With Disabilities office endeavors to ensure equal access to all students with qualifying, documented disabilities at all COCC campuses and Community Learning centers, as defined by federal legislation. Along with colleges and universities across the country, COCC is enrolling increasing numbers of students with disabilities and is committed to making physical facilities, instructional programs and campus activities accessible to all students. Awareness of students' needs and goals helps to create an atmosphere in which learning and

growth can occur. For more information, visit the SSD Web site at <http://disability.cocc.edu> or drop in to the office at the Boyle Education Center, Rooms 123-125.

If the need for accommodation exists, it is the student's responsibility to inform the College by contacting the SSD office in a timely manner in order to arrange the specific accommodation(s). Students exhibiting difficulties who have not previously utilized assistance through the Rehabilitation Act may not know of the existence of the SSD office. We encourage referral of students by staff and faculty to the SSD office for consultation and determination of need. Contact Services for Students with Disabilities by calling 541-383-7583 or visit the office in the Boyle Education Center.

STUDENT E-MAIL ACCOUNT

All students receive a free COCC e-mail account when they apply for admission. COCC will send most announcements to students' COCC e-mail accounts. This account can also be used to contact instructors, receive monthly newsletters about COCC events and deadlines, and keep in touch with instructors and friends. When logged into a COCC computer lab computer you are also logged into your COCC e-mail account.

For off-campus account login, visit the COCC homepage at www.cocc.edu and click the "My Login" button in the upper right-hand corner, then click "Login Now" next to "Web Email." Once logged into your COCC e-mail account, you can also open your personal network folder.

Students can find information about their user names and passwords at www.cocc.edu by clicking on the "My Login" button in the upper right-hand corner, then "Login Now" next to Student and Staff Online Services. Select the Personal Information link followed by the View E-Mail Address(es) link. If a COCC e-mail address has been assigned, it will be displayed here along with a comment including the initial password for campus computers, e-mail and Blackboard. The information will not include the correct password if it has been changed. Passwords are case sensitive.

The COCC e-mail account and network account use the same user name and password.

STUDENT NETWORK ACCOUNT

The student network account is a free account that permits students to connect to the College's computer network system. Once logged on to COCC computers, users will find their personal folder (identified with their name) on the desktop. Each folder contains 200 MB of space. Students also use this account when accessing a wired or wireless connection with their personal computer. Students are responsible for reading and understanding COCC's Acceptable Use of Technology Resources policy. See <http://cocc.edu/AUP/>.



STUDY ABROAD

The College seeks to provide opportunities for students to study abroad while earning COCC transfer credit. For specific offerings, visit <http://www.cocc.edu/studyabroad>. Current programs include:

- Fall Quarter in Florence, Italy. Students experience Italian life, language and culture while living and studying in Florence, the heart of Tuscany. The program offers an unparalleled opportunity for students of art, history, literature and Italian language to explore a wealth of museums, churches and culture in this most walkable of cities.
- Spring Quarter in London. The heart of British history, government and culture offers Oregon students not only access to the theater district and the riverside lifestyle, but dozens of museums, cathedrals and historical sites, such as Oxford and Stonehenge, to enrich their study-abroad experience.
- Summer two-week Spanish language immersion program in Guanajuato, Mexico. Students study the language at level 101, 102, 103, 201, 202, 203, 211, 212 or 213 (depending on placement), experience cultural programs and a home stay with a Mexican family in this charming mountain city.
- Summer two-week intensive Spanish study, followed by a two-week field biology course in Costa Rica. Students experience a home stay and language study near the capital, San Jose, then study lowland tropical jungle wildlife at La Selva research station, dry forest ecology and marine biology at Cabo Blanco on the Pacific Coast, and finally mountain rainforest ecology at the University of Georgia Ecological Institute in Monteverde Cloud Forest.

For questions about COCC's Study Abroad program, contact Greg Lyons, 541-383-7526, glyons@cocc.edu.

TUTORING AND TESTING CENTER

The Tutoring and Testing Center is located in the lower level of the Library with hours of operation available at <http://tutortest.cocc.edu>. Math tutoring occurs when the COCC Library is

open, proctored testing starts a half-hour after the building opens and ends a half-hour before the building closes.

Tutoring

Tutoring services are free to COCC students for the COCC courses in which they are currently enrolled. Drop-in tutoring is offered for math, sciences, foreign languages, business administration, computer science and the social sciences, as well as professional-technical subjects. Tutoring is conducted on both an individual and a group basis. Tutor-led study groups are also an option for some key courses. Resources include printed materials, textbooks and graphing calculators. Math and computer science tutoring is available at the Redmond Campus. The Writing Center is located adjacent to the Tutoring and Testing Center in the lower level of the Library. Students are encouraged to bring in their writing assignments for one-on-one help with any stage of the writing process. Tutoring sessions for anatomy and physiology, auto-CAD, emergency medical services, forestry, and automotive technology are held in those subject-specific labs.

Testing

The COCC Testing Center is a regional testing center serving a diverse constituency of students and community members. A charter member of the Consortium of College Testing (www.testing-ncta.org) and a certified Virtual University Enterprise (www.pearsonvue.com), Prometric APTC (www.prometric.com) and Computer Assisted Testing Service (www.silvercats.net) test site, the Testing Center's mission is to provide opportunities for Central Oregonians to obtain academic, professional and standardized testing locally. For a current list of tests offered, visit the COCC Testing and Tutoring Center's Web site listed below. For more information about tutoring and testing services, contact the Tutoring and Testing Center at 541-383-7538 or visit <http://tutorstest.cocc.edu>.

STUDENT SUPPORT SERVICES

OFFICE OF STUDENT LIFE

Participation in campus activities beyond the classroom is encouraged in order to complement college academic programs and to enhance the educational experiences of students. Through exposure to and participation in intellectual, vocational, cultural, recreational and social programs, students may explore their potential as individuals and develop meaningful relationships with others. For more information, contact the Student Life office in the Campus Center, 541-383-7590 or visit <http://studentlife.cocc.edu>.

ASSOCIATED STUDENTS OF COCC (ASCOCC)

ASCOCC provides students with numerous opportunities for governance, advocacy and social programming. The council is responsible for allocating student fees, appointing students to campus governing committees, advocating for the entire student

body and providing diverse social and educational programs and services. The ASCOCC council offers a limited number of paid positions each year.

Contact ASCOCC, 541-383-7595 or visit the Web site, <http://ascocc.cocc.edu/>, to find out about current activities and how to get more involved with the student council.

THE BROADSIDE STUDENT NEWSPAPER

The Broadside is a student-run newspaper serving COCC, OSU-Cascades and the larger community. The staff publishes a minimum of 25 issues per school year with a circulation of 2,500 to campus and other locations around Central Oregon. The newspaper provides a forum for student free speech as well as a focus on college news, features and sports.

Each year *The Broadside* offers dozens of students opportunities in reporting, editing, design and layout, photography and journalism leadership. All students are welcome to apply for the paid positions. For more information, call *The Broadside* advisor, 541-383-7252, or e-mail *The Broadside* editor-in-chief at broadsidemail@cocc.edu.

CLUB SPORT/INTRAMURAL AND RECREATION PROGRAMS

The COCC Club Sport/Intramural and Recreation programs offer a wide range of traditional and nontraditional sports and recreational activities along with special events and tournaments for people of all interests and abilities. The spacious Mazama complex features top-flight sports and recreation facilities.

COCC Club Sports provide opportunities for competition, skill development, leadership and recreation. Clubs are organized by students with guidance from coaches, students, faculty, staff and community members. Current clubs include alpine ski racing, baseball, basketball, body building, bowling, cycling, disc golf, golf, martial arts, nordic skiing, snowboarding, soccer (indoor and outdoor), swimming, volleyball and running.

Organized intramural activities are available at convenient times for COCC students, faculty and staff. The emphasis is on having fun, making friends and staying fit. Some activities feature friendly competition while others are purely recreational. Activities include basketball, bench-press tournaments, cycling (recreational and races), indoor soccer, day hikes, disc golf tournaments, flag football, golf tournaments, soccer (outdoor), softball (coed), swimming, table tennis, tennis, ultimate frisbee and volleyball.

COCC promotes lifetime fitness for everyone. Facilities are available for drop-in use throughout the week for a small per-term user fee. Informal recreational activities and organized sports are available to all. Passes for local recreation facilities are available to students at no cost (swimming and bowling). Call 541-383-7794 or visit online at <http://sports.cocc.edu> for more information.

CLUBS

ASCOCC offers many opportunities for students to participate in campus clubs. Clubs must involve at least four current COCC students, have a faculty or staff advisor, create a meaningful mission statement, and submit an annual budget to the ASCOCC. Those having questions or ideas about forming a student club or participating in an existing club can contact ASCOCC at 541-383-7595 or visit its Web site, <http://ascocc.cocc.edu/clubsandprograms>.

FOOD SERVICE

Quality food service is available across campus, with the main campus dining services available in the Campus Center. Visit the Food Service Web site at <http://www.coccdining.com> for details on locations, prices and options.

STUDENT HEALTH INSURANCE

Central Oregon Community College does not offer student health insurance. At the same time, the College does not require students to have health insurance coverage in order to enroll in courses and to participate in related activities and events. Students are responsible for their own health insurance coverage. The College does not have a student health clinic on campus. Limited health services are available for free or at a reduced cost in the local community. Links to health resources in the community are available on the Student Health Insurance Web page listed below.

COCC does not endorse any particular insurance, but it does have information on a few options. For information about contacting the carriers and other local resources in the community, go to the Student Life Web page, <http://studentlife.cocc.edu/Resources/Student+Health+Insurance>.

STUDENT HOUSING – ON CAMPUS

Juniper Hall houses 102 male and female students each year. Located near Grandview Hall, the residence hall offers shared rooms, cable, wireless Internet access, laundry and recreational facilities along with a full meal plan. Contact the Office of Residence Life at 541-383-7534, or visit <http://residencelife.cocc.edu> for more information.

Space in Juniper Hall is limited. Therefore, students seeking accommodations are encouraged to submit an online application at their earliest convenience. As long as space is available, contracts will be sent to students for completion. Upon signing a contract, students must be prepared to pay a security deposit to guarantee a space in the hall. The room and board rate for the 2009-2010 academic year (fall, winter, spring) was \$7,626 for double occupancy. For more information regarding student on-campus housing at COCC, contact the housing office in Juniper Hall, 541-383-7534.

Room and Board Package for Juniper Hall

2009-2010	Fall	Winter	Spring	Total
double occupancy	\$ 3,111	\$ 2,777	\$ 1,738	\$ 7,626

Note: In 2010-2011, students can expect an increase of up to five percent in room and board fees over the 2009-2010 figures listed above. Students living in Juniper Hall for spring term only will be assessed an additional \$300 for spring term.

STUDENT HOUSING – OFF CAMPUS

Availability of off-campus housing varies from season to season and year to year. The Student Life office accepts postings electronically on its Web site from the community for off-campus housing. Available housing options include apartments for rent, rooms for rent in homes, and homes for rent.

To view current submissions, visit http://studentlife.cocc.edu/services/Housing/Off_Campus. This Web page also provides other community resources that may be helpful in locating off-campus housing. The College provides this information as a service to our students; however, it does not assume responsibility for screening rentals.

SHUTTLE BUS

A free campus shuttle services the campus during fall, winter and spring terms. Shuttle maps with pick-up and drop-off times are available in the Boyle Education Center. The 15-person bus features a bike rack and automatic snow chains.

TRANSPORTATION

In addition to the free campus shuttle bus, the City of Bend offers local transit service for the general public, Bend Area Transit (BAT). For more information, visit the Web site, <http://www.bendareatransit.com>.

CAMPUS SERVICES (vehicle parking/evening campus escort service)

Campus Services is available to help with a number of services, including evening campus escorts, 541-480-2418. The office also monitors vehicle parking.

All students who park on campus must register their vehicles and display registration decals. There is no charge for this service. Certain parking areas on campus are reserved for guests, staff and vehicles displaying valid disabled parking decals.

Notice

The student services and activities descriptions in this catalog are valid for this academic year. Student services and activities are evaluated yearly to assess student needs and available College resources.

GLOSSARY OF ACADEMIC TERMS

The **academic year** consists of three terms (or “quarters”) of approximately 11 weeks each. Students may enter at the beginning of any term, but it may be advantageous to enter in the fall due to course sequence requirements. Summer is considered a separate, “stand-alone” term.

Credit load is the number of credits taken each term. Students may not take more than 19 credit hours per term without permission from Enrollment Services - Admissions and Records.

A **course** is an instructional program in which students study a subdivision of a subject such as U.S. History or English Literature, etc.

A **credit** usually represents three hours of the student’s time each week (approximately one hour in class, two hours of outside preparation) for one term. This time may be assigned to work in a classroom or laboratory or for outside preparation. The number of lectures, recitations, laboratory, studio, or other periods per week for any course is listed in the course descriptions in the catalog. The typical amount of scheduled time for a non-laboratory academic class is 50 minutes per week for each credit hour. Laboratory and activity courses usually require more than one hour of class time per week for each hour of credit.

Curriculum is an organized program of courses and study arranged to provide definitive cultural or professional preparation.

An **enrolled student** is one who has satisfied all of the institutional requirements for attendance at the institution, a concurrent student, special admission student, or any other student participating in credit or noncredit programs, and who is registered for the current term.

A **full-time student** is defined as one enrolled in 12 or more credits for federal financial aid, veterans and social security purposes. Half-time enrollment is designated as 6-8 credits; three-quarter time, 9-11 credits.

The COCC **credit class schedule** is a listing of the coming term’s classes and registration instructions. The schedule is available online at www.cocc.edu.

A **subject** is a designated field of knowledge (e.g., history or English).

Lower-division courses are freshman- and sophomore-level courses numbered 100-299.

Upper-division courses are junior- and senior-level courses offered through four-year colleges and universities. Generally they are numbered 300-499.



photo by David Morris

COURSE NUMBERING

Courses with subject names (e.g., Math 111) and numbered **100-299** are designed to meet COCC certificate or degree requirements.

Courses with subject names (e.g., Math 065) and numbered **below 100** do not normally transfer to four-year institutions.

Adult continuing education courses are nontransferable and are numbered through the digit-decimal system according to their type and purpose. A schedule of these courses, available through Community Learning, is published prior to each term. This schedule gives city and site locations for Community Learning classes throughout the College District.

ACADEMIC INFORMATION AND POLICIES

This section provides details concerning what each student needs to know about the College's academic expectations. For answers to specific questions about College policies, please contact Enrollment Services at welcome@cocc.edu or 541-383-7500.

GRADING POLICY

End-of-term grades are available via the student's online services account only and will not be mailed or given out over the phone.

Only the grades in the following list may be assigned. All courses graded with a P, NP, W, X, I and IP do not apply to GPA.

To calculate GPA, multiply the number of credits for each course by the grade points for the grade received in that course (grade points listed below). Add these numbers together and divide by the total number of graded credits for that term (include "F" grades and exclude P, NP, W, X, I and IP grades).

Grade points

A	4.0	outstanding performance
A–	3.7	superior
B+	3.3	excellent
B	3.0	very good
B–	2.7	good
C+	2.3	better than satisfactory
C	2.0	satisfactory
D	1.0	passing

Note: Courses in which "D" grades are earned may not be used in the AAOT or to fulfill foundational requirements in other certificate or degree programs and may have limitations in specific certificate or degree programs.

F	0	not passing
P		pass: not computed in GPA, applies toward percentage of credits completed, may be awarded only in authorized classes
NP		no pass: not computed in GPA, may be awarded only in authorized classes
W		withdraw: not computed in GPA, must be assigned by Records Office
IP		course in progress
I		incomplete: not computed in GPA, will convert to "F" if requirements of the Incomplete Grade Contract are not met by the end of the following term
X		audit: not computed in GPA, does not meet graduation requirements; not eligible for financial aid

Pass (P)/No Pass (NP)

"Pass" is interpreted as a "C" or better. The "pass/no pass" option is used for certain courses where it is deemed inappropriate to use the regular grading system. Credits are awarded but not calculated in GPA.



photo by David Morris

Challenge course pass/no pass

All challenge examinations will be graded on the "pass/no pass" basis. The standard for a "P" in challenge courses is performance at the level of a grade of "B–" or better. Credits are awarded but not calculated in GPA.

Withdrawal (W)

Students who withdraw from full-term courses between the eighth week of the term and the Wednesday before finals week will receive a "W" on their transcripts. Note: Permission of the instructor is required to withdraw from the course. A "W" is not computed in a student's GPA.

In Progress (IP)

This notation is made on a transcript if the course ends after the normal grading period. At the end of the course, a grade will be entered. Additionally, if an instructor does not submit a grade, the Enrollment Services - Admissions and Records office will assign an "IP" grade.

Incomplete (I)

An Incomplete (I) grade is assigned when a student successfully completes approximately 75 percent of course requirements, but for reasons acceptable to the instructor, the student is unable to complete remaining requirements during the given term. An "I" grade is not a substitution for a failing grade, but indicates

that there is a reasonable expectation that the student will pass the course. An incomplete grade will not count toward academic warning.

Students may request an Incomplete (I) grade by contacting the instructor prior to the end of the term. Students must complete the remaining requirements within one quarter after the end of the original course (summer term excluded) unless the instructor designates a later completion date. Instructors will submit a grade change to the Admissions and Records office within one week of the student completing the course requirements; if no grade is submitted, it is assumed the student did not complete the requirements and the “I” grade will convert to an “F.” (Note that if the student has earned a different grade without completion of these requirements, the instructor has the option to submit that letter grade instead.)

Students and instructors are strongly encouraged to complete an Incomplete Grade Contract in order to outline remaining requirements. Please see “Incomplete Grade Contract” on COCC’s Web site for more information.

Audit (X)

Students who want the experience of taking a particular class but do not want to receive college credit may register as audit students in any of the College’s courses. Audit students are not required to meet specific course requirements but should participate fully in class activities. If students wish to audit a class, they must indicate so at the time of registration and note the following:

- “X” appears on the transcript.
- “X” is not figured into a student’s GPA.
- Tuition is the same as classes taken for credit.
- Audited courses do not meet graduation or transfer requirements and are not eligible for financial aid.
- A student may convert “audit” status to “regular” status, and vice versa, before the end of the seventh week of the term for full-term classes.

GRADE CHANGES

The responsibility of assigning grades at COCC is entirely the instructor’s. A student who disputes the final grade (A–F, P, NP) in a course should meet with the instructor to review the grade. If not satisfied, the student may meet with the department chair, who can further review the grade with the instructor. If the student believes that the grade reflects discrimination in some form, the student has recourse through the College’s grade appeal procedure.

Students who wish a change of grade to or from “W” or “X” must submit a petition directly to Enrollment Services – Admissions and Records. Requests for grade changes are considered only within one year of the grade being awarded.

MIDTERM GRADE REPORTS

Midway through each term, instructors have the option to file grades of “D” and “F” or “NP” for those students whose performance indicates it, including those who are not regularly attending class. It is entirely the instructor’s discretion to submit or not submit a midterm grade report. If an instructor submits a midterm grade, the student will be sent an e-mail at his/her college e-mail address.

Students must take responsibility for withdrawing if they do not wish to continue in a class.

DEAN’S LIST

Students enrolled in 12 or more graded credits who receive a term GPA of 3.60 or better will have a Dean’s List notation on their official transcript each term that the GPA is earned. The Dean’s List will also be published each term.

GRADUATION HONOR ROLL

Honors will be listed on the transcripts of COCC graduates based on the following cumulative GPA from the end of the term prior to the student’s graduation:

3.60–3.74	honors
3.75–3.89	high honors
3.90–4.00	highest honors

Graduates participating in commencement exercises will receive honor cords. Graduates with a 4.00 will have an asterisk by their name in the annual commencement program.

REPEAT GRADE POLICY

Courses in music or theater performance, studio art, Cooperative Work Experience and HHP activity classes may be repeated for credit. The grades and credits for such courses will be recorded on the transcript and totaled cumulatively. In some cases, there may be a limit to the number of total credits allowed from those courses when used toward a certificate or degree.

Students may choose to repeat other courses. The original course and grade will remain on the transcript, with an “R” indicating it is later repeated. The original course grade will not be counted in that term’s GPA or the cumulative GPA. Students may repeat a course as many times as they wish; however, only the original/first course’s grade will be excluded from the term and cumulative GPA and only the most recent course will be used toward graduation requirements. There is no limit to the number of courses a student may repeat. If students wish to use the grade repeat policy for music or theater performance, studio art, Cooperative Work Experience and HHP activity classes, they must complete a student petition and submit it to

the Admissions and Records office; the course repeat policy will automatically happen for all other coursework. See the COCC Web site for an illustration of the repeat grade policy.

Note: This option became available fall 2006. A student must be a student under a catalog in which this policy was in place in order to take advantage of the repeat grade policy (e.g., former students cannot request a grade change unless they enroll in the repeated course fall 2006 or later).

ACADEMIC WARNING POLICY

Students are considered to be in good academic standing if they earn a minimum 2.0 GPA each term. Certificate- and degree-seeking students not meeting this requirement receive an academic warning. All students on academic warning will be mailed a letter specific to their situation the day after grades are processed; it is the responsibility of the students to monitor their academic standing and complete academic warning requirements in a timely manner.

Academic warning descriptions and requirements are as follows.

First Academic Warning

When students earn less than a 2.0 term GPA, they are placed on First Academic Warning. At this stage, students are strongly encouraged to meet with their advisor prior to registration.

Second Academic Warning

When students earn less than a 2.0 term GPA for two consecutive terms, they are placed on Second Academic Warning. At this stage, students are required to meet with an academic advisor and complete the Second Academic Warning worksheet. The worksheet must be submitted to Enrollment Services no later than 5 p.m., on Monday of the second week of the following term. If students are preregistered and fail to complete these steps, their registrations will be voided and a full tuition refund issued. (Bookstore expenses may not be refundable.) Second academic warning students will be prevented from registering for one calendar year or until such time as they complete the Second Academic Warning worksheet.

Third Academic Warning

When students earn less than a 2.0 term GPA for three consecutive terms, they are placed on Third Academic Warning. In order to attend classes, students must complete the Academic Reinstatement petition with their advisor and submit the petition to Enrollment Services no later than 5 p.m., on Monday of the second week of the following term. The Academic Reinstatement Committee will review completed petitions no later than Wednesday of that week. The Committee has three options:

- Approve the petition as is: Students continue attending classes, following the requirements of the petition. If

students fail to follow the academic plan or requirements, their registration in classes may be voided and their petition is considered “denied.”

- Approve the petition with revisions: If students fail to follow the revised academic plan or requirements, their registration in classes may be voided and their petition is considered “denied.”
- Deny the petition: If denied, students will not be allowed to continue or register for classes; any current registrations will be voided and a full-tuition/fee refund will be issued. (Bookstore expenses may not be refundable.) They may petition for reinstatement the following term or cease to attend classes for one calendar year. After one year, students may re-enroll and begin classes as if no academic warnings existed (grades on students’ transcripts remain the same).

Note: All students on third academic warning are required to participate in an activity (or activities) specifically chosen to address why they received three academic warnings. Depending on circumstances, this could be attending a study skills class or workshop; meeting with a personal counselor to talk about time management, stress management, depression or other personal situations; attending a career counseling workshop or class; or other option recommended by the advisor. If students do not follow through with this activity or activities, they will be dropped from that term’s classes. Financial aid recipients will need to pay back a prorated amount of their funding. (See the Financial Aid withdrawal penalty policy on pages 15-16.)

If students are preregistered and fail to complete the petition, their registrations will be voided and a full-tuition refund issued, except books. Third academic warning students will be prevented from registering for one calendar year or until such time as their Academic Reinstatement petition is approved.

Fourth Academic Warning

When students earn below a 2.0 term GPA for four consecutive terms, they receive a Fourth Academic Warning and are blocked from all registration in credit classes for one calendar year. After one year, students may re-enroll and start their academic record as if no academic warnings existed. The students’ transcripts, however, will remain the same.

Notes

1. Students who do not have an assigned advisor may request one through the CAP Center or Enrollment Services – Admissions and Records.
2. Students may appeal their suspension, in writing, to COCC’s vice president for instruction, as outlined in the College’s Concerns Procedure (see page 33).
3. Students on academic warning may not be self-advised, and students who were self-advised must meet with an advisor.
4. Students may not change advisors while on academic warning.

CHALLENGE COURSES

Students who feel they have knowledge and experience similar to a particular course and who cannot gain credit by one of the methods listed under Advanced Standing (see below) may challenge a course and receive credit for that course. However, in some cases, students may wish to discuss course requirement waivers with program faculty. There is no limit on the number of credits which may be earned by challenge with the following exceptions:

- Students cannot challenge courses at a lower level than ones in which they have already demonstrated competency, nor at a lower level than ones in which the students have already registered.
- Students may not challenge courses which they have already taken.
- Students may not challenge courses in which experiencing the course itself is essential.
- Challenged courses do not apply toward meeting residency requirements for a degree.

In order to assess whether or not the student has a reasonable chance of successfully challenging a course, a student must receive permission from a faculty member in the subject area and the department chair prior to challenging a course. If approved, the student and department complete the “Challenge Petition” form. This must be completed by the end of the sixth week of the term. The challenge paper or final must be completed prior to the end of the term.

Challenged courses are charged the regular tuition rate payable at the time the completed petition is processed in Enrollment Services – Admissions and Records. It is the student’s responsibility to schedule challenge examinations with the instructor. The exam may be rescheduled, only at the instructor’s discretion, in extraordinary circumstances. A grade of Pass or No Pass is assigned, where a Pass is earned for performance equivalent to a grade of “B–” or better. Students may not rechallenge a course if they do not pass the first attempt. Go to <http://visitors.cocc.edu/About/Procedures/> and select “Academic Procedures” for complete details.

ADVANCED STANDING AND TRANSFER CREDIT

In keeping with the philosophy that college-level knowledge can be validated and documented in various ways, Central Oregon Community College recognizes many educational experiences for credit. A guiding principle of our transfer credit practice is that acceptable transfer credit is applied in the same manner as is COCC credit.

Several COCC Career and Technical Education programs offer credit for prior certification if students have completed a course, training or other program that is taught to state, national or other officially recognized standards; credit is not awarded for

other life experiences. Students interested in receiving credit for prior certification must submit official copies of prior certifications to the Admissions and Records office, along with a “Credit for Prior Certification” request form. Admissions and Records will then forward the documentation to the appropriate department for review and notify the student of any outcomes. If credit can be awarded, the student must pay a \$40/course fee prior to having credits transcribed.

Transfer credits earned at another regionally accredited institution generally will be accepted as they apply to COCC degree requirements. Students who wish to use previous college credits toward a COCC degree should order official transcripts from the previous college. COCC will evaluate the transcript toward the certificate or degree listed on the student’s admission application. The evaluation will be placed in the student’s permanent file for use when a degree audit is requested, and a copy will be mailed to the student.

Limits on college credit transfer are:

- Subject matter may not duplicate that for which credit has previously been awarded in transfer or at COCC.
- Credit awarded by another institution for life experience is not transferable to COCC.
- Courses which espouse a particular religious view normally do not equate to COCC courses.
- In some cases, science credits more than five years old may not be applicable to specific programs.
- Transfer credit is only considered for courses where a grade (of A, B, C, D, pass, satisfactory) and credit have been awarded. Note that a “D” will not be accepted for the AAOT degree, foundational requirements and for some programs. (See individual program requirements.)
- Students working toward a COCC degree must complete a minimum of 24 COCC credits. Certificate-seeking students must complete a minimum of 18 COCC credits. Challenge, Advanced Placement (AP), College Level Examination Program (CLEP) and Credit for Prior Certification (CPC) credits do not meet this requirement.

Because of federal financial aid requirements, COCC will enter the total number of credits transferred toward the degree listed on the student’s application for admission. This number will appear in the “transfer credits” total on the transcript. See the Enrollment Services - Admissions and Records office for a copy of actual courses transferred.

Credit for Prior Certification (CPC)

Credits will be posted at the top of the student’s transcript in a section titled “Credit for Prior Certification” so as to not be confused with regular COCC coursework. COCC’s transcription of credit does not guarantee that the credit will be accepted by another higher education institution. Each institution establishes its own credit for prior certification policy and will evaluate prior certification based on that policy.

Credits transcribed for prior certification may not be used to acquire full-time status or to meet eligibility requirements for any other purpose, such as financial aid, veteran benefits or scholarships. A maximum of 12 credits for prior certification will be awarded. With the exception of apprenticeship programs, credit for prior certification does not apply toward the minimum 24 COCC credits required to complete a COCC degree (18 COCC credits for a certificate).

Noncollegiate and nonaccredited institutions

COCC will evaluate records for Career and Technical Education students from noncollegiate and nonaccredited institutions (such as business and trade schools) under the following guidelines:

- Only coursework that is technical in nature and certificate- or degree-applicable will be evaluated.
- Coursework will be evaluated by the appropriate Career and Technical Education program director.
- Sufficient documentation (transcripts, certificates, course descriptions, etc.) must be submitted to enable an informed review. Documentation must be received directly from the originating institution or program. The American Council on Education (ACE) guides will assist in evaluating the credentials. In some cases, COCC faculty will be consulted for evaluation of a particular credential.
- Material must be equivalent to regular credit courses offered at COCC. Credit is not considered based on what the student “knows,” but on the content of, and recorded achievement in, the course itself.
- Material may not duplicate that for which credit has previously been awarded in transfer or at COCC.

Military credit

Military credit will be evaluated as follows:

- The ACE guidelines will be used with discretion when considering military credit for courses (not occupations) documented on the DD-214 and/or other official training documents. Typically, credit is considered only when it is equivalent to regular course offerings at COCC, when it is not duplicated and when it is applicable to a student’s degree requirements.

Advanced Placement (AP), the College Level Examination Program (CLEP) and International Baccalaureate

Advanced Placement (AP), the College Level Examination Program (CLEP) and International Baccalaureate results will be evaluated as follows:

- Credit will normally be awarded following approved guidelines from COCC academic departments. Typically, credit is considered only when it is equivalent to regular course offerings at COCC and when it is not duplicated. AP and CLEP test scores are accepted as follows:

Advanced Placement (AP) will be evaluated at COCC as listed below.

AP Language and Composition, score 3+ WR 121
 AP Lit and Comp, score 3+ 4 credits in one of: ENG 104, 105, 106, 107, 108, 109
 (No writing credits earned with Literature and Comp tests)

AP French Language, score 3 FR 101, 102, 103
 AP French Language, score 4 FR 103, 201, 202
 AP French Language, score 5 FR 201, 202, 203
 AP German Language, score 3 GER 101, 102, 103
 AP German language, score 4 GER 103, 201, 202
 AP German Language, score 5 GER 201, 202, 203
 AP Spanish Language, score 3 SPAN 101, 102, 103
 AP Spanish Language, score 4 SPAN 103, 201, 202
 AP Spanish Language, score 5 SPAN 201, 202, 203

AP Biology, score 4+ BI 101, 102, and 103
 AP Chemistry, score 4+ CH 221, 222, 223
 AP Physics B, score 4+ PH 201, 202, 203
 AP Physics C, score 5 PH 201, 202, 203
 AP Physics C, Mechanics, score 4+ PH 211
 AP Physics C, Elect, score 4+ PH 212

AP Math Calculus AB, score 3 MTH 251
 AP Math Calculus AB, score 4+ MTH 251, 252
 AP Math Calculus BC, score 3 MTH 251, 252
 AP Math Calculus BC, score 4+ MTH 251, 252, 253
 AP Statistics, score 4+ MTH 243

AP Comp Science A, score 4+ CIS 161
 AP Comp Science AB, score 3 CIS 161
 AP Comp Science AB, score 4+ CIS 161, 162

AP US Government, score 3-5 PS 201
 AP US History, score 4+ HST 201
 AP European History, score 3+ HST 101, 102
 AP Psych, score 3+ 4 credits, psychology prefix, discipline studies list
 AP Microeconomics, score 3+ EC 201
 AP Macroeconomics, score 3+ EC 202

College Exam Program (CLEP) will be evaluated at COCC as listed below.

CLEP English Comp, No credit, prefer challenge
 CLEP Humanities, min score 50 9 credits of Arts and Letters discipline studies list
 CLEP Am Lit, minimum score 50 ENG 253, 254, 255
 CLEP Eng Lit, minimum score 50 ENG 101, 102, 103

CLEP Foreign Language, (no more than 12 credits per language)
 French: score 50 FR 101, 102, 103
 French: score 59 FR 201, 202, 203
 German: score 50 GER 101, 102, 103
 German: score 60 GER 201, 202, 203
 Spanish: score 50 SPAN 101, 102, 103
 Spanish: score 60 SPAN 201, 202, 203

CLEP General Math No credit
 CLEP College Algebra, score 50 MTH 111
 CLEP Calculus with Elem. Function, score 50 MTH 251
 CLEP Calculus with Elem. Function, score 60+ MTH 251, 252

CLEP Biology, minimum score 50 BI 101, 102, 103
 CLEP Chemistry, minimum score 50 CH 221, 222, 223
 CLEP General Exam in Natural Sciences, minimum score of 50 9 non-lab science credits for “additional courses” or electives

CLEP Princ of Mgmt., minimum score 70 equivalent course credit as elective in business
 CLEP Accounting, minimum score 70 equivalent course credit as elective in business
 CLEP Intro Business Law, min score 70 equivalent course credit as elective in business
 CLEP Princ of Marketing, min score 70 equivalent course credit as elective in business

CLEP US History I minimum score 50 HST 201
 CLEP US History II minimum score 50 HST 202
 CLEP Western Civ I minimum score 50 HST 101

CLEP Western Civ II, minimum score 50	.....	HST 103
CLEP both Western CIV I and II with minimum scores of 50	.....	HST 101, 102, 103
CLEP Sociology, minimum score of 50	.....	SOC 201
CLEP Microeconomics, score 50	.....	EC 201
CLEP Macroeconomics, score 50	.....	EC 202

Students may arrange to take the CLEP tests at the COCC Tutoring Center, 541-383-7539.

International credentials

International credentials will be evaluated using the following principles:

- Coursework must be completed at a nationally recognized, university-level institution and must be at a level of achievement comparable to COCC’s A, B, C and D grades. Note that a “D” will not be accepted for the AAOT degree and foundational requirements and for some programs. See individual program descriptions, pages 50-130. The applicability of such transfer credit will be evaluated as is credit from U.S. institutions.
- NAFSA: Association of International Educators and American Association of College Registrars and Admissions Officers (AACRAO) guidelines will be used in evaluating the credentials.
- The student will pay for any costs associated with international transcript evaluations.

It is the responsibility of each student with transcripts from foreign universities to have the transcript translated (if necessary) and evaluated for acceptance toward a COCC certificate or degree. The student must use a member of the National Association of Credential Evaluation Services. Details on foreign transcript evaluation are available at the COCC Admissions and Records office, Boyle Education Center. English taught outside the United States may not meet COCC’s English composition requirement. Degrees from foreign countries do not waive the general education or writing competency requirements.

TRANSFERRING CREDITS TO A FOUR-YEAR UNIVERSITY

As a general rule, four-year institutions of the Oregon University System will accept up to 124 lower-division hours of transferable college credit. It is ultimately the responsibility of the students to know and meet the course requirements of the four-year college or university to which they wish to transfer. Students may obtain assistance from academic advisors.

Grades of A, B or C earned in transfer courses (numbered 100-299) are generally accepted by other colleges; other grades may have limited transferability. COCC has also made arrangements with select programs at four-year colleges and universities for the transfer of certain Career and Technical Education (CTE) courses.

Students seeking a Bachelor of Arts or a Bachelor of Science degree should be aware of foreign language and other degree

or major-specific requirements. See pages 35-36 for a listing of degree requirements between COCC and various universities.

STUDENT EDUCATIONAL RECORDS AND DIRECTORY INFORMATION

Enrollment Services – Records maintains all official academic records of enrolled students including transcripts, registration forms, transfer credits and degree evaluations. For record-keeping purposes, the College considers Web registration as part of a student’s official record. Enrollment Services – Financial Aid maintains all student aid and scholarship records.

Central Oregon Community College follows the Federal Health Education and Welfare Guidelines for the Family Education Rights and Privacy Act of 1974 – Pell-Buckley Amendment (FERPA), which gives students attending post-secondary institutions the right to inspect their educational records. Those rights are:

1. The right to inspect and review their education records within 45 days of the day COCC receives a request for access.

Students should submit to the registrar written requests that identify the record(s) they wish to inspect. The registrar will make arrangements and notify the student of the time and place where the records may be inspected.

The College reserves the right to withhold transcripts from students who are in debt to the institution. Students have the right to discuss the matter with a representative empowered to resolve such disputes.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading.

Students should write the registrar, clearly identify the part of the record they want changed and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, COCC will notify and advise the student of the decision and of his or her right to a hearing regarding the request for amendment. The College also will provide additional information regarding the hearing procedures.

3. The right to consent to disclosures 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. A school official is a person employed by COCC in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom COCC has

contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Directors; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by COCC to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202-5901.

DIRECTORY/RELEASE OF INFORMATION

The College does not publish a student directory. Requests for directory information must clearly state the student's name.

Central Oregon Community College considers the following information to be directory information and may release it if requested on an individual basis:

- student's full name
- terms of attendance (not daily attendance)
- major field of study
- full- or part-time enrollment status
- degrees, certificates and awards received
- address and telephone number
- e-mail address
- participation in officially recognized activities and sports
- most recent previous school attendance
- class standing (freshman or sophomore status)

Students who do not wish the above information to be released by the College must submit a signed statement requesting that this information be withheld. Contact Enrollment Services for the necessary form and additional information. The request to withhold information remains in effect until the student submits a signed statement indicating that directory information may be released. Students should keep the College notified of current addresses and telephone numbers. Students can update this information through the College Web site, www.cocc.edu.

Information such as grades, progress in coursework, financial aid status and class schedule will not be released, except as authorized by law. If students wish to have this information released to parent/guardians, employers or other non-college entities, students must submit a "Release of Information" form, in writing, to Enrollments Services-Admissions and Records in the Boyle Education Center. The release is valid until June 30 of each year and must be refiled annually.

RELEASE OF DIRECTORY INFORMATION FOR MILITARY RECRUITING PURPOSES

Under the Solomon Amendment Interim Rule to implement the National Defense Authorization Act of 1995 and of 1996, and the Omnibus Consolidated Appropriations Act, 1997, schools receiving Title IV funding must provide military access to directory information for students 17 years of age or older. For purposes of the act, directory information is defined as name, address, telephone listing, date and place of birth, level of education, degrees received and the educational institution in which the student most recently was enrolled. Students who have formally requested COCC to withhold all directory information from third parties will not be included.

SOCIAL SECURITY NUMBER/ INFORMATION CONSENT

The College adheres to the following policy statement of the Oregon Department of Community Colleges and Workforce Development:

"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. Providing your social security number means that you consent to use of the number in the manner described."

OAR 589-004-0400 authorizes Central Oregon Community College to ask students to provide their social security numbers. The numbers will be used by the college for reporting, research and record keeping. The numbers 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 Association. OCCURS gathers information about students and programs to meet state and federal reporting requirements. It also helps colleges plan, research and develop programs. This information helps the colleges to support the progress of students and their success in the workplace and other education programs.

OCCURS or the College may provide a student's social security number to the following agencies or match it with records from the following systems:

- State and private universities, colleges and vocational schools, to find out how many community college students go on with their education and to find out whether community college courses are a good basis for further education.

- The 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 the student by the college.
- The American College Testing Service, if a student takes the ASSET placement test, for educational research purposes.

State and federal law protects the privacy of student records. The social security number will be used only for the purposes listed above.

CONCERNS PROCEDURE

COCC has a college concerns procedure designed to provide employees, students and citizens a way to appeal decisions made within the College. Contact Enrollment Services – Admissions and Records, 541-383-7500 or welcome@cocc.edu, for a copy of the procedure, or view it online at <http://hr.cocc.edu/Jobs/Equal+Opportunity/Complaints/>.

STUDENT RIGHTS AND RESPONSIBILITIES

In order to provide for the maximum safety, convenience and well-being of the total College community, certain standards of behavior have been established at Central Oregon Community College. Upon admission to the College, all students accept an unqualified commitment to adhere to such standards and to conduct themselves in a manner appropriate to an educational environment, one which reflects respect for themselves and the College. Such actions as academic dishonesty, abuse of property, harassment, any violation of federal or state law, possession of alcoholic beverages and possession of illegal drugs are in violation of the College's standards and are cause for disciplinary action. The disciplinary action taken by the College covers a range of possibilities up to and including dismissal from college. The Student Rights and Responsibilities Handbook is available online at <http://studentlife.cocc.edu/Policies/Rights+and+Responsibilities>.

ALCOHOL AND DRUG POLICY

In compliance with the Drug-Free Workplace Act of 1988 (Public Law 100-690, Title V, Subtitle D) and the Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226), it shall be the policy of Central Oregon Community

College to maintain a drug-free campus for all employees and students. It is the responsibility of the College to notify students and staff of college policy. In accordance with this intent, the following policy is in effect:

Drug-free campus

The unlawful possession, use or distribution of illicit drugs and alcohol is prohibited on the College campus, in all College facilities or as part of any College-sponsored activity. Violators of this policy will be prosecuted to the full extent of state and federal law and, in addition, there are specific consequences for employees and for students which are stated in the College Drug-Free Campus Procedures.

Complete information, including Oregon state laws, where employees and students can find assistance, health risks associated with the use of illicit drugs and the abuse of alcohol, and warning signals, is available in a flier entitled "Making Choices for Life." The flier is available at the offices of Admissions and Records and Student Life.

NONDISCRIMINATION POLICY

It is the policy of the Central Oregon Community College Board of Directors that there will be no discrimination or harassment on the basis of age, disability, gender, marital status, national origin, color, race, religion, sexual orientation or veteran status in any educational programs, activities or employment. Persons having questions about equal opportunity and nondiscrimination should contact the Equal Employment Officer, c/o COCC's Human Resources office, 541-383-7216.

Faculty, staff and students are protected from discrimination and harassment under Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972. Persons who, because of a physical or learning disability, need special accommodation should contact ADA Coordinator Gene Zinkgraf, 541-383-7775, in advance of their need for accommodation. Persons who need accommodation for College events because of other disabilities such as hearing impairment, should contact Anne Walker, 541-383-7743, in advance of the event. Further inquiries may be directed to the Affirmative Action Officer, c/o COCC's Human Resources office, 541-383-7216.

SMOKING POLICY

Smoking is banned in all of the buildings of Central Oregon Community College. Smoking or the use of smokeless tobacco is limited to campus parking lots. During high fire danger periods, smoking will be banned completely.

TRANSITIONAL STUDIES

PRE-COLLEGE COURSEWORK

For those who find that their academic skills need sharpening, the College maintains transitional courses designed to equip students with the basic writing, mathematics and reading skills needed to succeed at the college level. Using placement test results provided through the CAP Center, advisors will recommend courses that will provide the most help. These classes are pre-college level and nontransferable, but they help build a solid foundation for success in future courses. They are extremely valuable for those who need preparation for success in retraining or re-entry into academic studies.

Two categories of instructional support are available:

1. Adult Basic Education/College Preparation (ABE/CP) courses which are non-credit, and
2. Pre-college level Basic Skills classes which are credit courses numbered below 100. There are also 100-level courses addressing college success and study strategies available that will count toward degree completion and transfer to other institutions.

ADULT BASIC EDUCATION/COLLEGE PREPARATION

Non-Credit Options

Adult Basic Education/College Preparation (ABE/CP) provides an effective and affordable means for a successful transition to the college setting. Support is offered for English Language learners and GED/College Prep students as well as courses for refreshing students' skills in math, writing and reading. Contact the Adult Basic Education office, 541-504-2950, for details.

English Language Learning (ELL)

ELL classes are for those who need to learn to speak, read or write in English or need to take classes to earn U.S. citizenship. Classes are offered at convenient times and locations throughout Central Oregon.

GED College Preparation

The General Education Development (GED) certificate indicates that those completing it have the same abilities as high school graduates. It is accepted by colleges, training schools and employers nationwide. At COCC, students are prepared for and gain the necessary skills to pass the GED test. Students are also provided with secondary skills to achieve success in college credit classes.

The GED test covers five areas: language arts reading; language arts writing; social studies; science; and math. Each area must be passed with a minimum score of 410 and an average of 450 for all testing areas. A short essay is also required. The test is offered throughout the state and two specific locations in Central Oregon. Tuition is affordable and books are available to help with studies.

Adult high school diploma

This program is for those who did not graduate from high school but are only a few credits short of doing so. Credits may be earned by taking high school courses through COCC's ABE/CP program, COCC credit classes or by combining life experiences with independent study classes. Tuition is required for each half credit plus book expenses, as well as a transcript evaluation fee.

Credit recovery

Those who need high school credit and enjoy studying independently using the Internet can participate in COCC's credit recovery program. Public and private high school students can use these courses to maintain their status during absences, regain failed credits or graduate early. Students are generally referred to this program by their high school counselor or teacher.

BASIC SKILLS CLASSES

Credit Options

Several academic departments offer courses that prepare students for college-level classes that will count toward degree completion and are transferable to other institutions. These classes are frequently available online or in classrooms on the Bend and Redmond campuses or other sites throughout Central Oregon. Check the current course schedule for convenient times and location: http://current.cocc.edu/Degrees_Classes/schedule/.

Basic Skills Classes by Subject

MTH 10	Developmental Mathematics
MTH 20	Pre-Algebra
MTH 29	Fraction Review Workshop
MTH 60	Algebra I
MTH 65	Algebra II
MTH 95	Intermediate Algebra
WR 60	Rhetoric and Critical Thinking I
WR 65	Rhetoric and Critical Thinking II
WR 75	Basic Writing I
WR 95	Basic Writing II
RD 117	College Reading
HD 100CL	Introduction to College Life
HD 100CS	College Success
HD 100NT	Note Taking
HD 100OL	Exploring Online Learning
HD 100 PM	Procrastination & Motivation
HD 100SC	Success in the Classroom
HD 100TM	Time Management
HD 100TT	Test Taking
HD 100VC	Values Clarification
HD 101	Study Strategies

PATHWAYS TO SUCCESS: OVERVIEW OF COCC DEGREE OPTIONS

Central Oregon Community College offers a variety of transfer and Career and Technical Education (CTE) certificate and degree options, allowing students to choose their program based on their educational goals.

GENERAL EDUCATION OUTCOMES

As part of its commitment to learning and to student success in transfer and career programs, COCC has adopted the following outcomes for general education (the foundational and discipline studies requirements for its degrees):

Aesthetic Engagement

Students will engage in informed discussion of the meaning and value of aesthetic expression.

Communication

Students will speak, read, write and listen effectively.

Critical Thinking

Students will analyze, interpret and synthesize ideas and information.

Cultural Awareness

Students will explain how cultural context shapes human perceptions and values.

Health Choices

Students will identify responsible health and safety procedures.

Quantitative Reasoning

Students will apply appropriate mathematics to analyze and solve problems.

Scientific Reasoning

Students will apply scientific inquiry to arrive at informed conclusions.

Technology and Information Literacy

Students will use computer technology to gather, process and communicate information.

Values and Ethics

Students will evaluate the ethical dimensions of arguments and the consequences of decisions.

TRANSFER/BACHELOR DEGREE PREPARATION

Students wishing to attend COCC and use these credits toward a bachelor's degree have several options that range from completing individual courses to completing an associate's degree designed for transfer. COCC offers transfer students the

following primary options for credentials in addition to the option of transferring individual credit: Oregon Transfer Module (OTM), Associate of Arts Oregon Transfer (AAOT), Associate of Science (AS), Associate of Science - Direct Transfer to Oregon State University (AS-DT), Associate of Science Oregon Transfer - Business, and various articulation agreements with our two- and four-year partners.

ARTICULATION AGREEMENTS

Students may select individual courses at COCC and transfer them to a college or university. Students who will not complete a degree at COCC are encouraged to research degree requirements for the college at which they will earn their bachelor's degree and select courses accordingly. The Oregon public universities have equivalency guides to aid in selecting equivalent courses. Every college will have a policy on transfer credit that can usually be located on the destination college's Web site, often under the admissions information for transfer students. A COCC advisor or the CAP Center advisors can assist students with locating this information.

COCC partners with several colleges and universities to offer students a seamless transfer among institutions for certain majors. Current articulation agreements are as follows, and some degree requirements can be found on pages 50-130 in the catalog. Contact the COCC Admissions and Records office for requirements not listed on these pages.

Eastern Oregon University

Note that all of these degree options are available via Online Education and on the EOU Campus. Interested students should contact Brenda McDonald, EOU Distance Education coordinator, at 541-385-1137, or bmcdonal@eou.edu.

- Anthropology/Sociology
- Business Administration
- Business Economics
- English
- Fire Science Administration
- Physical Activity and Health
- Philosophy, Politics and Economics
- Psychology
- Liberal Studies: Small City and Rural County Management, Environmental Studies, Business and Health Promotion, Organizational Psychology, Early Childhood Education

Linn Benton Community College

Linn-Benton Community College (LBCC) offers a distance education program in Diagnostic Imaging (Radiological



photo by Candace Bowman

Technology). Students may complete their prerequisite coursework through COCC and complete the LBCC Radiological Technology coursework through a variety of distance education methods. Students who live in the COCC District apply for the Diagnostic Imaging program through COCC.

Oregon Institute of Technology

- Specific COCC coursework is aligned with requirements for OIT's Medical Imaging Technology program.
- OIT's Bachelor of Science degree in Operations Management is articulated with the following COCC degrees:
 - Automotive Management
 - Aviation
 - Business Administration
 - Computer and Information Systems (Computer Support Option)
 - Structural Fire Science
 - Wildland Fire Science
- Associate of Science degree is articulated with OIT's Bachelor of Science degree in Information Technology - Health Informatics option.

Oregon State University-Cascades Campus

(See Associate of Science - Direct Transfer degree option, page 41.)

Portland Community College

Portland Community College offers an Associate of Applied Science degree in Medical Laboratory Technology. Students complete the program prerequisites and general education requirements at their local community college and the MLT program requirements through PCC's Distance Education program. Students in the Extension program may occasionally meet with instructors; however, all of the MLT coursework is completed online. Clinical lab experiences are provided in Central Oregon at Cascade Health Care Community.

CERTIFICATE AND ASSOCIATE DEGREE GENERAL REQUIREMENTS

Degree/certificate completion

Unless otherwise specified, the degrees listed in this catalog are intended to be offered for completion within the next two years. Unusual budget constraints or other changes in resources might necessitate discontinuing particular courses, programs or degrees. As far as resources allow, the College makes every effort to enable students to complete their degree programs in a timely manner. Students should work closely with advisors to obtain accurate information about their progress toward degrees and certificates. Students planning to transfer to another college are responsible for receiving and evaluating information from the destination institution.

A certificate or degree is awarded when it meets the appropriate course requirements listed in this catalog and the student has met the following guidelines:

- Complete the minimum number of credits required for the degree (see pages 38-46)
- Earn a minimum 2.0 cumulative grade-point average at COCC
- Owe no debt to the College
- Complete at least 24 degree-applicable residency credits for an associate's degree; 18 certificate-applicable residency credits for a certificate
- Meet at least one of the following criteria:
 1. The student is eligible for the degree or certificate when he or she meets degree requirements listed in any catalog in effect during the student's most recent continuous (unbroken) attendance
 - a. for the AAOT, limited to the current catalog and the previous four catalogs
 - b. for the AAS, AGS, AS and certificates, limited to the current catalog and the previous two catalogs
 Students must apply for their degree within six months of the term in which they met the requirements
 2. The student transfers back to COCC other college credit within the term immediately following the last term attended at COCC, excluding summer, and meets degree requirements listed in any catalog in effect during the most recent continuous (unbroken) attendance
 - a. for the AAOT, limited to the current catalog and the previous four catalogs
 - b. for the AAS, AGS, AS and certificates, limited to the current catalog and the previous two catalogs
 3. The student left COCC prior to completing degree requirements but through subsequent transfer credit meets degree requirements currently in effect at the time of final degree evaluation and award



photo courtesy of Wally Kempe & Associates

When a student's completion of degree requirements coincides with the last term attended, the degree will be posted in that term. When the student uses transfer credit after an absence from the College, the degree will be posted in the term in which the degree evaluation is successfully completed, and when it has been determined that all degree requirements have been met.

Career and Technical Education certificates of completion

- Provide hands-on training in a variety of technical areas, with the goal of giving students the skills needed for various technical jobs (examples include dental assisting, drafting and medical transcription). Many certificates of completion allow students to stop at a variety of points, gain employment in the field and return at a later date for more advanced training.
- Range from one to six terms, noting that many of the allied health technical courses start fall or winter terms only (general education coursework can be done prior to, during or after completing technical courses).
- Require a minimum of 18 certificate-applicable COCC credits.

Some certificate requirements include limited general education coursework (including coursework in computation, human relations and communication). General Education courses must be completed at a "C" grade or higher. See individual program pages for a list of courses and requirements.

Multiple/concurrent degrees

Students applying for multiple or concurrent degrees must meet the degree requirements outlined above and as listed for each degree on the following pages. For each additional degree, students must complete at least 15 COCC credits that are different from those used for the other degree(s) and are applicable to the additional degree requested.

Computer competency requirement

Some COCC associate's degrees (AS, AAS and AGS) require that students demonstrate basic computer skills prior to graduation. To meet this requirement, students must: successfully complete CIS 120: Computer Concepts, or pass two of three IC3 exams of their choice. (Exam areas are Computer Fundamentals, Key Applications and Living Online.)

The IC3 exams may be taken at the COCC Tutoring and Testing Center or any authorized Certiport Testing Center. Locally, appointments can be made through the Tutoring and Testing Center located in the lower level of the Barber Library. A \$30 fee is charged for each test; one free retake is included in the \$30 fee. If a student needs to retake the exam a third time, another \$30 fee is charged. Passing two of three exams does not provide students with course credit; instead, a notation is placed on the student's record so that the testing may be used to meet degree requirements. Students who have proof that they previously received the IC3 certification will also receive a notation that the competency requirement has been met (documentation must be submitted to the Admissions and Records office).

Note: CIS courses may be required in some AS or AAS programs and the competency test will not substitute for that requirement; see individual program descriptions for details.

Graduation/Commencement Ceremony

Students who wish to earn a certificate or associate's degree from COCC must submit a degree application to the Admissions and Records office at least two terms prior to the intended term of completion. After evaluation, students receive a copy of their degree evaluation confirming the completed courses that apply toward the certificate or degree program and indicating any remaining requirements. COCC provides advising toward its certificates and degrees; however, students are ultimately responsible for being informed about degree requirements and for selecting appropriate classes.

A commencement ceremony is held once each year in June, following the end of spring term, for students who have earned a certificate (40 credits or more) or an associate's degree. All graduates who have completed their degrees in the previous academic year—beginning summer term—may participate. Those students who complete their required coursework in the summer term immediately following the commencement ceremony may also participate. Commencement information is sent in April to all students who applied for a degree or certificate. Students must submit their graduation application to the Admissions and Records office by May 1 in order for their name to appear in the commencement program. Students wishing to participate in the commencement ceremony must submit participation confirmation to the Admissions and Records office and attend the commencement rehearsal.

ASSOCIATE OF ARTS OREGON TRANSFER DEGREE WORKSHEET

(All courses must be completed with a "C" or better.)

Students must have a minimum cumulative GPA of 2.0 and must complete a total of 90 credits at the time the AAOT is awarded. Individual courses may only be used to fulfill one requirement.

Note: Both foundational requirements and discipline studies courses below must be a minimum of three (3) credits except for HHP which may be any number of credits. All elective courses may be any number of credits.

GENERAL EDUCATION Foundational Requirements

Writing - minimum of 8 credits

WR 121 _____ cr

WR 122 or WR 227 _____ cr

Oral Communication

SP 111, 114, 115, 218 or 219 _____ cr

Mathematics

MTH 105 or higher _____ cr

Health - 3 credits with HHP prefix

Identical HHP activity courses (1 credit) can only be counted once in this section.

_____ cr

_____ cr

_____ cr

GENERAL EDUCATION Discipline Studies

Discipline studies courses are listed on pages 47 and 48. Courses numbered 199 or 299 will not fulfill discipline studies requirements.

One of the courses must be a cultural literacy course, designated with an asterisk (*). Please check the box of the course that meets the cultural literacy (CL) requirement.

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

_____ CL _____ cr

_____ CL _____ cr

_____ CL _____ cr

Social Science

At least four (4) courses chosen from at least two (2) prefixes.

_____ CL _____ cr

_____ CL _____ cr

_____ CL _____ cr

_____ CL _____ cr

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

_____ w/lab _____ cr

_____ w/lab _____ cr

_____ w/lab _____ cr

_____ _____ cr

ELECTIVES

Choose any course numbered 100 or above that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable (see pages 47-48 of the catalog).

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

_____ cr _____ cr

TOTAL CREDITS FOR AAOT DEGREE	
(90 credits)	_____

(continued on next page)

ASSOCIATE OF ARTS OREGON TRANSFER DEGREE WORKSHEET (continued)**About this degree option**

Most students who intend to transfer will find that the Associate of Arts Oregon Transfer (AAOT) degree suits their needs as it is intended to meet the lower-division general education requirements for all Oregon public universities and some private colleges. The AAOT allows students to transfer with junior standing for registration purposes. Course, class standing or GPA requirements for specific majors, departments or schools are not necessarily satisfied by an AAOT degree.

Students who know their desired major should refer to the program description listed on pages 50-130 of this catalog. These descriptions list any courses recommended for specific majors. All courses should be aligned with the student's intended program of study and the degree requirements of the baccalaureate institution to which the student plans to transfer. Students are encouraged to work closely with an advisor in the selection of courses.

Students may transfer prior to receiving an AAOT degree. However, they risk losing credits that are normally accepted within the degree or may fall short on the transfer institution's general education requirements.

Advantages

The AAOT is easily transferrable and is well suited for many "undecided" students. The principal advantage of the AAOT is that it fulfills the lower-division (freshman/sophomore) general education requirements for the baccalaureate degrees at all Oregon University System institutions. It guarantees that all general education credits that a student earned will be accepted as the general education requirements at the transfer institution. Colleges which accept the COCC AAOT degree besides Oregon's public universities include Evergreen State College (WA), Pacific Lutheran University (WA), Washington State University (WA), Concordia College (OR), George Fox College (OR), Linfield College (OR), Pacific University (OR), Marylhurst College (OR), University of Portland (OR), Warner Pacific College (OR) and Willamette University (OR).

Considerations

No formal agreements exist for this degree to meet basic skills and general education requirements at out-of-state colleges, although courses for COCC's AAOT degree parallel many of them. Students transferring to an Oregon public university should review any foreign language and specialty course requirements of the transfer institution.

Entry requirements

Students are required to take COCC's placement test prior to registration. As part of this degree, students should begin with the appropriate level of courses based on their placement test results. Students with credits from other institutions should send copies of their transcripts to COCC's Admissions and Records office prior to registering for classes; depending on courses taken, the placement test may be waived and credits may apply toward this degree.

Significant changes in 2010-2011 AAOT requirements

Significant differences exist between the 2010-11 AAOT degree requirements and previous requirements. Students should consult with their advisor and/or the CAP Center for information on how these changes may influence their course selection. Students are eligible to earn the AAOT degree when they meet the degree requirements listed in any catalog in effect during the student's most recent continuous enrollment. For the AAOT, however, this is limited to the current catalog and the previous four catalog years.

Graduation requirements

Complete all requirements listed below:

- Complete all AAOT degree requirements, as listed on the previous page;
- Earn a minimum 2.0 cumulative COCC grade-point average;
- Complete at least 24 COCC degree-applicable credits;
- Submit a degree application to Admissions and Records; and
- Owe no debt to the College.

NOTES

- In some cases, students may also be able to use AAOT General Education courses to meet certain lower-division requirements in their intended majors. Here, caution is required, however, since the AAOT degree was not intended for this purpose. Students who have a major in mind, and also want to maximize the amount of AAOT coursework that will count toward it, should work closely with an academic advisor. General transfer information is available at: <http://www.ous.edu/stucoun/prospstu/transfer.php>
- Because the amount of coursework required for an AAOT degree corresponds to two academic years, degree recipients are considered juniors for purposes of registration at an Oregon University System institution. Students should keep in mind, however, that the AAOT does not guarantee that two additional years will suffice to earn a baccalaureate degree. That is because the AAOT does not give students junior-standing in their majors. Neither does it guarantee entrance into a competitive major. Students may need to take additional introductory work to prepare for certain majors and should

check with an advisor regarding availability at their local community colleges. In addition, it's not uncommon for students to change their majors and find that they must take introductory work in the new area.

- Students and academic advisors should recognize that although the AAOT provides an excellent structure for many students—particularly those who are unsure of their primary academic focus—it is not ideal for everyone. In particular, it does not articulate well with certain majors such as engineering, biological and physical sciences, and the fine and performing arts. Students contemplating these majors cannot easily accommodate their highly specific prerequisite coursework into the AAOT framework. In general, an AAOT recipient who is pursuing any course of study that is credit-heavy at the major lower-division level may have to take additional lower-division coursework, specific to the major after transfer.
- Students should review any foreign language and specialty course requirements of the transfer institution.

ASSOCIATE OF SCIENCE DEGREE WORKSHEET

GENERAL EDUCATION Foundational Requirements (19-24 credits) All courses must be completed with a "C" grade or better.

Writing

WR 121 _____ cr
 WR 122 _____ cr
 Third approved writing course _____ cr

Oral Communication

SP 111, 218, or 219 _____ cr

Mathematics

MTH 105 or higher (if using Fund. of Math, must complete MTH 211, 212, 213 to meet this requirement) _____ cr

Health

HHP 295, 266, 258, 242 or 231 _____ cr
and one HHP activity/health module _____ cr
or
 HHP 252a _____ cr

Computer Skills

Pass Computer Competency Test or take CIS 120 _____ cr

GENERAL EDUCATION

Discipline Studies (24-32 credits)

Discipline studies courses are listed on pages 47 and 48.

The following courses should be chosen with the assistance of an advisor and in consideration of transfer institution general education and major requirements. When 1 through 3 below are complete, students will have courses from the areas of arts and letters, science/math/computer science, and social sciences.

1. Choose three courses from one area of the discipline studies courses with at least two different prefixes and at least two courses with the same prefix; 9-12 credits.

_____ cr
 _____ cr
 _____ cr

2. Choose three courses from an area of the discipline studies courses different than used in 1 above with at least two different prefixes and at least two courses with the same prefix; 9-12 credits.

_____ cr
 _____ cr
 _____ cr

3. Choose two courses from the discipline studies courses from a different area than used in 1 or 2 above; 6-8 credits.

_____ cr
 _____ cr

AS PROGRAM REQUIREMENTS (24 credits)

Courses must be 100-level and above, and should be chosen with the assistance of an advisor and in consideration of transfer institution major requirements.

_____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr

ELECTIVES (17-34 credits)

Choose enough elective credits to reach a minimum total of 93 overall degree credits. Elective classes must be numbered 100 or above and can be any combination of general electives, Career and Technical Education (CTE) courses (12 credits maximum, see page 48 for list) or CWE/HHP/performance classes (15 credits maximum). Students transferring to an Oregon public university should review any foreign language and specialty course requirements of the transfer institution.

General electives

_____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr

Career and Technical Education (CTE) electives

(maximum of 12 credits) See page 48 for CTE course prefixes.

_____ cr
 _____ cr
 _____ cr
 _____ cr

CWE, HHP activity or Music Performance electives

(maximum of 15 credits)

_____ cr
 _____ cr
 _____ cr
 _____ cr
 _____ cr

<p>TOTAL CREDITS FOR AS DEGREE (93 credits) _____</p>

ASSOCIATE OF SCIENCE DEGREE WORKSHEET (continued)

The Associate of Science (AS) degree is designed as a transfer degree for students who want to transfer to a specific four-year college or university in a specific major. The student and advisor work closely together to tailor the courses to meet the transfer institution's lower-division general education and major requirements.

Advantages

Students can meet all or most general education and/or major requirements for a specific transfer college or university if appropriate courses are chosen. The AS degree works well for students in more technical majors (e.g., science, business, pre-engineering), but can also be designed for other majors.

Considerations

Based on the courses chosen between the student and advisor, the AS degree is narrowly focused toward a specific transfer college or university's lower-division requirements. Therefore, the degree can limit a student's flexibility in choosing both the major and the transfer college.

The AS degree does not assure junior standing at Oregon transfer universities and does not guarantee that a student will meet all lower-division general education and major requirements. However, with careful academic advising and consideration of transfer institution requirements, the AS degree can be designed to do so.

Students transferring to an Oregon public university should review any foreign language and specialty course requirements of the transfer institution.

Entry requirements

Students are required to take COCC's placement test prior to registration. As part of this degree, students should begin with the appropriate level of courses based on their placement test results. Students with credits from other institutions should send copies of their transcripts to COCC's Admissions and Records office prior to registering for classes; depending on courses taken, the placement test may be waived and credits may apply toward this degree.

Graduation requirements

- Complete all requirements listed below:
- Complete all AS degree requirements, as listed on the previous page;
- Earn a minimum 2.0 cumulative COCC grade-point average;
- Complete at least 24 COCC degree-applicable credits;

- Submit a degree application to the Admissions and Records office; and
- Owe no debt to the College.

Associate of Science - Direct Transfer to Oregon State University-Cascades Campus (AS-DT)

(See individual program descriptions for course requirements.)

- Designed for students who plan to transfer to and receive a degree from Oregon State University-Cascades Campus.
- Guarantees that students meet all lower-division general education and major-specific requirements for all OSU-Cascades programs.
- Guarantees that students will transfer with junior standing for registration purposes.
- Degree is noted as "Associate of Science" on transcript and diploma.
- Available for the following majors:
 - Bachelor of Arts or Science in Art, option in Fine Arts
 - Bachelor of Science in Human Development and Family Studies, options in Early Childhood Education or Human Services
 - Bachelor of Science in Natural Resources; Natural Resources Policy option
 - Bachelor of Science in Tourism and Outdoor Leadership, options in Tourism and Commercial Recreation Management, International Ecotourism or Outdoor and Experiential Education

Associate of Science - Oregon Transfer, Business Degree

(See page 68 for checklist of courses and requirements)

- Designed for students with a high level of certainty about their decision to earn a bachelor's degree with a major in business from an Oregon public university.
- Includes the courses required for entrance not only into an Oregon public university but to the university's business college as well.

ASSOCIATE OF APPLIED SCIENCE DEGREE WORKSHEET

GENERAL EDUCATION

Foundational Requirements

(16-20 credits) Courses must be completed with a "C" grade or better.

Writing and Communications (minimum 6 credits)

3 credits in a writing course as specified by program

_____ cr

3 credits in a writing or speech course as specified by program

_____ cr

(See program descriptions for more required writing/speech courses)

Mathematics

See program descriptions for required math course or competency.

_____ cr

Health

Check your specific program for the required health course. If no specific course is listed, select from two choices below:

HHP 295, 266, 258, 242 or 231 _____ cr

and one HHP activity/health module _____ cr

or

HHP252a _____ cr

Human Relations

A human relations course or component is required for all AAS degrees. Check program requirements for the recommended course (such as BA 285, PSY 207, or SP 218).

_____ cr

Computer Basic Skills

Check program description for course requirement. If no course is specified, student must pass computer basic skills competency test or take CIS 120 (see page 37).

_____ cr

GENERAL EDUCATION

Discipline Studies (9 credits)

Complete a minimum of nine credits of discipline studies courses, pages 47 and 48. The courses must be outside of the AAS program area and each must have a different prefix.

_____ cr

_____ cr

_____ cr

PROGRAM REQUIREMENTS AND ELECTIVES

(approximately 73 credits)

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

TOTAL CREDITS FOR AAS DEGREE

(93 credits minimum) _____

(continued on next page)

ASSOCIATE OF APPLIED SCIENCE DEGREE WORKSHEET (continued)**About this degree option**

The Associate of Applied Science degree trains students in specific technical areas to prepare for immediate employment upon graduation. The checklist provides an outline of the degree; however, specific requirements for each of the Career and Technical Education (CTE) areas are provided on pages 50-130.

Advantages

The AAS degree provides students with the hands-on technical skills needed for employment or certification/licensure in a variety of career areas. Students should note that while the AAS degree is generally a two-year degree option for full-time students, COCC provides certificates of completion in many other Career and Technical Education (CTE) areas which require only one to six terms to complete; see individual program descriptions for options.

Considerations

The degree is not intended to transfer, though most general education and some Career and Technical Education (CTE) courses are eligible for transfer.

Entry requirements

Students are required to take COCC's placement test prior to registration. As part of this degree, students should begin with the appropriate level of courses based on their placement test results. Students with credits from other institutions should send copies of their transcripts to COCC's Admissions and Records office prior to registering for classes; depending on courses taken, the placement test may be waived and credits may apply toward this degree.

Graduation requirements (Complete all requirements listed below)

- Complete all AAS degree requirements, as listed on pages 50-130. Students may also use AAS requirements listed in the previous two years' catalogs;
- Earn a minimum 2.0 cumulative COCC grade-point average;
- Complete at least 24 COCC degree-applicable credits;
- Submit a degree application to the Admissions and Records office; and
- Owe no debt to the College.



ASSOCIATE OF GENERAL STUDIES DEGREE WORKSHEET

GENERAL EDUCATION Foundational Requirements (20-21 credits) All courses must be completed with a "C" grade or better.

Writing

Choose 6 credits from WR 121, 122, 227

_____ cr

_____ cr

Oral Communication

Choose 3 credits from any SP 100+ class

_____ cr

Mathematics

MTH 105 or higher (if using Fundamentals of Math, must complete MTH 211, 212, 213 to meet this requirement)

_____ cr

Health

HHP 295, 266, 258, 242 or 231 _____ cr

and one HHP activity/health module

_____ cr

or

HHP252a _____ cr

Computer Skills

CIS 120 _____ cr

GENERAL EDUCATION

Discipline Studies (19 credits minimum)

Arts and Letters

Choose 3 credits from the Arts and Letters discipline studies list, page 47.

_____ cr

Physical/Biological Lab science

Choose 4 credits from the Sciences discipline studies list, pages 47 and 48, with a BI, CH, G, GS or PH prefix.

_____ cr

Social Science

Choose 3-4 credits from the Social Science discipline studies list, page 48.

_____ cr

Additional Discipline Studies course

Three additional credits from any area on the discipline studies list, pages 47 and 48.

_____ cr

Business Administration

Choose any 3-4 credit class with a BA prefix.

_____ cr

Career and Technical Education (CTE)

Three credits from a Career and Technical Education (CTE) area, as listed on page 48.

_____ cr

ELECTIVES (53-54 credits)

Choose enough elective credits to reach a minimum total of 93 overall degree credits. Cannot include reading, writing or math classes below the 100-level.

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

_____ cr

TOTAL CREDITS FOR AGS DEGREE

(93 credits) _____

(continued on next page)

ASSOCIATE OF GENERAL STUDIES DEGREE WORKSHEET (continued)

For students who are not pursuing specific transfer or Career and Technical Education (CTE) programs, the Associate of General Studies (AGS) degree provides an alternative to pursue a broad general education background and accomplish personal educational goals. It is important for a student to work closely with an advisor in designing a course plan for this degree.

Advantages

The AGS awards a degree for completion of college-level coursework in core skills and general education and allows students flexibility to customize more than half of the degree's required number of credits. It can be used to enhance employment, meet sponsoring agency requirements, and/or meet unusual baccalaureate requirements.

Considerations

The degree is not transferable as a whole and does not meet certification requirements for any Career and Technical Education (CTE) area.

It is important to note that the AGS degree does not guarantee that a student will meet all lower-division general education and major requirements; however, with careful academic advising and in consideration of transfer institution requirements, the AGS degree may be designed to do so.

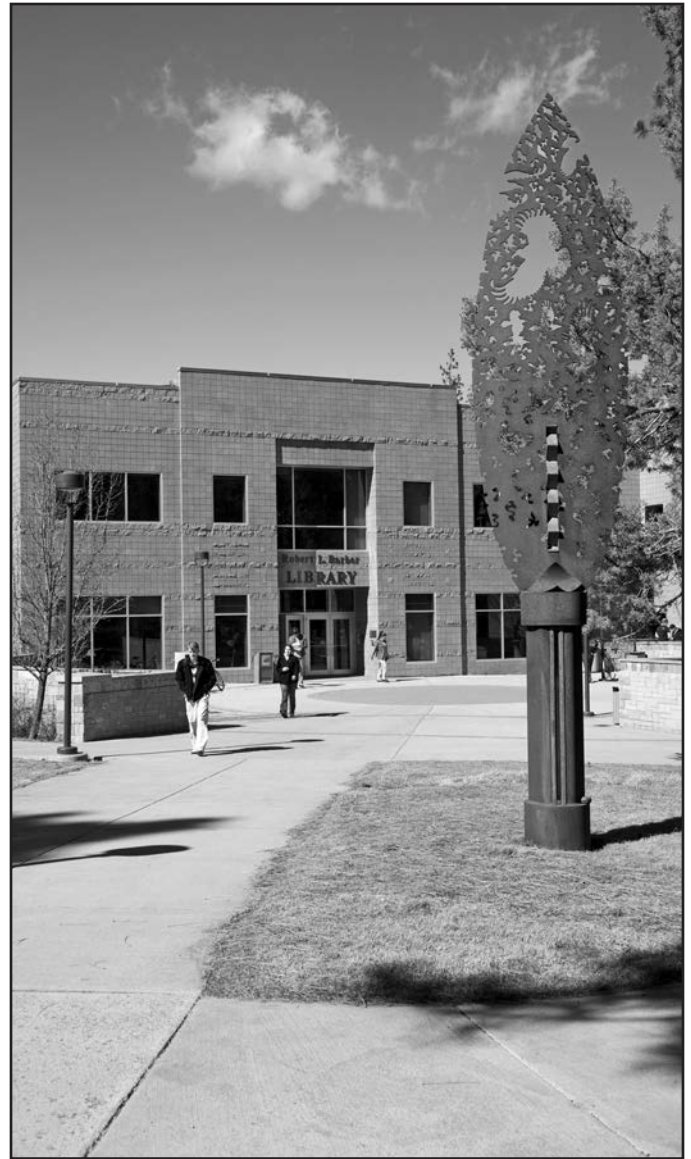
Entry requirements

Students are required to take COCC's placement test prior to registration. As part of this degree, students should begin with the appropriate level of courses based on their placement test results. Students with credits from other institutions should send copies of their transcripts to COCC's Admissions and Records office prior to registering for classes; depending on courses taken, the placement test may be waived and credits may apply toward this degree.

Graduation requirements

Complete all requirements listed below:

- Complete all AGS degree requirements, as listed on the previous page;
- Earn a minimum 2.0 cumulative COCC grade-point average;
- Complete at least 24 COCC degree-applicable credits;
- Submit a degree application to the Admissions and Records office; and
- Owe no debt to the College.



OREGON TRANSFER MODULE *(All courses must be completed with a “C” or better.)*

GENERAL EDUCATION

Foundational Requirements

Writing

Two college-level English Composition courses

_____ CR
 _____ CR

Oral Communication

SP 111 _____ CR

Mathematics

MTH 105 or higher (if using Fundamentals of Math, must complete MTH 211, 212, 213 to meet this requirement) _____ CR

GENERAL EDUCATION Discipline Studies

Arts and Letters

Three courses from the COCC arts and letters discipline studies list (page 47).

_____ CR
 _____ CR
 _____ CR

Science/Math/Computer Science

Three courses from the COCC science/math/computer science discipline studies list (pages 47 and 48), including at least one biological science with a lab.

_____ CR
 _____ CR
 _____ CR

Social Science

Three courses from the COCC social science discipline studies list (page 48).

_____ CR
 _____ CR
 _____ CR

ELECTIVES

As required to bring overall credits to 45 credits. Courses must be from COCC’s discipline studies list.

_____ CR
 _____ CR
 _____ CR

TOTAL CREDITS FOR OREGON TRANSFER MODULE
 (45 credits) _____

The Oregon Transfer Module is designed for students who plan to transfer to an Oregon community college or public university. Composed of 45 credits in writing, math, speech, social sciences, sciences, arts and letters, and electives, it is similar to many institutions’ freshman year requirements.

Advantages

Completion of the OTM guarantees that another Oregon community college or public university will accept all credits toward the institution’s general education requirements and depending on courses chosen, may meet some lower-division major requirements. Additionally, the Oregon Transfer Module provides students with documentation of completion of a standard set of commonly accepted courses.

Considerations

Depending on the institution, students may be required to take additional general education courses. Students transferring to an Oregon public university should review any foreign language and specialty course requirements of the transfer institution.

Entry requirements

Students are required to take COCC’s placement test prior to registration. As part of this degree, students should begin with the appropriate level of courses based on their placement test results. Students with credits from other institutions should send copies of their transcripts to COCC’s Admissions and Records office prior to registering for classes; depending on courses taken, the placement test may be waived and credits may apply toward this degree.

Completion requirements

Complete all requirements listed below:

- Complete all OTM requirements as listed;
- Earn a minimum 2.0 cumulative COCC grade-point average;
- Complete at least three OTM-applicable credits at COCC;
- Submit a degree application to the Admissions and Records office; and
- Owe no debt to the College.

Advisor notes

DISCIPLINE STUDIES COURSES

The following COCC courses have been approved by the College's Curriculum Committee for use as General Education Discipline Studies courses for the AAOT, AS, AAS and AGS degrees.

Arts and Letters discipline studies course options

*ARH 201, 202, 203 Intro to Art History I, II, III (4 credits each)
 *ARH 206 Modern Art History (4 credits)
 *ARH 207 Native American Art History (4 credits)
 ART 101 Intro to the Visual Arts (4 credits)
 ART 115 Basic Design: 2-D (3 credits)
 ART 116 Basic Design: Color (3 credits)
 ART 117 Basic Design: 3-D (3 credits)
 ART 131, 132, 133 Drawing I, II, III (3 credits each)
 ENG 104 Intro to Literature: Fiction (4 credits)
 ENG 105 Intro to Literature: Drama (4 credits)
 ENG 106 Intro to Literature: Poetry (4 credits)
 *ENG 107 Western World Literature: Ancient (4 credits)
 *ENG 108 Western World Literature: Middle Ages (4 credits)
 *ENG 109 Western World Literature: Modern (4 credits)
 ENG 140 Shakespeare Review in Ashland (3 credits)
 ENG 201, 202 Shakespeare (4 credits each)
 *ENG 204, 205 Survey of British Literature I, II (4 credits each)
 ENG 212W Autobiography (4 credits)
 *ENG 221 Intro to Children's Literature (4 credits)
 ENG 232C Topics in American Literature: Contemporary Fiction (4 credits)
 ENG 232M Topics in American Literature: Literature & Medicine (4 credits)
 *ENG 250 Intro to Folklore and Mythology (4 credits)
 *ENG 253, 254 Survey of American Literature I, II (4 credits each)
 ENG 256 Folklore and U.S. Popular Culture (4 credits)
 *ENG 260W Intro to Women Writers (4 credits)
 FA 101 Introduction to Film (3 credits)
 FA 125 World Cinema (4 credits)
 FA 257 Literature into Film (4 credits)
 *FR 201, 202, 203 Second Year French I, II, III (4 credits each)
 *FR 211, 212, 213 French Conversation & Culture I, II, III (3 credits each)
 *GER 201, 202, 203 Second Year German I, II, III (4 credits each)
 *GER 211, 212, 213 German Conversation & Culture I, II, III (3 credits each)
 *HUM 210 Culture & Literature of Asia (4 credits)
 *HUM 211 Culture & Literature of Africa (4 credits)
 *HUM 212 Culture & Literature of the Americas (4 credits)
 *HUM 213 Culture & Literature of the Middle East (4 credits)
 HUM 230 Immigrant Experience in American Literature (4 credits)
 *HUM 240 Native American Literature & Culture (4 credits)
 *HUM 256 Introduction to African-American Literature (4 credits)
 HUM 261 Popular Culture: Science Fiction (4 credits)
 *HUM 262 Popular Culture: The American Western (4 credits)
 HUM 263 Popular Culture: Detective Stories (4 credits)
 HUM 264 Popular Culture: Spy Thriller (4 credits)
 HUM 265 Popular Culture: Noir Film and Fiction (4 credits)
 HUM 266 Popular Culture: Travel Literature (4 credits)
 HUM 267 Counterculture (4 credits)
 HUM 268 Digital Games Culture (4 credits)
 *IT 201, 202, 203 Second Year Italian I, II, III (4 credits)
 MUS 101 Music Fundamentals (3 credits)
 MUS 111, 112, 113 Music Theory IA, IB, IC (3 credits each)
 MUS 211, 212, 213 Music Theory IIA, IIB, IIC (3 credits each)
 MUS 201, 202, 203 Understanding Music (3 credits each)
 *MUS 205 Introduction to Jazz History (3 credits)
 PHL 170 Philosophy of Love and Sex (3 credits)
 PHL 201 Problems of Philosophy - Epistemology (3 credits)
 PHL 202 Problems of Philosophy - Ethics (3 credits)
 PHL 203 Problems of Philosophy - Logic (3 credits)
 PHL 205 Medical Ethics (3 credits)
 *SPAN 201, 202, 203 Second Year Spanish I, II, III (4 credits each)
 *SPAN 211, 212, 213 Spanish Conversation & Culture I, II, III (3 credits each)

SP 241 Media, Communication, Society (4 credits)
 TA 141, 142, 143 Acting I, II, III (3 credits each)
 TA 200 Intro to Theater (3 credits)
 TA 207 Readings in Theater (3 credits)
 WR 240 Introduction to Creative Writing: Nonfiction (4 credits)
 WR 241 Introduction to Creative Writing: Fiction (4 credits)
 WR 242 Introduction to Creative Writing: Poetry (4 credits)
 WR 243 Introduction to Creative Writing: Scriptwriting (4 credits)
 *WS 101 Women's and Gender Studies (4 credits)

Science/Math/Computer Science discipline studies course options

**BI 101, 102, 103 General Biology I, II, III (4 credits each)
 **BI 211 Principles of Biology I (5 credits)
 **BI 212 Biology of Plants II (5 credits)
 **BI 213 Biology of Animals III (5 credits)
 **BI 231, 232, 233 Human Anatomy and Physiology I, II, III (4 credits each)
 **BI 234 Microbiology (4 credits)
 **BOT 203 General Botany (4 credits)
 **CH 104, 105, 106 Intro to Chemistry I, II, III (4 credits each)
 **CH 221, 222, 223 General Chemistry I, II, III (5 credits each)
 **CH 241, 242, 243 Organic Chemistry I, II, III (5 credits each)
 CIS 160 Computer Science Orientation (4 credits)
 CIS 161, 162 Computer Science I, II (4 credits each)
 ENGR 201 Electrical Fundamentals (3 credits)
 FN 225 Human Nutrition (4 credits)
 FOR 230A Map, Compass and GPS (3 credits)
 FOR 240A Forest Ecology (3 credits)
 FOR 240B Wildlife Ecology (3 credits)
 FOR 241A Field Dendrology (3 credits)
 FOR 251 Recreational Resource Management (3 credits)
 FOR 260 Conservation of Natural Resources (3 credits)
 FW 251 Wildlife Conservation (3 credits)
 **G 201, 202, 203 Geology I, II, III (4 credits each)
 G 240 Limnology (4 credits)
 **G 291 Rocks & Minerals (3 credits)
 **GS 104 Physical Science: Physics (4 credits)
 **GS 105 Physical Science: Chemistry (4 credits)
 **GS 106 Physical Science: Geology (4 credits)
 **GS 107 Physical Science: Astronomy (4 credits)
 **GS 108 Physical Science: Oceanography (4 credits)
 **G 162 Regional Geology (3 credits)
 **G 232 Coastal Oceanography (5 credits)
 GEOG 265 Geographic Information Systems (4 credits)
 HHP 220 Introduction to Epidemiology (3 credits)
 HHP 259 Care & Prevention of Athletic Injury (3 credits)
 HHP 260 Introduction to Human Movement (3 credits)
 HHP 261 Basic Exercise Physiology (3 credits)
 HHP 262 Training Theory & Application (3 credits)
 MTH 105 Introduction to Contemporary Math (4 credits)
 MTH 111 College Algebra (4 credits)
 MTH 112 Trigonometry (4 credits)
 MTH 113 Topics in Precalculus (4 credits)
 MTH 211W, 212W, 213W Fundamentals Elementary Math I, II, III (4 credits each)
 MTH 231, 232 Discrete Mathematics I, II (4 credits)
 MTH 241 Calculus for Management/Social Science (4 credits)
 MTH 243 Math for Management/Life/Social Science (4 credits)
 MTH 244 Introduction to Methods of Probability & Statistics (4 credits)
 MTH 251, 252, 253 Calculus I, II, III (4 credits)
 MTH 254, 255 Vector Calculus I, II (4 credits)

(*Counts as a cultural literacy course

**Counts as a lab science course)

DISCIPLINE STUDIES COURSES (CONTINUED)

MTH 256 Applied Differential Equations (4 credits)
 **PH 201, 202, 203 General Physics I, II, III (5 credits each)
 **PH 211, 212, 213 General Physics I, II, III (5 credits each)
 PSY 222 Animal Behavior (4 credits)

Social Sciences discipline studies course options

ANTH 102 Archaeology (4 credits)
 *ANTH 103 Cultural Anthropology (4 credits)
 *ANTH 240 Language and Culture (4 credits)
 *ANTH 254 Magic, Witchcraft and Religion (4 credits)
 *ANTH 283 Introduction to Medical Anthropology (4 credits)
 *ANTH 295 Gender & Sexuality in an Anthropological Perspective (4 credits)
 CJ 100 Survey of the Criminal Justice System (3 credits)
 CJ 101 Introduction to Criminology (4 credits)
 CJ 110 Law Enforcement (3 credits)
 CJ 120 Judicial Process (3 credits)
 CJ 201 Introduction to Juvenile Justice (3 credits)
 CJ 210, 211 Criminal Investigation I, II (3 credits each)
 CJ 220 Introduction to Substantive Law (3 credits)
 CJ 222 Search and Seizure (3 credits)
 CJ 230 Juvenile Corrections (3 credits)
 CJ 243 Drugs and Crime in Society (3 credits)
 CJ 253 Corrections (4 credits)
 EC 201 Microeconomics (4 credits)
 EC 202 Macroeconomics (4 credits)
 GEOG 106 Economic Geography (4 credits)
 *GEOG 107 Cultural Geography (4 credits)
 GEOG 190 Environmental Geography (4 credits)
 GEOG 198 Field Geography of Central Oregon (3 credits)
 *GEOG 201, 202 World Regional Geography I, II (4 credits each)
 GEOG 207 Geography of Oregon (3 credits)
 GEOG 240 Geography of Central Oregon (3 credits)
 GEOG 290 Environmental Problems (3 credits)
 GEOG 295 Wilderness and Society (4 credits)
 *HHP 248 Health Psychology (3 credits)
 *HS 208 Multicultural Issues in Human Services (4 credits)
 *HST 101, 102, 103 History of Western Civilization (4 credits each)

*HST 104, 105, 106 World History (4 credits each)
 *HST 201, 202 History of the US (4 credits each)
 *HST 204 History of the Civil War (4 credits)
 *HST 207 History of the American West (4 credits)
 *HST 218 Native American History (4 credits)
 *HST 225 US Women’s History (4 credits)
 *HST 236 Women in 20th Century European History (4 credits)
 *HST 242 History of the Pacific Northwest (4 credits)
 *HST 258 Colonial Latin American History (4 credits)
 *HST 259 Modern Latin American History (4 credits)
 *HST 260 History of the Middle East (4 credits)
 *HST 270 20th Century European History (4 credits)
 *HST 290, 291, 292 East Asian History (4 credits each)
 OL 244 Psychology of Risk and Adventure (3 credits)
 PS 201 Introduction to US Government and Politics (4 credits)
 PS 204 Introduction to Comparative Politics (4 credits)
 PS 205 Introduction to International Relations (4 credits)
 PS 206 Introduction to Political Thought (4 credits)
 PS 207 Politics of the Middle East (4 credits)
 PSY 201 Mind and Brain (4 credits)
 *PSY 202 Mind and Society (4 credits)
 *PSY 207 Applied Psychology (3 credits)
 *PSY 215 Developmental Psychology (4 credits)
 *PSY 215N Developmental Psychology for Nurses (4 credits)
 *PSY 216 Social Psychology (4 credits)
 *PSY 219 Abnormal Psychology (4 credits)
 *PSY 233 Psychology of Violence and Aggression (4 credits)
 *PSY 235 Human Development: Child (3 credits)
 *PSY 236 Human Development: Adult (3 credits)
 *SOC 201 Introduction to Sociology (4 credits)
 *SOC 206 Social Psychology (4 credits)
 SOC 208 Sport & Society (4 credits)
 SOC 211 Social Deviance (4 credits)
 *SOC 212 Race, Class and Ethnicity (4 credits)
 SOC 215 Social Issues and Social Movements (4 credits)
 *SOC 216 Sociology of Gender (4 credits)
 *SOC 219 Sociology of Religion (4 credits)
 *SOC 250 Sociology of Popular Cultures (4 credits)

(*Counts as a cultural literacy course **Counts as a lab science course)

CAREER AND TECHNICAL COURSES (AS APPLIED TO AAOT ELECTIVES)

Students may use up to 12 credits of Career and Technical Education (CTE) courses to meet elective credit requirements for the Associate of Arts Oregon Transfer (AAOT) and Associate of Science (AS) degree. Career and Technical Education (CTE) courses are numbered 100 and higher from the list below. Note that they are generally not accepted by baccalaureate institutions unless used within the AAOT degree.

AH 100 Intro to Health Occupations
 AH 111 Medical Terminology I
 AH 112 Medical Terminology II
 AUT All courses
 AV All courses
 CCI All courses
 CIS 122 Introduction to Programming
 CIS 125A Access
 CIS 125A1 AutoCAD I
 CIS 125A2 AutoCAD II
 CIS 125A3 AutoCAD III
 CIS 125E Excel
 CIS 125G Introduction to Photoshop
 CIS 135A1 AutoDESK Revit I

CIS 135A2 AutoDESK Revit 2
 CIS 135C1 AutoCAD Civil 3D
 CIS 135M1 AutoDESK Inventor I
 CIS 145 PC Technician
 CIS 279NI Windows Server 2008 Network Infrastructure, Configuring
 DA All courses
 DM All courses
 EMT All courses
 FOR 130 Chainsaw Use and Maintenance
 GEOG 211 Computer Cartography
 GEOG 265 Geographic Information Systems
 GEOG 266 Arc GIS
 GEOG 267 Geodatabase Design

GEOG 273 Spatial Data Collection
 GEOG 280 Co-op Work Experience GIS
 GEOG 284 GIS Customization
 GEOG 285 Data Conversion/Documentation
 GEOG 286 Remote Sensing
 GEOG 287 Analysis of Spatial Data
 HIT All courses
 LMT All courses
 MFG All courses
 MA All courses
 NUR All courses
 OA All courses

COLLEGE TRANSFER AND CAREER & TECHNICAL EDUCATION (CTE) PROGRAMS

Here is a quick-reference listing of the college transfer and Career and Technical Education (CTE) programs (certificates and Associate of Applied Science degrees) and courses available at Central Oregon Community College. Additional information on these programs and their requirements can be found on pages 50-131.

	short-term certificate	one-year certificate	two-year certificate	AAS	Transfer	OSU-Cascades		short-term certificate	one-year certificate	two-year certificate	AAS	Transfer	OSU-Cascades
Addictions Studies	50	51	52				Foreign Languages				87		
Anthropology			53				Forest Resources Technology			90	91	91	
Apprenticeship	56	56					Advanced Forest Concepts	89					
Art			57	57			Conservation of Natural Resources	89					
Automotive Management		58					Forest Ecology	89					
Automotive Technology							Forest Measurements	90					
Auto Drive Train Technician	59						Forest Protection	90					
Auto Engine Technician	59						Mapping/Cartography	90					
Auto Electrical Technician (Basic)	59						General Science				92	92	
Auto Electrical Technician (Advanced)	60						Geographic Information Systems (GIS)	93	94				
Auto Engine Performance Technician	60						Geography				95		
Auto Heating and Air Conditioning Technician	60						Geology			96	96		
Master Auto Technician	60						Health Information Technology			98			
Undercar Technician	60						Insurance	97					
Aviation Professional Pilot - Airplane		61					Medical Office Specialist	97					
Aviation Professional Pilot - Helicopter		62					Medical Billing Specialist	98					
Biology			64	64			Medical Transcription	97					
Botany (see Biology)			64				Coding Competency		98				
Business Administration		66	68	68			Health Promotion				99		
Accounting	65	67					History				100	100	
General Business		67	67				Humanities				101	102	
Hotel, Tourism and Recreation Mgmt		67	67				Law – Pre				121		
Information Systems Management		67					Manufacturing Technology	104	105	105			
Management and Marketing		67					CNC Machining	103					
Retail Management	65	67					Manual Machining	103					
Chemistry			69	69			Welding	104					
Computer and Information Systems	70	71					Massage Therapy	107	107	107			
Networking		71					Mathematics				108	108	
Computer Aided Drafting (CAD)	71	71					Medical Assistant	109					
Desktop Support		71					Medical Imaging – Pre				124		
Web Development/Database		71					Medical (Pre) Lab Technology				122		
Criminal Justice	72	73	73				Medicine – Pre				123		
Juvenile Corrections	72						Microbiology (see Biology)				64		
Culinary (Cascade Culinary Institute)	74	74	75				Military Science				110	110	
Dental Assisting	76						Music				111		
Dental Hygiene – Pre			120				Nursing	112	113				
Dentistry – Pre			123				Office Assistant	114					
Dietary Manager	77						Outdoor Leadership				116	115	
Early Childhood Education		79	78	79			Pharmacy Technician	117					
Economics			80				Physics				118		
Education			81	81			Political Science				119	119	
Emergency Medical Services			81				Psychology				125	126	
Engineering			118				Radiology Technologist – Pre				124		
English/Literature			83	84			Science (General)				92	92	
Exercise Science			85				Sociology				126		
Fire Science – Structural			128				Speech Communication				127	127	
Fire Science – Wildland Fire/Fuels Mgmt	130	130	131				Veterinary – Pre				123		

* pending State approval

ADDICTIONS STUDIES

Certificate of Completion
 Associate of Applied Science (*pending state approval*)
 Associate of Arts Oregon Transfer

Certificate of Completion

(61-65 credits; four quarters to complete if attending full time)

The Addictions Studies program trains individuals in the knowledge, attitudes and skills needed for employment in the drug- and alcohol-treatment field as entry-level counselors working under supervision in treatment centers. It is designed to prepare the student to take the Oregon Certified Alcohol and Drug Counselor (CADC) I exam upon completion of the coursework and 1,000 hours of supervised practicum. The program also provides coursework in the addictions field to other human service and criminal justice workers who help addicted persons and their families.

Individuals seeking enrollment in the Addictions Studies certificate program must take the ASSET placement test. Students benefit greatly if they earn the minimum scores to place into WR 121 and MTH 60, or complete the equivalent coursework with a “C” or above prior to starting Addictions Studies coursework.

The Addictions Studies certificate is a 61- to 65-credit program designed for enrollment during any term. For students who intend to complete the program in one year, entrance during fall term is essential. The program can be completed in four terms if the student starts in the fall, has the minimum skills upon entrance and is able to successfully complete 16 to 18 credits per term. However, many students choose to build basic skills and/or enroll on a part-time basis, taking one or two courses per quarter. All students need to work closely with an advisor to develop an effective course plan.

Addictions Studies courses are available on a first-come, first-served basis. Enrollment in practicum credits¹ is by program director or practicum supervisor approval only. Students who have a history of addiction are expected to maintain sobriety throughout the program.

An interview with the program director is recommended before starting the program. Call 541-383-7251 for additional information.

After obtaining the CADC I credential, students looking for more advanced opportunities in the field should complete the

Associate of Arts or the Associate of Applied Science degrees and acquire further work experience. The student could then sit for the CADC II exam. For even greater opportunities in this field, the student would complete bachelor's and master's degrees, after which they could sit for the CADC III exam (or the master's in addiction counseling credential).

Students must complete each required course for the Addiction Studies certificate with a grade of “C” or better.

Please check the online class schedule for the academic year for the term each class is offered. Most classes are only offered one time per academic year.

HS 161	Ethics for Human Services	3
HS 162	Effective Helping Skills	3
HS 200	Addictive Behavior	3
HS 206	Groups and Addictions Treatment	3
HS 260	Counseling Theories	3
WR 121	English Composition	4

HS 180	HIV, AIDS and Addictions	2
HS 201	Families and Addictions	3
HS 223	Drugs and Addictions	3
HS 262	Effective Helping Skills II	3
HS 266	Case Management	4
HS 291	Practicum Addictions Treatment ¹	3

HS 205	Youth and Addictions	3
HS 208	Multicultural Issues in Human Services	4
HS 210	Dual Diagnosis	4
HS 263	Counseling the Chemically Dependent Client	3
HS 291	Practicum Addictions Treatment ¹	3

HS 291	Practicum Addictions Treatment ¹	3
MTH 20	Pre-Algebra	4
Pass computer competency test		0
or CIS 120	Computer Concepts	4

¹ Students must have completed HS 161, 162 and 206 before beginning their practicum experience. Practicum opportunities are available every term. A total of nine practicum credits is required for the certificate of completion in addiction studies.

ADDICTIONS STUDIES (continued)

Associate of Applied Science
(93-96 credits)

About this degree option

The Associate of Applied Science degree trains students in specific technical areas to prepare for immediate employment upon graduation.

Advantages

The AAS degree provides students with the hands-on technical skills needed for employment or certification/licensure in a variety of career areas. Students should note that while the AAS degree is generally a two-year degree option for full-time students, COCC provides certificates of completion in many other Career and Technical Education (CTE) areas which require only one to six terms to complete; see individual program descriptions for options.

Considerations

The degree is not intended to transfer, though most general education and some Career and Technical Education (CTE) courses are eligible for transfer.

Entry requirements

Students are required to take COCC's placement test prior to registration. As part of this degree, students should begin with the appropriate level of courses based on their placement test results. Students with credits from other institutions should send copies of their transcripts to COCC's Admissions and Records office prior to registering for classes; depending on courses taken, the placement test may be waived and credits may apply toward this degree.

Graduation requirements (Complete all requirements listed below)

- Students must complete each required course for the Addiction Studies AAS with a grade of "C" or better.
- Complete all AAS degree requirements. Students may also use AAS requirements listed in the previous two years' catalogs;
- Earn a minimum 2.0 cumulative COCC grade-point average;
- Complete at least 24 COCC degree-applicable credits;
- Submit a degree application to the Admissions and Records office; and
- Owe no debt to the College.

Course of study

The following is a suggested course of study for students interested in pursuing an AAS in Addictions Studies.

General education/foundational requirements

WR 121	English Composition	4
SP 111	Fundamentals of Public Speaking	3
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	
MTH 60	Algebra I	4
Health ¹		3-4
HS 161	Ethics for Human Services	
Computer competency ²		0-4

General Education/discipline studies

Complete minimum 9 credits of discipline studies courses, pages 47 and 48. The courses must be outside of the AAS program area and each must have a different prefix. Students may need additional coursework to reach the 93 minimum credits required for the AAS degree. See advisor for details.

Electives

CJ 243	Drugs and Crime in Society	3
HS 162	Effective Helping Skills	3
HS 180	HIV/AIDS and Addictions	2
HS 200	Addictive Behavior	3
HS 201	Families and Addictions	3
HS 205	Youth and Addictions	3
HS 206	Groups and Addictions Treatment	3
HS 208	Multicultural Issues in Human Services	4
HS 210	Dual Diagnosis	4
HS 223	Drugs and Addictions	3
HS 260	Counseling Theories	3
HS 262	Effective Helping Skills II	3
HS 263	Counseling the Chemically Dependent Client	3
HS 266	Case Management	4
HS 291	Practicum	9
PSY 202	Mind and Society	4
PSY 219	Abnormal Psychology	4
PSY 233	Violence and Aggression ³	4

¹ To meet this requirement, students can choose between HHP 231: Human Sexuality, HHP 242: Stress Management, HHP 258: Holistic Wellness or HHP 266: Nutrition for Health, HHP 295: Health and Fitness and one activity or health module —OR— HHP 252A.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

³ Recommended elective.

ADDICTIONS STUDIES (continued)

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)	3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>	

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.



photo by Joe Viola

Electives (32 credits)

32 credits from the Addictions Studies Certificate will be applied toward elective credits. No additional elective credits are needed to earn the AAOT.

Additional advising information and recommendations

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the arts and letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor.

ANTHROPOLOGY

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in anthropology.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
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(or higher for which Intermediate Algebra is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

ANTH 102	Archaeology	4
ANTH 103	Cultural Anthropology	4
ANTH 230	Physical Anthropology	4

Science/Math/Computer Science¹

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.



Electives

ANTH 240	Language and Culture	4
General Electives ²		24-30

Advising notes

¹ In general, very few bachelor's degrees in Anthropology have specific science requirements. However, if the interest is primarily archaeological, then Geology would fulfill the lab requirements. If the interest is primarily in physical anthropology, then select a Biology sequence or the Human Anatomy and Physiology sequence.

² In choosing electives, consider two years of a foreign language since many BA degrees (including many anthropology programs) require two years or equivalent of a foreign language. Some Anthropology degrees may also require an upper-level statistics course. Taking MTH 243: Math for Management/Life/Soc Science and MTH 244: Intro to Method of Probability and Stats is good preparation for the upper-division requirement. Either of these could count toward the non-lab requirement in the Science/Math/Computer Science general education requirement.

APPRENTICESHIP

Certificates of Completion (16-54 credits)
Associate of Applied Science (94-99 credits)

Apprenticeship is a structured training program combining on-the-job training and classroom coursework. COCC contracts with trade specific committees to provide classroom coursework for the trades listed below. For information on how to become an apprentice in these trades, contact Lou Long at 541-279-1543. Some of these programs are only open to employees of training agents registered with the local apprenticeship committee. For information about other apprenticeship programs and jobs, phone the Bureau of Labor and Industries/Apprenticeship and Training at 971-673-0760 or visit its Web site at www.boli.state.or.us.

Registered apprentice training at COCC is offered in accordance with Oregon Law and Plan of Apprenticeship and Training, U.S. Department of Labor and Oregon State Apprenticeship Council.

SHEET METAL WORKER¹

Sheet metal workers fabricate and install fittings and duct work used in construction or industry for heating, ventilation and air-conditioning systems in residential, commercial and industrial applications. They set up and operate shears, press brakes, hand brakes, bending rolls, welding machines and other equipment to cut, form and attach metal together for applications such as metal roofing and stainless steel work for restaurants, kitchens and hospitals. They prepare shop and field drawings manually and with computer programs. Computer skills are becoming increasingly important for controlling industrial equipment.

Working Conditions

The work is performed both indoors and out, using scaffolding, ladders and high lifts, and in awkward positions and cramped spaces. Sheet metal workers may work in shops performing fabrication work or on construction sites, doing installation.

Wages

Beginning apprentices start at approximately 50 percent of the journey-level wage. Upon successful completion of required class work and on-the-job hours, wages increase usually every six months, until the journey-level rate is achieved.

Length of Apprenticeship

This apprenticeship lasts three to five years. Apprentices must complete a minimum of 144 related classroom hours per year and between 7,200 and 10,000 on-the-job training hours. The minimum related training classroom hours per year and the total hours of required on-the-job training will vary by committee.

Minimum Qualifications

Apprenticeship applicants must be at least 18 years of age. In addition, they must provide proof of high school graduation and a 2.0 GPA or general education development (GED) equivalent.

Local apprenticeship committees may require additional qualifications.

MILLWRIGHT¹

Millwrights install and maintain conveyor systems, escalators, giant electrical turbines and generators. They also maintain machinery in factories and carry out precision work in manufacturing plants.

Working Conditions

Millwrights work indoors and outdoors with machine tools and precision instruments requiring a keen eye for a perfect fit. Millwrights sometimes work to specifications requiring tolerances to a thousandth of an inch. They work primarily in metal.

Wages

Beginning apprentices start at approximately 75 percent of the journey-level wage. Upon successful completion of required class work and on-the-job hours, wages increase usually every six months, until the journey-level rate is achieved.

Length of Apprenticeship

The apprenticeship lasts four to five years. Apprentices must complete a minimum of 144 related classroom hours per year and 8,000 on-the-job training hours.

Minimum Qualifications

Apprenticeship applicants must be at least 18 years of age. In addition, they must provide proof of high school graduation or general education development (GED) equivalent.

Local apprenticeship committees may require additional qualifications.

These programs are open only to employees of training agents registered with the local apprenticeship committee.

MANUFACTURING PLANT ELECTRICIAN¹

This apprenticeship leads to the Limited Journeyman Manufacturing Plant Electrician license. Manufacturing plant electricians provide basic electrical maintenance on existing equipment in factories and industrial manufacturing facilities. They also install and wire electric motors and machinery of all sizes, and perform preventive maintenance on production and facilities equipment, initiate and modify electrical designs, and update electrical drawings.

Working Conditions

The work is done primarily indoors, but often requires climbing, working on ladders, and operating mechanical lifts. Hazards include electrical shocks and burns.

Wages

Beginning apprentices start at approximately 50 to 70 percent of the journey-level wage. Upon successful completion of required class work and on-the-job hours, wages increase about every six months, until journey-level rate is achieved.

APPRENTICESHIP (continued)

Length of Apprenticeship

The apprenticeship lasts about four to five years. Apprentices must complete a minimum of 120 to 200 related classroom hours per year and 8,000 to 10,000 on-the-job training hours. Journey-level manufacturing plant electricians are required to get a state license by taking an exam from the Oregon Building Codes Division.

Minimum Qualifications

Apprenticeship applicants must be at least 18 years of age. In addition, they must provide proof of high school graduation or general education development (GED) equivalent, and complete at least one year of high school algebra or the equivalent post high school algebra course with a passing grade of 'C'. Local apprenticeship committees may require additional qualifications.

These programs are only open to employees of training agents already registered with the local apprenticeship committees. Requirements vary among programs.

LIMITED MAINTENANCE ELECTRICIAN¹

This apprenticeship leads to the Limited Maintenance Electrician license. Limited maintenance electricians maintain, repair and replace electrical installations on the premises of industrial plants where the individual is employed, or on electrical systems that are less than 600 volts phase to phase on the premises of commercial office buildings or buildings occupied by the state or a local government entity where the individual is employed.

Working Conditions

This work can be dirty and strenuous, with considerable standing, bending and reaching. Tools used include electrical metering devices, cable-pulling devices, electrical hand tools, soldering tools, hammers, drills and side cutters. Hazards include electric shock, burns, falls and falling objects.

Wages

Upon successful completion of required class work and on-the-job hours, wages increase usually every six months, until journey-level rate is achieved.

Length of Apprenticeship

This apprenticeship lasts about two years. Apprentices must complete a minimum of 288 related classroom hours and a total of 4,000 on-the-job training hours. Journey-level limited maintenance electricians must qualify for a state license by passing an exam given by the Oregon Building Codes Division.

Minimum Qualifications

Apprenticeship applicants must be at least 18 years of age to begin the program. In addition, they must provide proof of high school graduation or general education development (GED) equivalent and complete at least one year of high school algebra

or the equivalent post high school algebra course with a passing grade of "C." Local apprenticeship committees may require additional qualifications.

TURBINE OPERATOR¹

Turbine operators control steam-driven turbo generators in electric or nuclear power generating stations. They also start turbines and boiler auxiliary units. The operators adjust throttle and vacuum-breaker valves to regulate turbine speeds. They monitor panel boards to control turbine operations and may stop turbines when malfunctions occur. Workers record instrument readings at specified intervals and may perform minor maintenance of equipment.

Working Conditions

Work is typically performed indoors in an industrial setting.

Wages

Beginning apprentices start at about 80 percent of the journey-level wage. Upon successful completion of required class work and on-the-job hours, wages increase usually every six months until the journey-level rate is achieved.

Length of Apprenticeship

The apprenticeship lasts two years. Apprentices must complete a minimum of 144 hours per year of related classroom training and a total of 4,000 hours on-the-job training.

Minimum Qualifications

Apprenticeship applicants must be at least 18 years of age. In addition, they must provide proof of high school graduation or general education development (GED) equivalent.

Local apprenticeship committees may require additional qualifications.

These programs are only open to employees of the training agents registered with the local apprenticeship committee.

BOILER OPERATOR¹

Boiler operators run automatically fired boilers to generate steam for buildings or industrial plants. The work includes feeding fuel into furnaces or boilers, observing pressure, temperature and draft meters on panels to verify specified boiler fuel feed, draft openings, water level and steam pressure. The person in this position may also maintain meter logs, read gauges and record data.

Boiler repairers maintain and repair stationary steam boilers and boiler house auxiliaries, using hand tools and portable power tools. They clean or direct other workers to clean boilers and auxiliary equipment, using scrapers, wire brushes and cleaning solvent. In addition, they inspect and repair boiler fittings, such as safety valves, regulators and plates. Boiler repairers may

APPRENTICESHIP (continued)

operate lathe and milling machines to repair or make parts and may remove and replace defective firebrick.

Working Conditions

Work is often in close and confined spaces and often requires the use of potentially dangerous equipment such as torches and power grinders. The work is physically demanding and dirty.

Wages

Beginning apprentices start at about 50 to 80 percent of the journey-level wage. Upon successful completion of required class work and on-the-job hours, wages increase usually every six months, until reaching the journey-level rate.

Length of Apprenticeship

The apprenticeship is a two to four-year program. Apprentices must complete a minimum of 144 related classroom hours per year and 4,000 to 8,000 on-the-job training hours.

Minimum Qualifications

Apprenticeship applicants must be at least 18 years of age. Local committees may require additional qualifications.

These positions are available to current employees of training agents registered with the local apprenticeship committees. Opportunities may be limited in some parts of the state.

¹ Trade specific information courtesy of Bureau of Labor and Industry (BOLI) web page: http://www.boli.state.or.us/BOLI/ATD/A_StatewideOpportunities.shtml.

COCC is part of the statewide consortium of colleges offering a Certificate of Completion or an Associate of Applied Science degree in three different career pathways for apprentices:

- Industrial Mechanics and Maintenance Technology
- Construction Trades, General Apprenticeship
- Electrician Apprenticeship Technologies

The Certificates of Completion and AAS degrees offered at COCC are in the following trades: boiler operator, boiler/turbine operator, industrial maintenance millwright, limited maintenance electrician, manufacturing plant electrician, and sheet metal.

Certificate of Completion (16-54 credits)

See advisor for certificate requirements.

Associate of Applied Science (94-99 credits)

Apprentices seeking the Associate of Applied Science degree must complete the following coursework with a grade of "C" or better:

WR 121	English Composition	4
SP 111	Fundamentals of Public Speaking	3
or SP 218	Interpersonal Communication	
MTH 85	Technical Math I	4
BA 285	Business Human Relations	3
or PSY 207	Applied Psychology	
or SP 218	Interpersonal Communication	
Health ²		3-4
Computer Competency ³		0-4

Discipline studies list courses (see pages 47 and 48); each must have a different prefix (e.g., HHP, MUS, SOC)

Related training – COCC classes specific to trade 46-57
Complete enough to reach 94 credit minimum. (See advisor for list of classes.)

On-the-job experience⁴ 11-22
(Awarded after completing all course work and submitting a journeypersons card.)

² HHP 252A is recommended to meet this requirement, but students can also choose between HHP 295, 231, 242, 258 or 266 and one activity or health module.

³ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

⁴ After students have completed their related training and the general education credits, they may receive 11 to 22 credits for on-the-job experience of between 4,000 and 8,000 hours, depending on the trade. Those credits are recognized only upon completion of all other requirements for the degree and presentation of a valid journeyperson's card.

Journeypersons who have completed their related training in a registered Oregon apprenticeship program outside of COCC may earn an Associate of Applied Science degree from COCC in one of three career pathways in the trade-specific degrees offered at COCC. To begin the process a student must transfer any earned related training credits to COCC by submitting a college transcript or by submitting course syllabi for credit evaluation. To earn a degree under these pathways, a student must have 46 to 57 credits of trade-specific related training (depending on the trade), complete all required general education classes and obtain 11 or 22 credits for on-the-job training, awarded after presenting a journeyperson's card and all other degree requirements have been met. Twenty-four of the general education or related training coursework credits must be completed at COCC.

ART

Associate of Arts Oregon Transfer (90 credits)



COCC's Art program includes courses in art history, basic design, painting, ceramics, jewelry and metalwork, drawing, photography, figurative sculpture and watercolor. COCC's main art facility, Pence Hall, houses art studios equipped with drawing tables, easels, potter's wheels and metalwork equipment for student use.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in art.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	
Oral Communication ¹		
SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	
Mathematics		
MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		
Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Select two art history courses from the following:

ARH 201	Art History I	4
ARH 202	Art History II	4
ARH 203	Art History III	4

plus one additional course from COCC's discipline studies list, with other than an ARH prefix, preferably with an ART prefix.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

ART 115	Basic Design: 2-D	3
ART 116	Basic Design II: Color	3
ART 117	Basic Design III: 3-D	3
ART 131	Drawing I	3

plus enough additional electives to reach the minimum of 90 credits for the AAOT. Art majors should take additional studio art classes in consultation with their advisor.

¹ Students planning to transfer to Oregon State University (Corvallis or Cascades Campus) must take SP 111.

Transfer information

Successful transfer to an upper-division arts school or program is usually based not only on transcripts but on the student's portfolio. Students seeking transfer to an accredited art school in Oregon or elsewhere are encouraged to work closely with their advisors to build that portfolio.

Note that an Associate of Science – Direct Transfer to Oregon State University-Cascades Campus degree is available. This degree allows students to meet all lower-division baccalaureate and major requirements for a Bachelor of Arts or Science in art, option in fine arts, and transfer with junior standing to OSU-Cascades Campus. Contact the Admissions and Records office for a listing of course and degree requirements. OSU-Cascades Campus currently offers a Bachelor of Fine Arts degree. Please see an OSU-Cascades advisor for details.

The University of Oregon offers a Bachelor of Fine Arts degree in several art media areas.

AUTOMOTIVE MANAGEMENT

Associate of Applied Science

(96-100 credits; seven quarters to complete if attending full time)

The following courses are required for COCC's Associate of Applied Science in Automotive Management degree. Students should work closely with an advisor if they wish to attend part time. Note that several of the courses qualify students to also earn short-term certificates in various automotive technology areas. See the Automotive Technology certificates on the following pages.

Course of study

The following is a suggested course of study for students interested in pursuing a AAS in Automotive Management.

YEAR ONE

Fall term

AUT 101	Basic Electricity for Automotive	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 110	Small Gas Engines	3
AUT 204	Steering and Suspension	3
AUT 208	Automotive Brakes	3

Winter term

AUT 102	Automotive Electric I	4
AUT 103	Automotive Electric II	2
AUT 105	Diesel Performance I	2
AUT 205	Engine Performance I	2
HHP 252A	Fitness/First Aid	3
WR 121	English Composition	4

Spring term

AUT 104	Automotive Electric III	2
AUT 111	Computerized Engine Controls	5
AUT 206	Engine Performance II	2
AUT 253	Automotive Air Conditioning	3
Computer competency ¹		0-4

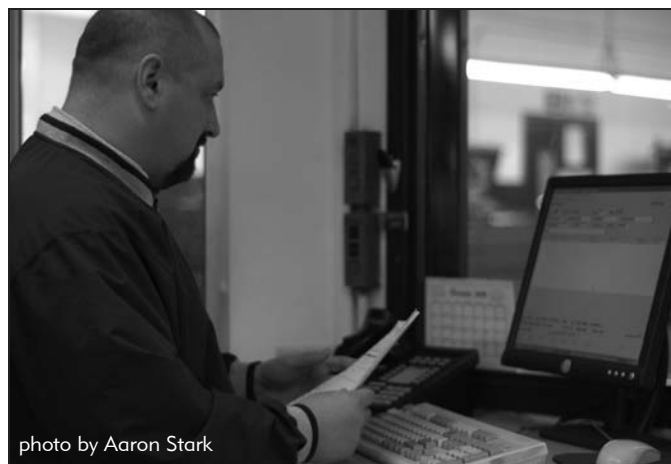


photo by Aaron Stark

Summer term

AUT 216	Co-op Work Experience-Automotive	4
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YEAR TWO

Fall term

BA 101	Intro to Business	4
BA 111	Applied Accounting I	3
BA 206	Management Fundamentals I	4
MTH 60	Algebra I	4
	or MTH 85 Technical Mathematics I	
	General education discipline studies courses ²	3

Winter term

BA 178	Customer Service	3
BA 285	Business Human Relations	3
	or PSY 207 Applied Psychology	
	or SP 218 Interpersonal Communication	
WR 214	Business Communication	3
	General education discipline studies courses ²	6

Spring term

BA 207	Management Fundamentals II	4
BA 223	Marketing Principles I	4
BA 280	Co-op Work Experience Business	3
BA 286	Managing Business Processes	4
	or BA 250 Entrepreneurship	

¹ Pass computer basic skills competency test (see page 37 for details), or take CIS 120, Computer Concepts.

² Choose nine credits from COCC's discipline studies list (pages 47 and 48); each course must have a different prefix.

AUTOMOTIVE TECHNOLOGY

Certificates of Completion

The Automotive Technology program emphasizes educating students as multi-skilled workers with the ability to complete a wide variety of tasks within the automotive technology service and repair setting. Coursework includes both technical skills, such as computer applications, as well as hands-on skills using a self-paced model for most of the classes. Communication skills are also highly emphasized throughout each program.

The program is planned so that students will be able to complete the Master Automotive Technician Certificate in approximately 12 to 15 months as well as earn up to seven short-term certificates of completion. The certificate enables students to enter the transportation industry as an automotive technician. Men and women who are changing jobs or careers, students who want to explore the possibility of a technician career, or those who simply want to know more about vehicles may enter the program each term.

Entry into the program at the beginning of each term is possible by meeting course prerequisites or receiving the instructor's permission. The Automotive Technology program is certified by the National Automotive Technicians Education Foundation Inc. (NATEF). The program is approved for veterans' training. Occupational supplementary courses with college credit may be offered in the evening. These classes are designed to meet community needs and will vary from one term to the next.

Students are expected to supply their own hand tools. A list is available from program instructors. Approximate cost of required tools and working clothes is \$1,500. The College provides any needed specialized tools and equipment for use in courses.

It is recommended that the ASE (Automotive Service Excellence) certification test be taken as the student completes the program. The approximate cost of this test is \$450.

Prior to taking automotive specialty courses, students must take the following automotive basic skills classes (9 credits):

AUT 101	Basic Electricity for Automotive	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 110	Small Gas Engines	3

Automotive Electrical Technician (Basic) Short-term Certificate (13 credits) (Two quarters to complete if attending full time)

Preparation in the electrical technician coursework establishes skill in charging systems, starting systems, voltage drops, electrical troubleshooting, lighting, gauges, accessories, battery load testing and repairs. This coursework prepares students for the National Institute for Automotive Service Excellence (ASE) certification in (A6) Electrical/Electronic Systems.

Automotive basic skills		9
AUT 102	Automotive Electric I	4

Automotive Drive-Train Technician Short-term Certificate (19 credits) (Two quarters to complete if attending full time)

From drivelines to transaxles, clutches to differentials, COCC's Transmission Technology program trains students on all elements of manual and automatic transmissions, as well as basic hydraulic and electrical principles. The automotive drive-train courses apply toward ASE certification in (A2) Automotive Automatic Transmission and (A3) Automotive Manual Drive Trains and Axles.

Automotive basic skills		9
AUT 202	Manual Drive Trains I	3
AUT 203	Manual Drive Trains II	3
AUT 251	Automatic Transmissions I	3
AUT 252	Automatic Transmissions II	1

Automotive Engine Technician Short-term Certificate (15 credits) (Two quarters to complete if attending full time)

Learn to rebuild an engine, or start building one from scratch, by taking courses toward COCC's Automotive Engine Technician Certificate; coursework applies toward ASE certification in (A1) Automotive Engine Repair.

Automotive basic skills		9
AUT 105	Diesel Performance I	2
AUT 201	Automotive Engines	4

AUTOMOTIVE TECHNOLOGY (continued)

Under-Car Technician Short-term Certificate (15 credits) (Two quarters to complete if attending full time)

This hands-on, short-term training gives students an in-depth understanding of under-vehicle systems: brakes, suspension, driveline and electrical, and prepares students for a job in suspension and brakes, either as a technician or manager. The under-car technician courses apply toward ASE certification in (A5) Automotive Brakes and (A4) Automotive Steering and Suspension.

Automotive basic skills	9
AUT 204 Steering and Suspension	3
AUT 208 Automotive Brakes	3

Automotive Heating and Air Conditioning Technician Short-term Certificate (21 credits; three quarters to complete if attending full time)

COCC's Automotive Heating and Air Conditioning classes give students a hands-on opportunity to learn about automotive air conditioning and heating systems, EPA Recovery Requirements for R-12, R-134a systems, and general diagnosis and service. Courses in this option apply toward ASE certification in (A7) Automotive Heating and Air Conditioning and (A6) Electrical/Electronic Systems.

Automotive basic skills	9
AUT 102 Automotive Electric I	4
AUT 111 Computerized Engine Controls	5
AUT 253 Automotive Air Conditioning	3

Automotive Electrical Technician (Advanced) Short-term Certificate (17 credits; three quarters to complete if attending full time)

Preparation in the electrical technician coursework establishes skill in charging systems, starting systems, voltage drops, electrical troubleshooting, lighting, gauges, accessories, battery load testing and repairs. This coursework prepares students for ASE certification in (A6) Electrical/Electronic Systems and (A8) Engine Performance.

Automotive basic skills	9
AUT 102 Automotive Electric I	4
AUT 103 Automotive Electric II	2
AUT 104 Automotive Electric III	2

Automotive Engine Performance Technician Short-term Certificate (26 credits; three quarters to complete if attending full time)

This program trains students to be the key troubleshooter in figuring out a vehicle's driveability problems. Students learn to identify everything from powertrain malfunctions to ignition failures and other engine-related problems using state-of-the-art computer diagnostic equipment, as well as the best way to fix the problem for the client. COCC's Engine Performance Technician program applies toward ASE certification in (A6) Automotive Electrical/Electronic Systems and (A8) Automotive Engine Performance.

Automotive basic skills	9
AUT 102 Automotive Electric I	4
AUT 103 Automotive Electric II	2
AUT 105 Diesel Performance I	2
AUT 111 Computerized Engine Controls	5
AUT 205 Engine Performance I	2
AUT 206 Engine Performance II	2

Master Automotive Technician Certificate of Completion (70 credits; four–five quarters to complete if attending full time)

Automotive basic skills	9
AUT 102 Automotive Electric I	4
AUT 103 Automotive Electric II	2
AUT 104 Automotive Electric III	2
AUT 105 Diesel Performance I	2
AUT 111 Computerized Engine Controls	5
AUT 201 Automotive Engines	4
AUT 202 Manual Drive Trains I	3
AUT 203 Manual Drive Trains II	3
AUT 204 Steering and Suspension	3
AUT 205 Engine Performance I	2
AUT 206 Engine Performance II	2
AUT 208 Automotive Brakes	3
AUT 216 Co-op Work Experience-Automotive	8
AUT 251 Automatic Transmissions I	3
AUT 252 Automatic Transmissions II	1
AUT 253 Automotive Air Conditioning	3
BA 285 Business Human Relations	3
or PSY 207 Applied Psychology	
or SP 218 Interpersonal Communication	
MTH 60 Algebra I	4
or MTH 85 Technical Math I	
WR 60 Rhetoric and Critical Thinking I	4

AVIATION

Associate of Applied Science
Associate of Science

Aviation – Airplane

Associate of Applied Science

(97-98 credits; six quarters to complete if attending full time)

The aviation field is a growing industry in Central Oregon and the United States. COCC's Aviation program provides the skills needed for a successful career in the aviation industry. From private and commercial certification to certified flight instructor rating, the courses are designed for those interested in learning more about aviation, who want to earn pilot certificates/ratings, and specifically for those who want to become professional pilots. The program includes flight training in some of the newest and most modern aircraft available, as well as hands-on training in CAT IV Modular Flight Deck advanced training flight simulators.

Pilots are credentialed by the Federal Aviation Administration (FAA) based on Title 14 Code of Federal Regulations. Specific requirements for each pilot certificate/rating are listed in Part 61: Certification: Pilots and Instructors, and may be found in a current copy of the Federal Aviation Regulations/Aeronautical Information Manual (FAR/AIM), or online at <http://www.faa.gov>.

Pilots are required to meet specific medical requirements and must possess an appropriate class of medical certificate obtained from an FAA approved aviation medical examiner (AME) before exercising the privileges of a pilot in command for the level of pilot certificate required. Specific requirements for class and duration of medical certificates may be found in the FAR Part 61, Paragraph 61.23, or online at <http://www.faa.gov>.

Graduates of this program receive the following certificates and ratings: Private Pilot, Commercial Pilot, and Certified Flight Instructor certificates; and Instrument and Multi-engine ratings. Most aviation program graduates become flight instructors for a year or more before moving on to careers as airline pilots or corporate pilots. Others use the degree to advance into management positions within their own companies or earn positions as airport managers, sales specialists and meteorologists with some of the world's foremost aviation companies.

The aviation program faculty works closely with each student to ensure achievement of academic goals. Flight fees, simulator fees, and FAA testing fees are required for all flight labs. Those fees are in addition to normal tuition and must be paid by the end of the second week of the term. Students will be dropped at that time for nonpayment of fees. The fee structure is available on the Aviation Web site (<http://aviation.cocc.edu>). Contact the Aviation program director, 541-318-3736, for more information.



The AAS degree –Airplane option will require approximately 250 hours of flight training. The AAS degree will only be awarded when the required courses have been successfully completed and the following certificates and ratings are obtained: Private Pilot and Commercial Pilot certificates, and Instrument and Multi-engine ratings.

The AAS degree –Airplane and –Helicopter options are designed for students who do not initially plan to transfer on for a four-year degree. Since a large percentage of pilot/aviation jobs require a bachelor's degree, there is an Associate of Science degree in Aviation for Airplane and Helicopter that is tied to an articulation agreement with Oregon Institute of Technology for a Bachelor of Science (BS) degree in Operations Management. The curriculum for the AS degree is not listed here. Please contact the program director, 541-318-3736, for more information.

Financial assistance, scholarships and loan programs may be available for students interested in pursuing this degree program. For further information, contact the program director at 541-318-3736 or <http://aviation.cocc.edu>.

AVIATION (continued)

The following is a suggested course of study for students interested in pursuing an AAS in Aviation – Airplane and will depend on course availability.

YEAR ONE

Fall term

AV 101	Introduction to Aviation ¹	3
AV 104	Introduction to Aircraft Systems ¹	4
AV 110	Private Pilot ²	5
AV 110A	Private Pilot Flight Lab ³	3

Winter term

AV 108	Meteorology I ¹	4
CIS 120	Computer Concepts ⁴	4
MTH 85	Technical Math I ⁴	4
or MTH 111	College Algebra (or higher) ⁴	
WR 121	English Composition ⁴	4

Spring term

AV 208	Meteorology II ¹	4
AV 210	Instrument-Airplane ⁵	5
AV 210A	Instrument SEL Flight Lab ³	3
or AV 210B	Instrument MEL Flight Lab ³	
General education discipline studies course ⁶		3
SP 111	Fundamentals of Public Speaking ⁴	3

YEAR TWO

Fall term

AV 150	Aerodynamics ¹	4
AV 220	Commercial Pilot-Airplane ⁵	4
AV 220A	Commercial Pilot SEL Flight Lab ³	2
or AV 220B	Commercial Pilot MEL Flight Lab ³	
General education discipline studies course ⁶		3
HHP 252A	Fitness/First Aid ^{4,7}	3

Winter term

AV 200	Aviation Law ¹	3
or AV 201	Airport Management ¹	
AV 204	Advanced Aircraft Systems ¹	4
AV 230	Multiengine Pilot ⁵	2
AV 230A	Multiengine MEL Flight Lab ³	1
or AV 230B	MEL Commercial/MEI Flight Lab ³	
AV 246	Aviation Safety ¹	3
BA 206	Fundamentals of Management ⁴	4
or BA 101	Introduction to Business ⁴	

Spring term

AV 235	Human Factors ¹	4
AV 250	Cert Flight Instructor Ground ¹	5
AV 250A	CFI/CFII Airplane SEL Flight Lab ³	3-4
or AV 250B	MEI/CFII Airplane MEL Flight Lab ³	
and AV 250C	SEL Comm/CFI Flight Lab ³	
General education discipline studies course ⁶		3

¹ May be taken in any order, in any term, and may be taken before, with, or after the flight courses.

² Must be taken as the first flight course. May be taken any term.

³ Flight fees, simulator fees, and FAA testing fees are required in addition to normal tuition for all flight labs and must be paid by the end of the second week of the term. Students will be dropped at that time for nonpayment of fees. The fee structure is available on the Aviation Web site (<http://aviation.cocc.edu>). Contact the Aviation program director, 541-318-3736, for more information.

⁴ May be taken in any sequence, in any term.

⁵ Can be taken next in any sequence, together or separately, in any term. Earning the commercial pilot certificate is not dependent upon the instrument and multiengine ratings; however, pilots commonly include those ratings inside the total hours required for the commercial certificate in order to reduce the cost.

⁶ Complete a minimum of nine credits of discipline studies courses, pages 47 and 48. The courses must be outside of the AAS program area and each must have a different prefix. May be taken in any sequence, in any term.

⁷ HHP 252A is recommended to meet this requirement, but students can also choose from HHP 231, 242, 258, 266 or 295.

Aviation – Helicopter Associate of Applied Science (96 credits; six quarters to complete if attending full time)

C OCC offers an optional helicopter degree track. This is also designed for the professional pilot, but courses are open to anyone who wants to get a new license.

Most of the courses are common for both the airplane and the helicopter pilot, with a few very distinctive courses dedicated to the helicopter career field. Both the Associate of Science degree and the Associate of Applied Science degrees are available to the helicopter student, as is the transfer agreement with Oregon Institute of Technology. The same FAA credentials and medical certificates are required by the helicopter pilot.

Graduates of the helicopter program receive the Private Pilot, Commercial, and Certified Flight Instructor certificates, and the Instrument and Instrument Instructor ratings. Flight training is conducted in Robinson R-22, R-44 and Bell Jet Ranger helicopters. An advanced helicopter simulator is available for enhanced training and to reduce the cost of flight training for our students.

Flight fees, simulator fees, and FAA testing fees are required for all flight labs. Those fees are in addition to normal tuition

AVIATION (continued)

and must be paid by the end of the second week of the term. Students will be dropped at that time for nonpayment of fees. The fee structure is available on the Aviation Web site (<http://aviation.cocc.edu>). Contact the Aviation program director, 541-318-3736, for more information.

The AAS degree –Helicopter option will require approximately 200 hours of flight training. The AAS degree will only be awarded when the required courses have been successfully completed and the following certificates and ratings are obtained: Private Pilot and Commercial Pilot certificates, and the Instrument rating.

Financial assistance, scholarships and loan programs may be available for students interested in pursuing this degree program. For further information, contact the program director at 541-318-3736 or <http://aviation.cocc.edu>.

The following is a suggested course of study for students interested in pursuing an AAS in Aviation – Helicopter and will depend on course availability.

YEAR ONE

Fall term

AV 101	Introduction to Aviation ¹	3
AV 104	Introduction to Aircraft Systems ¹	4
AV 115	Private Pilot-Helicopter ²	8
AV 115A	Private Pilot Helicopter Flt Lab ³	3

Winter term

AV 108	Meteorology I ¹	4
CIS 120	Computer Concepts ⁴	4
MTH 85	Technical Math I ⁴	4
or MTH 111	College Algebra (or higher) ⁴	
WR 121	English Composition ⁴	4

Spring term

AV 208	Meteorology II ¹	4
AV 215	Instrument-Helicopter ⁵	5
AV 215A	Instrument Helicopter Flight Lab ³	2
General education discipline studies course ⁶		3

YEAR TWO

Fall term

AV 150	Aerodynamics ¹	4
AV 225	Commercial Pilot-Helicopter ⁵	4
AV 225A	Commercial Helicopter Flt Lab ³	2
General education discipline studies course ⁶		3
HHP 252A	Fitness/First Aid ^{4, 7}	3

Winter term

AV 200	Aviation Law ¹	3
or AV 201	Airport Management ¹	
AV 245	Advanced Helicopter Operations ^{1, 5}	4
AV 245A	Helicopter Turbine Transition and Mountain Operations Flight Lab ³	1
or AV 245B	Helicopter Turbine Transition and External Load Flight Lab ³	
or AV 245C	Helicopter Turbine Transition and Night Vision Goggle Flight Lab ³	
or AV 245D	Commercial Helicopter Flight Lab II ³	
AV 246	Aviation Safety ¹	3
BA 206	Fundamentals of Management ⁴	4
or BA 101	Introduction to Business ⁴	

Spring term

AV 235	Human Factors ¹	4
AV 255	Certified Flight Instructor-Helicopter ⁸	5
AV 255A	Certified Flight Instructor-Helicopter Flight Lab ³	2
SP 111	Fundamentals of Public Speaking ⁴	3
General education discipline studies course ⁶		3

¹ May be taken in any order, in any term, and may be taken before, with, or after the flight courses.

² Must be taken as the first flight course. May be taken any term.

³ Flight fees, simulator fees, and FAA testing fees are required in addition to normal tuition for all flight labs and must be paid by the end of the second week of the term. Students will be dropped at that time for nonpayment of fees. The fee structure is available on the Aviation web site (<http://aviation.cocc.edu>). Contact the Aviation program director, 541-318-3736, for more information.

⁴ May be taken in any sequence, in any term.

⁵ Can be taken next in any sequence, together or separately. The FAA-approved Part 141 syllabus includes both instrument and commercial flight training and the training is intermingled.

⁶ Complete minimum nine credits of discipline studies courses, pages 45 and 46. The courses must be outside of the AAS program area and each must have a different prefix. May be taken in any sequence, in any term.

⁷ HHP 252A is recommended to meet this requirement, but students can also choose from HHP 231, 242, 258, 266 or 295.

⁸ To be taken after AV 225, Commercial Helicopter.

BIOLOGY

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree, with an emphasis in biology, is designed for students who wish to pursue bachelor's degree areas such as health professions, life sciences or natural sciences. Graduates with a Bachelor of Science degree from their transfer institution will be well-equipped for graduate school and other careers in biomedical fields, industry, governmental agencies and non-governmental organizations which require a broad-based education in science, mathematics and communication. Those graduates may enter such fields as conservation or environmental science, science writing, education, botany, forest or marine science, veterinary medicine, agricultural research, pharmaceuticals, human medicine or other life science careers such as research in microbiology, biotechnology, bio-informatics or genetics.

Students are expected to make and maintain communication with their choice of transfer institution while pursuing coursework at the community college level, as some have specific requirements.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements. With the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements. The following is a suggested course of study for students interested in pursuing a bachelor's degree in biology.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
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(or higher for which *Intermediate Algebra* is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

BI 211	Principles of Biology I	5
BI 212	Biology of Plants II	5
BI 213	Biology of Animals III	5

plus one additional course from the science/math/computer science discipline studies list with a different prefix.

Electives

Take enough elective courses to meet the minimum 90 credits required for the degree and lower-division major requirements.

CH 221	General Chemistry I ¹	5
CH 222	General Chemistry II ¹	5
CH 223	General Chemistry III ¹	5

or

CH 104	Introduction to Chemistry I ²	4
CH 105	Introduction to Chemistry II ²	4
CH 106	Introduction to Chemistry III ²	4

CH 241	Organic Chemistry I	5
CH 242	Organic Chemistry II	5
CH 243	Organic Chemistry III	5
FN 225	Human Nutrition	4
MTH 251	Calculus I	4
MTH 252	Calculus II	4
MTH 253	Calculus III	4
PH 201	General Physics I	5
PH 202	General Physics II	5
PH 203	General Physics III	5

Recommended for those entering health-related fields

BI 231	Human Anatomy and Physiology I	4
BI 232	Human Anatomy and Physiology II	4
BI 233	Human Anatomy and Physiology III	4
BI 234	Microbiology	4

For a field identification course in the native flora

BOT 203	General Botany	4
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To enhance understanding of scientific terminology

BI 205	Scientific Terminology	3
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¹ Recommended for students interested in medical, dental and veterinary schools.

² Recommended for students who have not recently taken Algebra II and chemistry in high school.

Transfer and/or articulation information

Oregon universities with a biology major include: Eastern Oregon University; Oregon State University; Oregon Health Sciences University; Southern Oregon University; University of Oregon.

BUSINESS ADMINISTRATION

Certificate of Completion
 Associate of Applied Science Options
 Associate of Science Oregon Transfer

Accounting Clerk Certificate of Completion (44 credits)

COCC's Accounting Clerk certificate is designed to give students a foundation for careers in clerical accounting. All coursework may be applied to an AAS Business degree.

Degree/course requirements

The following is the recommended schedule for students able to attend full time; students should consult their advisor if they have transfer credits, are not able to attend full time or are not at college level in reading, writing or math. Students must complete each required course for the Accounting Clerk certificate with a "C" grade or better.

The following is a suggested course of study for students interested in pursuing an Accounting Clerk certificate and will depend on course availability.

Fall

BA 101	Introduction to Business	4
BA 104	Business Math ¹	3
BA 111	Applied Accounting I	3
WR 121	English Composition	4

Winter

BA 112	Applied Accounting II	3
BA 177	Payroll Accounting	3
BA 285	Business Human Relations	3
CIS 131	Software Applications	4

Spring

BA 113	Applied Accounting III	3
BA 220	Math for Business Decisions	4
BA 229	QuickBooks	3
CIS 125E	Excel	4

Summer

BA 280	Co-op Work Experience Business	3
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¹ Prerequisite: grade of "C" or better in MTH 60, MTH 60 equivalency met, or appropriate placement exam score.

Retail Management Certificate of Completion (46 credits)

COCC's Retail Management certificate is designed to give students a foundation for careers in retail business management. All coursework may be applied to an AAS Business degree.

Degree/course requirements

The following is the recommended schedule for students able to attend full time; students should consult their advisor if they have transfer credits, are not able to attend full time or are not at college level in reading, writing or math. Students must complete each required course for the Retail Management certificate with a "C" grade or better.

The following is a suggested course of study for students interested in pursuing a certificate in Retail Management and will depend on course availability.

Fall

BA 111	Applied Accounting I	3
BA 101	Introduction to Business or Business elective (see list, page 67)	4
CIS 131	Software Applications	4
WR 121	English Composition	4

Winter

BA 104	Business Math ¹	3
BA 206	Management Fundamentals I	4
BA 223	Marketing Principles I	4
BA 178	Customer Service or Business elective (see list, page 67)	3
BA 285	Business Human Relations	3

Spring

BA 224	Human Resources Management ²	4
BA 249	Retailing ²	4
SP 111	Fundamentals of Public Speaking or SP 219 Small Group Communication	3
WR 214	Business Communications	3

¹ Prerequisite: grade of "C" or better in MTH 60, MTH 60 equivalency met, or appropriate placement exam score.

² Offered only during the term listed

BUSINESS ADMINISTRATION (continued)

Associate of Applied Science with Specializations (97-99 credits)

The AAS coursework prepares students for immediate employment in business occupations. Business administration AAS degrees may be awarded indicating emphasis in the following areas of specialization: Accounting; Hotel, Tourism and Recreation Management; Information Systems Management; Management and Marketing; Retail Operations Management or General Business.

Degree/course requirements

The following is provided to assist students in planning their schedule. Students should take as many Level I courses as possible before attempting Level II courses, Level II courses before Level III courses, etc. This will enable students to approach each class with the background necessary to succeed and enjoy the course content.

To meet graduation requirements, students must complete every BA, CIS, GEOG, HTRM, SP, and WR course with a minimum grade of "C."

Course of study

The following is a suggested course of study for students interested in pursuing an AAS in Business Administration and will depend on course availability.

Level I Foundation Courses

Foundation courses ensure that students have the basic skills and basic business concepts to address further skill development. Foundation courses include math, computer and writing skills.

BA 101	Introduction to Business	4
BA 104	Business Math ¹	3
BA 111	Applied Accounting I	3
BA 178	Customer Service	3
CIS 131	Software Applications	4
SP 111	Fundamentals of Public Speaking	3
or SP 219	Small Group Communication	
WR 121	English Composition	4

Plus any math courses necessary to prepare for BA 104, BA 111, BA 220 in Level III Accounting or Marketing and Management or Retail Operations Management specializations..

¹ Prerequisite: grade of "C" or better in MTH 60, MTH 60 equivalency met, or appropriate placement exam score.



Level II Core Courses

Core courses allow students to understand concepts in their specialization courses taken in Level III.

BA 206	Management Fundamentals I	4
BA 112	Applied Accounting II	3
BA 113	Applied Accounting III	3
BA 223	Marketing Principles I	4
BA 226	Business Law I	4
BA 285	Business Human Relations	3
CIS 125E	Excel	4
WR 214	Business Communications	3

Level III Specialization Courses

See specialization below in: Accounting; Hotel, Tourism and Recreation Management; Information Systems Management; Management and Marketing; Retail Operations Management; or General Business.

Level IV Advanced Core and Capstone Courses

These courses should be taken after completion of Level I and II and may be taken concurrently with specialization courses (Level III) as long as prerequisites have been met.

BA 222	Business Finance	3
BA 280	Co-op Work Experience Business	3
BA 290	Business Seminar	3

Required general education degree support courses

HHP 252A	is recommended to meet this requirement, but students can also choose from HHP 295, 231, 242, 258 or 266 and one activity or health module.	3-4
General education discipline studies electives		9

BUSINESS ADMINISTRATION (continued)

Business electives

BA 150	Business of Massage	3
BA 177	Payroll Accounting	3
BA 203	Global Business	3
BA 207	Management Fundamentals II	4
BA 211	Financial Accounting I	3
BA 212	Financial Accounting II	3
BA 213	Managerial Accounting	3
BA 217	Accounting Fundamentals	3
BA 218	Personal Finance	3
BA 220	Math for Business Decisions	4
BA 224	Human Resource Management	4
BA 228	Computer Accounting Application	3
BA 229	QuickBooks	3
BA 238	Selling and Negotiation	4
BA 239	Marketing Principles II	4
BA 249	Retailing	4
BA 250	Entrepreneurship	4
BA 286	Managing Business Processes	4
CIS 235	IT in Business	4
CIS 135DB	Database Theory/SQL	4
HTRM 105	Food Service Management	4
HTRM 106	Lodging Management	3
HTRM 233	Event Planning	3

BUSINESS SPECIALIZATIONS

AAS students must complete a minimum of 23–25 additional credits from a specialization in: Accounting; General Business; Hotel, Tourism and Recreation Management; Information Systems Management; Management and Marketing; or Retail Operations Management.

Accounting

This specialization is for those who desire to be accountants for a small- to medium-sized business. (25 credits)

BA 220	Math for Business Decisions	4
BA 177	Payroll Accounting	3
BA 211	Financial Accounting I	3
BA 212	Financial Accounting II	3
BA 213	Managerial Accounting	3
BA 228	Computer Accounting Applications	3
BA 229	QuickBooks	3
Business electives	(see list, page 67)	3

General Business

Students interested in a general business focus, can take an additional 24 credits of coursework with a BA or HTRM prefix from the Business electives list above and earn an Associate of Applied Science in General Business.

Hotel, Tourism and Recreation Management

This specialization is for those who desire to operate or manage hotels, restaurants or recreation businesses. (24 credits)

GEOG 212	Tourism and Recreation	3
HTRM 105	Food Service Management	4
HTRM 106	Lodging Management	3
HTRM 233	Event Planning	3
or Business elective with BA prefix (see list, this page)		

Information Systems Management

This specialization is for those who desire to apply software and computer technology to business applications such as accounting, human resources and manufacturing. Students also have an option to receive an Associate of Applied Science in Computer and Information Systems; see page 71 for options. (24 credits)

CIS 125A	Access	4
CIS 135DB	Database Theory/SQL	4
CIS 140	A+ Essentials	4
CIS 235	IT in Business	4
Select two electives from the following:		
CIS 178	Internet in Depth	4
CIS 179	Networking Essentials	4
CIS 195	Web Development I	4
CIS 295	Web Development II	4

Management and Marketing

This specialization is for those who plan to be managers or marketers for small- to medium-size businesses. (24 credits)

BA 220	Math for Business Decisions	4
BA 207	Management Fundamentals II	4
BA 239	Marketing Principles II	4
Business electives with BA or HTRM prefix (see list, this page) 12		

Retail Operations Management

This specialization is for those who plan to be operating managers for medium- to large-size businesses in sales, human resources or customer service with specialized projects. (24 credits)

BA 220	Math for Business Decisions	4
BA 224	Human Resources Management	4
BA 239	Marketing Principles II	4
BA 249	Retailing	4
BA 261	Consumer Behavior	4
BA 207	Management Fundamentals II	4
or BA 238	Selling and Negotiation	

BUSINESS ADMINISTRATION (continued)

There are several transfer degrees with business coursework that are designed for students who plan to attend a four-year institution. The Associate of Science Oregon Transfer (ASOT) listed below is designed for students with a high level of certainty about their decision to earn a bachelor's degree with a major in business from an Oregon public university.

Another transfer degree available to business students is the AAOT. See your business department advisor to determine the best course of study and COCC transfer degree for you.

Associate of Science Oregon Transfer Business (91 credits)

The Associate of Science Oregon Transfer–Business degree (ASOT) is designed for students with a high level of certainty about their decision to earn a bachelor's degree with a major in business from an Oregon public university. It is designed to include the courses required for entrance not only into an Oregon public university but to the university's business college as well. (For those unsure of where they might transfer or unsure of their desire for a bachelor's degree in business, please see COCC business department advisors to determine the best course of study and COCC transfer degree from the many options available to business transfer students.)

Courses marked with a footnote (¹) must be completed with a grade of "C" or better.

General requirements

CIS 131	Software Applications ¹	4
SP 111	Fundamentals of Public Speaking ¹	3
WR 121	English Composition ¹	4
WR 122	English Composition ¹	4
WR 227	Technical Writing ¹	4

Discipline studies requirements

Arts and Letters

Minimum of 12 credits from COCC's arts and letters discipline studies list, chosen from at least two disciplines.

Science

Minimum of 12 credits of laboratory science in biological or physical sciences from COCC's science/math/computer science discipline studies list.

Social Sciences

EC 201	Microeconomics ¹	4
EC 202	Macroeconomics ¹	4

plus four additional credits from COCC's social sciences discipline studies list, that do not have an EC prefix.

Mathematics

Required minimum of 12 credits including

MTH 111	College Algebra ¹	4
MTH 244	Intro to Methods of Probability and Stats ¹	4
MTH 243	Math for Management/Life/Social Science ¹	4
	or MTH 241 Calculus for Management/Science ¹	

Business specific requirements

BA 101	Introduction to Business ¹	4
BA 211	Financial Accounting I ¹	3
BA 212	Financial Accounting II ¹	3
BA 213	Managerial Accounting ¹	3
BA 226	Business Law I ¹	4

¹ Course must be completed with a grade of "C" or better.

Electives

Recommended electives: BA 206, BA 223. It is recommended that students planning to transfer to OSU take BA 250 and HHP 295. Sufficient number of transfer-level courses to meet total degree requirements of at least 90 credits may include a maximum of 12 Career and Technical Education (CTE) credits. See advisor for recommended electives as well as specific institution transfer requirements.

Transfer and/or articulation information

The ASOT Business degree articulates directly to Oregon public university business school requirements. The ASOT Business degree meets the lower-division general education requirements for all Oregon public universities and business schools and some private four-year business schools.

For more information about the Associate of Science degree and articulation agreements with local colleges and universities, see page 41.

For more information about the Associate of Arts Oregon Transfer degree and articulation agreements with local colleges and universities, see pages 35-36 and 38-39.

CHEMISTRY

Associate of Arts Oregon Transfer (90 credits)

Associate of Science (93 credits)

Chemists study the composition and transformations of matter. Chemists work in a wide variety of settings and find employment with government, academic and private institutions. Chemistry is frequently described as the “central science” because of the connections between it and all other scientific disciplines. Earning a degree in chemistry can be the first step toward careers with chemical, materials, pharmaceutical companies, biotech firms or forensic laboratories; it can also be a stepping stone on the route to a professional medical degree, for instance in medicine, physical therapy or pharmacy. Chemists are readily employable after completion of a bachelor’s degree. Earning an Associate of Arts Oregon Transfer (AAOT) degree with a chemistry emphasis is also excellent preparation for bachelor’s degrees in related disciplines such as toxicology, atmospheric science, environmental science or materials science.

The AAOT meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements. With the appropriate course planning, all lower-division major requirements may also be met.

Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor’s degree in chemistry.

General education/foundational requirements*(Courses must be completed with a grade of “C” or higher)*

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
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(or higher for which Intermediate Algebra is a prerequisite)

Health (3 credits with HHP prefix)		3
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HHP activity courses (1 credit each) are not to be duplicated



photo by Eugen Helmbrecht

General education/discipline studies*(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)*

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

CH 221	General Chemistry I	5
CH 222	General Chemistry II	5
CH 223	General Chemistry III	5
PH 201 or 211	General Physics I	5

Electives

PH 202 or 212	General Physics II	5
PH 203 or 213	General Physics III	5

MTH 251	Calculus I	4
MTH 252	Calculus II	4
MTH 253	Calculus III	4

CH 241	Organic Chemistry I	5
CH 242	Organic Chemistry II	5
CH 243	Organic Chemistry III	5

Transfer information

Oregon public universities with a chemistry major include: University of Oregon; Oregon State University; Western Oregon University; Southern Oregon University; Eastern Oregon University.

COMPUTER AND INFORMATION SYSTEMS

Certificates of Completion

Associate of Applied Science

For information about the Geographic Information Systems (GIS) program, see pages 93 and 94.

The Computer Information Systems (CIS) degree program is designed around a core curriculum and four distinct options. The program's core provides an introduction to computer concepts, software applications, operating systems, networking, computer servicing, Internet, math, human relations and writing. To gain practical work-related experience, students complete 99 hours of cooperative work experience in a related setting. Students must complete all CIS courses with a grade of "C" or better.

To earn an Associate of Applied Science in Computer Information Systems, a student must complete 67-71 core credits and an additional 27-28 credits of CIS electives. Students may elect to complete an option in one or more of four emphasis areas: Networking, Computer Aided Drafting (CAD), Desktop Support, or Web Development/Database. If a student selects specific CIS electives to complete the requirements for one of the three options, the AAS degree awarded also specifies the emphasis area successfully completed. Students can also earn a general AAS in CIS by choosing 27-28 credits from any CIS prefix that is not part of the core courses list. To earn the CIS one-year certificate, the student completes 46-47 credits.

The Computer Aided Drafting option prepares students for entry-level employment in the drafting field. Students prepare for advanced CAD applications through an introductory set of CAD-based curriculum. Students will gain experience using dedicated architectural, civil and mechanical software.

The Desktop Support option prepares students to provide technical assistance to computer system users, answer questions, or resolve computer problems for clients in person, via telephone or from a remote location. Other responsibilities may include providing support for computer hardware and software, including printing, installation, word processing, spreadsheets, database, electronic mail and operating systems.

The Networking option prepares students for entry-level positions in network administration. Network specialists have the abilities to design, create, manage and maintain computer networks for small businesses. Courses cover both hardware and software and closely follow major industry certification requirements.

The Web Development/Database option prepares students for a career as a Web developer or Web/database administrator. These professionals are responsible for creating standards-based Web sites and Web/database applications. In addition to programming skills in common markup, scripting and SQL languages, these types of professions require project management and communication skills.

A Computer Aided Drafting certificate is also available 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. This certificate provides training for entry-level CAD operator positions. All

credits apply toward the Associate of Applied Science degree in CIS/CAD. Students may earn a Certificate of Completion by successfully completing the required 45-46 credit hours with a grade of "C" or better in all courses.

Students interested in pursuing a BS IT/Health Informatics degree option should schedule an advising appointment with the chair of COCC's CIS department to review the current Associate of Science (AS) articulation degree requirements with OIT. After completing their first year at COCC, students should contact Dr. Michael Kirshner at OIT 503-725-3066 to prepare the admission application for OIT. Early OIT admission will make students eligible for scholarship applications and financial aid. (Note: students will still need to finish the second year of their AS degree at COCC before starting junior-level IT/HI classes at OIT.) Third and fourth year classes taken from OIT are all online and allow students to remain in Bend while completing this degree.

CIS courses required for the AAS degree, options and certificates are listed below. Please see the course description listings on pages 159-164 for additional information about these classes and other CIS elective courses not listed below.

The design of many of the advanced-level applications, networking and CAD courses in the CIS department prepare students for industry certification. Students are able to test for certification and assess their competence in their given emphasis. See advisor for complete details.

Computer and Information Systems (CIS)

Certificate of Completion

(46-47 credits; three quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Computer and Information Systems and will depend on course availability.

BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
CIS 120	Computer Concepts	4
CIS 122	Introduction to Programming	4
CIS 131	Software Applications	4
CIS 135DB	Database Theory/SQL	4
CIS 140	A+ Essentials	4
CIS 145	PC Technician	4
CIS 178	Internet in Depth	4
CIS 179	Networking Essentials	4
CIS 195	Web Development I	4
MTH 85	Technical Math I	3-4
or BA 104	Business Math	
WR 121	English Composition	4

COMPUTER AND INFORMATION SYSTEMS (continued)

Computer Aided Drafting (CAD) Certificate of Completion

(45–46 credits; three quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Computer Aided Drafting (CAD) and will depend on course availability.

BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
CIS 120	Computer Concepts	4
CIS 125A1	AutoCAD I	4
CIS 125A2	AutoCAD II	4
CIS 125A3	AutoCAD III	4
CIS 135A1	AutoDESK Revit I	3
CIS 135A2	AutoDESK Revit II	3
CIS 135M1	AutoDESK Inventor I	3
CIS 135M2	AutoDESK Inventor II	3
CIS 135C1	AutoCAD Civil 3D	3
CIS 140	A+ Essentials	4
MTH 85	Technical Math I	3-4
or BA 104	Business Math	
WR 121	English Composition	4

Computer and Information Systems (CIS) Associate of Applied Science

(94–99 credits; six quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing an AAS in Computer and Information Systems and will depend on course availability.

Required core courses (67–71 credits)

BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
CIS 120	Computer Concepts	4
CIS 122	Introduction to Programming	4
CIS 131	Software Applications	4
CIS 135DB	Database Theory/SQL	4
CIS 140	A+ Essentials	4
CIS 145	PC Technician	4
CIS 178	Internet in Depth	4
CIS 179	Networking Essentials	4
CIS 244	Information System Analysis	4
CIS XXX	CIS elective	
	(in addition to one of the CIS options)	3-4
CIS 280	Co-op Work Experience CIS	3
General Education Discipline Studies courses ¹		9
MTH 85	Technical Math I	3-4
or BA 104	Business Math	
WR 121	English Composition	4
Health ²		3-4
WR 214	Business Communications	3-4
or WR 227	Technical Writing	
or SP 111	Fundamentals of Public Speaking	

CIS electives

(27–28 credits with CIS prefix or choose one of the following CIS options)

For a general CIS AAS degree (no option) select 27–28 credits with a CIS prefix from the list in the course descriptions, pages 159–164, or choose one of the following CIS options for your degree.

Networking option (28 credits)

CIS 151C	Cisco Internetworking	4
CIS 152C	Cisco Router Configuration	4
CIS 154C	Cisco VLAN / WAN Technologies	4
CIS 279V	Windows Vista	4
	or CIS 279W7 Windows 7	
CIS 279SA	Windows Server 2008 Administrator	4
CIS 279NI	Windows Server 2008 Network Infra.	4
CIS 279AD	Windows Server 2008 Active Directory	4

Desktop Support option (28 credits)

CIS 125E	Excel	4
CIS 125A	Access	4
CIS 195	Web Development I	4
CIS 125G	Introduction to Photoshop	4
CIS 295	Web Development II	4
CIS 279XP	Windows XP Professional	4
or CIS 279V	Windows Vista	
CIS 235	IT in Business	4

Web Development/Database option (28 credits)

CIS 125G	Introduction to Photoshop	4
	or CIS 125I Introduction to Illustrator	
	or CIS 125FL Introduction to Flash	
CIS 195	Web Development I	4
CIS 295	Web Development II	4
CIS 133JS	Introduction to JavaScript	4
CIS 133P	Introduction to PHP	4
CIS 275	Introduction to Database Management and Design	4
CIS 276	Advanced SQL	4

CAD option (27 credits)

CIS 125A1	AutoCAD I	4
CIS 125A2	AutoCAD II	4
CIS 125A3	AutoCAD III	4
CIS 135A1	AutoDESK Revit I	3
CIS 135A2	AutoDESK Revit II	3
CIS 135C1	AutoCAD Civil 3D	3
CIS 135M1	AutoDESK Inventor I	3
CIS 135M2	AutoDESK Inventor II	3

¹ Choose courses from discipline studies list, pages 47–48. Each course must have a different prefix and cannot have a CIS prefix.

² To meet this requirement, students can choose from HHP 231: Human Sexuality, HHP 242: Stress Management, HHP 258: Holistic Wellness or HHP 266: Nutrition for Health, HHP 295: Health and Fitness and one activity or health module —OR— HHP 252A.

CRIMINAL JUSTICE

Certificates of Completion
 Associate of Applied Science
 Associate of Arts Oregon Transfer

Criminal Justice is a growing profession in Oregon and is expected to grow faster than the labor market on average into the foreseeable future. Job openings may call for a high school diploma, an associate's degree or a bachelor's degree. COCC's Associate of Applied Science in criminal justice program prepares students to begin a criminal justice career upon graduation.

COCC offers students four options within the criminal justice program:

- **Proficiency Areas:** New to the criminal justice program, these five proficiency areas offer students a way to focus their electives. Upon completion of the electives in the different areas, the student will receive a signed training document from the department detailing the classes completed in each specific area.
- **Certificate of Completion:** The statewide one-year certificate program with a concentration in juvenile corrections is specifically designed for individuals who want to work directly with juvenile offenders in various settings. These settings may include Oregon Youth Authority (OYA) as well as other public, private and nonprofit agencies/programs. A criminal background check is required to complete the one-year certificate or the two-year degree. The criminal background check is also a requirement for any job in the criminal justice field.
- **Associate of Applied Science degree:** This degree is designed for those students who wish to pursue a career in law enforcement or corrections. Most city and state law enforcement and correctional facilities require a high school diploma or GED. In Oregon, the competition for these jobs is intense. A college education is almost always a minimum requirement for the application process.
- **The Associate of Arts Oregon Transfer degree** meets the State of Oregon transfer degree requirements allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

Students are encouraged to work closely with their advisors to decide which option is most appropriate based on long-term career goals. A criminal history may affect their employment opportunities.

**Criminal Justice
 Proficiency Areas (13-16 credits)**

Law Enforcement (16 credits)

CJ 110	Law Enforcement	3
CJ 220	Substantive Law	3
CJ 222	Search and Seizure	3
CJ 243	Drugs and Crime	3
PSY 219	Abnormal Psychology	4

Corrections (13 credits)

CJ 230	Juvenile Corrections	3
HD 200	Addictive Behavior	3
PSY 216	Social Psychology	3
SOC 211	Social Deviance	4

Juvenile Justice (13 credits)

CJ 230	Juvenile Corrections	3
PSY 215	Developmental Psychology	4
PSY 216	Social Psychology	3
HS 205	Youth and Addictions	3

Parole and Probation (15 credits)

PSY 233	Violence and Aggression	4
SOC 211	Social Deviance	4
PSY 219	Abnormal Psychology	4
HS 200	Addictive Behavior	3

Criminal Investigations (13 credits)

CJ 210	Investigation I	3
CJ 211	Investigation II	3
ART 161	Photography I	3
or ART 162	Photography II	
or ART 163	Photography III	
SP 218	Interpersonal Communications	3
SP 250	Listening	1

**Juvenile Corrections
 Certificate of Completion
 (50-54 credits; four quarters if attending full time)**

The following is a suggested course of study for students interested in pursuing a certificate in Juvenile Corrections and will depend on course availability.

General education/basic skills

Computer competency ¹		0-4
HS 205	Youth and Addictions	3
MTH 65	Algebra II	4
WR 121	English Composition	4

Required support courses

PSY 201	Mind and Brain	4
PSY 202	Mind and Society	4
PSY 215	Developmental Psychology	4
PSY 219	Abnormal Psychology	4
PSY 233	Psychology of Violence and Aggression	4
SOC 201	Introduction to Sociology	4

CJ courses

CJ 100	Survey of the Criminal Justice System	3
CJ 101	Introduction to Criminology	4
CJ 201	Introduction to Juvenile Justice	3
CJ 230	Juvenile Corrections	3
CJ 280	Co-op Work Experience Criminal Justice	2

CRIMINAL JUSTICE (continued)

Criminal Justice
 Associate of Applied Science
 (93-98 credits; six quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing an AAS in Criminal Justice and will depend on course availability.

General education/basic skills

Computer competency ¹	0-4
Health ²	3-4
MTH 20 Pre-Algebra	4
SP 111 Fundamentals of Public Speaking	3
or SP 219 Small Group Communication	
SP 218 Interpersonal Communication	3
WR 121 English Composition	4

Support courses

PSY 233 Psychology of Violence and Aggression	4
Two (2) courses with a PSY prefix	8
SOC 201 Introduction to Sociology	4
Any social science class (not CJ prefix)	4
ED 265 Children at Risk	3
Criminal Justice open electives (see advisor)	17

Discipline studies course 4

Select from discipline studies list, pages 47 and 48; may not have a CJ prefix

Criminal Justice program courses

CJ 100 Survey of the Criminal Justice System	3
CJ 101 Introduction to Criminology	4
CJ 120 Judicial Process	3
CJ 253 Corrections	4
CJ 201 Introduction to Juvenile Justice	3
CJ 280 Co-Op Work Experience Criminal Justice	2
CJ electives ³	6

Students should take all of the above plus enough additional course-work to reach the 93 minimum credits required for the AAS degree. See advisor for details.

¹ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

² HHP 252A is recommended to meet this requirement, but students can also choose from HHP 295, 231, 242, 258 or 266 and one activity or health module.

³ Any course with a CJ prefix is recommended. Options include: CJ 110, 123, 188, 199, 204, 207, 210, 211, 220, 222, 230, 243.

Associate of Arts Oregon Transfer
 (90 credits; six quarters to complete if attending full time)

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication		
SP 111	Fundamentals of Public Speaking	3
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics		
MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters
 At least three (3) courses chosen from at least two (2) prefixes.

Social Science
 At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science
 At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

CJ 100	Survey of the Criminal Justice System	3
CJ 101	Introduction to Criminology	4
CJ 120	Judicial Process	3
CJ 253	Corrections	4
CJ 201	Introduction to Juvenile Justice	3
CJ 280	Cooperative Work Experience	2

Advising information

If transferring to Southern Oregon University: CJ 210, 211 are recommended.

If transferring to Portland State University, CJ 101, 110 and 253 are recommended.

If transferring to Western Oregon University, CJ 100 is recommended.

CULINARY

Certificates of Completion

Culinary
Certificate of Completion
 (44 credits; three to four quarters to complete
 if attending full time)

A Cascade Culinary Institute® certificate introduces students to a variety of skill areas: hot and cold food preparation, baking and dining room operations. Those completing the certificate will be prepared to begin their culinary career with an excellent kitchen experience and a sound foundation preparing them for growth within the industry.

The Cascade Culinary Institute® certificate has been accredited by the American Culinary Federation Foundation Accrediting Commission since 2003.

The following is a suggested course of study for students interested in pursuing a certificate in Culinary and will depend on course availability.

Prerequisites

CCI 71	Basic Sanitation ¹	2
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Level 1 kitchen-block coursework

CCI 121	Hot Food Production I	4
CCI 141	Baking I	4
CCI 151	GardeManger I	4
CCI 161	Dining Room Operations	3

Additional kitchen coursework

CCI 122	Hot Food Production II ¹	4
CCI 123	A La Carte Kitchen ¹	4

Other required courses

BA 285	Business Human Relations	3
CCI 81	Food Service Nutrition ¹	2
CCI 107	Culinary Supervision ¹	3
CCI 280A	Co-op Work Experience Culinary	3
MTH 60	Algebra I	4
WR 60 ¹	Rhetoric/Critical Thinking II ²	4

¹ See advisor and schedule of classes for term offered.

² Students expecting to continue toward the Associate of Applied Science Culinary Arts degree will be required to take WR 121.

Certificate advising information

Cascade Culinary Institute® kitchen-block coursework must be taken concurrently. Students must meet with and receive permission to register from the program coordinator prior to registration.

First term expenses for uniforms, equipment and textbooks are approximately \$660. All CCI courses carry an additional fee; please see schedule of classes for details.



To obtain the certificate, students must successfully complete the required courses with a grade of “C” or better and demonstrate skills in subject areas as well as pass written exams.

Each 3-credit cooperative work experience course requires 100 hours of supervised employment. Students may register for CCI 280 credits as needed without incurring late registration fees.

Kitchen Prep
Short-term Certificate (22 credits)
 (One to two quarters to complete if attending full time)

The Cascade Culinary Institute® Kitchen Prep certificate prepares students in the fundamental techniques of “level one” baking, hot foods, garde manger and dining room service along with basic sanitation and food service nutrition.

The following is a suggested course of study for students interested in pursuing a certificate in Kitchen Prep and will depend on course availability.

CCI 71	Basic Sanitation ¹	2
CCI 81	Food Service Nutrition ¹	2
CCI 121	Hot Food Production I	4
CCI 141	Baking I	4
CCI 151	GardeManger I	4
CCI 161	Dining Room Operations	3
CCI 280A	Co-op Work Experience Culinary	3

¹ See advisor and schedule of classes for term offered.

CULINARY ARTS

Associate of Applied Science

(100-101 credits; six quarters to complete if attending full time)

The Associate of Applied Science Culinary Arts degree prepares students for future leadership positions in restaurants, hotels and resorts.

The Cascade Culinary Institute® has been accredited by the American Culinary Federation Foundation Accrediting Commission since 2003.

Degree/course requirements

Students should consult with their advisors to develop a schedule if they have transfer credits or are not at college level in reading, writing or math.

The following is a suggested course of study for students interested in pursuing an AAS in Culinary Arts and will depend on course availability.

First term (preparatory coursework)

BA 178	Customer Service	3
CCI 71	Basic Sanitation	2
CIS 120	Computer Concepts	4
WR 121	English Composition	4
Health ¹		3-4

Kitchen courses

CCI 121	Hot Food Production I	4
CCI 122	Hot Food Production II	4
CCI 123	A La Carte Kitchen	4
CCI 141	Baking I	4
CCI 142	Cakes and Chocolate	4
CCI 143	Custards, Creams and Plated Desserts	4
CCI 151	GardeManger I	4
CCI 153	Charcuterie and Butchering	4
CCI 155	Mediterranean Cuisine	4
CCI 156	Dietary Health and Spa Cuisine	3
CCI 161	Dining Room Operations	3
CCI 163	Dining Room and Banquet Management	3

Additional culinary courses

CCI 81	Food Service Nutrition	2
CCI 93	Wine and Beverage (winter term only)	3
CCI 107	Culinary Supervision	3
CCI 280A,B,C	Co-op Work Experience Culinary (3 cr each)	9

Additional classes/terms

MTH 60	Algebra I	4
BA 217	Accounting Fundamentals	3
BA 285	Business Human Relations	3
General education discipline studies courses ²		9
SP 111	Fundamentals of Public Speaking	3
or SP 219	Small Group Communication	



photo by David Morris

¹ HHP 252A is recommended to meet this requirement, but students can also choose from HHP 295, 231, 242, 258 or 266 and one activity or health module.

² Choose classes from COCC's discipline studies course list (pages 47 and 48); each course must have a different prefix.

Advising information

Students must receive permission to register from the program coordinator prior to registration.

First-term kitchen block expenses for uniforms, equipment and textbooks are approximately \$660. All CCI courses carry an additional fee; please see schedule of classes for details.

To meet graduation requirements, students must successfully complete the required courses with a grade of "C" or better.

Students working while completing the program are eligible to become certified working cooks by the American Culinary Federation.

DENTAL ASSISTING

Certificate of Completion (65-70 credits)

(Four-five quarters to complete if attending full time)

The Dental Assisting program trains individuals in a broad range of clinical and administrative skills, including preparing dental patients for examinations and treatments, performing radiographic procedures and preparing dental materials. Administrative training includes scheduling and appointment procedures, maintenance of medical records, performing basic secretarial and receptionist services and development of internal and external communications and public relations skills.

The dental assisting program is accredited by the Commission on Dental Accreditation (CODA) of the American Dental Association (ADA).

The Dental Assisting certificate program allows for admission once per year in the fall term. Admission is based on a first-come, first-served basis for all applicants. Due to the number of credits of non-program specific coursework, the Dental Assisting program will take an average of four to six terms to complete. Classes preceded by the letters “DA” can only be taken by students in the program. Other classes required to complete the Dental Assisting Certificate can be completed prior to entering or during the program. Students are encouraged to complete as many of these classes as possible before entering the program.

Prior to starting program classes, all students must complete all of the following: (1) a high school diploma or GED and (2) take COCC’s placement test and receive the minimum scores or complete the equivalent courses listed below:

ASSET scores	Coursework
Reading: 43	WR 65, 75 or 95
Writing: 43	
Numerical Skills: 48	MTH 10
Elementary Algebra 27	

Prior to entering the clinical setting, admitted students must have a Hepatitis B immunization series (or must sign a release form indicating their refusal to be immunized), a current TB test and two immunizations for measles. A current CPR card is also required before entering the clinical setting. Students will also be responsible for additional expenses such as lab jackets, materials, certification exams and lab fees.

All required courses must be completed with a grade of “C” or better and students must maintain a 2.0 overall GPA to graduate with a Certificate in Dental Assisting from COCC. Students are also prepared for the Dental Assisting National Board (DANB) exams and Oregon Certification in Expanded Functions (EFDA).

Prior to entering or during the program

MTH 20	Pre-Algebra (or higher)	4
WR 121	English Composition	4
Health ¹		3-4
Computer competency ²		0-4
SP 218	Interpersonal Communication	3
PSY 207	Applied Psychology	3

The following is a suggested course of study for students interested in pursuing a certificate in Dental Assisting and will depend on course availability.

Fall term

DA 110	Basic Dental Assisting	4
DA 115	Dental Science	4
DA 125	Dental Infection Control	3
DA 145	Preventive Dentistry	3

Winter term

DA 120	Advanced Dental Assisting	4
DA 130	Dental Materials I	3
DA 134	Dental Radiology I	2
DA 160	Oral Medicine	3
DA 181	Dental Seminar I	1
DA 190	Dental Assisting Practicum I	5

Spring term

DA 131	Dental Materials II	3
DA 135	Dental Radiology II	3
DA 150	Dental Office Management	3
DA 151	Dental Computing	1
DA 182	Dental Seminar II	1
DA 191	Dental Assisting Practicum II	5

¹ HHP 252A is recommended to meet this requirement, but students can also choose from HHP 295, 231, 242, 258 or 266 and one activity or health module.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

Important registration information

Enrollment into the Dental Assisting program is first-come, first-served. Students must meet the following prerequisites in order to be eligible to register: minimum placement scores resulting in WR 121 and MTH 20 placement (ASSET scores of Reading: 43 and Writing: 43; Numerical Skills: 40 or Elementary Algebra: 27) OR successful completion of the following courses: WR 65 or WR 75 or WR 95; and MTH 10. Students with transfer credits must provide the Admissions office with a copy of their transcript at least two weeks prior to registration.

DIETARY MANAGER

Short-term Certificate

(18 credits; three quarters to complete if attending full time)

The Dietary Manager program is uniquely designed to help students who are already employed to receive certification while working. The program can be completed in three terms, with classroom work offered one day per week. The courses give a foundation in quantity food production, personnel management, nutrition care principles and food service systems management. The field experience may be completed at the student’s worksite or on campus and will provide a practical application of the principles learned in coursework. Students completing the program will be prepared to sit for the national examination to become Certified Dietary Managers approved by the Dietary Managers Association.

A dietary manager is an asset to hospitals, long-term care facilities, retirement centers, schools, correction facilities and other food service settings. Dietary managers are trained in understanding the basic nutritional needs of their clientele. They are charged with balancing menu variety and customer satisfaction while managing cost/profit objectives. They purchase the goods, equipment and services used in the food service department. They also hire, motivate, train and supervise their employees.

Dietary managers are highly marketable. The rapidly growing elderly population has put institutional food service in demand. Jobs in the area of dietary manager and the food service industry are projected to grow faster than the average professions both locally and nationally. Career advancement may be in the areas of dietary technology, hospitality, tourism and recreation management, or supervisory management.

Admitted students will be assigned a program advisor to assist with advising and registration. Current students who have taken the placement test must be assigned a program advisor prior to program admission. Any previous transcripts should be forwarded directly to Enrollment Services - Admissions with a request for evaluation prior to the advising session.

Students interested in the Dietary Manager program must meet basic competencies in reading, writing and math as listed below, as well as hold a high school diploma or its equivalent. Students may begin dietary manager classes at the start of any term. Current COCC students may enroll through the early registration process, with new students enrolling through the standard admission process for new COCC applicants.

Degree/course requirements

All students interested in the Dietary Management program must take COCC’s placement test and receive the minimum scores or complete the equivalent courses listed below prior to completion of dietary management technical courses:



ASSET scores

Reading: 43
 Writing: 43
 Numerical Skills: 48
 Elementary Algebra 27

Coursework

WR 65, 75 or 95

MTH 20

The following is a suggested course of study for students interested in pursuing a Dietary Manager certificate and will depend on course availability.

Fall term

CCI 71	Basic Sanitation	2
CCI 81	Food Service Nutrition	2
DM 121	Practicum: Sanitation	1
DM 221	Practicum: Food Service Nutrition	1

Winter term

CCI 107	Culinary Supervision	3
DM 111	Practicum: Culinary Supervision	1
DM 210	Nutrition Therapy	2
DM 211	Practicum: Nutrition Therapy	1

Spring term

HTRM 105	Food Service Management	4
DM 131	Practicum: Food Service Management	1

EARLY CHILDHOOD EDUCATION

Associate of Arts Oregon Transfer
Associate of Applied Science

At COCC, the Early Childhood Education program provides students who have an interest in early childhood, including the early primary elementary years, with a foundation in the theoretical, social, historical and legal aspects of early childhood programming. The COCC associate degree programs in early childhood education provide the foundational knowledge, field experiences and common skills and strategies to prepare students for multiple roles within the field of early childhood education. While the program prepares students for direct work with young children in classroom and educational settings, many associate degree-seeking students have additional professional goals (many requiring further education) including but not limited to:

- Early childhood educator roles such as an infant/toddler, preschool/pre-kindergarten, or K-grade 3 classroom teacher, family child care provider, Head Start teacher, or paraprofessional in public schools, early interventionist;
- Home-family support roles such as family advocate, child protective services worker, or parent educator; or
- Professional support roles such as early childhood administrator in a child care or Head Start program, staff trainer, peer/program mentor, or advocate at the community, state or national level.

Mission statement

Our belief in early childhood education is that children begin learning from prenatal experiences to each and every experience thereafter. We believe young children benefit from a well-designed, developmentally appropriate, and culturally relevant curriculum that reflects children's active role in learning. We believe in the inclusion of all children in quality programming. We also believe children are served best when families, schools and communities work together as partners through close and ongoing collaboration.

Degree options

Students in the Early Childhood Education program have numerous options in terms of pathways for further education and career opportunities:

- Associate of Arts Oregon Transfer (AAOT) prepares students intending to transfer to four-year programs with the foundational knowledge in early childhood education and preparation in general education requirements that fulfill state requirements for four-year programs.
- Associate of Applied Science (AAS) prepares students with a strong emphasis in the theories, curriculum goals and developmentally appropriate teaching and guidance strategies necessary to lead an early childhood classroom program or work as a paraprofessional in the public schools.

Program requirements

Verification of the Oregon Employment Department-Child Care Division (CCD) - Criminal Records Check must be on file in Modoc 203 prior to first ECE class. The state records check form can be found at <http://ece.cocc.edu/forms> or in Room 203, Modoc Hall. The form needs to be filled out and submitted at least six weeks prior to class. Field placement in public schools (K-12) requires a second form specific to that particular school district. These forms require at least three to four weeks for approval.

Please visit <http://ece.cocc.edu> for the student handbook.

Associate of Arts Oregon Transfer
(90 credits)

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
	<i>(or higher for which Intermediate Algebra is a prerequisite)</i>	
or MTH 111	College Algebra	
or MTH 211-213	Fund of Elementary Math I-III (12 cr)	

Health (3 credits with HHP prefix)

		3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

EARLY CHILDHOOD EDUCATION (continued)



photo by Aaron Stark

Note: For students intending to transfer to Oregon State University-Cascades Campus program in Human Development and Family Sciences, the following courses are required and may be used to fulfill the foundational requirements: SP 218, Interpersonal Communication; PSY 201, Mind and Brain; PSY 202, Mind and Society; SOC 201, Introduction to Sociology; FN 225, Human Nutrition; HHP 231, Human Sexuality; and HHP 295, Health and Fitness.

Recommended program electives

To provide the best preparation for upper-division courses, particularly at OSU-Cascades, students should work with their advisor to select the most applicable electives from the following:

ED 140	Intro to Early Childhood Education ¹	4
ED 150	Environments and Curriculum in ECE	4
ED 151	Observation and Guidance of Young Children's Learning	4
ED 172	Language and Literacy in Early Childhood Education	3
ED 173	Movement, Music, and the Arts in Early Childhood Education	3
ED 174	Math, Science, and Technology in Early Childhood Education	3
ED 219	Multicultural Issues in Education Settings	3
ED 250	Advanced Curriculum Development and Teaching Methods in Early Childhood	4
ED 265	Children at Risk	3
ENG 221	Introduction to Children's Literature	4
PSY 215	Developmental Psychology	4

¹ Course required for OSU-Cascades HDFS program.

Associate of Applied Science (93-98 credits)

The following is a suggested course of study for students interested in pursuing an AAS in Early Childhood Education and will depend on course availability.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

WR 121	English Composition	4
WR 227	Technical Writing	4
SP 218	Interpersonal Communication	3
MTH 60	Algebra I	4
Health ¹		3-4
Computer competency ²		0-4

General education/discipline studies

(See pages 47 and 48 for course listings.)

Complete 7-12 credits of discipline studies courses to reach the 93 minimum credits required for the AAS degree. See advisor for details.

Program requirements and electives

(Courses must be completed with a grade of "C" or higher)

Students should take all of the courses listed below, plus enough additional coursework (see advisor for options) to reach the 93 minimum credits required for the degree.

ED 140	Intro to Early Childhood Education	4
ED 150	Environments and Curriculum in ECE	4
ED 151	Observation and Guidance in ECE Learning	4
ED 172	Language and Literacy in Early Childhood Education	3
ED 173	Movement, Music, and the Arts in Early Childhood Education	3
ED 174	Math, Science, and Technology in Early Childhood Education	3
ED 250	Advanced Curriculum Development and Teaching Methods in ECE	4
ED 269	Exceptional Children in Early Childhood Education	3
ED 261/262	Practicum I and II	6
ED 219	Multicultural Issues in Education Settings	3
ED 265	Children at Risk	3
ENG 221	Children's Literature	4
FN 225	Human Nutrition	4
GEOG 272	Geography for Teachers	3
PSY 201	Mind and Brain	4
PSY 215	Developmental Psychology	4
SOC 201	Intro to Sociology	4

¹ HHP 252A or choose from HHP 231, 242, 258, 266 or 294 and one activity or health module.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

ECONOMICS

Associate of Arts Oregon Transfer (90 credits)

Economics is the study of how society allocates its scarce resources to satisfy its many needs and wants. The focus of lower division economics courses at COCC is on how the American economy works. The U.S. economy relies primarily on free markets to allocate resources and to provide final goods and services. To understand how markets work, students study the forces of supply and demand. They also look closely at both competitive markets and monopoly markets. Economics studies the role of government in the economy both in promoting social objectives and in keeping the economy healthy through fiscal and monetary policies. Economics gives an understanding of how the U.S. produces and distributes the goods and services it needs and enjoys. This program is good preparation for careers in business, engineering, resource management or government, as well as solid training for graduate or law school.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in economics.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication		
SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics		
MTH 111	College Algebra	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)		
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		



photo by David Morris

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

EC 201	Microeconomics	4
EC 202	Macroeconomics	4

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Take enough elective courses to meet the minimum 90 credits required for the degree. Elective courses should include:

MTH 241	Calculus for Management/Social Science	4
MTH 243	Math for Management/Life/Social Science	4

Plus any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

Advising notes

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the Arts and Letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor.

EDUCATION

Associate of Arts Oregon Transfer (90 credits)

EMERGENCY MEDICAL SERVICESAssociate of Applied Science
(104-108 credits; seven quarters to complete if attending full time)

photo by Aaron Stark

COCC offers lower division coursework for students preparing to become teachers in Oregon. In general, the Associate of Arts degree (see pages 38-39 for the AAOT degree checklist) is reasonable preparation for students intending to transfer to a teacher preparation program. In Oregon, students may achieve an initial license to teach through a bachelor's program, a post-baccalaureate program or a master's-level program. Students prepare to teach at different grade levels of authorization, depending on their background, interests and the requirements of specific programs of study. Students may prepare a transfer degree in early childhood education through COCC (see pages 78-79) as the initial preparation for early childhood education as well as elementary grade-level teaching. However, it is important to work closely with an advisor to ensure that the degree contains the necessary prerequisite coursework for the desired licensure program. For students intending to stay in Central Oregon to pursue their studies in education, there are several options for completing a teaching licensure program.

Students should consult with an education advisor as early as possible to discuss program options and determine which courses fulfill transfer requirements to different institutions and different levels of licensure. For more information on teacher preparation programs in Oregon, see <http://www.tspc.state.or.us> and the Oregon Teacher advising guide, www.ous.edu/teachedguide.htm. Students may wish to review COCC's advising guide for teacher education as well: <http://cap.cocc.edu/Advising/Teacher+Education/>.

The Associate of Applied Science degree (AAS) in Emergency Medical Services (EMS) is designed for students seeking an EMS career in either the fire service or private ambulance environments. The program meets or exceeds the required technical skills and knowledge necessary for national and state licensure testing. The program is challenging and requires participants to spend many hours outside the classroom in clinical and field settings. Students may be required to purchase some special equipment and clothing. Specific immunization records are required prior to registration in EMT Basic, EMT Intermediate or EMT Paramedic classes; these immunizations must remain current for the duration of the courses; contact the EMS office at 541-383-7287 for immunization details.

The program contains certification requirements at the EMT Basic, EMT Intermediate and EMT Paramedic levels. Students will need to test through the Oregon Department of Human Services EMS and Trauma Section and the National Registry of EMT's to complete certification. Students also need to be aware of the College insurance policy prior to participation in the program. A statement concerning College insurance policies is listed in all EMS course syllabi.

Students entering either the Structural Fire Science (SFS) or the EMS degree programs can pursue the dual degree program obtaining AAS degrees in both SFS and EMS within three years. Students should contact an advisor for details.

All courses are open to all students. Prior to applying for admission into the second-year Paramedic course, students must

- complete EMT 151, EMT Basic Part A, and EMT 152, EMT Basic Part B
- pass the Oregon Practical Exam
- pass the NREMT (National Registry) written exam
- be current with the EMT Basic Oregon and/or NREMT certification in good standing
- complete with a grade of "C" or better:
 - AH 111, Medical Terminology I
 - BI 231, 232, 233, Anatomy and Physiology I, II, III
 - WR 121, English Composition
 - CIS 120, Computer Concepts
 - MTH 60, Algebra I, or higher

Second-year Paramedic courses are open only to admitted EMS students. Admission into the Paramedic courses is by competitive application process. First-year EMS students who want to apply should contact COCC's Admissions and Records office, 541-383-7500, and the EMS program director, 541-383-7287, for application details.

EMERGENCY MEDICAL SERVICES (continued)

The remaining required degree courses will be used to establish points toward the selection process for the Paramedic course. More details about the selection process can be found in the online Paramedic Selection Process Handbook (www.cocc.edu/EMS-selection) or in printed form at Admissions and Records in the Boyle Education Center. Students are strongly encouraged to complete all required degree courses prior to applying to the second-year Paramedic course as the time requirements for didactic, lab and clinical training are significant.

This is a suggested schedule only. Students should consult their advisors to develop an academic plan. Transfer credits may apply. Request a transcript evaluation from the Admissions and Records office. (A copy of previous transcripts will be needed to determine whether credits from another college may apply.)

The following is a suggested course of study for students interested in pursuing an AAS in Emergency Medical Services and will depend on course availability.

YEAR ONE

Fall term

BI 231	Human Anatomy and Physiology I	4
EMT 151	EMT Basic Part A ¹	5
EMT 175	Intro to Emergency Services	3
or SFS 101	Intro to Emergency Services	
MTH 60	Algebra I	4
or MTH 85	Technical Math I ²	

Winter term

AH 111	Medical Terminology I	3
BI 232	Human Anatomy and Physiology II	4
EMT 152	EMT Basic Part B ¹	5
WR 121	English Composition	4
General education discipline studies course ³		3

Spring term

BI 233	Human Anatomy and Physiology III	4
HHP 242	Stress Management	3
or HHP 266	Nutrition for Health	
or HHP 295	Health and Fitness	
Computer competency ⁴		0-4
General education discipline studies course ³		3
SP 218	Interpersonal Communication	3
or SP 111	Fundamentals of Public Speaking	

YEAR TWO

Fall term

EMT 170	Emerg. Response Comm/Documentation	2
EMT 171	Emerg. Response Patient Transportation	2
EMT 290	EMT Paramedic Part 1	8
EMT 291	EMT Paramedic Part 1 Clinic	3
SFS 230	Rescue Practices	3

Winter term

BA 285	Business Human Relations	3
or FOR 211	Supervision and Leadership	
EMT 292	EMT Paramedic Part 2	8
EMT 293	EMT Paramedic Part 2 Clinic	3

Spring term

EMT 195	Crisis Intervention	3
EMT 294	EMT Paramedic Part 3	8
EMT 295	EMT Paramedic Part 3 Clinic	3
General education discipline studies course ³		3

Summer term

EMT 280	EMT-Paramedic Co-op Work Experience	7
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¹ Upon completion of EMT 151 and 152, students must pass the National Registry and Oregon EMT exam before continuing in paramedic courses. Currently certified students do not need to retake the courses for the degree but must hold a current EMT Basic Oregon or NREMT certification to enter the paramedic course.

² Students planning to transfer should take MTH 105 or 111.

³ See the COCC catalog arts and letters and social science discipline studies lists only. Highly recommended are PSY 202, SOC 201 or higher, and CJ 100 or higher. Foreign language classes will be accepted at the 100 level. Courses must each have a different prefix.

⁴ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

Advising information

It is strongly advised that candidates applying to the EMS program have a strong background in high-school or college math and chemistry. This knowledge will enhance the student's success in anatomy and physiology and college-level math.

Recommended preparation for EMT Basic students includes successful completion of placement test at college-level reading, writing and math.

Second-year paramedic courses are open only to students who have been admitted to the course.

ENGLISH/LITERATURE

Associate of Arts Oregon Transfer (90 credits)

English majors and minors with a solid humanities foundation and strong writing, reading, critical thinking and research skills, are sought after in many careers, including advertising, business, marketing and public administration, communication and media, computer-based information and education, software and Web development, counseling and social services, government civil service, law and criminal justice, recreation, and teaching/education.

COCC's Humanities department offers courses in

- English (American, British, Children's and Western World Literature, and Introduction to Literature: Fiction, Drama, Poetry);
- Foreign Languages (French, German, Italian and Spanish);
- Humanities (American Multiculturalism, Film Arts, Non-Western Cultures and Literature, Popular Culture);
- Philosophy;
- Reading; and
- Writing (English Composition, Technical Writing and Creative Writing: Fiction, Non-Fiction, Poetry, Scriptwriting)

as needed to satisfy lower-division requirements for bachelor's degrees and to prepare transfer students for success in achieving their academic and professional goals. COCC transfer students are encouraged to consult college catalogs and work closely with their advisors. Students seeking a bachelor's degree in English/Literature or an interdisciplinary humanities degree featuring literary studies are often best served by pursuing the Associate of Arts degree.

The Associate of Arts Oregon Transfer degree meets the state of Oregon Transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in English/Literature.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes. English/Literature majors are advised to choose two courses with an English prefix in British and/or American Literature from:

ENG 204	Survey British Literature I	4
ENG 205	Survey British Literature II	4
ENG 253	Survey American Literature I	4
ENG 254	Survey American Literature II	4

plus one additional course from the arts and letters discipline studies list with a different prefix.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose enough electives to reach the minimum of 90 credits required for the AAOT. Most Oregon and other universities require English/Literature majors to complete lower-division coursework in surveys of British and American Literature, as well as at least one course in Shakespeare; therefore English/Literature majors are encouraged to complement their general education/discipline studies arts and letters courses with electives chosen from the following courses:

ENG 204	Survey British Literature I	4
ENG 205	Survey British Literature II	4
ENG 253	Survey American Literature I	4
ENG 254	Survey American Literature II	4
ENG 201	Shakespeare	4
or ENG 202	Shakespeare	

NOTE: ENG 140, Shakespeare in Ashland (3) may also satisfy the Shakespeare requirement at some universities.

However, lower-division requirements for majors, minors and related specializations in English/Literature vary among four-year institutions. To make wise elective course choices, students are advised to work closely with their advisors, consult college

ENGLISH/LITERATURE (continued)

catalogs of the destination institution to which they wish to transfer, and determine whether one or more of the following courses should be elected to fulfill their degree objectives.

Education programs may require or recommend:

ENG 221	Children's Literature	4
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English/Literature and humanities degree programs may also require or recommend one or more courses in:

(1) Western World Literature

ENG 107	Western World Literature: Ancient	4
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ENG 108	Western World Literature: Middle Ages	4
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ENG 109	Western World Literature: Modern	4
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(2) Non-Western World Literature (may satisfy cultural diversity requirements)

HUM 210	Culture and Literature of Asia	4
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HUM 211	Culture and Literature of Africa	4
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HUM 212	Culture and Literature of the Americas	4
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HUM 213	Culture and Literature of the Middle East	4
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(3) American Multiculturalism (may satisfy cultural diversity requirements)

HUM 230	Immigrant Experience American Literature	4
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HUM 240	Native American Literature and Culture	4
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HUM 256	Introduction to African-American Literature	4
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(4) Introductory genre courses in Literature, Film, Popular Culture and/or Women's Studies courses

ENG 104	Introduction to Literature: Fiction	4
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ENG 105	Introduction to Literature: Drama	4
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ENG 106	Introduction to Literature: Poetry	4
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ENG 232	Topics in American Literature	4
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ENG 250	Introduction to Folklore and Mythology	4
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ENG 256	Folklore and U.S. Culture	4
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ENG 260	Introduction to Women Writers	4
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FA 101	Introduction to Film	3
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FA 257	Literature into Film	4
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HUM 261	Popular Culture: Science Fiction	4
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HUM 262	Popular Culture: The American Western	4
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HUM 263	Popular Culture: Detective Stories	4
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HUM 264	Popular Culture: Spy Thriller	4
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HUM 265	Popular Culture: Noir Film and Fiction	4
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HUM 266	Popular Culture: Travel Literature	4
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HUM 267	Popular Culture: Counterculture	4
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HUM 268	Digital Games Culture	4
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WS 101	Women's and Gender Studies	4
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Transfer information

Oregon University System (OUS) universities that offer bachelor's degrees with majors, minors or specializations in English/Literature and related fields include:

Oregon State University-Cascades Campus

English (minor); American Literature; English Language Arts authorization level or endorsement area; Liberal Studies (BA/BS); Humanities option.

Oregon State University-Corvallis

American Studies; English (major), BA; English Literature minor; Writing minor; Print Media minor; Elementary and Secondary Education: English Language Arts authorization level or endorsement area; Ethnic Studies (focus: American multiculturalism); Liberal Studies (interdisciplinary themes, including English/Literature, Education, Ethnic Studies, European Studies, Foreign Languages and Literatures, Philosophy, Writing)

University of Oregon

Comparative Literature, English, Ethnic Studies, Film Studies, Humanities.

Portland State University

English, Film Studies (minor only), Professional Writing (minor only)

Eastern Oregon University

English/Writing (concentration in Literature, Literature/Film, Discourse Studies or Writing)

Southern Oregon University

English and Writing, Native American Studies, Shakespeare Studies

Western Oregon University

English (B.A.: English/Language Arts Common Core, English/Literature, English/Linguistics, English/Writing).

Note: WOU English majors and Language Arts secondary teaching majors should take ENG 107, ENG 108, and ENG 109).

EXERCISE SCIENCE

Associate of Arts Oregon Transfer
Associate of Science

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon Transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements. The following is a suggested course of study for students interested in pursuing a bachelor's degree in exercise science.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health ¹ (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Recommend including:

PSY 201	Mind and Brain	4
PSY 202	Mind and Society	4
SOC 201	Intro to Sociology	4

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science. Recommend including:

BI 231	Human Anatomy and Physiology I	4
BI 232	Human Anatomy and Physiology II	4
BI 233	Human Anatomy and Physiology III	4
HHP 261	Basic Exercise Physiology (offered fall and winter)	3

Electives

17-34 credits. Choose enough elective credits to reach a minimum total of 90 overall degree credits. Elective classes must be numbered 100 or above and can be any combination of general electives, Career and Technical Education (CTE) courses (12 credits maximum) or CWE/HHP/performance classes (15 credits maximum). The following is a list of recommended electives:

BA 101	Introduction to Business	4
HHP 131	Intro to Exercise/Sport Science (offered fall)	3
HHP 212	CPR-American Heart Association	1
or HHP 212A CPR-AHA Health Care Providers		
HHP 259	Care and Prevention of Athletic Injury (offered spring)	3
HHP 260	Intro to Human Movement (offered winter)	3
HHP 262	Training Theory and Applications (offered spring)	3
HHP 266	Nutrition for Health	3
HHP 270	Sport and Exercise Psychology (offered winter)	3
HHP 280	Co-op Work Experience - HHP	2

¹ Students transferring to OSU must take HHP 295.

Oregon public universities with an exercise science major

Oregon University System (OUS) universities that offer bachelor's degrees with majors, minors or specializations in exercise science and related fields include:

Eastern Oregon University-Distance Education

Physical Activity and Health

Oregon State University

Health and Human Sciences

Portland State University

Health Studies

Southern Oregon State University

Health and Physical Education

Advising information

Lab fees:

\$20 for HHP 295, Health and Fitness, 3 credits or
HHP 252A, Fit/First Aid, 3 credits

\$20 for HHP 212, CPR, 1 credit and

HHP 212A, CPR for Health Care Providers, 1 credit

\$16 for all HHP 185 activity classes for Mazama user fee

EXERCISE SCIENCE (continued)

Associate of Science (93 credits)

The Associate of Science degree with a focus in exercise science is intended for students who want to work in the fitness industry immediately upon graduation or current employees who wish to upgrade their skills. This degree can help prepare a student to sit for the ACSM Personal Trainer or Health Fitness Instructor Certificate exams.

General education/foundational skills

English composition

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Speech

SP 111	Fundamentals of Public Speaking	3
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra (or higher)	4
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Health ¹ (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

Computer competency ²		0-4
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General education/discipline studies

Arts and Letters

Choose six to eight credits from the arts and letters discipline studies list.

Social Science

Choose nine-12 credits from the social science discipline studies list. Must include at least two different prefixes and at least two courses with the same prefix. Recommend including:

PSY 201	Mind and Brain	4
PSY 202	Mind and Society	4
SOC 201	Intro to Sociology	4

Science/Math/Computer Science

Choose nine-12 credits from the science/math/computer science discipline studies list. Must include at least two different prefixes and at least two courses with the same prefix. Recommend including:

BI 231	Human Anatomy and Physiology I	4
BI 232	Human Anatomy and Physiology II	4
BI 233	Human Anatomy and Physiology III	4

Program requirements

BA 101	Introduction to Business	4
HHP 131	Intro to Exercise/Sport Science (offered fall)	3
HHP 212	CPR-American Heart Association	1
	or HHP 212A CPR- AHA Health Care Provider	
HHP 259	Care and Prevention of Athletic Injury ³ (offered spring)	3
HHP 260	Intro to Human Movement ³ (offered winter)	3
HHP 261	Basic Exercise Physiology ³ (offered fall and winter)	3
HHP 262	Training Theory and Applications ³ (offered spring)	3
HHP 266	Nutrition for Health	3
HHP 270	Sport and Exercise Psychology (offered winter)	3
HHP 280	Co-op Work Experience - HHP	2

Electives

17-34 credits. Choose enough elective credits to reach a minimum total of 93 overall degree credits. Elective classes must be numbered 100 or above and can be any combination of general electives, Career and Technical Education (CTE) courses (12 credits maximum) or CWE/HHP/performance classes (15 credits maximum).

Advising notes

¹ Students transferring to OSU must take HHP 295

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

³ Can be used to meet the science/math/computer science discipline studies requirement

Transfer information**Eastern Oregon University-Distance Education**

Physical Activity and Health

Oregon State University

Health and Human Sciences

Portland State University

Health Studies

Southern Oregon State University

Health and Physical Education

Advising information

Lab fees:

\$20 for HHP 295, Health and Fitness, 3 credits or
HHP 252A, Fit/First Aid, 3 credits

\$20 for HHP 212, CPR, 1 credit and

HHP 212A, CPR for Health Care Providers, 1 credit

\$16 for all HHP 185 activity classes for Mazama user fee

FOREIGN LANGUAGES

Associate of Arts Oregon Transfer (90 credits)

In today’s globally interconnected world and increasingly competitive job market, students with proficiency in more than one language, supported by cultural knowledge and empathetic experience of diverse U.S. and world cultures, have a decided advantage in whatever career they may pursue. Bachelor’s degree requirements at most Oregon and other universities include demonstrating proficiency at the second-year level in a foreign language.

COCC’s Humanities Department offers first- and second-year French, German, Italian and Spanish as well as other courses needed to satisfy lower-division requirements for bachelor’s degrees and to prepare transfer students for success in achieving their academic and professional goals. COCC students seeking a bachelor’s degree in French, German, Italian or Spanish; or a related degree or a teaching endorsement featuring foreign language, literature and culture studies; are often best served by pursuing the Associate of Arts degree. Students wishing to begin or continue study of a foreign language at COCC are encouraged to consult college catalogs and work closely with their advisors.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor’s degree in foreign languages.

General education/foundational requirements

(Courses must be completed with a grade of “C” or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication		
SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics		
MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		



photo by Eugen Helmbrecht

Health (3 credits with HHP prefix) 3
HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose enough electives to reach the minimum of 90 credits required for the AAOT. Note: First-year foreign language courses may be counted as electives, as may any second-year foreign language courses not used to satisfy the arts and letters general education/discipline studies requirement above.

FOREIGN LANGUAGES (continued)

Transfer information

Oregon University System (OUS) universities that offer bachelor's degrees, minors, certificates or endorsements in foreign languages and related fields:

Oregon State University-Corvallis

Foreign Languages and Literatures (majors): French, German, Spanish; International Degree Program (including Foreign Languages and Literatures, Cultural Diversity, Contemporary Global Issues, and Western Culture); Liberal Studies (interdisciplinary themes, including Foreign Languages and Literatures); Education (Pre-Elementary, Elementary and Secondary); Ethnic Studies (focus: American multiculturalism).

University of Oregon

French, Italian, Spanish (Romance Languages and Literatures); German (Scandinavian Languages and Literatures); Comparative Literature, Ethnic Studies, European Studies, Humanities, International Studies, Latin American Studies, Linguistics, Peace Studies, Second Language Acquisition and Teaching; School of Education: English for Speakers of Other Languages/ESOL-Bilingual endorsement areas include Spanish, French and German.

Portland State University

Foreign Languages and Literatures offer majors and minors in French, German, Spanish; International Studies certificate programs require language and area studies, and encourage study abroad; certificate programs include European Studies, Latin American Studies, Middle East Studies and Canadian Studies, as well as International Business Studies; Teaching English as a Second Language (certificate).

Eastern Oregon University

International Studies; Modern Languages Department offers minors in German and Spanish, and BA in Liberal Studies with concentration in German or Spanish.

Southern Oregon University

Foreign Languages and Literatures offers degrees in French, German, and Spanish, including BA's in Language and Culture, Arts and Letters, and Interdisciplinary Studies. International Studies require proficiency in a foreign language equivalent to three years of college-level instruction and encourage study abroad with immersion in a related foreign culture and an intensive language component.



photo by Benjamin Edwards

Western Oregon University

Bachelor's degrees include German Studies, Humanities (emphasis options include Modern Languages, French, German, or Spanish), International Studies (specialization options include Modern Language in one language or Social Science: French Studies, German Studies, or Latin American Studies), Spanish, and Spanish Teacher Education. Minors are offered in Chicano/a Studies, French, German, International Studies, Latin American Studies and Spanish. Education degree programs include endorsements in Foreign Language (French, German, Spanish) and Bilingual/ESOL Education.

FOREST RESOURCES TECHNOLOGY

Short-term Certificates
 Associate of Applied Science
 Transfer Preparation

Jobs in the forest industry offer many opportunities for employment locally and regionally. Traditional forest technician positions are now often referred to as natural resource technicians. Technicians spend considerable time outdoors.

Typical entry-level positions might include forest management activities such as evaluation of reforestation efforts, timber sale layout, tree measurements, forest damage assessment and numerous other activities that are required when managing a forest. Additionally, entry-level natural resource technicians may perform noxious weed identification and eradication, plant and wildlife surveys, fire protection and suppression, and stream monitoring and restoration. Natural resource technicians can work for state or federal government agencies and manage public property or work for private industry and private land owners.

COCC's Forest Resources Technology program has the advantage of being located among several national forests. A majority of the courses within the program include outdoor lab opportunities to gain first-hand experiences and knowledge of the necessary elements of being a natural resource technician. Additionally, students are able to take advantage of job opportunities working with local agencies to develop and implement land management plans in the capstone course at the end of their second year.

There are six short-term certificate programs as well as the Associate of Applied Science degree available to students. The following certificates include classes that are already included as degree requirements. These short-term certificates allow for completion along the path to a two-year degree. The certificates are also designed for those already in the workforce looking to enhance their skills in a specific area.

All required program courses must be passed with a grade of at least a "C." Students are expected to provide their own appropriate field clothing and tools. A list will be provided in FOR 100, Forestry Program Orientation.

Students will need to be aware of the College insurance policy prior to participation in the program. A statement concerning College insurance policies is listed on page 24 and on all Forestry class syllabi.

Central Oregon Community College offers students the following options within the Forestry program:

Advanced Forest Concepts Short-term Certificate (12 credits) (Three quarters to complete)

This certificate is designed to train individuals on the complexities of determining forest utilization, planning and management.

The following is a suggested course of study for students interested in pursuing a certificate in Advanced Forest Concepts and will depend on course availability.

FOR 205	Silviculture and Harvesting Processes	5
FOR 215	Forest Resource Capstone	3
FOR 220C	Resource Sampling	4

Conservation of Natural Resources Short-term Certificate (14 credits) (Three quarters to complete)

This certificate is designed to train individuals on basic concepts of conserving natural resources including forest, wildlife, soil and water resources.

The following is a suggested course of study for students interested in pursuing a certificate in Conservation of Natural Resources and will depend on course availability.

FOR 111	Forestry Perspectives	4
FOR 208	Soils: Sustainable Ecosystems	4
FOR 240B	Wildlife Ecology	3
FOR 260	Conservation of Natural Resources	3

Forest Ecology Short-term Certificate (12 credits) (Three quarters to complete)

This certificate is designed to introduce the practical aspects of forest ecology, dendrology and their applications.

The following is a suggested course of study for students interested in pursuing a certificate in Forest Ecology and will depend on course availability.

FOR 240A	Forest Ecology	3
FOR 241A	Field Dendrology	3
FOR 241B	Dendrology	3
FOR 203	Applied Forest Ecology	3

FOREST RESOURCES TECHNOLOGY (continued)

Forest Measurements Short-term Certificate (13 credits) (Three quarters to complete)

This certificate is designed to train individuals on basic measurements of trees and land and on land navigation using maps, compass and GPS.

The following is a suggested course of study for students interested in pursuing a certificate in Forest Measurements and will depend on course availability.

FOR 230A	Map, Compass and GPS	3
FOR 230B	Forest Surveying	3
FOR 220A	Aerial Photo	3
FOR 220B	Resource Measurement	4

Forest Protection Short-term Certificate (15 credits) (Three quarters to complete)

This certificate is designed to train individuals on identification of forest disease and insects and the basic techniques used to protect forests from fire, disease and insects.

The following is a suggested course of study for students interested in pursuing a certificate in Forest Protection and will depend on course availability.

FOR 110	Wildland Fire Science I	2
FOR 210	Wildland Fire Science II	2
FOR 202	Forest Entomology/Pathology	3
FOR 203	Applied Forest Ecology	3
FOR 205	Silviculture and Harvesting Processes	5

Mapping Cartography Short-term Certificate (14 credits) (Two quarters to complete)

This certificate is designed to train individuals on the basic use and production of maps focusing on field techniques and use of basic geographic information systems.

The following is a suggested course of study for students interested in pursuing a certificate in Mapping Cartography and will depend on course availability.

FOR 230A	Map, Compass and GPS	3
FOR 230B	Forest Surveying	3
GEOG 211	Computer Cartography	4
GEOG 265	Geographic Information Systems	4

Associate of Applied Science (104-108 credits; six quarters to complete if attending full time)

The Associate of Applied Science (AAS) degree program in Forest Resources Technology provides the education and practical skills needed to succeed as a technician in forestry and natural resource fields throughout the western U.S. The AAS degree program from COCC is accredited by the Society of American Foresters. Job opportunities exist in government agencies (both state and federal) as well as private industry (contractors, consultants and private companies). The U.S. Forest Service is the primary employer for graduates of this program.

Students can expect to work under a professional forester or senior forestry technician but may also work alone. They should expect most work to be outdoors under varying weather conditions and will often be required to do some form of strenuous activity.

This program can be completed within two years provided the student is adequately prepared to take MTH 85 and WR 121 and coursework is initiated during fall term. Students entering in winter or spring term and/or who require developmental writing or math courses, can complete the program within a three-year period. Students interested in entering the program must meet basic competencies in reading, writing and math as determined by the minimum scores received on placement tests as well as hold a high school diploma or its equivalent.

Students who are interested in gaining employment in wildland fire or are adding these courses to their Forest Resource Technology degree can accomplish both degrees within three years. Students seeking the Wildland Fire Science degree are typically advised to complete the Forest Resources Technology degree first and return for a third year to complete the Wildland Fire Science degree. The dual-degree option is the ideal approach for those students interested in both wildland fire fighting and forestry.

The following is a suggested course sequence for students able to attend full time. Students are encouraged to meet with a faculty member in the Forestry program to discuss a two- or three-year educational plan. Students who have obtained a degree or completed coursework from another institution may be able to transfer some coursework to apply toward the AAS in Forest Resources Technology. A meeting with faculty or their advisor is strongly recommended. For further information, contact Michael Fisher at mfisher@cocc.edu or 541-383-7755.

The following is a suggested course of study for students interested in pursuing an AAS in Forest Resources Technology and will depend on course availability.

FOREST RESOURCES TECHNOLOGY (continued)

YEAR ONE

Fall term

FOR 230A	Map, Compass and GPS	3
FOR 240A	Forest Ecology	3
FOR 241A	Field Dendrology	3
FOR 100	Forestry Program Orientation	1
FOR 111	Forestry Perspectives	4
MTH 85	Technical Math I ¹	4
	Computer competency ²	0-4

Winter term

FOR 230B	Forest Surveying	3
FOR 203	Applied Forest Ecology	3
FOR 220B	Resource Measurement	4
	Forest Resource elective ⁴	3
MTH 86	Technical Math II	4

Spring term

FOR 110	Wildland Fire Science I	2
FOR 126	Field Studies Pacific NW Forests	1
FOR 127	Plants of the Pacific Northwest	1
FOR 202	Forest Entomology/Pathology	3
FOR 220A	Aerial Photo	3
FOR 241B	Dendrology	3
WR 121	English Composition ³	4

Summer term

FOR 180	Co-op Work Experience Forestry	3
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YEAR TWO

Fall term

FOR 205	Silviculture and Harvesting Processes	5
FOR 210	Wildland Fire Science II	2
FOR 240B	Wildlife Ecology	3
SP 111	Fundamentals of Public Speaking	3
or SP 115	Fundamentals of Public Speaking	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	
	General education discipline studies course	3

Winter term

FOR 211	Supervision and Leadership	3
FOR 220C	Resource Sampling	4
GEOG 265	Geographic Information Systems	4
HHP 252A	Fitness/First Aid	3
	General education discipline studies courses	3

Spring term

FOR 208	Soils: Sustainable Ecosystems	4
FOR 215	Forest Resource Capstone	3
FOR 260	Conservation of Natural Resources	3
FW 218	Survey of Northwest Wildlife	3
	General education discipline studies courses	3

¹ Students planning to transfer should take MTH 111 or 112 and should see their advisor for specific transfer requirements.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

³ Transfer students should also take WR 227, Technical Writing.

⁴ The Forest Resource elective can be any course with the following prefixes: BI, CH, FW, GEOG, G or FOR courses not already in the program coursework.

Transfer Options
(credits vary)

Students planning on transferring to Oregon State University or the University of Idaho to acquire a Bachelor of Science degree should meet with a COCC Forestry Program advisor to discuss current transfer requirements. Many of the required undergraduate courses for the Bachelor of Science degrees can be taken at COCC and transferred accordingly.

Oregon State University (www.osucascades.edu/academics/naturalresources/ or www.cof.orst.edu)

- Forest Engineering
- Forest Engineering/Civil Engineering
- Forest Operations Management
- Forest Management
- Recreation Resource Management
- Wood Science and Technology

Oregon State University-Cascades Campus

- Natural Resources
- Tourism and Outdoor Leadership

University of Idaho (www.cnrhome.uidaho.edu)

- Ecology and Conservation Biology
- Fishery Resources
- Forest Products
- Forest Resources
- Rangeland Ecology and Management
- Resource Recreation and Tourism
- Wildlife Resources

Transfer and/or articulation information

Articulation and transfer options currently exist with:

- Oregon State University**
- Oregon State University-Cascades Campus**
- University of Idaho**

GENERAL SCIENCE

Associate of Arts Oregon Transfer (90 credits)

The general science curriculum allows students to design academic programs that lead to a Bachelor of Science degree and provide more breadth than traditional science programs. General science can work for many career interests and for students whose scientific interests do not fit well within a single discipline. Students planning graduate study or technical careers, as well as students preparing for careers in the health sciences, science education, science-related business or social service might be best served by a well-designed multidisciplinary science program. The neurosciences, environmental sciences and biophysical sciences are examples of such cross-disciplinary areas. Combined with a second major or minor in English, for example, general science can be excellent preparation for a writing career in science, technology or natural history. The major also works well for students who want to teach elementary-school or middle-school science.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in general science.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)	3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>	

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science¹

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

BI 211	Principles of Biology I	5
BI 212	Biology of Plants II	5
BI 213	Biology of Animals III	5
CH 221	General Chemistry I	5
CH 222	General Chemistry II	5
CH 223	General Chemistry III	5
G 201	Geology I	4
G 202	Geology II	4
G 203	Geology III	4
MTH 251	Calculus I	4
MTH 252	Calculus II	4
MTH 253	Calculus III	4
PH 201	General Physics I	5
PH 202	General Physics II	5
PH 203	General Physics III	5
or PH 211	General Physics I	
PH 212	General Physics II	
PH 213	General Physics III	

¹ University of Oregon majors must take two additional science sequences from those not used to meet the COCC science discipline studies requirement listed above.

Transfer information

The University of Oregon is currently the only public institution in Oregon that offers a Bachelor of Science degree in general science. This degree is offered in Bend. Students interested in this program should contact OSU-Cascades for additional information.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Certificate of Completion
Associate of Applied Science

According to Jeffrey Star and John Estes, Geographic Information System textbook authors: “A Geographic Information System is an information system designed to work with data referenced by spatial or geographic coordinates. A GIS is both a database system with specific capabilities for spatially referenced data, as well as a set of operations for working [analysis] with the data.”

GIS combines map layers with information about a place to give someone a better understanding of that place. Which layers of information are combined depends on the purpose: finding the best location for a new store; analyzing environmental damage; viewing similar crimes in a city to detect a pattern; and so on.

The program is built on a foundation of computer-aided mapping and surveying technology for collecting spatial data, database generation and manipulation for tabular data, and GIS specific courses for organization, analysis and reporting.

Students in this program create data and maps that identify quantities and/or densities, analyze what’s inside or near a study area and indicate change. Graduates work in natural resources, education, federal/state/local governments, retail and commercial businesses, Internet, publishing and real estate. GIS careers typically include positions such as GIS technician, project manager, computer programmer, database administrator, system administrator, cartographic designer, and related managerial and administrative roles.

The following are the goals of the GIS program:

- Utilize mechanisms to input, store, query and retrieve spatial and attribute data in a digital format.
- Obtain, analyze, document and utilize geographic information from various sources.
- Communicate geographic information to a variety of users verbally, graphically and in writing.
- Utilize “tools” of the discipline in the collecting, processing and presentation of geographic data.
- Critically analyze and present plans/solutions to geographic problems/questions.
- Interact within a multidisciplinary setting.

The AAS degree program is intended for someone who wishes to begin a career in GIS and has little or no technical or academic background.

The one-year certificate program is intended for those with existing skills and/or an academic degree who wish to obtain GIS-specific tools for use in their discipline.



photo by Aaron Stark

Please contact Art Benefiel by phone, 541-383-7703, or e-mail, abenefiel@cocc.edu, or visit <http://gis.cocc.edu> for more details. It is recommended that students start the program in fall term.

Geographic Information Systems Certificate of Completion (50 credits)

The following is a suggested course of study for students interested in pursuing a certificate in Geographic Information Systems (GIS) and will depend on course availability.

Fall term

GEOG 265	Geographic Information Systems	4
GEOG 266	ArcGIS	5
GEOG 273	Spatial Data Collection	5
WR 121	English Composition	4

Winter term

GEOG 211	Computer Cartography	4
GEOG 285	Data Conversion and Documentation	5
GEOG 287	Analysis of Spatial Data	5

Spring term

GEOG 267	Geodatabase Design	5
GEOG 275	GIS Capstone	5
GEOG 286	Remote Sensing	5
BA 285	Business Human Relations	3

GEOGRAPHIC INFORMATION SYSTEMS (GIS) (continued)

Geographic Information Systems Associate of Applied Science

(99 credits; six quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing an AAS in Geographic Information Systems (GIS) and will depend on course availability.

YEAR ONE

Fall term

FOR 230A	Map, Compass, and GPS	3
GEOG 265	Geographic Information Systems	4
GEOG 266	ArcGIS	5
MTH 85	Technical Math I	4

Winter term

FOR 230B	Forest Surveying	3
FOR 220B	Resource Measurement	4
GEOG 211	Computer Cartography	4
MTH 86	Technical Math II	4

Spring term

CIS 122	Introduction to Programming	4
FOR 220A	Aerial Photo	3
GEOG 267	Geodatabase Design	5
WR 121	English Composition	4

Summer term

GEOG 280	Co-Op Work Experience GIS	3
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YEAR TWO

Fall term

GEOG 273	Spatial Data Collection	5
HHP 252A	Fitness/First Aid	3
WR 227	Technical Writing	4
General education discipline studies course ¹		3

Winter term

GEOG 284	GIS Customization	5
GEOG 285	Data Conversion and Documentation	5
GEOG 287	Analysis of Spatial Data	5
General education discipline studies course ¹		3

Spring term

BA 285	Business Human Relations	3
GEOG 275	GIS Capstone	5
GEOG 286	Remote Sensing	5
General education discipline studies course ¹		3

¹ Choose a minimum of nine credits from COCC's discipline studies course list (pages 47 and 48); each course must have a different prefix.

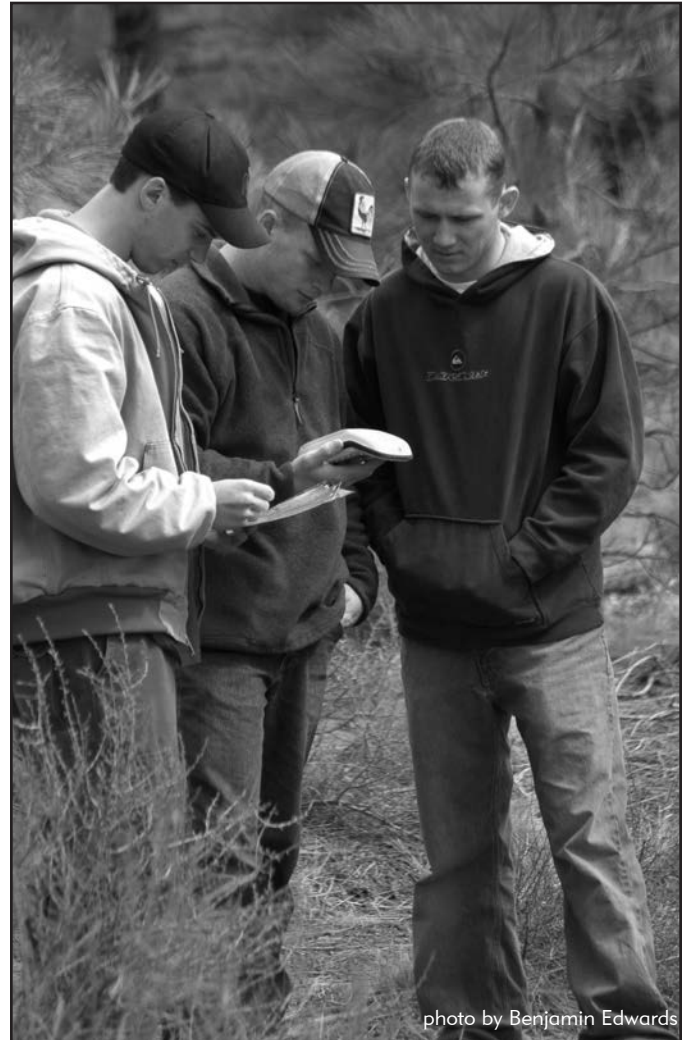


photo by Benjamin Edwards

GEOGRAPHY

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in geography.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
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(or higher for which Intermediate Algebra is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

GEOG 106	Economic Geography	4
GEOG 201	World Regional Geography I ¹	4
GEOG 202	World Regional Geography II ¹	4

plus another course from the Social Science discipline studies list that does not have a GEOG prefix.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.



Electives

GEOG 107	Cultural Geography	4
GEOG 190	Environmental Geography	4
GEOG 208	Landforms and Water ¹	4
or GEOG 209	Weather and Climate ¹	

Plus choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

Additional advising information and recommendations

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the arts and letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor.

¹ Courses in Geography do not need to be taken in sequence.

GEOLOGY

Associate of Arts Oregon Transfer (90 credits)

Geology provides an understanding of the materials that constitute the earth and the processes that have shaped the earth from its deep interior to the surface landforms. It is a science that addresses problems by combining field investigations with laboratory experiments and theoretical studies. Geology addresses many natural hazards that affect humans, such as earthquakes, flooding and volcanic eruptions. It also addresses the impact of humans on the Earth's surface environment where we extract resources, contaminate ground water, contribute to rapid erosion, or attempt to re-engineer rivers and shorelines. In addition, geology draws upon many other disciplines including biology, chemistry, mathematics and physics in order to understand earth processes in the reference frame of geologic time. Emphasis areas vary among universities and typically include mineralogy, paleontology, environmental geology and geophysics.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in geology.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	
Oral Communication		
SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	
Mathematics		
MTH 111	College Algebra	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		
Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

G 201	Geology I	4
G 202	Geology II	4
G 203	Geology III	4
CH 221	General Chemistry I	5

Electives

BI 101	General Biology I	4
BI 102	General Biology II	4
BI 103	General Biology III	4
CH 222	General Chemistry II	5
CH 223	General Chemistry III	5
G162CV	Cascades Volcanoes	3
GS 108	Oceanography	4
MTH 254	Vector Calculus I	4
MTH 255	Vector Calculus II	4
MTH 256	Applied Differential Equations	4
PH 211	General Physics I	4
PH 212	General Physics II	4
PH 213	General Physics III	4

Advising information

Students planning to transfer to OUS institutions should take the following:

CH 221, 222 and 223

PH 201, 202 and 203 or PH 211, 212 and 213

Those planning to transfer to

- OSU should take MTH 112, 251 and 252;
- PSU should take MTH 251, 252, 253 and 254;
- SOU should take MTH 111, 112, 251 and 252;
- UO should take MTH 251, 252 and 253.

Students are strongly encouraged to contact the appropriate transfer university for the most current requirements of their major and emphasis area.

Transfer information

Oregon universities with a geology major include University of Oregon, Oregon State University, Portland State University and Southern Oregon University.

HEALTH INFORMATION TECHNOLOGY

Certificates of Completion
Associate of Applied Science

The Health Information Technology program provides a career ladder approach to the health information management profession. Students proceed up the ladder as follows:

- When students have completed the first two academic quarters, they receive an Insurance Certificate.
- At the end of the first three quarters (year one) students are awarded a Medical Office Specialist Certificate.
- After completing the first three quarters of coursework (year one), plus the completion of HIT131C, Transcription Applications, offered summer term, and passing a qualifying exam, students earn a Medical Transcription Certificate.
- After completing four academic quarters (year one plus fall quarter of year two), students earn a Medical Billing Specialist Certificate.
- Adding two additional coding courses and passing a proficiency exam qualifies students for a Medical Coding Competency Certificate.
- At the end of six academic quarters (two years), students earn an Associate of Applied Science degree in health information technology and are eligible to take the Registered Health Information Technician (RHIT) national credential examination.

Students have the freedom to exit and re-enter the program after the first year. The program includes preparation in technical coursework, human relations, communications, computation and computer technology.

It is strongly recommended that students obtain competency in the following areas before entering the health information curriculum:

- Math 020
- Keyboarding, 40 WPM minimum
- Computer basics
- Basic English (writing skills)
- Study skills
- Reading skills
- Spelling skills
- Word processing skills essential

The health information technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). It is one of only two accredited health information programs in the state of Oregon.

The following is the suggested course sequence for students able to attend full time. Students are encouraged to consult their academic advisor if they have transfer credits and/or are not able to attend full time in order to determine an appropriate course schedule. Additionally, students should reference the course descriptions to determine required lab hours. Note that students must complete all program courses with a “C” grade (75 percent) or better.

Insurance Certificate of Completion (38 credits; two quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Insurance and will depend on course availability.

Fall term

CIS 120	Computer Concepts I	4
AH 111	Medical Terminology I	3
BI 121	Human Anatomy and Function I ¹	4
HIT 103	Health Information Systems and Procedures	5
MTH 031	Health Care Math	3

Winter term

AH 112	Medical Terminology II	3
BI 122	Human Anatomy and Function II ¹	4
HIT 104	Health Data Content and Structure	5
WR 121	English Composition	4
General education discipline studies course ²		3

Medical Office Specialist Certificate of Completion (55 credits; three quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Medical Office Specialist and will depend on course availability.

Complete Insurance Certificate	38
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Spring term

AH 113	Introduction to the Study of Disease	5
HIT 131A	Document Management and Technology	3
HIT 180	HIPAA Management	2
HIT 182	Introduction to Medical Coding	4
SP 218	Interpersonal Communication	3
or BA 285	Business Human Relations	
or PSY 207	Applied Psychology	

Medical Transcription (not required for AAS degree) Certificate of Completion (59 credits; four quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Medical Transcription and will depend on course availability.

Complete Medical Office Specialist Certificate	55
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Summer term

HIT 131C	Medical Transcription Applications	4
Pass qualifying exam		0

HEALTH INFORMATION TECHNOLOGY (continued)

Medical Billing Specialist
Certificate of Completion

(73 credits; five quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Medical Billing Specialist and will depend on course availability.

Complete Medical Office Specialist Certificate	55
HIT 193 Directed Practice I	2

Fall term

HIT 284 Classification and Reimbursement Systems	4
HIT 205 Introduction to Medical Record Analysis	3
HIT 296 Ambulatory Data Systems	3
SP 111 Fundamentals of Public Speaking	3
General education discipline studies course ²	3

Coding Competency
Certificate of Completion

(82-86 credits; seven quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Coding Competency and will depend on course availability.

Complete Medical Billing Specialist Certificate	73-77
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Winter term

HIT 283 Coding Classifications	6
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Spring term

HIT 285 Advanced Coding Classification	3
Pass proficiency exam	

Associate of Applied Science

(108 credits; eight quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing an AAS in Health Information Technology and will depend on course availability.

YEAR ONE**Fall term**

CIS 120 Computer Concepts I	4
AH 111 Medical Terminology I	3
BI 121 Human Anatomy and Function I ¹	4
HIT 103 Health Information Systems and Procedures	5
MTH 031 Health Care Math	3

Winter term

AH 112 Medical Terminology II	3
BI 122 Human Anatomy and Function II ¹	4
HIT 104 Health Data Content and Structure	5
WR 121 English Composition	4
General education discipline studies course ²	3

Spring term

AH 113 Introduction to the Study of Disease	5
HIT 131A Document Management and Technology	3
HIT 180 HIPAA Management	2
HIT 182 Introduction to Medical Coding	4
SP 218 Interpersonal Communication	3
or BA 285 Business Human Relations	
or PSY 207 Applied Psychology	

Summer term

HIT 131C Medical Transcription Applications (optional)	4
HIT 193 Directed Practice I	2

YEAR TWO**Fall term**

HIT 284 Coding Classification and Reimbursement Systems	4
HIT 205 Introduction to Medical Record Analysis	3
HIT 296 Ambulatory Data Systems	3
SP 111 Fundamentals of Public Speaking	3
General education discipline studies course ²	3

Winter term

HIT 281 Health Data Collection	3
HIT 283 Coding Classifications	6
HIT 203 Health Care Delivery and Technology	2
General education discipline studies course ²	3

Spring term

HIT 272 Health Information Management	5
HIT 282 Quality Improvement in Health Care	4
HIT 201 Legal Aspect Medical Records	4
HIT 285 Advanced Coding Classification	3
HHP 252A Fitness/First Aid	3

Summer term requirement for graduation

HIT 293 Directed Practice II	2
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¹ BI 121 and 122 are not transferable courses. Students wishing to transfer should take BI 231, 232 and 233 Anatomy and Physiology I, II and III.

² See AAS checklist, general education discipline studies requirements, pages 47 and 48; each course must have a different prefix.

HEALTH PROMOTION

Associate of Arts Oregon Transfer (90 credits)

Careers in health promotion are multifaceted, as are the areas of further study. Careers include health promotion, health education/teaching health, working in various disciplines of public health, health science, health care administration and environmental health. This Associate of Arts Oregon Transfer program is designed as a broad-based degree in the area of health studies. It is also designed for maximum transferability to several specific health programs including Portland State University (School of Community Health), Eastern Oregon University (School of Education), Eastern Washington University (School of Community Health Education), Boise State University (School of Education/Health Promotion), Oregon State University (College of Health and Human Performance-Public Health Department), and Eastern Oregon University and Southern Oregon University Department of Health and Physical Education (Health Promotion/Fitness Management). Students should check with each school to ensure the latest transfer information is used when designing their program.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in transferring to a bachelor's degree program in health promotion.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)	3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>	

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Recommended:

PSY 201	Mind and Brain	4
PSY 202	Mind and Society	4
HHP 248	Health Psychology	3

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science. Recommended:

BI 231	Human Anatomy and Physiology I	4
BI 232	Human Anatomy and Physiology II	4
BI 233	Human Anatomy and Physiology III	4
BI 234	Microbiology	4
or FN 225	Human Nutrition	4

Electives

Choose enough elective credits to reach a minimum total of 90 overall degree credits. Elective classes must be numbered 100 or above and can be any combination of general electives, Career and Technical Education (CTE) courses (12 credits maximum) or CWE/HHP/performance classes (15 credits maximum).

Recommended electives: HHP 220, Introduction to Epidemiology, and HHP 258, Holistic Wellness.

Advising information

Lab fees:

\$20 for HHP 295, Health and Fitness, 3 credits or

HHP 252A, Fit/First Aid, 3 credits

\$20 for HHP 212, CPR, 1 credit and

HHP 212A, CPR for Health Care Providers, 1 credit

\$16 for all HHP 185 activity classes for Mazama user fee

HISTORY

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in history.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)	3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>	

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes. Recommend that students take 12 credits of any HST prefix course.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

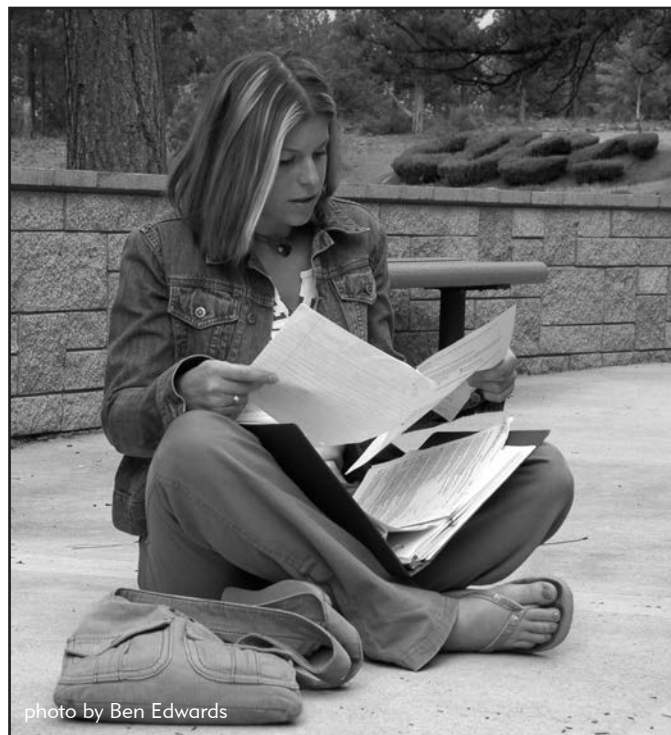


photo by Ben Edwards

Advising information

In the field of history it is often necessary to achieve a graduate degree in order to work in the field as a professional. A student who takes a major or minor in history graduates with writing, research and communication skills that can lead to success in multiple career areas other than history.

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the Arts and Letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor.

Articulation information

Oregon State University-Cascades Campus
 American Studies (major)
 History (minor)

University of Oregon through OSU-Cascades Campus
 General Social Science (major)

HUMANITIES

Associate of Arts Oregon Transfer (90 credits)

Oregon and other universities offer bachelor's degrees in specific and interdisciplinary fields of the humanities, which include literature and writing, modern and classical languages, philosophy and ethics, theory and criticism of the arts, history, humanistic content and methods of other social sciences, and the "study and application of the humanities to the human environment with particular attention to reflecting our diverse heritage, traditions and history and to the relevance of the humanities to the current conditions of national life" (National Endowment for the Humanities). Many U.S. and global careers are open to students with a solid humanities foundation; strong writing, reading, critical thinking and research skills; and proficiency in one or more foreign languages.

COCC's Humanities department offers courses in

- English (American, British, Children's and Western World Literature, and Introduction to Literature: Fiction, Drama, Poetry);
- Foreign Languages (French, German, Italian and Spanish);
- Humanities (American Multiculturalism, Women's Studies, Film Arts, Non-Western Cultures and Literature, Popular Culture);
- Philosophy (Ethics, Epistemology, Logic);
- Reading; and
- Writing (English Composition, Technical Writing and Creative Writing: Fiction, Non-Fiction, Poetry, Scriptwriting)

as needed to satisfy lower-division requirements for bachelor's degrees and to prepare transfer students for success in achieving their academic and professional goals. Students seeking a bachelor's degree in humanities fields are often best served by pursuing the Associate of Arts degree. COCC transfer students are encouraged to consult college catalogs and work closely with their advisors.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in humanities.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose enough electives to reach the minimum of 90 credits required for the AAOT.

Transfer students seeking a bachelor's degree in specific or interdisciplinary humanities fields are advised to select general education/discipline studies and electives courses that will also fulfill major and minor requirements at the destination university to which they intend to transfer. COCC transfer students are encouraged to consult college catalogs and work closely with their advisors.

HUMANITIES (continued)

Transfer information

Oregon University System (OUS) universities that offer bachelors' degrees with specializations in humanities fields:

Oregon State University-Cascades Campus

English (minor); Liberal Studies; American Studies.

Oregon State University-Corvallis

American Studies, Education (Pre-Elementary, Elementary and Secondary), English, Ethnic Studies (focus: American Multiculturalism), Foreign Languages and Literatures (majors: French, German, Spanish), History, International Degree Program (including Western Culture, Cultural Diversity, Contemporary Global Issues, Foreign Languages and Literatures), Liberal Studies (interdisciplinary themes, including English/Literature, Education, Ethnic Studies, European Studies, Foreign Languages and Literatures, Philosophy, Writing), Philosophy.

University of Oregon

Comparative Literature, English, Ethnic Studies, Film Studies, French, German, History, Humanities, International Studies, Italian, Linguistics, Peace Studies, Philosophy, Second Language Acquisition and Teaching, Spanish, Women's and Gender Studies.

Portland State University

African Studies, Applied Linguistics, Black Studies, Chicano/Latino Studies (certificate), English, European Studies, Foreign Language (French, German or Spanish), Film Studies (minor only), Hispanic/Latin American Studies, History, International Studies, Latin American Studies (certificate), Middle East Studies, Native American Studies (minor only), Philosophy, Professional Writing (minor only), Teaching English as a Second Language (certificate).

Eastern Oregon University

English/Writing (concentration in Literature, Literature/Film, Discourse Studies, or Writing), Gender Studies, History, Humanities, International Studies, Liberal Studies, Modern Languages, Philosophy.

Southern Oregon University

Education, English and Writing, Foreign Languages, History, International Peace Studies, International Studies, Native American Studies, Philosophy, Shakespeare Studies.



photo by Eugen Helmbrecht

Western Oregon University

Chicano/a Studies, Education (Early Childhood, Elementary, Middle Level, High School), English (B.A.: English/Language Arts Common Core, English/Literature, English/Linguistics, English/Writing), Film Studies, French, Gender Studies, German Studies, History, Interdisciplinary Studies, International Studies, Latin American Studies, Literature (see English), Philosophy, Spanish, Writing (see English).

MANUFACTURING TECHNOLOGY

Certificates of Completion (*pending state approval*)
 Associate of Applied Science

The Manufacturing Technology program is a self-directed, outcome-based program designed to prepare students for technician-level employment in a variety of manufacturing environments. The program is offered exclusively at the Manufacturing and Applied Technology Center (MATC) at COCC's Redmond Campus. The curriculum offered provides students with the ability to align educational goals with career opportunities by offering four options (three one-year certificates, a certificate of completion, a two-year certificate of completion and an Associate of Applied Science degree in Manufacturing Technology). Departmental approval is required for enrollment at the Manufacturing and Applied Technology Center.

Graduates can expect local, as well as national placement based on a demand for highly trained technicians.

CNC Machining
One-Year Certificate (48 credits)
 (Three to four quarters to complete if attending full time)

The CNC Machining Certificate incorporates a blend of CNC and manual machine with welding courses designed to help employers and their current employees, as well as undecided career-seeking students, obtain the skills needed for the industrial and manufacturing work environment.

This course requires instructor permission; COCC placement testing and a one-time MATC new-student orientation prior to starting the training.

Instructor approval required prior to registration. All credits offered in this certificate can be used to satisfy the requirements of COCC's one-year certificate, two-year certificate and the Associate of Applied Science degree in manufacturing technology.

The following is a suggested course of study for students interested in pursuing a certificate in CNC Machining and will depend on course availability.

MFG 100	Program/Safety Orientation	1
BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
or PSY 207	Applied Psychology	
MTH 85	Technical Math I	4
WR 121	English Composition	4
MFG 101	Blueprint Reading	2
MFG 103	Welding Technology I	3
MFG 105	Welding Technology II	3
MFG 107	Welding Technology III	3
MFG 110	Manufacturing Processes I	3
MFG 112	Manufacturing Processes II	3
MFG 114	Manufacturing Processes III	3
MFG 115	Design Processes I	2
MFG 202	Metals Preparation	2
MFG 211	CNC Mill Operator	2
MFG 213	CNC Turning Operator	2
MFG 230	CNC Programming Mill	2
MFG 232	CNC Programming Lathe	2
MFG 234	CAD/CAM Mill	2
MFG 236	CAD/CAM Lathe	2

Manual Machining
One-Year Certificate (48 credits)
 (Three to four quarters to complete if attending full time)

The Manual Machining certificate incorporates a blend of manual machine and welding courses designed to help employers and their current employees, as well as undecided career-seeking students, obtain the skills needed for the industrial and manufacturing work environment.

This course requires instructor permission; COCC placement testing and a one-time MATC new-student orientation prior to starting the training.

Instructor approval required prior to registration. All credits offered in this certificate can be used to satisfy the requirements of COCC's one-year certificate, two-year certificate and the Associate of Applied Science degree in manufacturing technology.

The following is a suggested course of study for students interested in pursuing a certificate in Manual Machining and will depend on course availability.

MFG 100	Program/Safety Orientation	1
BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
or PSY 207	Applied Psychology	
MTH 85	Technical Math	4
WR 121	English Composition	4
MFG 101	Blueprint Reading	2
MFG 103	Welding Technology I	3
MFG 105	Welding Technology II	3
MFG 107	Welding Technology III	3
MFG 110	Manufacturing Processes I	3
MFG 112	Manufacturing Processes II	3
MFG 114	Manufacturing Processes III	3
MFG 115	Design Processes I	2
MFG 202	Metals Preparation	2
MFG 203	Layout	2
MFG 210	Vertical Milling	2
MFG 214	Lathe Operator I	2
MFG 202	Metals Preparation	2
MFG 212	Horizontal Milling	2
MFG 216	Lathe Operator II	2

MANUFACTURING TECHNOLOGY (continued)

Welding One-Year Certificate (45 credits) (Three to four quarters to complete if attending full time)

The Welding Manufacturing Technology certificate incorporates a blend of welding and machining courses designed to help employers and their current employees, as well as undecided career-seeking students, obtain the skills needed for the industrial and manufacturing work environment.

This course requires instructor permission; COCC placement testing and a one-time MATC new-student orientation prior to starting the training.

Instructor approval required prior to registration. All credits offered in this certificate can be used to satisfy the requirements of the one-year certificate, two-year certificate and the Associate of Applied Science degree in manufacturing technology at COCC.

The following is a suggested course of study for students interested in pursuing a certificate in Welding and will depend on course availability.

MFG 100	Program/Safety Orientation	1
BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
or PSY 207	Applied Psychology	
MTH 85	Technical Math	4
WR 121	English Composition	4
MFG 101	Blueprint Reading	2
MFG 103	Welding Technology I	3
MFG 105	Welding Technology II	3
MFG 107	Welding Technology III	3
MFG 110	Manufacturing Processes I	3
MFG 112	Manufacturing Processes II	3
MFG 115	Design Processes I	2
MFG 202	Metals preparation	2
MFG 262	Welding Inspection/Quality Control	2
MFG 271	Shielded Metal Arc Welding I	2
MFG 272	Gas Metal Arc Welding I	2
MFG 281	Gas Tungsten Arc Welding I	2
MFG 282	Flux Core Arc Welding I	2
MFG 267	Oxygen Fuel and Plasma Cutting	2

One-Year Certificate of Completion (44 credits) (Three to four quarters to complete if attending full time)

A one-year certificate focuses on development of foundation skills in welding, machining, fluid power, robotics, blueprint reading, quality control, technical communication and math. It provides students with introductory theory and the basic skills needed to gain entry-level manufacturing positions. The one-year certificate is also suitable for those seeking apprenticeship-related training, or for those starting a new career participating in the state-funded vocational rehabilitation program.

Requirements

Complete all of the following courses prior to starting the two-year certificate program. Courses do not need to be repeated for the one-year certificate if previously taken for other manufacturing certificates.

The following is a suggested course of study for students interested in pursuing a certificate in Manufacturing Technology and will depend on course availability.

MFG 100	Program/Safety Orientation	1
BA 285	Business Human Relations	3
or SP 218	Interpersonal Communication	
or PSY 207	Applied Psychology	
WR 60+	Rhetoric and Critical Thinking I (or higher)	4
MTH 85	Technical Math I	4
MET 160	Materials Engineering	2
MFG 101	Blueprint Reading	2
MFG 103	Welding Technology I	3
MFG 105	Welding Technology II	3
MFG 107	Welding Technology III	3
MFG 110	Manufacturing Processes I	3
MFG 112	Manufacturing Processes II	3
MFG 114	Manufacturing Processes III	3
MFG 115	Design Processes I	2
MFG 116	Manufacturing Electrical Systems	2
MFG 118	Fluid Power Systems I	2
MFG 133	Quality Assurance	2
MFG 153	Robotic Programming I	2

MANUFACTURING TECHNOLOGY (continued)

Two-Year Certificate of Completion

(82 credits)

(Five to six quarters to complete if attending full time)

Requires completion of the one-year certificate in manufacturing technology plus an additional 38 credits from the list below. Students may choose a minimum of any 38 credits from any of the following courses to complete the two-year certificate in manufacturing technology. This training can focus on welding, machining or include a combination of courses from these fields of study. This certificate is suitable for currently employed individuals wanting to continue their education, or for continuing one-year certificate students seeking a degree. Sequences of courses are offered in CAD/CAM, quality control, CNC programming, welding and machining. The curriculum is designed, where possible, to match nationally recognized requirements making it possible to earn nationally recognized certification, depending on the specialty pursued. See MATC advisor for details and for planning career goals.

The following is a suggested course of study for students interested in pursuing a two-year certificate in Manufacturing Technology and will depend on course availability.

Welding courses

MFG 102	Blueprint Reading Sheet Metal	2
MFG 202	Metals Preparation	2
MFG 205	Drill Press	2
MFG 262	Welding Inspection/Quality Control	2
MFG 264	Automated Welding/Cutting	2
MFG 266	Manufacturing Cost Estimation	2
MFG 267	Oxygen Fuel and Plasma Cutting	2
MFG 271	SMAW I	2
MFG 273	SMAW II	2
MFG 275	SMAW III	2
MFG 272	GMAW I	2
MFG 274	GMAW II	2
MFG 276	GMAW III	2
MFG 281	GTAW I	2
MFG 283	GTAW II	2
MFG 285	GTAW III	2
MFG 282	FCAW I	2
MFG 284	FCAW II	2
MFG 286	FCAW III	2
MFG 288	Industrial Fabrication	3
MFG 290	Certification Test Prep AWS I	1
MFG 292	Certification Test Prep AWS II	1
MFG 294	Certification Test Prep AWS III	1

Machining courses

MFG 201	Bench Work	2
MFG 202	Metals Preparation	2
MFG 203	Layout	2
MFG 205	Drill Press	2
MFG 210	Vertical Milling	2
MFG 211	CNC Mill Operator	2
MFG 212	Horizontal Milling	2
MFG 213	CNC Turning Operator	2
MFG 214	Lathe Operator I	2
MFG 216	Lathe Operator II	2
MFG 230	CNC Programming Mill	2
MFG 232	CNC Programming Lathe	2
MFG 234	CAD/CAM Mill	2
MFG 236	CAD/CAM Lathe	2
MFG 237	Digital Metrology	1
MFG 238	Optical Comparator	1
MFG 239	Coordinate Measurement Machine	1
MFG 242	Programmable Logic Ctrl I	2
MFG 243	Industrial Sensors	2
MFG244	Programmable Logic Ctrl II	2
MFG 254	Manufacturing Jigs and Fixtures	2
MFG 287	CNC Press Brake and Shearing	3
MFG 289	Material Handling-Fork Lift Safety	1
MFG 291	Certification Test Prep NIMS I	1
MFG 293	Certification Test Prep NIMS II	1
MFG 295	Certification Test Prep NIMS III	1
MFG 296	Certification Test Prep SME	1
MFG 297	Certification Test Prep NAIT	1

Associate of Applied Science

(104 credits minimum)

(Six to seven quarters to complete if attending full time)

Requirements

Requires completion of the two-year certificate in manufacturing technology plus additional credits from the list below to earn the AAS degree in Manufacturing Technology. Minimum of a 2.0 cumulative GPA is required to earn the AAS degree.

CIS 120	Computer Concepts	4
HHP 252A	Fitness/First Aid	3
General education discipline studies courses ¹		9
MFG 280	CWE Manufacturing	3
SP 111	Fundamentals of Public Speaking	3
or SP 219	Small Group Communication	

¹ Choose from discipline studies list, pages 47 and 48. Each course must have a different prefix.

MASSAGE THERAPY

One-Year Certificate of Completion

Two-Year Certificate of Completion

Associate of Applied Science

Research continues to show the enormous benefits of touch—which range from treating chronic diseases, neurological disorders and injuries, and alleviating the tensions of our modern lifestyles. The benefits of alternative and complementary forms of health care continue to rise and the demand for professional massage therapy has increased with the changes in our health care landscape. COCC prepares students to be massage therapy professionals who may work within many different scenarios and with health care providers to improve the health of the community.

Licensed massage therapists may work with doctors, nurses, physical therapists, chiropractors, naturopaths, acupuncturists, sport teams, veterinarians, and in community wellness programs. The licensed massage therapist may choose to have a private practice or be employed at hospitals, hospice centers, athletic clubs, family health centers, cruise ships, vacation resorts, spas and salons.

Program options

The COCC Massage Therapy program offers both a one-year certificate, two-year certificate, and a two-year Associate of Applied Science of Massage Therapy degree. Students are highly advised to take LMT 95, Introduction to a Massage Career, prior to enrolling in the LMT program. The introductory class is currently offered in all terms.

The one-year certificate requires 790 hours (four terms) of instruction and qualifies the student to apply for Oregon Board of Massage Therapists licensing exams. Oregon currently requires a written and a practical exam for state licensure.

The two-year certificate requires additional LMT elective hours of massage-related subjects and additional business course instruction.

The degree program includes both the one-year and two-year program classes with the addition of general education classes as required for an associate of applied science degree.

The AAS degree in Massage Therapy and the certificate programs have been accredited by the Oregon Department of Education and the Northwest Association of Schools and Colleges. They are approved by the Oregon Board of Massage Therapists.

Important registration information

All courses with a LMT prefix carry an \$88 per credit program fee in addition to regular COCC tuition.

Enrollment into the Massage Therapy program is first come, first served basis.



photo by Aaron Stark

Students must have a high school diploma or equivalent and be 18 years of age prior to starting the LMT program.

Students must demonstrate the following skills via the ASSET placement test or coursework prior to enrollment in the massage therapy program. Students with transfer credits must provide the Admissions office with a copy of their transcript at least two weeks prior to registration.

ASSET scores

Reading: 43

Writing: 43

Numerical Skills: 48

Elementary Algebra: 27

Coursework

WR 65, 75 or 95

MTH 20

MASSAGE THERAPY (continued)

One-Year Certificate

(52-53 credits; four quarters to complete if attending full time)

All required courses must be completed with a grade of “C” or better. No contact hours will be awarded for less than 75 percent. Students must maintain a 2.0 overall GPA to graduate.

The following is a suggested course of study for students interested in pursuing a one-year certificate in Massage Therapy and will depend on course availability.

First term

BI 121	Human Anatomy and Function I	4
LMT 130	Massage Fundamentals	2
LMT 113	Kinesiology I	3
LMT 155	Eastern Theory and Practice	2
LMT 170	Professional Ethics and Rules	2

Second term

BI 122	Human Anatomy and Function II	4
LMT 118	Kinesiology II	4
LMT 145	Massage I	4

Third term

LMT 124	Kinesiology III	3
LMT 140	Pathology	4
LMT 150	Massage II	4
LMT 175	Clinic I	2

Fourth term

BA 150	The Business of Massage ^{1,2}	3-4
or BA 101	Intro to Business ²	
LMT 128	Kinesiology IV	3
LMT 160	Hydrotherapy	1
LMT 180	Clinic II	3
MTH 20	Pre-Algebra (or higher) ²	4

¹ Students may consult with the program director about substituting BA 101.

² Can be completed anytime in the program.

Two-Year Certificate

(74-77 credits; seven quarters to complete if attending full time)

All required courses must be completed with a grade of “C” or better. No contact hours will be awarded for less than 75 percent. Students must maintain a 2.0 overall GPA to graduate.

Required technical courses

Students must complete all one-year certificate courses above or hold a current massage therapy license.

The following is a suggested course of study for students interested in pursuing a two-year certificate in Massage Therapy and will depend on course availability.

BA 217	Accounting Fundamentals	3
LMT electives ¹		15-17
LMT 245	Effective Office Decisions	2
LMT 210	Advanced Clinic	2

¹ LMT electives: LMT 240, Neuromuscular Treatments; LMT 250, Cranio Sacral I; LMT 260, Spa Treatments; LMT 270, Clinical Assessments; LMT 295, Integrated Therapies.

Associate of Applied Science

(96-104 credits; eight quarters to complete if attending full time)

All required courses must be completed with a grade of “C” or better. No contact hours will be awarded for less than 75 percent. Students must maintain a 2.0 overall GPA to graduate.

General education requirements

In addition to the one- and two-year certificate courses listed above, the following general education courses are required for the AAS degree; note that these courses can be taken at any point before, during or after program classes.

The following is a suggested course of study for students interested in pursuing an AAS in Massage Therapy and will depend on course availability.

WR 121	English Composition	4
WR 214	Business Communications	3
SP 218	Interpersonal Communication	3
Health ¹		3-4
Computer competency ²		0-4
General education discipline studies ³		9

¹ HHP 252A is recommended to meet this requirement, but students can also choose from HHP 295, 231, 242, 258 or 266 and one activity or health module.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

³ Choose from discipline studies list, pages 47 and 48. Each course must have a different prefix.

MATHEMATICS

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in mathematics.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 111	College Algebra	4
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(or higher for which *Intermediate Algebra* is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science. Recommend:

PH 211	General Physics I	5
PH 212	General Physics II	5
PH 213	General Physics III	5
MTH 112	Trigonometry	4



Electives

MTH 113	Topics in Precalculus	4
MTH 241	Calculus for Management/Social Science	4
MTH 243	Math for Management/Life/Social Science	4
MTH 244	Intro to Methods of Probability and Stats	4
MTH 251	Calculus I	4
MTH 252	Calculus II	4
MTH 253	Calculus III	4
MTH 254	Vector Calculus I	4
MTH 255	Vector Calculus II	4
MTH 256	Applied Differential Equations	4

Advising information

Students planning to transfer to OSU need to take:

HHP 295	Health and Fitness	3
and HHP 185	Activity class	1

Oregon public universities with a math major

University of Oregon through OSU-Cascades

Secondary Teaching

University of Oregon

Pure Math

Applied Math

Secondary Teaching

Design your own

Oregon State University

Mathematics

Secondary Teaching emphasis

Mathematical Sciences

Southern Oregon University

Portland State University

Eastern Oregon University

Western Oregon University

MEDICAL ASSISTANT

Certificate of Completion
(60-66 credits; four quarters to complete if attending full time)

The Medical Assistant program is a one-year certificate program which can be completed in four quarters (includes summer). The program trains individuals to assist health care providers in their offices or other medical settings in both clinical and administrative procedures. The Medical Assistant program is accredited by the AAMA (American Association of Medical Assistants). Upon successful completion of the program, students receive a certificate of completion from Central Oregon Community College. At that time students are eligible to submit an application and, if accepted, sit for the AAMA CMA Certification examination. Upon passing the AAMA exam medical assistants have earned the CMA (Certified Medical Assistant). Only graduates of accredited medical assistant programs are eligible to sit for the AAMA CMA Certification Examination.

Medical assistants work primarily in medical offices and are usually responsible for both clinical and administrative functions. Clinical duties include infection control, giving injections, drawing blood, taking patient histories, taking vital signs, preparing patients for medical procedures, assisting the physician with examinations and treatments, administering medications and performing selected diagnostic tests as directed by the clinician. Administrative duties include scheduling and receiving patients, preparing and maintaining medical documentation, handling correspondence, and working with insurance regulations and requirements. The medical assistant may also be responsible for equipment maintenance and supply inventories, as well as managing financial records.

The Medical Assistant certificate program allows for admission once per year in the fall term. Students enter the program by registering for MA 113 and MA 125. Admission is based on a first-come, first-served basis for all applicants. Classes preceded by the letters “MA” can only be taken by students in the program. Other classes required to complete the Medical Assistant certificate can be completed prior to entering the program. Students are encouraged to complete as many of these classes as possible before entering the program.

Prior to admittance to the MA program classes, students must have (1) a high school diploma or GED and (2) take COCC’s placement test and receive the minimum scores or complete the equivalent courses listed below:

ASSET scores	Coursework
Reading: 43	WR 65, 75 or 95
Writing: 43	
Numerical Skills: 40	MTH 10
Elementary Algebra 27	

Prior to the start of clinical lab classes in winter term, admitted students must have started a Hepatitis B immunization series (or must sign a release form indicating their refusal to be immunized) and have a current TB test (completed within the last year) and two measles immunizations. Prior to entering the clinical setting, current CPR and First Aid cards are required. Students will also be responsible for additional expenses such as stethoscopes, blood pressure cuffs, lab jackets and/or scrubs, miscellaneous materials,

a background check and certification exams. Flexibility during weekday hours and transportation to Central Oregon locations are necessary during the summer term when the majority of practicum hours occur. Students give and receive injections and blood draws as part of the learning process in the program.

All required courses must be completed with a grade of “C” or better and students must maintain a 2.0 overall GPA to graduate.

The following is a suggested course of study for students interested in pursuing a Medical Assistant certificate and will depend on course availability.

Fall term

MTH 20	Pre-Algebra (or higher)	4
AH 100	Introduction to Health Occupations	2
AH 111	Medical Terminology I	3
BI 121	Human Anatomy and Function I	4
Computer competency ¹		0-4
MA 113	Introduction to Medical Assisting	3
MA 125	Medical Office Procedures I	4

Winter term

AH 112	Medical Terminology II	3
BI 122	Human Anatomy and Function II	4
Health ²		3-4
MA 123	Medical Assisting Basic Procedures	4
MA 135	Medical Office Procedures II	4

Spring term

AH 113	Introduction to the Study of Disease	5
MA 133	Medical Assisting Advanced Procedures	4
MA 145	Computerized Medical Office Procedures	1
SP 111	Fundamentals of Public Speaking	3-4
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	
or SP 241	Media, Communication, Society	
WR 121	English Composition	4

Summer term

MA 147	Medical Assistant Practicum I	5
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¹ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

² HHP 252A is recommended to meet this requirement, but students can also choose from HHP 295, 231, 242, 258 or 266 plus one activity class.

Important registration information

Enrollment into the Medical Assistant program is first come, first served. Students must meet the following prerequisites in order to be eligible to register: minimum placement scores resulting in WR 121 and MTH 20 placement (ASSET scores of Reading: 43 and Writing: 43; Numerical Skills: 40 or Elementary Algebra: 27 OR successful completion of the following courses: WR 65 or WR 75 or WR 95; and MTH 10). Students with transfer credits must provide the Admissions office with a copy of their transcript at least two weeks prior to registration.

MILITARY SCIENCE

Transfer Preparation (20 credits)

The Military Science department, in conjunction with Oregon State University ROTC, offers “the best leadership course in America.” This course of study is open to all students and is designed to give students instruction and experience in the art of organizing, motivating and leading others. The courses focus on leadership, goal setting and implementation, planning, and plans execution. Classroom and practical exercises are designed to challenge students in all aspects. Study and classroom materials are provided for most classes.

YEAR ONE

Fall term

MS 111	Leadership and Personal Development	1
MS 180	Army Physical Fitness	1

Winter term

MS 112	Introduction to Tactical Leadership	1
MS 180	Army Physical Fitness	1

Spring term

MS 113	Basic Orienteering, Military Land Navigation	1
MS 180	Army Physical Fitness	1

Summer term

MS 205	OCS Phase I	5
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YEAR TWO

Fall term

MS 211	Foundations of Leadership	2
MS 180	Army Physical Fitness	1

Winter term

MS 212	American Military History	2
MS 180	Army Physical Fitness	1

Spring term

MS 213	Military Map Reading and Land Navigation	2
MS 180	Army Physical Fitness	1

Upon graduation with a bachelor’s degree from an approved four-year college, students can compete to earn a commission as an Army officer. Merit scholarship opportunities exist for students in any approved academic discipline. For more information, contact the Guard Officer Leadership Development program, 541-322-3143.

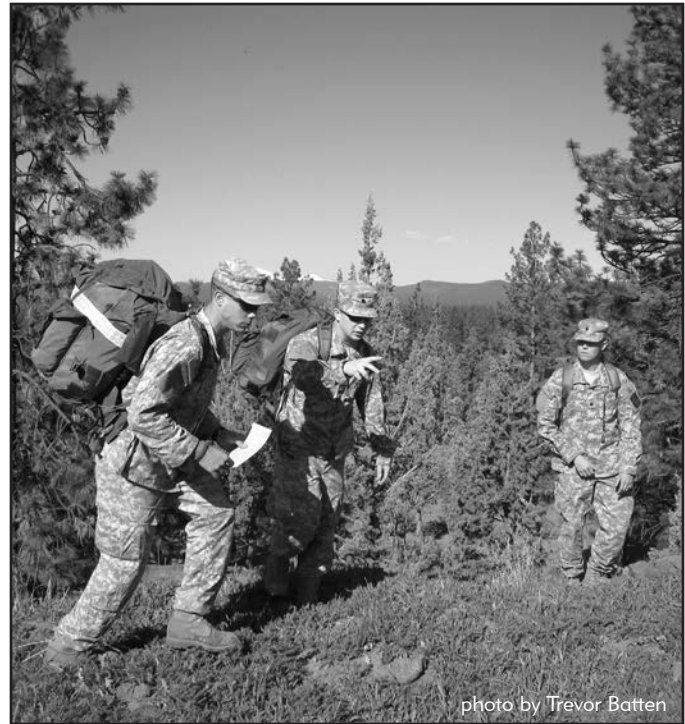


photo by Trevor Batten

MUSIC

Associate of Arts Oregon Transfer (90 credits)

The mission of COCC's Music program is to provide the opportunity for music majors pursuing a transfer degree (and those simply interested in music) to take the core classes that are typically required in the first two years of a bachelor's of music program. This includes music fundamentals, class piano, two years of music theory and musicianship, and a listening-based class called Understanding Music. Additionally, most music schools require participation in a major ensemble and private lessons in voice or instrument every term, and to that end we have no fewer than six ensembles in which a student could participate including the Cascade Chorale, College Choir, Central Singers, Big Band Jazz, Cascade Winds Symphonic Band and Central Oregon Symphony.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in music.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)	3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>	

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes. Recommend MUS 101, Music Fundamentals; MUS 201, Understanding Music; and MUS 111, Music Theory as well as another non-music arts and letters course. Additional MUS classes can be taken, and will be applied to the AAOT as elective credits.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose enough electives to reach the minimum of 90 credits for the AAOT. Music majors should participate in a performing ensemble each term, and take Musicianship IA, IB, IC, IIA, IIB and IIC, Music Theory IA, IB, IC, IIA, IIB and IIC, and have proficient keyboard skills, which can be gained by taking Class Piano I, II, and III, and Applied or Private Lessons 74, 174, 274.

MUS 201: Understanding Music, while not required, is an excellent survey course of music history and provides a solid background for future in-depth studies of music history.

MUP 74, 174, 274: Applied or Private Lessons, while not required, will help develop individual growth and provide a solid background in solo repertoire, proper language enunciation and in-depth studies of music genres.

A second year of a foreign language is also recommended.

Transfer information

All music schools have slightly different requirements and expectations of their music majors. While it is true that an Oregon college or university will accept the AAOT degree as a package, allowing students to transfer in at junior class status, most music schools will not accept a direct transfer of credits for classes intended specifically for music majors, such as music theory. Instead they will test students upon arrival to see what they have learned in their previous classes, and then place them at the appropriate level for their program. It has been our experience that students who perform well in COCC music theory and musicianship classes regularly meet or exceed the requirements to continue on with the next level of study at the transfer institution (i.e., students who have completed the first year of theory typically test into the second year of theory at their new school).

NURSING

Certificate of Completion
Associate of Applied Science

COCC's Nursing program is accredited by the Oregon State Board of Nursing to provide students with the academic and clinical preparation to sit for the national licensure exam upon completion of the program. The Nursing program provides a career ladder with exit points at the practical nurse and registered nurse levels. All students, regardless of desired exit point, apply and enter the Nursing program together.

After completing all required support and prerequisite courses, as well as the first three terms of the nursing courses, students are awarded COCC's Certificate in Practical Nursing. This certificate qualifies students to take the NCLEX-PN national licensure exam and apply for licensure as a practical nurse from the Oregon State Board of Nursing. Students may choose to exit the program at the end of the first year of nursing courses to work at the PN level. Students may apply for re-admission into the second year of the Nursing program at a later time. Students leaving the Nursing program at any point must apply for re-admission into the program. Re-admission is competitive and on a space-available basis. Students seeking re-admission should see the COCC Web site for current prerequisite and support course requirements and the Nursing program's re-admission policy. LPNs who have graduated from another nursing program may seek advanced placement into the RN-level of the program and should see the COCC Web site for the advanced placement requirements and application materials. Students admitted to the Nursing program and completing the first year of nursing courses may continue on into the RN sequence of courses with no additional application requirements.

Students are admitted to the Nursing program through a selective admission process. Admission to the certificate and AAS program is competitive and enrollment is limited. Admission to the program allows a student to take the required nursing (NUR) courses. Nursing program prerequisite and support courses are open to all students. Due to the rigor and time required for program-specific coursework, students are highly encouraged to complete non-specific program coursework prior to admission. See the COCC Web site for all current admission requirements.

Students are required to attend an orientation session offered by Enrollment Services to learn about COCC's Nursing program and the admission requirements. Students should refer to the Selection Process Handbook found on the COCC Web site for specific information about the process, financial aid and strategies for program success.

Practical Nursing Certificate of Completion (60-64 credits)

Graduates of the Practical Nurse Certificate program may continue to the second year of COCC's Nursing program or seek admission or advanced placement at several Oregon community colleges. Colleges with nursing-ladder programs include:

- Clatsop Community College, Astoria, Oregon
- Chemeketa Community College, Salem, Oregon
- Columbia Gorge Community College, The Dalles, Oregon
- Oregon Coast Community College, Newport, Oregon

The following is a recommended sequence of courses for students preparing to apply to COCC's Nursing program in spring term. COCC's Nursing program also requires that students complete NUR 95, Nursing Assistant class (may be taken any term) or hold a current CNA certificate prior to applying to the program.

The following is a suggested course of study for students interested in pursuing a certificate in Practical Nursing and will depend on course availability.

PREREQUISITES AND SUPPORT COURSES (Year One)

Fall term

BI 231	Human Anatomy and Physiology I	4
MTH 95	Intermediate Algebra	4
WR 121	English Composition	4

Winter term

BI 232	Human Anatomy and Physiology II	4
Computer competency ¹		0-4
PSY 215	Developmental Psychology	4

Spring term

BI 233	Human Anatomy and Physiology III	4
BI 234	Microbiology	4

NURSING PROGRAM REQUIREMENTS (Year Two)

Fall term

NUR 106	Nursing I	11
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Winter term

NUR 107	Nursing II	10
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Spring term

NUR 108	Nursing III	11
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¹ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

NURSING (continued)

Registered Nursing Associate of Applied Science (102-107 credits)

After completing all required support and prerequisite courses, as well as six quarters of nursing-specific courses, students are awarded COCC's Associate of Applied Science in Nursing degree. This degree qualifies graduates to take the NCLEX-RN national licensure exam and to apply for licensure as a registered nurse from the Oregon State Board of Nursing.

Graduates of COCC's Registered Nursing program may continue their education in the pursuit of a bachelor's degree in nursing from several universities and colleges in Oregon and Washington:

- Linfield College, Portland, Oregon
- Oregon Health Sciences University, Portland, Oregon; Ashland, Oregon; Klamath Falls, Oregon; and La Grande, Oregon.
- University of Portland, Portland, Oregon
- Walla Walla University, Walla Walla, Washington
- Gonzaga University, Spokane, Washington
- University of Phoenix, online education

The following is a recommended sequence of courses for students preparing to apply to COCC's Nursing program in spring term and able to attend full time. Part-time students should work with an advisor to determine the most appropriate schedule. COCC's Nursing program also requires that students complete NUR 95, Nursing Assistant (may be taken any term) or hold a current CNA certificate prior to applying to the program.

The following is a suggested course of study for students interested in pursuing an AAS in Registered Nursing and will depend on course availability.

PREREQUISITES AND SUPPORT COURSES (Year One)

Fall term

BI 231	Human Anatomy and Physiology I	4
CH 104	Introduction to Chemistry I	4-5
or CH 221	General Chemistry I	
or GS 105	Physical Science: Chemistry	
Computer competency ¹		0-4
MTH 95	Intermediate Algebra	4

Winter term

BI 232	Human Anatomy and Physiology II	4
Health ²		4
PSY 215	Developmental Psychology	4
WR 121	English Composition	4

Spring term

BI 233	Human Anatomy and Physiology III	4
BI 234	Microbiology	4
FN 225	Human Nutrition	4



photo by David Morris

NURSING PROGRAM REQUIREMENTS (Year Two)

Fall term

NUR 106	Nursing I	11
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Winter term

NUR 107	Nursing II	10
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Spring term

NUR 108	Nursing III	11
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NURSING PROGRAM REQUIREMENTS (Year Three)

Fall term

NUR 206	Nursing IV	11
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Winter term

NUR 207	Nursing V	10
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Spring term

NUR 208	Nursing VI	9
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Advising note

¹ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

² To meet this requirement, students can choose from

- HHP 220: Intro to Epidemiology
- HHP 231: Human Sexuality
- HHP 242: Stress Management
- HHP 248: Health Psychology
- HHP 258: Holistic Wellness
- HHP 266: Nutrition for Health
- HHP 295: Health and Fitness
- Plus one activity or health module.

Advising information

Students considering pursuing a bachelor's degree in nursing should see a nursing advisor, the COCC Web site or the baccalaureate institution's catalog for other course requirements.

OFFICE ASSISTANT

Certificate of Completion (46 credits)
(Four quarters to complete if attending full time)

The Office Assistant certificate is designed for persons

- preparing for immediate entry-level employment in office occupations and
- already in business who desire to update and enhance their skills.

Certificate requirements

Full-time suggested term-by-term coursework schedule assumes college-level placement in reading, writing and math. For part-time students and those with schedule conflicts, please see advisor for proper course sequencing and prerequisite requirements.

All courses must be completed with a “C” grade or better.

Fall

BA 101	Introduction to Business	4
BA 104	Business Math ¹	3
BA 111	Applied Accounting I	3
CIS 120	Computer Concepts	4
WR 121	English Composition	4

Winter

BA 178	Customer Service	3
BA 285	Business Human Relations	3
CIS 131	Software Applications	4
WR 214	Business Communications	3

Spring

CIS 125E	Excel ²	4
CIS 235	IT in Business ²	4
OA 116	Office Procedures Practicum	3

Summer

OA 280	Co-op Work Experience Office Admin.	4
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¹ Prerequisite: grade of “C” or better in MTH 60, MTH 60 equivalency met, or appropriate placement exam score.

² Class is offered fall and spring term only in 2010-11.

Advising and/or other pertinent information

It is expected that students entering into the certificate program have competency in keyboarding skills at 25 words per minute or better and college-level placement in reading, writing, spelling, math and study habits. Opportunities to gain or strengthen any of these skills are available. CIS 010 is recommended for basic keyboarding skills acquisition.

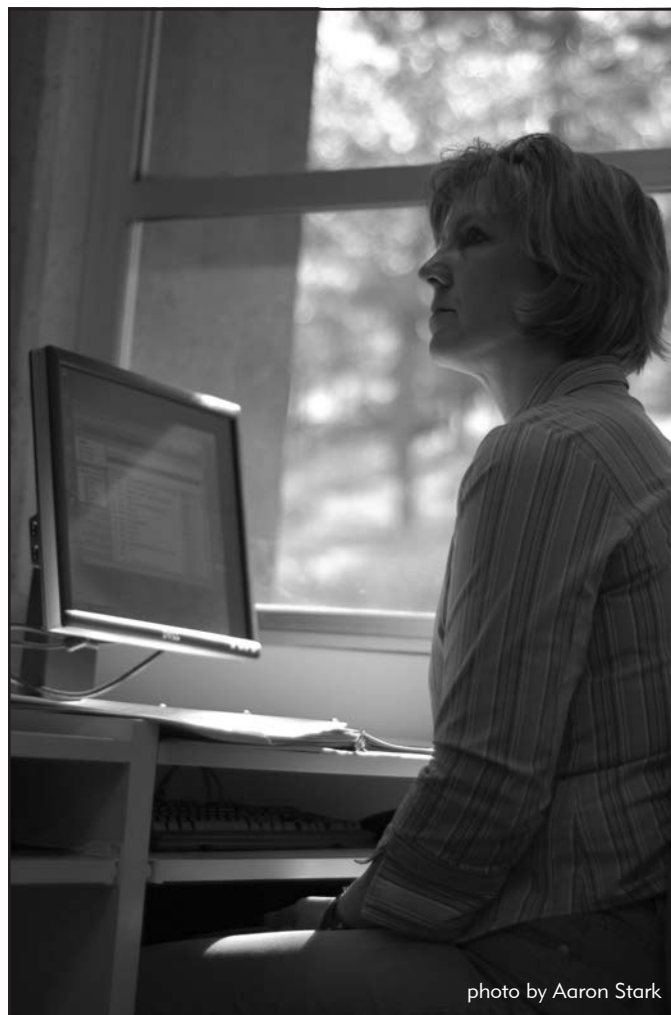


photo by Aaron Stark

OUTDOOR LEADERSHIP

Associate of Science - Direct Transfer

Associate of Science

Associate of Arts Oregon Transfer

The general area of outdoor leadership includes specific careers in outdoor recreation, outdoor education, wilderness therapy, and tourism and leisure enterprises. A student can earn an Associate of Arts Oregon Transfer (AAOT) degree, or Associate of Science Direct Transfer (AS-DT) degree with a focus in outdoor leadership at COCC in preparing to transfer to a baccalaureate institution to pursue a higher degree in any one of the above areas.

The AS-DT is designed for students planning to transfer to OSU-Cascades Campus. This degree will allow students to meet all lower-division baccalaureate and major requirements for a Bachelor of Science in Tourism and Outdoor Leadership.

The AAOT degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

There are no entrance requirements for the outdoor leadership program. However, students entering into the program, whether to pursue the AS-DT or AAOT, are required to complete a freshman package of courses before enrolling in the sophomore-level courses. Freshman completion requirements for enrollment into the sophomore level include completion of a minimum of 36 college-level credits made up, in part, by the following courses. See advisor for details.

WR 121	English Composition	4
WR 122	English Composition	4
SP 111	Fundamentals of Public Speaking	3
HHP 295	Health and Fitness for Life	3
CIS 120	Computer Concepts	4
or CIS 131	Software Applications	
OL 111	Introduction to Outdoor Leadership	3
OL 253	Wilderness Advanced First Aid	3
OL 255	Outdoor Living Skills	3

Associate of Science Direct Transfer (93 credits)

YEAR ONE

Fall term

OL 111	Intro to Outdoor Leadership	3
OL 253	Wilderness Adv. First Aid	3
OL 255	Outdoor Living Skills	3
HHP 295	Health and Fitness for Life	3
HHP 185	Orienteering	1

Winter term

BA 101	Intro to Business	4
CIS 120	Computer Concepts	4
or CIS 131	Software Applications	

MTH 111	College Algebra	4
WR 121	English Composition	4

Spring term

Difference, Power and Discrimination requirement ¹		3-4
Social Processes requirement ¹		3-4
SP 111	Fundamentals of Public Speaking	3
WR 122	English Composition	4
HHP 185	Activity Class elective	1

YEAR TWO

Fall term

Literature and the Arts requirement ¹		3-4
OL 271	Facilitating Group Experiences	3
Science requirement ¹		4-5
Western Culture requirements ¹		3-4

Winter term

Cultural Diversity requirement ¹		3-4
OL 207	Seminar in Outdoor Leadership	2
OL 273	Outdoor Recreation Leadership	3
Science requirement ¹		4-5

Spring term

FOR 255	Resource Interpretation	3
OL 244	Psychology of Risk and Adventure	3
HHP/OL 280	Co-op Work Experience	2
Science requirement ¹		4-5
Skills Course(s) requirement ²		3-4

General education/discipline studies

(See OSU Web site or advisor for details)

Science: Choose one biological science, one physical science, and one additional biological or physical science from the approved list at: http://oregonstate.edu/admissions/transfer/scr1140_003188.htm. Recommended courses to choose from:

GS 106	Geology	4
GS 107	Astronomy	4
GS 108	Oceanography	4
BI 102	General Biology II	4
BI 103	General Biology III	4

¹ Choose one approved course from the list at http://oregonstate.edu/admissions/transfer/scr1140_003188.htm

² Choose one from:

HTRM 233	Event Planning	3
OL 294CC	Challenge Course Practices	3
OL 294RC	Teaching Rock Climbing	3
OL 294WG	Whitewater Raft Guiding	3
or both		
OL 194MA	Mountaineering I	2
OL 194MB	Mountaineering II	2

OUTDOOR LEADERSHIP (continued)

Electives

Choose enough elective credits to reach a minimum total of 93 overall degree credits. Elective classes must be numbered 100 or above and can be any combination of general electives, Career and Technical Education (CTE) courses (12 credits maximum) or CWE/HHP/performance classes (15 credits maximum).

Lab fees:

\$20 for HHP 295, Health and Fitness, 3 credits
 \$25 for OL 271, Facilitating Group Experiences, 3 credits
 \$75 for OL 294CC, Challenge Course Practices, 3 credits
 \$16 for all HHP 185 classes for Mazama user fee

Associate of Arts Oregon Transfer (90 credits)

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)	3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>	

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

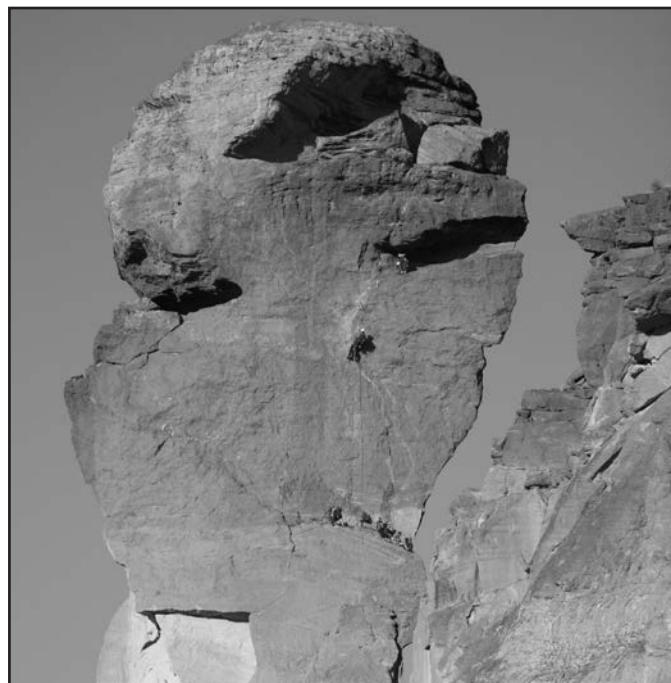
At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.



Electives

Choose enough elective credits to reach a minimum total of 90 overall degree credits. Elective classes must be numbered 100 or above and can be any combination of general electives, Career and Technical Education (CTE) courses (12 credits maximum) or CWE/HHP/performance classes (15 credits maximum). The following courses are recommended:

FOR 240A	Forest Ecology	3
FOR 251	Recreational Resource Management	3
GEOG 212	Tourism and Recreation	3
OL 111	Introduction to Outdoor Leadership	3
OL 253	Wilderness Advanced First Aid	3
OL 255	Outdoor Living Skills	3
OL 271	Facilitating Group Experiences	3
OL 273	Outdoor Recreation Leadership	3
OL 294WG	Whitewater Raft Guiding	3
or OL 294RC	Teaching Rock Climbing	
or OL 294CC	Challenge Course Practices	
or FOR 255	Resource Interpretation	

Lab fees:

\$20 for HHP 295, Health and Fitness, 3 credits or
 HHP 252A, Fit/First Aid, 3 credits
 \$25 for OL 271, Facilitating Group Experiences, 3 credits
 \$75 for OL 294CC, Challenge Course Practices, 3 credits
 \$16 for all HHP 185 classes for Mazama user fee

PHARMACY TECHNICIAN

Certificate of Completion (44 credits)
(Three quarters to complete if attending full time)

This three-term program is developed to prepare individuals for employment in the pharmacy setting. Pharmacy technicians are skilled workers who are educated and trained to work in a pharmacy and assist in all areas of the pharmacy not requiring the professional judgment of the registered pharmacist. Some current practice areas for the pharmacy technician include retail, hospital, mail order and as third party claim specialists for patient benefits managers. The pharmacy technician processes prescriptions and medication orders and plays an integral role in maintaining the pharmacy department.

Courses are completed in an online and hybrid format, and focus on the abilities needed to assist the pharmacist and provide the skills necessary to process prescriptions accurately, participate in administration and management of a pharmacy, and maintain inventory. Topics of study include medical terminology, anatomy and functions of the human body, therapeutic classification and drug names, pharmacy procedures, pharmaceutical calculations, pharmacy law and interpersonal communications. Students will have a working knowledge of sterile technique, standards of practice, quality assurance and patient confidentiality. In addition, students will develop and practice communication skills needed to function in a professional setting. In order to gain workplace experience, students will also participate in a hospital and retail pharmacy practicum.

The pharmacy technician courses were developed using the American Society of Health-System Pharmacists (ASHP) Accreditation Standards and are tailored specifically to the students in the program. This program prepares students to pass the National Pharmacy Technician Certification Exam required by the Oregon Board of Pharmacy to practice as a pharmacy technician in the state of Oregon.

To earn a certificate all required courses must be completed with a grade of “C” or better and students must maintain a 2.0 overall GPA to graduate.

The following is a suggested course of study for students interested in pursuing a certificate in Pharmacy Technician and will depend on course availability.

Required coursework

WR 121	English Composition	4
AH 111	Medical Terminology I	3
BI 121	Human Anatomy and Function I	4
PHM 100	Introduction to Pharmacy Technician	3
PHM 120	Drug Classification and Therapeutics I	3
AH 112	Medical Terminology II	3
BI 122	Human Anatomy and Function II	4
PHM 110	Pharmacy Calculations	3
PHM 140	Pharmacy Technician Procedures	4

PHM 130	Drug Classification and Therapeutics II	3
PHM 190	Practicum I: Hospital/Institutional	3
PHM 191	Practicum II: Retail/Community	3
PHM 181	Pharmacy Technician Seminar	1
SP 218	Interpersonal Communication	3

Advising information

The Pharmacy Technician Program allows for entry into the core PHM course once per year in the winter term. Registration into the winter term core PHM courses is based on a first-come, first-served basis and department approval for registration will be granted upon completion of pre-registration requirements. The program coursework is an online format and computer competency is a program admission requirement. It is highly recommended that the student begin general education courses such as English Composition, Anatomy and Function, Medical Terminology or Interpersonal Communication in the fall term. Prior to starting the program classes, students must complete all of the following: (1) high school diploma or GED and (2) take COCC’s placement test and receive the minimum scores or complete the equivalent courses listed below:

WR 65, 75, or 95 or placement into WR 121
MTH 20 or placement into MTH 60
Pass Computer Competency or CIS 120 (grade of “C” or better)

Prior to entering the program, students must provide proof of current immunization to Hepatitis B, Measles, Mumps, Rubella, Tetanus/Diphtheria. A negative TB test (within the last year) and a current CPR/AED for the Professional Rescuer/Health Care Provider certification are required.

Students are also required to complete units 1 through 5 of the online orientation. For details, see <http://web.cocc.edu/onlineorientation>.

Once admitted to the program, students must obtain a one-year nonrenewable Pharmacy Technician License from the Oregon State Board of Pharmacy. This license is required to participate in the Pharmacy Technician Practicum courses. Applicants must have a high school diploma or equivalency (GED), be at least 18 years of age, and submit to a criminal background check to obtain this license. Information for licensure is available from the Oregon Board of Pharmacy and can be found at www.pharmacy.state.or.us or by calling 971-673-0001.

Due to the nature of this curriculum and access to drugs, all students will have to declare themselves “drug free” and be subject to a criminal background check. A urine screen for drugs may be requested prior to the clinical experience practicum. A positive drug test or criminal background check may prevent the student from registering for the practicum coursework and completing the program.

PHYSICS, ENGINEERING AND ENGINEERING TECH

Associate of Science (93 credits)

While there are small differences between the programs of each branch of engineering and physics, COCC works to provide the courses common to all programs. Students may have to take some additional classes at the university after transferring to reach junior status within their major.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in physics, engineering and engineering technology. In some instances an Associate of Science degree may help students better meet transfer-institution course requirements; see advisor for details.

General education/foundational requirements

English Composition		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	
Oral Communication		
SP 111	Fundamentals of Public Speaking	3
Mathematics		
MTH 111	College Algebra	4
Health ¹		
		3-4
Computer competency ²		
		0-4

General education/discipline studies

Arts and Letters

A minimum of 11 credits from the arts and letters discipline studies list, with at least two different prefixes and at least two courses with the same prefix.

Science/Math/Computer Science

BI 101	General Biology I	4
PH 211	General Physics I	5
PH 212	General Physics II	5
PH 213	General Physics III	5

Social Science

A minimum of 15 credits from the social science discipline studies list, with at least two different prefixes and at least two courses with the same prefix.

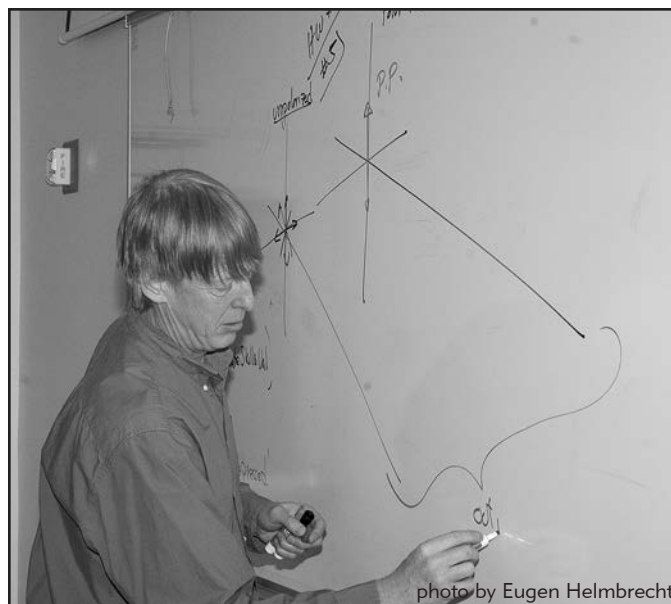


photo by Eugen Helmbrecht

Electives

CH 221	General Chemistry I	5
CH 222	General Chemistry II	5
CH 223	General Chemistry III	5
ENGR 201	Electrical Fundamentals	3
ENGR 211	Statics	4
ENGR 212	Dynamics	4
ENGR 213	Strength of Material	4
GE 101	Engr Orientation	3
GE 102	Engineering Problem Solving and Technology	3
MTH 251	Calculus I	4
MTH 252	Calculus II	4
MTH 253	Calculus III	4
MTH 254	Vector Calculus I	4
MTH 255	Vector Calculus II	4
MTH 256	Applied Differential Equations	4

Students should take all of the above plus enough additional coursework to reach the 93 minimum credits required for the AS degree.

¹ To meet this requirement, students can choose from HHP 231: Human Sexuality, HHP 242: Stress Management, HHP 258: Holistic Wellness or HHP 266: Nutrition for Health, HHP 295: Health and Fitness and one activity or health module —OR— HHP 252A.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

POLITICAL SCIENCE

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in political science.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
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(or higher for which Intermediate Algebra is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

PS 201 ¹	Intro to US Government and Politics	4
PS 204 ¹	Intro to Comparative Politics	4
PS 205 ¹	Intro to International Relations	4

plus another course from the Social Science discipline studies list that does not have a PS prefix.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.



photo by Eugen Helmbrecht

Electives

PS 206 ¹	Intro to Political Thought	4
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Plus choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

¹ Courses in Political Science do not need to be taken in sequence.

Additional advising information and recommendations

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the arts and letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor. It is recommended that students pursuing a political science major take additional social sciences courses to fulfill some of their elective credits. Economics, geography and history courses are particularly helpful in this regard.

PRE-DENTAL HYGIENE

Transfer Preparation (59 credits)

While Central Oregon Community College does not offer a Dental Hygiene program, many students begin their courses here with the intent of transferring to another college for their actual degree. Below is a listing of courses that fulfill most pre-dental hygiene transfer requirements, although students should contact their intended transfer school to determine exact requirements.

ANTH 103	Cultural Anthropology	4
BI 231	Human Anatomy and Physiology I	4
BI 232	Human Anatomy and Physiology II	4
BI 233	Human Anatomy and Physiology III	4
BI 234	Microbiology (optional)	4
CH 104	Introduction to Chemistry I	4
CH 105	Introduction to Chemistry II	4
CH 106	Introduction to Chemistry III	4
FN 225	Human Nutrition	4
MTH 111	College Algebra	4
PSY 201	Mind and Brain	4
SOC 201	Introduction to Sociology	4
SP 111	Fundamentals of Public Speaking	3
WR 121	English Composition	4
WR 122	English Composition	4

Colleges in Oregon offering a dental hygiene program include:

- Lane Community College
- Mt. Hood Community College
- ODS College of Dental Sciences - La Grande
- Oregon Institute of Technology
- Pacific University
- Portland Community College



photo by Benjamin Edwards

PRE-LAW

Associate of Arts Oregon Transfer (90 credits)
(Six quarters to complete if attending full time)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

Most law schools have no requirements for a pre-law curriculum and will accept a bachelor's degree in any major. Students should develop an educational program that is broad, yet provides depth of understanding in at least one subject area, along with fundamental insights into human institutions and values. The emphasis should be on a degree program that meets students' needs and interests, that students find challenging, and in which students will do their best work and will earn good grades.

Legal educators agree that the development of particular skills and habits will contribute more to success in law school than a major in any one subject. Therefore, coursework should focus on strengthening habits of thoroughness, intellectual curiosity, scholarship, the ability to research a topic, write concisely, analyze information and think critically. Verbal and written communication skills are very important.

Courses in literature, language, composition, logic and linguistics are directly concerned with the cultivation of these skills. In addition, lawyers must be adept at problem solving and organizing information to support a point of view. Courses in political science, economics, American and British history, journalism, philosophy and business principles will provide an opportunity to practice these skills and gain an understanding of social institutions and values.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in pre-law.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		

Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

Additional advising information and recommendations

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the arts and letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor.

PRE-MEDICAL LAB TECHNOLOGY

Transfer Preparation (52-60 credits)

Portland Community College (PCC) offers an Associate of Applied Science degree in Medical Laboratory Technology (MLT) via distance education. Students complete specific prerequisite courses at COCC and then apply to the PCC distance-learning MLT program. Acceptance into the program is on a limited basis, and is dependent on clinical space available. Additionally, continuation into the second year is contingent upon performance during the first year of the program. The medical laboratory technology courses are taught primarily online and the clinical practicum is completed at local area clinical laboratories in Central Oregon. Occasional day or weekend travel to Eugene or Portland is necessary for additional PCC-required laboratory activities. Please see an advisor for details.

Required prerequisites

(All courses can be taken at COCC)

WR 65	Rhetoric and Critical Thinking II	0-4
or WR 75	Basic Writing I	
or WR 95	Basic Writing II	
	or Reading and Writing ASSET score 43	
MTH 65	Algebra II	0-4
	or Elementary Algebra ASSET score 52	
CH 104	Introduction to Chemistry I	4
BI 101	General Biology I	4
or BI 102	General Biology II	
or BI 103	General Biology III	

YEAR ONE

(All courses can be taken at COCC except MLT 111, MLT 112, and MLT 213, which can be taken online through PCC)

Fall term

BI 121	Anatomy and Function I	4
or BI 231	Human Anatomy and Physiology I	
MLT 111	Medical Technology I (online)	4
WR 121	English Composition	4

Winter term

BI 122	Anatomy and Function II	4
or BI 232	Human Anatomy and Physiology II	
CH 105	Introduction to Chemistry II	4
MLT 112	Medical Technology II (online)	4
General Education Elective		4

Spring term

BI 233	Human Anatomy and Physiology III	4
or BI 234	Microbiology	
CH 106	Introduction to Chemistry III	4
MLT 213	Intro. to Medical Microbiology (online)	4
General Education Elective		4



photo by Eugen Helmbrecht

YEAR TWO

Students who wish to continue should contact PCC and apply for acceptance to the second year of the Medical Laboratory Technology program. Once students are officially accepted into the PCC MLT program, they will enroll in all remaining courses through PCC.

For details go to <http://www.pcc.edu/programs/medical-lab/>.

PRE-MEDICINE, PRE-DENTISTRY, PRE-VETERINARY

Associate of Arts Oregon Transfer (90 credits)

Students interested in pursuing professional degrees in medicine, dentistry or veterinary medicine are required to complete a bachelor's degree, preferably in a related area, including any of the biological sciences. To provide a solid foundation for bachelor's degree work, students are encouraged to complete the Associate of Arts Oregon Transfer degree, with an emphasis on pre-med, -vet and -dentistry related coursework; a specific course of study is listed below. Students may transfer to a baccalaureate institution without the AAOT; however, completion of this degree guarantees that a student will transfer with junior standing and that all lower-division general education coursework is complete.

General education/foundational requirements*(Courses must be completed with a grade of "C" or higher)*

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
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(or higher for which Intermediate Algebra is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies*(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)*

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science. Recommend:

BI 211	Principles of Biology I	5
BI 212	Biology of Plants II	5
BI 213	Biology of Animals III	5
CH 221	General Chemistry I	5



photo by Eugen Helmbrecht

Electives

CH 222	General Chemistry II	5
CH 223	General Chemistry III	5
CH 241	Organic Chemistry I	5
CH 242	Organic Chemistry II	5
CH 243	Organic Chemistry III	5
FN 225	Human Nutrition	4
MTH 112	Elementary Functions	4
MTH 113	Analytic Geometry	4
MTH 251	Calculus I	4
MTH 252	Calculus II	4
MTH 253	Calculus III	4

PH 201	General Physics I	5
PH 202	General Physics II	5
PH 203	General Physics III	5

or

PH 211	General Physics I	
PH 212	General Physics II	
PH 213	General Physics III	

Students should take enough electives to reach the 90 minimum credits required for the AAOT degree.

PRE-MEDICAL IMAGING TECHNOLOGY

Transfer Preparation (51-54 credits)

Central Oregon Community College provides the prerequisite courses for Oregon Institute of Technology's Bachelor of Science in Medical Imaging Technology degree. Students complete specific courses at COCC and then apply for admission into OIT's MIT program. Admission is highly competitive; see <http://www.oit.edu/programs/mit> for program details and admission process. Students spend the second and third years of the program at the Klamath Falls campus and the fourth year at a hospital site for externship.

Prerequisite courses

AH 111	Medical Terminology I	3
BI 231	Human Anatomy and Physiology I	4
BI 232	Human Anatomy and Physiology II	4
BI 233	Human Anatomy and Physiology III	4
CH 104	Introduction to Chemistry I	4-5
or CH 221	General Chemistry I	
MIT 103 (offered online via OIT, http://www.oit.edu/dist)		3
MTH 111	College Algebra	4
MTH 112	Trigonometry	4
PSY 201	Mind and Brain	4
SP 111	Fundamentals of Public Speaking	3
WR 121	English Composition	4
WR 122	English Composition	4
Social science electives ¹		3-4
Arts and letters (OIT humanities) electives ¹		3-4

¹ These courses must be selected from OIT's list of approved courses. See advisor for recommendations.



photo by Eugen Helmbrecht

PRE-RADIOLOGY TECHNOLOGIST

Transfer Preparation (39-53 credits)

Linn-Benton Community College (LBCC) offers an Associate of Applied Science in Diagnostic Imaging (radiological technology) via a distance education program. Students complete specific prerequisite courses at COCC and then apply to the LBCC Distance program, noting that admission to the LBCC program is competitive. The LBCC radiology technologist courses are taught online and the clinical component courses are taught by LBCC in various locations in Central Oregon. Please see the Selection Process Handbook available in the Admissions and Records office or online (http://alliedhealth.cocc.edu/Programs_Classes/RadTechn) for details.

Required prerequisites

AH 111	Medical Terminology I	3
BI 231	Human Anatomy and Physiology I ¹	4
BI 232	Human Anatomy and Physiology II ¹	4
BI 233	Human Anatomy and Physiology III ¹	4
	Computer competency ²	0-4
	Health course ³	3
MTH 111	College Algebra	4
SP 111	Fundamentals of Public Speaking	3
or SP 218	Interpersonal Communication	
WR 121	English Composition	4

Support courses

CH 104	Introduction to Chemistry	4-5
or GS 105	Physical Science: Chemistry	
or CH 221	General Chemistry I	
BI 101	Introduction to Biology I	4
or BI 102	Introduction to Biology II	
or BI 103	Introduction to Biology III	
or BI 211	Principles of Biology I	
PH 201	General Physics	4
or PH 211	General Physics I	
or GS 104	Physical Science: Physics	
AH 112	Medical Terminology II	3

Other

Cultural diversity course ⁴	3-4
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¹ BI 232 Human Anatomy and Physiology II and BI 233 Human Anatomy and Physiology III are not required to apply but are highly recommended.

² Pass computer basic skills competency test (see page 37 for details) or take CIS 120: Computer Concepts.

³ To meet this requirement, students can choose from HHP 231, Human Sexuality; HHP 242, Stress Management; HHP 258, Prevention of Chronic Diseases; HHP 266, Nutrition for Health; HHP 245, Health and Fitness; or HHP 252A, Fit/First Aid.

⁴ See Radiology Technologist Selection Process Handbook (http://alliedhealth.cocc.edu/Programs_Classes/RadTechn) for list of qualifying courses.

PSYCHOLOGY

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in psychology.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing		
WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication		
SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics		
MTH 105	Intro to Contemporary Math	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		
Recommended: MTH 111 College Algebra		

Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

PSY 201 ¹	Mind and Brain	4
PSY 202 ¹	Mind and Society	4

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.

¹ These courses do not need to be taken in sequence.

Additional advising information and recommendations

Students pursuing a BA after transfer should consider completing

three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the arts and letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor. In general two 100+ math classes beyond the foundational mathematics requirement fulfill the Bachelor of Science. These will also partially fulfill the Science/Math/Computer Science discipline studies requirements.

Although students may take whichever science sequence they prefer, it is recommended to take BIO 101-103 or BI 231-233 due to the relevance these courses have to upper-division psychology courses.

It is advisable for students to consider the following psychology courses as electives to gain a further insight into the field and to help them determine what area of psychology they may be interested in pursuing: Personality Psychology (PSY 214), Developmental Psychology (PSY 215), Abnormal Psychology (PSY 219), Social Psychology (PSY 216), Psychology of Violence and Aggression (PSY 233), Animal Behavior (PSY 222) and any other potential special topics courses that are offered from time to time.

Students who are considering clinical or counseling psychology might consider the following electives: Effective Helping Skills I (HS 162), Effective Helping Skills II (HS 262), Ethics for Human Services (HS 161), Groups and Addiction Treatment (HS 206), Dual Diagnosis (HS 201), Counseling Theories (HS 260), Crisis Management (EMT 195) and Children at Risk (ED 265).

Psychology students will be required to take Statistics when they transfer. Although MTH 111 is sufficient for the math requirement, advisors recommend taking one or both of MTH 243 and MTH 244 to finish the science requirement and to allow students to be exposed to statistics beforehand.

Transfer information

Note that individual institutions may have additional requirements or will change the category that a course satisfies if the AAOT is not completed, or is transferred to an out-of-state college or university. For admission into a particular program, courses may be added (e.g., UO requires Psychology majors to complete PSY 302 and PSY 303, Statistics and Research Methods, prior to admission to the PSY program, but admission to the school is automatic with the AAOT). Students who transfer should contact the institution they plan to attend to ensure they have fulfilled the specific requirements for their program.

Students have the option of pursuing a bachelor's degree in psychology through the University of Oregon (contact Diane Pritchard, UO advisor, 541-617-4665) or through a distance program with Eastern Oregon University (contact Brenda McDonald, EOU advisor, 541-385-1137); both programs are available in Central Oregon.

SOCIOLOGY

Associate of Arts Oregon Transfer (90 credits)

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in sociology.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
<i>(or higher for which Intermediate Algebra is a prerequisite)</i>		
Recommended: MTH 111 College Algebra		

Health (3 credits with HHP prefix)		3
<i>HHP activity courses (1 credit each) are not to be duplicated</i>		

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

At least three (3) courses chosen from at least two (2) prefixes.

Social Science

At least four (4) courses from at least two (2) prefixes.

SOC 201	Introduction to Sociology	4
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Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose any college-level course that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable.



photo by Pualani Helmbrecht

Additional advising information and recommendations

Students pursuing a BA after transfer should consider completing three terms of a 200-level language course. The 100-level language courses will count as electives. The 200-level language courses will partially fill the arts and letters requirement.

Students pursuing a BS after transfer should consider taking more math and science courses. Language is not necessary. For specific details, speak with an advisor.

It is advised for students to consider the following sociology courses as electives to gain further insight into the field and to help them determine what area of sociology they may be interested in pursuing: Social Psychology (SOC 206); Social Deviance (SOC 211); Sport and Society (SOC 208); Race, Class, and Ethnicity (SOC 212); Social Issues and Social Movements (SOC 215); Sociology of Religion (SOC 219); Sociology of Popular Culture (SOC 250); and any other potential special topics courses that are offered from time to time.

Sociology students typically will be required to take Statistics when they transfer. Although MTH 111 is sufficient for the math requirement, advisors recommend taking one or both of MTH 243 and MTH 244 to finish the science requirement and to allow students to be exposed to statistics beforehand.

Transfer information

Note that individual institutions may have additional requirements or will change the category that a course satisfies if the AAOT is not completed, or is transferred to an out-of-state college or university. For admission into a particular program, courses may be added. Students who transfer should contact the institution they plan to attend to ensure they have fulfilled the specific requirements for their program. This includes the transfer option to OSU-Cascades (OSU or UO degree).

SPEECH COMMUNICATION

Associate of Arts Oregon Transfer (90 credits)

COCC's Speech Communication program offers courses in public speaking, small group communication, interpersonal communication, as well as classes on the media, gender, intercultural communication and communicating love. One-credit, workshop-style courses are also available for those who want to learn team skills, conflict management, listening skills and emotional intelligence. A degree in speech communication can lead to a career in teaching, the hospitality industry, broadcast and cyber media, human resources, business management, public relations, politics, law or the arts.

The Associate of Arts Oregon Transfer degree meets the state of Oregon transfer degree requirements, allowing students to transfer to an Oregon public university and some out-of-state universities having met all lower-division general education requirements; with the appropriate course planning, all lower-division major requirements may also be met. Students should work closely with an advisor to select the best degree option and review specific transfer requirements.

The following is a suggested course of study for students interested in pursuing a bachelor's degree in speech communication.

General education/foundational requirements

(Courses must be completed with a grade of "C" or higher)

Writing

WR 121	English Composition	4
WR 122	English Composition	4
or WR 227	Technical Writing	

Oral Communication

SP 111	Fundamentals of Public Speaking	3
or SP 114	Argumentation and Critical Discourse	
or SP 115	Introduction to Intercultural Communication	
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Mathematics

MTH 105	Intro to Contemporary Mathematics	4
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(or higher for which Intermediate Algebra is a prerequisite)

Health (3 credits with HHP prefix)	3
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HHP activity courses (1 credit each) are not to be duplicated

General education/discipline studies

(See pages 47 and 48 for course listings. One of the courses must be a cultural literacy course, designated with an asterisk.)

Arts and Letters

Two courses from HUM 261-266 plus one additional course from the arts and letters discipline studies list with an SP prefix.

Social Science

At least four (4) courses from at least two (2) prefixes. Speech communication majors should consider courses with a PSY or SOC prefix.

Science/Math/Computer Science

At least four (4) courses from at least two (2) prefixes including at least three (3) laboratory courses in biological and/or physical science.

Electives

Choose enough electives to reach the minimum of 90 credits for the AAOT. In addition to the recommendations listed below, speech communication majors should consider taking a broad range of courses.

SP 115	Intro to Intercultural Communication	3
SP 218	Interpersonal Communication	3
SP 219	Small Group Communication	3
SP 220	Gender Communication	3
SP 241	Media, Communication, and Society	4
SP 270	Communicating Love	3

Advising information

Students planning to transfer to OSU need to take:

HHP 295	Health and Fitness	3
and HHP 185	Activity class	1

Transfer information

The Oregon University System offers a variety of programs for speech communication majors who seek a bachelor's or more advanced degree.

Oregon State University-Cascades offers a speech communication minor; contact its Admissions office for more information.

OSU's (Corvallis) Department of Speech Communication offers undergraduate programs leading to BA or BS degrees, with concentrations in communication or theater art. Additionally, students at OSU can complete a minor either in communication or theater arts, as well as one in the multimedia minors. At the graduate level they participate in the Master of Arts in Interdisciplinary Studies program.

The University of Oregon's School of Journalism and Communication offers majors in six areas: advertising, electronic media, communication studies, magazine journalism, news-editorial or public relations.

Southern Oregon University's Department of Communication provides students the opportunity to develop verbal and nonverbal communication knowledge and skills through exploration of human communication, mass media studies and journalism. In addition to these three degree programs, the department offers four minor options to support a variety of goals: human communication, journalism, media studies and public relations.

Western Oregon University's Speech Communication Department offers a 57-hour major and a 27-hour minor in speech communication. In the liberal arts tradition, their program emphasizes classic texts of rhetoric, modern communication theory, and the latest developments in mass media and communication technology.

STRUCTURAL FIRE SCIENCE

Associate of Applied Science
(94-98 credits; six quarters to complete if attending full time)

The Associate of Applied Science degree (AAS) in Structural Fire Science is designed for students seeking a career in the fire service industry or upgrading their skills for current fire service employment. The program meets or exceeds the required technical skills and knowledge necessary for employment in many fire service organizations throughout the country.

The program requires hands-on training in fire and emergency medical skills and significant on-the-job training (OJT) by joining a fire agency. Most local fire agencies have student and volunteer positions. Students must apply and compete for these positions. Passage of a physical training exam is required. Students are required to work with and around mechanical equipment, ropes, fire pumps, fire hose and appliances, ladders, various apparatus, and hand tools (both manual and powered). Students will need to be aware of the College insurance policy prior to participation in the program. A statement concerning College insurance policies is listed on page 24 and on all SFS degree syllabi. Students are expected to provide hearing protection, helmet, eye protection and gloves. Other special equipment and clothing may be required as part of this program.

Each of the degree program classes cycle once a year starting in the fall term. As a general rule, 100-level courses are recommended for first year, and 200-level courses are recommended for second year. Exceptions can be made based on individual student education and experience. All required general education, technical and elective courses must be passed with a minimum 75 percent, a letter grade of "C" or better and a minimum GPA of 2.0. Proof of immunizations (Hepatitis B and measles) and current TB test results are required prior to registration in EMT Basic Part A and B.

Students who complete COCC's program are also eligible for Eastern Oregon University's bachelor's degree in fire administration upon completion of additional coursework. Students interested in this option should work closely with EOU's distance education advisor. The program also meets the undergraduate fire course requirements for a Bachelor of Science degree in fire administration at Western Oregon University.

Students should contact the SFS program coordinator at (541) 504-2932 or the EMS program coordinator at (541) 383-7287 for details concerning a dual degree in both SFS and EMS. Additional information can be found at http://alliedhealth.cocc.edu/Programs_Classes/Fire+Science/.

The following is a suggested course of study for students interested in pursuing an AAS in Structural Fire Science and will depend on course availability.



photo by Paula Simone

Degree/course requirements

YEAR ONE

Fall term

EMT 151	EMT Basic Part A	5
SFS 101	Introduction to Emergency Services	3
or EMT 175	Introduction to Emergency Services	
SFS 102	Firefighter Safety and Survival	2
SFS 112	Public Education and Fire Prevention	3
WR 121	English Composition	4

Winter term

EMT 152	EMT Basic Part B	5
GS 105	Physical Science: Chemistry	4
MTH 85	Technical Math I	4
or MTH 60	Algebra I	
SFS 120	Fixed Systems and Extinguishers	3

Spring term

HHP 242	Stress Management	4
or HHP 258	Holistic Wellness	
or HHP 266	Nutrition for Health	
or HHP 295	Health and Fitness	
AND one activity or health module		
SP 218	Interpersonal Communications	3
or SP 111	Fundamentals of Public Speaking	
or SP 219	Small Group Communication	
General education discipline studies course ¹		6
Structural Fire Science elective ²		3

STRUCTURAL FIRE SCIENCE (continued)

YEAR TWO

Fall term

GS 104	Physical Science: Physics	4
SFS 110	Building Construction for Fire Personnel	3
SFS 230	Rescue Practices	3
General education discipline studies course ¹		3
Structural Fire Science elective ²		3

Winter term

FOR 211	Supervision and Leadership	3
or BA 285	Business Human Relations	
SFS 210	Fire Investigation	3
SFS 212	Fire Codes and Ordinances	3
SFS 232	Fire Protection Hydraulics and Water Supply	4
Computer competency ³		0-4

Spring term

SFS 205	Fire Behavior and Combustion	3
SFS 211	Fire Tactics and Strategies	3
SFS 215	Urban Interface	3
SFS 233	Fire Service Entry Exams	3
SFS 283	Capstone for Fire Science	1
Structural Fire Science elective ²		3

Students should take all of the above plus enough additional coursework to reach the 93 minimum credits required for the AAS degree.

¹ See AAS checklist, general education discipline studies requirements, page 42. However, for students who are going to be completing the EMS degree, see advisor for discipline studies requirements.

² Students can choose from the following Structural Fire Science electives:
 AH 111, Medical Terminology
 EMT 170, Communication and Transportation
 EMT 171, Emergency Response Patient Transport
 EMT 195, Crisis Intervention
 FOR 130, Chainsaw Use and Maintenance
 SFS 121, Fire Law
 SFS 122, Fire Department Budget
 WF 100, Incident Command Systems
 WF 101, Introduction to Fire Behavior and Firefighter Training
 WF 201, NFPA Instructor 1
 WR 227, Technical Writing

³ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.



photo by Paula Simone

Advising information

In order to receive an AAS in Structural Fire Science, students must provide certification in NFPA Firefighter I, I-200 Incident Command Systems; NFPA HazMat Awareness and Operations; and OHD EMT Basic Certification. To obtain these certifications, students must become affiliated with a fire agency. It is recommended students become affiliated before their second year. Contact advisor for information.

Articulation information

Students transferring from COCC to Eastern Oregon University's Fire Science Administration program will be given full credit for many COCC SFS courses. Please check with program coordinator for current courses approved for transfer. Students who plan to transfer to EOU's FSA program are encouraged to take MTH 105 or MTH 111. (Completion of the AAOT will satisfy all general education requirements at EOU, but is not required for institution or program admission. The following link shows COCC courses which transfer into EOU's general education categories, <http://www.eou.edu/advising/transfer/cocc.htm>). This information is subject to change and should always be checked with the EOU advisor prior to registration in these courses.

Students are encouraged to review the degree requirements for the EOU Fire Services Administration degree found at: <http://www.eou.edu/dde/Degrees/FSA.htm>.

WILDLAND FIRE FUELS MANAGEMENT

Short-term Certificate
 Certificate of Completion
 Associate of Applied Science

COCC offers students the following options within the Wildland Fire program:

- Less than one-year certificate in Firefighter Type II
 The certificate is designed to provide basic skills for students interested in working in the wildland fire profession. Courses are open to all students and the certificate takes one term/quarter (winter) to complete for students attending full time.
- Certificate of completion in Wildland Fire Suppression
 The certificate of completion is designed to provide basic skills for students interested in working in the wildland fire profession. Courses are open to all students and the certificate takes three terms/quarters to complete for students attending full time.
- Associate of Applied Science degree in Wildland Fire/Fuels Management
 This degree is designed to update the skills of fire/fuels employees. It is a supplementary degree for current employees of wildland fire suppression organizations only. New students interested in earning an Associate of Applied Science degree are encouraged to pursue the AAS in Forestry Resources or talk with the wildland fire coordinator about other options.

Advising and/or other pertinent information

All Wildland Fire Fuels Management certificate or degree students are expected to provide hard hat, gloves, 18" leather boots with Vibram soles and fire clothes for the courses. Some fire clothes may be provided by the College; check with program coordinator.

Students need to be aware of the College insurance policy prior to participation in the program. A statement concerning College insurance policies is listed on page 24 and on all wildland fire syllabi.

Firefighter Type II
Less than One-Year Certificate
(13 credits; one quarter to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Firefighter Type II and will depend on course availability.

Winter term

FOR 100	Forestry Program Orientation	1
FOR 111	Forestry Perspectives	4
WF 100	Incident Command Systems	3
WF 101	Introduction to Fire Behavior and Firefighter Training	3
WF 134	S-134, Lookouts, Communication, Escape Routes, Safety Zones	2



photo by Paula Simone

Wildland Fire Suppression
Certificate of Completion
(47 credits; three quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing a certificate in Wildland Fire Suppression and will depend on course availability.

Fall term

FOR 100	Forestry Program Orientation	1
FOR 110	Wildland Fire Science I	2
FOR 230A	Map, Compass and GPS	3
HHP 252A	Fitness/First Aid	3
MTH 85	Technical Math I	4
SP 111	Fundamentals of Public Speaking	3
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	

Winter term

FOR 111	Forestry Perspectives	4
WF 100	Incident Command Systems	3
WF 101	Introduction to Fire Behavior and Firefighter Training	3
WR 121	English Composition	4
WF 134	S-134, Lookouts, Communication, Escape Routes, Safety Zones	2

Spring term

BA 101	Intro to Business	4
FOR 130	Chainsaw Use and Maintenance	2
WF 211	S-211 Portable Pumps	2
WF 270	S-270 Basic Air Operations	2
WF 281	L-280 Followership to Leadership	2
WF 290	S-290 Intermediate Wildfire Behavior	3

WILDLAND FIRE FUELS MANAGEMENT (continued)

Wildland Fire/Fuels Management
Associate of Applied Science (102-106 credits)
(More than six quarters to complete if attending full time)

The following is a suggested course of study for students interested in pursuing an AAS in Wildland Fire/Fuels Management and will depend on course availability.

YEAR ONE

Fall term

FOR 230A	Map, Compass and GPS	3
FOR 240A	Forest Ecology	3
FOR 241A	Field Dendrology	3
MTH 85	Technical Math I	4

Winter term

FOR 203	Applied Forest Ecology	3
FOR 220B	Resource Measurements	4
MTH 86	Technical Math II	4
WF 101	Introduction to Fire Behavior and Firefighter Training	3
Wildland Fire open elective ¹		3

Spring term

FOR 110	Wildland Fire Science I	2
FOR 202	Forest Entomology/Pathology	3
FOR 220A	Aerial Photo	3
FOR 241B	Dendrology	3
WR 121	English Composition	4

YEAR TWO

Fall term

FOR 205	Silviculture and Harvesting Processes	5
FOR 210	Wildland Fire Science II	2
General education discipline studies course ³		3
HHP 252A	Fitness/First Aid	3
Wildland Fire elective course ²		4

Winter term

Computer competency ⁴		0-4
FOR 211	Supervision and Leadership	3
General education discipline studies course ³		3
SP 111	Fundamentals of Public Speaking	3
or SP 218	Interpersonal Communication	
or SP 219	Small Group Communication	
WF 100	Incident Command Systems	3
WF 215	S-215 Fire Operations in the Urban Interface	3

Spring term

FOR 209	Fire Ecology and Effects	3
FOR 260	Conservation of Natural Resources	3
General education discipline studies course ³		3
WF 211	S-211 Portable Pumps	2
WF 270	S-270 Basic Air Operations	2
WF 290	S-290 Intermediate Wildfire Behavior	3

Additional Wildland Fire Management short courses required

WF 230	S-230 Crew Boss	3
WF 234	S-234 Ignition Operations	2
WF 281	L-280 Followership/Leadership	2
WF 298	S-390 Fire Behavior Calculations	2

¹ Choose any course with the WF prefix not already in program coursework.

² Choose from

- BA 101, Intro to Business
- FOR 100, Forestry Program Orientation
- FOR 111, Forestry Perspectives
- FOR 130, Chainsaw Use and Maintenance
- FOR 126, Field Studies Pacific NW Forests
- FOR 127, Plants of the Pacific Northwest
- FOR 208, Soils: Sustainable Ecosystems
- FOR 220C, Resource Sampling
- FOR 230B, Forest Surveying
- FOR 240B, Wildlife Ecology
- FW 218, Survey of Northwest Wildlife
- GEOG 211, Computer Cartography
- WF 134, S-134 Lookouts, Communications, Escape Routes, Safety Zones

³ See AAS checklist, general education discipline studies requirements, pages 47 and 48; each course must have a different prefix.

⁴ Pass computer basic skills competency test (see page 37 for details) or take CIS 120, Computer Concepts.

Advising information

Because the short courses are sponsored by the East Slope Training region, the short courses (s-courses) are available to students in the following order:

1. Sponsored government and state employees, including structural fire agencies, from within the East Slope Training area;
2. Sponsored government and state employees, including structural fire agencies, from outside the East Slope Training area;
3. Full-time COCC students/part-time COCC students/private contractors (in that order) who meet the qualifications of the course. Students must provide a copy of training records to the program coordinator.

A minimum of 60 days' fire-related work experience approved by the Wildland Fire Science coordinator is required for graduation.

Additional information can be found at: <http://wfs.cocc.edu> or by calling the program coordinator at the Redmond campus, 541-504-2932.

COURSE DESCRIPTIONS

Central Oregon Community College has a diverse selection of transfer and Career and Technical Education (CTE) courses. Prerequisites are specified in many of the course descriptions. It is the student’s responsibility to meet the prerequisite conditions before enrolling in the course.

Not every class is offered every term. All of COCC’s current courses may not be included in this list as the College may add or subtract classes after the catalog is published. Consult the COCC credit class schedule online (www.cocc.edu) for information about where and when classes meet.

HOW TO READ A COURSE DESCRIPTION

COURSE LISTING

BI 212
BIOLOGY OF PLANTS II
 Surveys diversity of Monera, Protista, Fungi and plant kingdoms; examines living plants, their evolutionary interrelationships, morphology and physiology. Prerequisite: BI 211 or instructor’s permission.
Credits: 5 Lecture: 4 Lab: 3

EXPLANATION

Courses are grouped by area of study and listed alphabetically by **letter prefix** and **course number**. Courses numbered 100 and above are designed for transfer to other colleges for degree credit.

BIOLOGY OF PLANTS II The **title of the course** is listed in all capital letters.

Surveys diversity of Monera, The **course description** briefly summarizes the course content.
 Protista, Fungi and plant

Prerequisites: BI 211 **Prerequisites**, if any, are listed by course number after the course description. It is important to note prerequisites prior to registering. A prerequisite is a course which should be completed prior to enrolling in the selected course. A **corequisite** is a course which should be completed prior to or while attending the selected course.

Credits: 5 Lecture: 4 Lab: 3 The number of hours per week in **lecture** and **labs** is noted, as is the number of **credits** earned by taking the course.

MIC, “M” COURSES

COCC offers courses in a variety of subject areas designated as “MIC,” or Multicultural Infusion Component. These courses cover the subject matter of the course title, but they infuse multicultural or international components into the course. These include free-standing units within single courses, all-purpose courses on multicultural or international issues or courses which integrate material on diverse groups into their content. MIC courses are designed to satisfy transfer requirements for cultural diversity or perspective classes.

WIC, “W” COURSES

COCC offers courses in a variety of subject areas designated as “WIC,” or Writing in Context. These courses cover the subject matter of the course title using a significant component of formal and informal writing to help students learn the course content. For example, a history WIC course may assign informal written worksheets and formal essays, or a physics WIC course may require written lab reports. WIC courses are designed to satisfy transfer requirements for lower-division writing-across-disciplines or writing-intensive coursework.

ADDICTIONS STUDIES

HS 161

ETHICS FOR HUMAN SERVICES

Designed for those desiring employment in the helping fields. A professional can expect to encounter complexities in keeping the client's needs as the primary concern. Students will explore how to set and maintain professional boundaries. The course will relate abstract ethical principles to tangible examples and will offer a practical framework for analyzing ethical issues. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

HS 162

EFFECTIVE HELPING SKILLS I

Introductory course for people interested in pursuing a career in the helping professions or who may be working in a helping role now. Students practice basic interviewing skills, learn to create a helping climate, and organize and conduct an informational interview. Introduces students to basic interaction, referral, interviewing and listening skills.

Credits: 3 Lecture: 3

HS 180

HIV, AIDS AND ADDICTIONS

Provides a thorough investigation of the HIV/AIDS epidemic and expectations of professionals in dealing with it. Covers epidemiology, HIV/AIDS related policy, the effects of chemical dependency and chemical use in promoting the spread of HIV infection, routes of exposure to the virus and the manner in which various populations are infected and treated. Guidelines and directives for counseling individuals who are HIV seropositive and those at high risk for HIV infection.

Credits: 2 Lecture: 2

HS 200

ADDICTIVE BEHAVIOR

Provides a broad overview of the field of addictions through a look at the issues and treatments involved. Includes history, prevention regarding alcohol, drugs, nicotine, eating disorders, depression and relapse prevention. Recommended pre- or corequisite: WR 121.

Credits: 3 Lecture: 3

HS 201

FAMILIES AND ADDICTIONS

Designed for people who are training to become chemical dependency counselors or current counselors who are seeking to increase their knowledge base. Focuses on basic theory, technique and experience in doing family therapy with families of addicts. Primary models of family therapy used will be systemic and structural. Recommended pre- or corequisite: WR 121.

Credits: 3 Lecture: 3

HS 205

YOUTH AND ADDICTIONS

Provides a beginning knowledge of child/adolescent development and results in an understanding of the effects of substance abuse on that development. Covers the signs of substance abuse and addiction; describes assessment, treatment, and prevention philosophies, protocols and models; describes recovery and covers relapse prevention and the signs of relapse in young people. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

HS 206

GROUPS AND ADDICTIONS TREATMENT

Provides individuals who will be working in the addictions field with a basic understanding of group therapy and the skills required to facilitate recovery. Various themes and critical issues of group work with addictions will be explored, including common and difficult therapeutic problems.

Credits: 3 Lecture: 3

HS 208

MULTICULTURAL ISSUES IN HUMAN SERVICES

Highlights the impacts of cultural differences on both client and human service provider. Examines the major categories of diversity, heritage, biases, and stereotypes and how these might impact client treatment. Identifies cultural expectations that may lead to high risk for various mental health challenges as well as chemical dependency problems. Examines how knowledge of diversity issues can be essential to the counselor in communications, treatment planning and implementation. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

HS 210

DUAL DIAGNOSIS

Introduces clinical presentation and management of dually diagnosed chemical abusers. The complex interplay of psychiatric illness and substance abuse in clients with depression, anxiety, schizophrenia, as well as other conditions, will be explored. Students will become familiar with diagnostic criteria as well as chemical dependency. Treatment strategies for addressing the needs of the dually diagnosed will be presented. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

HS 223

DRUGS AND ADDICTION

Covers knowledge required to pass the pharmacology section of the CADC 1 exam. Includes the ways drugs are used, controlled and valued culturally; how the human body functions normally, including knowledge of cells, nerve cells, and basic bodily systems i.e., respiratory, circulatory, endocrine and digestive; how drugs are absorbed, distributed, metabolized and excreted. Also addressed are special populations such as pregnant, HIV positive, elderly and tubercular users. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

HS 260 COUNSELING THEORIES

Introduces major counseling theories that have demonstrated effectiveness with a variety of mental health issues including substance abuse disorders. Includes an overview of 10 specific theories (including affective, behavioral and cognitive approaches), their founders, key concepts, techniques, and appropriate applications. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

HS 262 EFFECTIVE HELPING SKILLS II

Introduces students to intentional interviewing as a foundation for developing basic counseling skills. Focus will be on developing more intensive counseling skills with significant opportunity for hands-on practice. Audio and videotaping are used extensively. Recommended prerequisite: HS 162 or instructor approval.

Credits: 3 Lecture: 3

HS 263 COUNSELING THE CHEMICALLY DEPENDENT CLIENT

Trains students in a systematic approach to screening, assessing and treatment planning. Goal is to determine the most appropriate course of action given the client's needs and characteristics and the available resources. This is a collaborative, ongoing process in which the counselor and the client develop desired treatment outcomes and identify strategies to achieve them.

Credits: 3 Lecture: 3

HS 266 CASE MANAGEMENT FOR THE CHEMICALLY DEPENDENT CLIENT

Provides foundation skills to successfully manage client cases in a treatment setting. Includes skills in client assessment, treatment planning, treatment plan review, writing of clinical progress notes, treatment summary and discharge planning and coordination with other agencies. Methods of instruction include role-play, lecture, class discussion, guest speakers, student presentations and review of students' videotaped assessment interviews. Recommended prerequisite: HS 262 or instructor approval. Recommended corequisites: WR 121, HS 260.

Credits: 4 Lecture: 4

HS 291 PRACTICUM ADDICTIONS TREATMENT

Practicum is closely supervised opportunity to implement professional skills, knowledge and attitudes presented in prior Addictions Studies coursework. Students are placed locally or regionally at schools, public or private agencies and treatment centers, and complete a minimum of 30 clock hours for each credit earned. Students also attend a weekly seminar and meet individually with both the practicum instructor and the site supervisor throughout the quarter. Course is repeatable for credit. Typically offered every term. NOTE: A minimum of

nine credits of HS 291 is required for the Addictions Studies Certificate and 1,000 hours supervised experience are required before taking the Oregon CADC I exam.

Credits: 3 Lecture: 1 Other: 6

ALLIED HEALTH

AH 100 INTRODUCTION TO HEALTH OCCUPATIONS

Introduces current issues in the health care professions, including medical, dental, complementary and community health. Includes an overview of the health care delivery system, medical ethics, legal issues such as HIPAA legislation, holistic and alternative medicine, confidentiality and human relations in health care, communication as a member of a health care team, and resources available in community health care. Working professionals in the health care industry will speak on selected topics.

Credits: 2 Lecture: 2

AH 111 MEDICAL TERMINOLOGY I

Covers terminology pertaining to medical term construction, body structure, integumentary, hematopoietic/lymph, cardiovascular, oncology, respiratory and musculoskeletal systems. Includes standard abbreviations, anatomic, diagnostic, symptomatic and operative terms related to these body systems.

Credits: 3 Lecture: 3

AH 112 MEDICAL TERMINOLOGY II

Covers terminology pertaining to pharmacology, nervous, mental health, special senses (eye and ear), reproductive (male and female), obstetrics, digestive, urinary and endocrine systems. Includes standard abbreviations, anatomic, diagnostic, symptomatic and operative terms related to these body systems. Recommended prerequisite: AH 111.

Credits: 3 Lecture: 3

AH 113 INTRODUCTION TO THE STUDY OF DISEASE

Reviews abnormal pathological changes that occur within individual organs and body systems as the result of a disease process. Disease processes are studied in detail with regard to the cause, pathological features, physical signs and symptoms, diagnostic procedures, current preferred treatment, prognosis and pertinent public health issues. Fulfills program requirements for Health Information Technology and Medical Assisting. Recommended prerequisites: BI 122 or BI 233.

Credits: 5 Lecture: 5

AH 199 SPECIAL TOPICS: ALLIED HEALTH

Reserved for courses that cover topics of general interest in health occupations.

Credits: 1 to 3

AH 283**INTRODUCTION TO ALTERNATIVE MEDICINE**

Introduces the historical and sociopolitical context of biomedicine and “alternative” medical systems in the United States. A number of alternative medical practices will be examined as independent systems, and also as parts within the larger context of integration into the overall health care system in America. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

AH 299**SELECTED TOPICS: ALLIED HEALTH**

Credits: 1 to 4

PHL 205**MEDICAL ETHICS**

Explores the relation of traditional ethical precepts to current biomedical ethical controversies. Open to all students without prerequisites, but recommended primarily for students enrolled in, or planning to enroll in, programs in nursing or other health care professions. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

ANTHROPOLOGY**ANTH 102****ARCHAEOLOGY**

Provides an introduction to archaeological method and theory along with a survey of human world prehistory through the rise of great civilizations. Topics include archaeological concepts, survey, excavation, analysis and interpretation of data, dating techniques, research methods and theories of cultural change.

Credits: 4 Lecture: 4

ANTH 103**CULTURAL ANTHROPOLOGY**

Provides an introduction to the diversity of human beliefs and behaviors around the world. Explores cross-cultural similarities and differences in systems of values, family, religion, economics, politics, and social structure, including issues of race and ethnicity. The goals of this course are to foster an appreciation of cultural diversity, to use this appreciation to better understand the student’s culture(s), and to learn to be active and aware participants of local and global communities.

Credits: 4 Lecture: 4

ANTH 141**FILM & SOCIETY: RACE, GENDER, AND CLASS**

Examines the representation of race, social class and gender in film. Special attention is given to how particular representations reflect the broader historical context surrounding when the films were produced and culturally based audience sentiments. Anthropological and sociological analyses of the films will be provided to give a multidisciplinary account of how films reflect, create and support various ideological positions regarding race, class and gender.

Credits: 2 Lecture: 1 Lab: 3

ANTH 142**FILM & SOCIETY: GLOBAL CULTURES**

Examines global issues in both foreign and domestic films from sociological and anthropological perspectives. Selected films cover topics that are relevant to understanding global processes such as global economy and Islam in the contemporary world, as well as films that address the more regionally localized processes of community and family. The purpose of the course is to use film to expose students to diverse perspectives and to encourage the critical awareness of the global interconnections that influence and constrain our modern lives. Films will include documentaries, as well as feature films.

Credits: 2 Lecture: 1 Lab: 3

ANTH 143**FILM & SOCIETY: CONTEMPORARY ISSUES**

Examines contemporary issues in film from sociological and anthropological perspectives. Selected films cover such topics as youth culture, nationalism, local culture and poverty, mental health or other social problems. The content of the films, as well as issues of film production, historical context and audience reception will be the major focus of analysis.

Credits: 2 Lecture: 1 Lab: 3

ANTH 188**SPECIAL STUDIES: ANTHROPOLOGY**

Credits: 1 to 3

ANTH 199**SELECTED TOPICS: ANTHROPOLOGY**

Credits: 1 to 4

ANTH 202**ARCHAEOLOGY OF OREGON**

Investigates the diverse nature of Oregon archaeology. Prehistoric patterns of human occupation in five distinct regions will be analyzed: the Great Basin, Columbia Plateau, Lower Columbia and Coast, Willamette Valley and the Southwestern Mountains. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

ANTH 212**ARCHAEOLOGY FIELD METHODS**

Provides an introduction to archaeological field methods as applied to the study of pre-history, including, but not limited to: field inventory, site recording, mapping, archaeological excavation and data/artifact collection, laboratory analysis and documentation/report preparation.

Credits: 4 Lecture: 2.75 Other: 22.5

ANTH 230**PHYSICAL ANTHROPOLOGY**

An introduction to physical anthropology. The goal of this course is to achieve the basic scientific literacy necessary to understand contemporary human variation, bio-cultural interactions, and five million years of human evolution. Course consists of lectures, videos, readings and discussions.

Credits: 4 Lecture: 4

ANTH 240 LANGUAGE AND CULTURE

An introduction to the relationship between communication and culture. Designed to help students become familiar with and understand the mechanics of language from brain structure to how we make sounds; cross-cultural and historical variations between and within communicative systems; and language as a form of social interaction, specifically exploring the complex and diverse relationships between language, sociocultural politics and identity.

Credits: 4 Lecture: 4

ANTH 254 MAGIC, WITCHCRAFT, RELIGION

Introduces students to the subject of religion in the broad anthropological context, contributes to a deeper awareness of diverse expressions of religious faith in a multicultural world, and promotes openness to and tolerance of world views different from the student's own. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

ANTH 283 INTRODUCTION TO MEDICAL ANTHROPOLOGY

Introduces the main theories, concepts, and methods of exploring health, illness, disease and health care systems from a medical anthropological perspective. Uses a cultural interpretive approach to explore health beliefs, healing practices, and healer's and patient's roles within the context of world health care systems. Includes an examination of the biomedical model of health care as a cultural construct created through Western belief systems. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

ANTH 295 GENDER AND SEXUALITY IN AN ANTHROPOLOGICAL PERSPECTIVE

Examines the constructions of femininities, masculinities and sexualities from a cross-cultural perspective. The cross-cultural focus will provide students with the comparative framework necessary to understand the diversity of gender roles within the context of specific cultural, political and economic processes. While exploring how both Western and non-Western cultures from diverse parts of the world imagine, negotiate, and even contest gender identities and relations, this course will also address key theoretical issues and anthropological approaches to understanding gender. Recommended prerequisites: WR 121 and ANTH 103.

Credits: 4 Lecture: 4

ANTH 299 SELECTED TOPICS: ANTHROPOLOGY

Credits: 1 to 4

APPRENTICESHIP

APR 101 ELEC/MFG PLANT 1 - BASIC ELECTRIC THEORY

Students will be introduced to content in trade math, fundamental concepts of electricity, resistance, Ohm's law, series circuits, parallel circuits, grounding, grounding electrode systems, and the National Electrical Code. Taught in a lecture/lab format with hands-on use of meters, power supplies, relays and switches.

Credits: 4 Other: 8.4

APR 102 ELEC/MFG PLANT 2 - BASIC WIRING

This course includes principles of inductance, capacitance, transformer fundamentals, generator fundamentals, electric motors, enclosure grounding, and the National Electrical Code as it applies to these topics. Taught in a lecture/lab format, with labs demonstrating the electrical functions of the various elements.

Credits: 4 Other: 8.4

APR 103 ELEC/MFG PLANT 3 - INDUSTRIAL WIRING

Students will be introduced to commercial building plans and specs, reading drawings, branch and feeder circuits, appliance circuits, lighting circuits, panel boards, protection circuits, cooling systems, and the National Electrical Code as it applies to these topics. Taught in a lecture/lab format, with a field trip to either a hospital, a newspaper publishing facility or a mill.

Credits: 4 Other: 8.4

APR 104 ELEC/MFG PLANT 4 - COMMERCIAL WIRING

Course content includes industrial plans and site work, substations, panel boards and feeders, wire tables, determining conductor size, motors, controllers, ventilating, system protection, site lighting hazards, programmable logic controllers, and the National Electric Code as it applies to these topics. Taught in a lecture/lab format, with labs to include hands-on PLC programming and ladder logic development.

Credits: 4 Other: 8.4

APR 121 BOILER OPERATOR 1 - STATIONARY ENGINE PRINCIPLES

The course will cover stationary engineering principles, boiler types and accessories, and trade math.

Credits: 4 Other: 8.4

APR 122 BOILER OPERATOR 2 - BOILER ACCESSORIES

The course content will cover boiler accessories, fuel burning equipment, combustion, and draft controls.

Credits: 4 Other: 8.4

APR 141**SHEET METAL CORE CURRICULUM**

This course is an introduction to construction and maintenance skills used in various crafts. Basic concepts in safety, math, tools, blueprints and rigging are examined this first term. In addition, employment opportunities will be explored through various apprenticeship trades.

Credits: 4 Other: 8

APR 142**SHEET METAL I**

This course presents related training material consistent with the minimum skill requirements of the sheet metal trade. The content includes elements of trade specific tools and fundamentals of duct layout and safety as it relates to the sheet metal trade.

Credits: 4 Other: 8

APR 143**BASIC LAYOUT**

Introduction to trade, terminology, trade math, tools, shop safety, shop equipment, basic layout of duct work and fittings.

Credits: 4 Other: 8

APR 144**SHEET METAL MATH**

Covers fractions and decimals, geometric shapes, equation solutions, ratios and proportions, perimeters, areas, and volumes of geometric shapes; powers; and use of the scientific calculator. Emphasis is on applications to applied sheet metal fabricators. There will be lab time in the class to work on assignments.

Credits: 4 Other: 8

APR 145**BLUEPRINT READING**

Introduction to blueprint reading, drafting blueprints, scaling existing buildings and drafting mechanical systems.

Credits: 4 Other: 8

APR 146**ARCHITECTURAL SHEET METAL**

The study of architectural sheet metal in the context of today's industry. The course of study includes the following: discovery of various types of materials; study profiles of roofing panels, water conductors, various types of roof flashings; related trades that are integral with this trade; the philosophy of layout in the field; and the application of actual installations, safety equipment and practices applicable to the trade.

Credits: 4 Other: 8

APR 201**ELEC/MFG PLANT 5 - MOTOR CONTROLS**

Course of study includes reversing circuits applied to motors, power distribution systems, transformers, electronic control devices, relays, photoelectric and proximity controls, programmable controllers, starters, preventive maintenance, and the National Electric Code as it applies to these topics. Taught in

a lecture/lab format, with labs covering wiring and operation of listed equipment to control a small motor.

Credits: 4 Other: 8.4

APR 202**ELEC/MFG PLANT 6 - MOTOR CONTROLS/CIRCUITS**

Course of study includes reversing circuits applied to motors, power distribution systems, transformers, electronic control devices, relays, photoelectric and proximity controls, programmable controllers, starters, preventive maintenance, and the National Electric Code as it applies to these topics. Taught in a lecture/lab format, with the lab portion including the demonstration of and hands on programming of variable speed drives.

Credits: 4 Other: 8.4

APR 203**ELEC/MFG PLANT 7 - MOTOR APPLICATIONS**

Safety, commercial and residential calculations; wiring methods; related theory and the National Electric Code as it applies to these topics. Taught in a lecture/lab format. Lab will include field trip to a commercial building with walk-through of service equipment and heating/cooling equipment.

Credits: 4 Other: 8.4

APR 204**ELEC/MFG PLANT 8 - NEC CODE**

Topics include theory and application of motor controls, solid state fundamentals, special termination, layout, hazardous locations and transformer locations, operation and maintenance of high voltage switchgear and starters, and a thorough review of the National Electric Code. Taught in a lecture/lab format, with students having the opportunity to take practice quizzes and practice code exams.

Credits: 4 Other: 8.4

APR 221**BOILER OPERATOR 3 - BOILER OPERATION**

The course content will include boiler operation, maintenance, water treatment, and boiler room safety.

Credits: 4 Other: 8.4

APR 222**BOILER OPERATOR 4 - STEAM USAGE**

The course content includes steam usage and management, basic electricity principles, basic knowledge of steam turbines, and review for Boiler Operator's State License Examinations.

Credits: 4 Other: 8.4

APR 223**TURBINE OPERATOR 1 - APPLIED MECHANICS**

The course content will include mathematics, mensuration, applied mechanics, thermodynamics, steam and internal combustion engines, steam and gas turbines, refrigeration, air compression, and lubrication.

Credits: 4 Other: 8.4

APR 224**TURBINE OPERATOR 2 - INSTRUMENTATION**

The course content will include basic electricity, electronics and control instrumentation, fluid mechanics, pumps, power plant piping systems, air compressors, and different types of power plants.

Credits: 4 Other: 8.4

APR 225**TURBINE OPERATOR 3 - THERMODYNAMICS**

The course content will include internal combustion engines, lubrication, thermodynamics, heat engines, steam engines, and steam and gas turbines.

Credits: 4 Other: 8.4

APR 226**TURBINE OPERATOR 4 - ELECTRICAL THEORY**

The course content will include electrical theory, AC and DC electrical machines, transformers and rectifiers, steam turbine theory, construction of steam turbines, and steam turbine and condenser operation and maintenance.

Credits: 4 Other: 8.4

APR 241**BUILDING CODES AND INSTALLATION MANUALS**

This course is an overview of the mechanical codes as related to the HVAC industry in commercial and residential applications. In addition, installation manuals will be explored as to proper installation and usage of HVAC equipment. During the term there will be three field trips to visit job sites where students will identify code applications and violations.

Credits: 4 Other: 8

APR 242**DUCT FABRICATION/DESIGN**

Introduction to duct design, different styles of duct design, and multilevel duct system design. Heat loss, heat gain calculations and instruction on the use of duct calculators.

Credits: 4 Other: 8

APR 243**GENERAL FABRICATION**

This course is the study of the sheet metal trade as it is applied to general-needs metal work. The work studied is that outside of the traditional HVAC and architectural scope as studied in previous terms with a broader base of skills to be learned, such as custom, decorative and artistic finished products.

Credits: 4 Other: 8

APR 244**PROJECT SUPERVISION**

Introduction to construction management skills as they apply to project supervision.

Credits: 4 Other: 8

ART**ARH 188****SPECIAL STUDIES: ART HISTORY**

Credits: 1 to 4

ARH 199**SELECTED TOPICS: ART HISTORY**

Credits: 1 to 4

ARH 201**INTRODUCTION TO ART HISTORY**

Surveys the major periods of visual arts in the West. Introduces students to the concepts of art and surveys the development of art in historical context from Paleolithic cave paintings up through early Christians. Emphasizes selected works of painting, sculpture, architecture, and other arts studied in relation to the cultures producing them. Need not be taken in sequence. May be offered with a WIC designation.

Credits: 4 Lecture: 4

ARH 202**INTRODUCTION TO ART HISTORY**

Surveys the major periods of visual arts in the West. Introduces students to the concepts of art and surveys the development of art in historical context from early Medieval up through the Mannerists. Emphasizes selected works of painting, sculpture, architecture, and other arts studied in relation to the cultures producing them. Need not be taken in sequence. May be offered with a WIC designation.

Credits: 4 Lecture: 4

ARH 203**INTRODUCTION TO ART HISTORY**

Surveys the major periods of visual arts in the West. Introduces students to the concepts of art and surveys the development of art in historical context from Baroque through Modern. Emphasizes selected works of painting, sculpture, architecture, and other arts studied in relation to the cultures producing them. Need not be taken in sequence. May be offered with a WIC designation.

Credits: 4 Lecture: 4

ARH 206**MODERN ART HISTORY**

Survey of modern art from mid-19th Century Impressionism through the "isms" of the 20th Century emphasizing painting, sculpture, architecture and photography. May be offered with a WIC designation. Not offered every year.

Credits: 4 Lecture: 4

ARH 207**NATIVE AMERICAN ART HISTORY**

Survey of the arts indigenous to Mesoamerican and North American Indian cultures emphasizing architecture, pottery, painting and the fiber arts. May be taught with a MIC and/or WIC designation. Usually offered spring term.

Credits: 4 Lecture: 4

ART 101**INTRODUCTION TO THE VISUAL ARTS**

Provides a foundation in the basic concepts, vocabulary of the elements and principles of design, materials and the methods and processes of the visual arts with a hands-on experience exploring a variety of media.

Credits: 4 Lecture: 4

ART 188**SPECIAL STUDIES: ART**

Credits: 1 to 3

ART 199**SELECTED TOPICS: ART**

Credits: 1 to 3

ART 299**SELECTED TOPICS: ART**

Credits: 1 to 3

ART 115**BASIC DESIGN: 2-D**

Introduction to theory and studio practice using the elements of line, value, shape and texture with the principles of organization to articulate visual ideas in black and white.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 116**BASIC DESIGN: COLOR**

Introduction to color theory and studio practice using value, hue and intensity with the elements of line, shape, texture and the principles of organization to articulate visual ideas with two-dimensional color design problems. Offered winter term.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 117**BASIC DESIGN: 3-D**

Explores elements and principles of design using hands-on experience to make three-dimensional constructions using inexpensive materials. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 154**CERAMICS I**

Hand-building skills in Ceramics I include developing designs for both functional and nonfunctional work, texturing, and glaze application. Development of imaginative ideas for expression in clay media is expected. Should be taken in sequence.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 155**CERAMICS II**

Improve hand-building skills with more complex designs and wheel throwing skills. Includes developing designs for both functional and nonfunctional work. Development of imaginative ideas for expression in clay media is expected. Should be taken in sequence.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 156**CERAMICS III**

Ceramics III includes developing designs for both functional and nonfunctional work, mastering hand building and throwing skills, and glaze application. Development of imaginative ideas for expression in clay media is expected. Should be taken in sequence. Recommended prerequisites: ART 155, ART 117 and ART 131.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 190**FIGURATIVE CLAY SCULPTURE**

Introduction to modeling the human form in clay from clothed and unclothed models using traditional additive and subtractive processes. Historical treatments of the figure and contemporary approaches will be referenced. Not offered every term. Recommended prerequisites: ART 131 and ART 154.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 254**CERAMICS IV**

Ceramics classes include developing designs for both functional and nonfunctional work, mastering hand building, advanced throwing skills and glaze application. Development of imaginative ideas for expression in clay media is expected. Should be taken in sequence. Recommended prerequisites: ART 117 and ART 131.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 255**CERAMICS V**

Ceramics classes include developing designs for both functional and nonfunctional work, mastering hand building, advanced throwing skills and glaze application. Glaze formulation and the firing process may be included. Development of imaginative ideas for expression in clay media is expected. Should be taken in sequence. Recommended prerequisites: ART 117 and ART 131.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 256**CERAMICS VI**

Ceramics classes include developing designs for both functional and nonfunctional work, mastering hand building, advanced throwing skills and glaze application. Glaze formulation and the firing process will be included in the upper-level classes. Development of imaginative ideas for expression in clay media is expected. Should be taken in sequence. Recommended prerequisites: ART 117 and ART 131.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 266**RAKU-SPECIAL TOPICS**

Short course focusing on the raku firing process. Recommended prerequisite: ART 154. Usually offered fall and spring terms.

Credits: 2 Lecture: 1 Lab: 3

**ART 131
DRAWING I**

Emphasis on observing and developing fundamental drawing and composition skills. Still life material used extensively.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 132
DRAWING II**

Concepts and skills developed in ART 131 will be applied to introduction to drawing the figure and portraits. Recommended prerequisite: ART 131.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 133
DRAWING III**

Emphasis on landscape drawing and creative expression working with a broader range of media. Recommended prerequisite: ART 131.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 234
FIGURE DRAWING I**

Studio introduction to drawing the clothed and unclothed figure using a variety of techniques and media. Recommended prerequisite: ART 131 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 235
FIGURE DRAWING II**

Studio introduction to drawing the clothed and unclothed figure using a variety of techniques and media. Recommended prerequisite: ART 234 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 236
FIGURE DRAWING III**

Studio introduction to drawing the clothed and unclothed figure using a variety of techniques and media. Recommended prerequisite: ART 235 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 157A1
METALWORK & JEWELRY - HOT FABRICATION I**

Introduction to the basic skills used to fabricate non-ferrous metals including silver, copper and copper alloys to make jewelry or other small metal objects. Projects will be joined using high temperature silver solder and natural gas/compressed air torches as the heat source. Additional instruction includes developing designs, annealing, drilling, sawing, filing, texturing, dapping, and finishing techniques.

Credits: 2 Lecture: 1 Lab: 3

**ART 157A2
METALWORK & JEWELRY - HOT FABRICATION II**

Builds the skills learned in ART 157A1. Students will develop soldering skill by designing more complex and dimensional

projects. Bezel setting a cabochon stone, making hinges, and more complex forming techniques and texturing methods will also be included. Recommended prerequisite: ART 157A1.

Credits: 2 Lecture: 1 Lab: 3

**ART 157B1
METALWORK & JEWELRY - COLD FABRICATION I**

Introduction to the basic skills used to fabricate non-ferrous metals including silver, copper and copper alloys to make jewelry or other small metal objects. Projects will be joined using rivets, tabs, links and other methods of cold connections. Additional instruction includes developing design, annealing, drilling, sawing, filing, texturing, dapping, and finishing techniques.

Credits: 2 Lecture: 1 Lab: 3

**ART 157B2
METALWORK & JEWELRY - COLD FABRICATION II**

Builds the skills learned in ART 157B1 with more challenging project assignments. Students will develop technical skills by designing projects which include simple forming techniques, moving parts, incorporating found objects and/or stone settings. Recommended prerequisite: ART 157B1.

Credits: 2 Lecture: 1 Lab: 3

**ART 157C1
JEWELRY - PRECIOUS METAL CLAY I**

An introduction to working with Precious Metal Clay (PMC) to make fine silver jewelry. The course will include designing projects, making a texture stamp, manipulation and joining techniques for both soft and unfired PMC, kiln firing, and finishing techniques.

Credits: 1 Other: 2

**ART 157C2
JEWELRY - PRECIOUS METAL CLAY II**

Builds on the skills learned in ART 157C1. Includes making hollow and three-dimensional forms, making molds and multiples, setting stones, torch firing, fusing gold and simple soldering. Recommended prerequisite: ART 157C1.

Credits: 1 Other: 2

**ART 158A1
METALWORK & JEWELRY - SURFACES I**

Includes a number of methods used to change the surface of non-ferrous metals. The techniques used for projects may include reticulation, keum-boo, patinas, embossing, overlay and fusing. Recommended prerequisite: Either ART 157A1 or ART 157B1.

Credits: 2 Lecture: 1 Lab: 3

**ART 158A2
METALWORK & JEWELRY - SURFACES II**

Builds on the skills learned in ART 158A1. May include marrying metal, granulation, inlay, electroplating, using acrylic paint and colored pencils on metal. Recommended prerequisites: ART 158A1 and ART 157A1.

Credits: 2 Lecture: 1 Lab: 3

ART 158B1**JEWELRY - CASTING & CHAIN MAKING I**

An introduction to centrifugal lost wax casting process. Additive and subtractive methods will be used to sculpt small scale wax models which will be sprued and invested for casting. Fusing links to weave simple chains and finishing techniques will be included.

Credits: 2 Lecture: 1 Lab: 3

ART 158B2**JEWELRY - CASTING & CHAIN MAKING II**

Builds on the skills learned in ART 158B1. It will include centrifugal, vacuum, cuttlebone casting and sand casting. The use of molds to duplicate textures to transfer onto wax, creating stone settings in wax, controlling the wax burn-out and weaving complex linked chains will be included. Recommended prerequisites: ART 158B1 and ART 157A1.

Credits: 2 Lecture: 1 Lab: 3

ART 158C1**JEWELRY - ENAMELING I**

Basic introduction to enameling on copper and fine silver. Techniques for texturing, using stencils, sifting and wet-packing enamel, adding foils, kiln firing, cold connecting and finishing techniques will be included.

Credits: 1 Other: 2

ART 158C2**JEWELRY - ENAMELING II**

Builds on the skills learned in ART 158C1. Techniques of champlevé, cloisonné, image transfer, and fusing the enamel with a torch will be included. Recommended prerequisites: ART 158C1 and ART 157A1.

Credits: 1 Other: 2

ART 159A1**METALWORK & JEWELRY - FORMING I**

Students will make non-ferrous metal projects which include a third dimension. The projects can be fabricated jewelry, containers, or small scale sculpture made using folding, scoring, chasing and repousse, or other metalworking techniques used to form sheet metal. Projects may include the use of hot and/or cold connections and non-metal materials. Recommended prerequisite: ART 157A1.

Credits: 2 Lecture: 1 Lab: 3

ART 159A2**METALWORK & JEWELRY - FORMING II**

Builds on the skills learned in ART 159A1. The projects can be fabricated from sheet metal using angle raising, shell-forming, hydraulic-press forming and electroforming. Projects may include the use of hot and/or cold connections and non-metal materials. Recommended prerequisites: ART 157A1 and ART 159A1.

Credits: 2 Lecture: 1 Lab: 3

ART 159B1**METALWORK & JEWELRY - ETCHING & HYDRAULIC PRESS I**

Includes using PNP paper, nail polish and tapes as resists for etching copper to create textures. Embossing and non-conforming silhouette dies will be made to form the etched metal using the hydraulic press. The use of patinas will also be covered. Recommended prerequisite: Either ART 157A1 or ART 157B1.

Credits: 2 Lecture: 1 Lab: 3

ART 159B2**METALWORK & JEWELRY - ETCHING & HYDRAULIC PRESS II**

Builds on the skills learned in ART 159B1. Etching resists will include markers, oil paint and asphaltum varnish as resists for copper. Non-conforming carved acrylic and liquid steel conforming dies will be made to form the etched metal using the hydraulic press. Recommended prerequisites: ART 159B1 and either ART 157A1 or ART 157B1.

Credits: 2 Lecture: 1 Lab: 3

ART 159C1**JEWELRY - PRECIOUS METAL CLAY & ENAMELING I**

Focuses on improving designs for fine silver precious metal clay. The fired projects will be enhanced with enamel to add color and then fired again to fuse the enamel. Recommended prerequisite: ART 157C1.

Credits: 2 Lecture: 1 Lab: 3

ART 159C2**JEWELRY - PRECIOUS METAL CLAY & ENAMELING II**

Focuses on designing projects to create recesses in the precious metal clay. After firing the PMC, enamel is placed in the depressions. The project is fired again to fuse the enamel. Cold connections and adding gold will also be covered. Recommended prerequisite: ART 159C1.

Credits: 2 Lecture: 1 Lab: 3

ART 181**PAINTING I**

Introduction to materials and techniques using alkyd oil, acrylic and/or water-soluble oil paints, building canvas supports, stretching canvas and preparing painting grounds. Studio experience using still life, self-portrait, landscape and the figure. Recommended prerequisite: ART 131 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

ART 182**PAINTING II**

Introduction to color theory and personal expression. Studio experience using still life, portrait, figure and landscape. Application of compositional principles using the grid, sequential imagery and continuous field. Recommended prerequisites: ART 131 and ART 181 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 183
PAINTING III**

Exploration of personal iconography. Studio experience using still life, landscape, figure in context, abstract spatial and abstract geometric. Recommended prerequisites: ART 131 and ART 182 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 281
PAINTING IV**

Introduction to materials and techniques using alkyd oil, oil and/or water-soluble oil paints and mediums. Studio emphasis on exploration, self expression and non-traditional supports. Recommended prerequisites: ART 131 and ART 183 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 282
PAINTING V**

Emphasis on individual exploration of color, visual concepts, critical doubling, the diptych and scale. Recommended prerequisites: ART 131 and ART 281 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 283
PAINTING VI**

Emphasis on independent projects, the triptych, exploration of contemporary problems in painting, statement of a thesis, painting the proposition through a series of interrelated works and the professional documentation and exhibition of the paintings. Recommended prerequisites: ART 131 and ART 282 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 161
PHOTOGRAPHY I**

Introduction to traditional black and white film photography including camera operation, composition, film processing, printing and presentation. Emphasis is on creative problem solving and understanding the basic photographic concepts used to create good visual communication. Weekly photo assignments will require shooting outside of class, as will text readings. In-class critiques of work are a major part of this course. Recommended prerequisite: ART 115.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 162
PHOTOGRAPHY II**

Introduction to black and white fine printing in the traditional wet darkroom. Course includes a basic overview of the Zone System, with the goal of “pre-visualizing” a scene as a finished photograph being an expected outcome. Students work with fiber-base printing paper, print bleaching, toning, archival print finishing and other advanced techniques to create an expressive print statement. Creative problem solving and development

of personal vision are a course emphasis. Weekly shooting and printing assignments, class critiques and a final project are part of the course. Recommended prerequisite: ART 161.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 163
PHOTOGRAPHY III**

An exploration of alternative darkroom processes including hand coloring, multiple image printing, selective/multiple toning, “solarization” (Sabattier effect), negative prints and more. A course goal is to use a “post-visualization” approach, allowing students to evolve visual communication beyond what was initially conceived in the field. Creative problem solving and development of personal vision are emphasized. Weekly printing assignments, class critiques and a final project are part of the course. Recommended prerequisite: ART 161.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 261
DARKROOM PHOTOGRAPHY**

This course is an application of darkroom photography. Students must have prior knowledge of traditional black and white film photography including camera operation, film processing, and darkroom printing. Emphasis is on creative problem solving and understanding the photographic concepts used to create good visual communication. Requirements include outside-of-class shooting, and independent in lab processing and printing. In-class photo critiques of work and a hanging of work is a major part of this course. Recommended prerequisites: ART 161.

Credits: 3 Lecture: 2 Lab: 3

**ART 265
DIGITAL PHOTOGRAPHY**

Introduces students to the basics of composition and camera settings and provides an understanding of digital photo-editing for the purpose of creating successful landscape, portrait, montage and other photographic forms. Students must own a digital camera.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 191
SCULPTURE**

Studio introduction to articulation of visual ideas in three dimensions using additive and subtractive processes. Recommended prerequisites: ART 117 and ART 131. Not offered every year.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 184
WATERCOLOR I**

Studio exploration of the unique qualities of watercolor as a painting medium. Emphasis on fundamental skills, color and composition while painting from a variety of subjects. Should be taken in sequence.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 185
WATERCOLOR II**

Studio exploration of the unique qualities of watercolor as a painting medium. Emphasis on fundamental skills, color and composition while painting from a variety of subjects. Should be taken in sequence. Recommended prerequisites: ART 131 and ART 184 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 186
WATERCOLOR III**

Studio exploration of the unique qualities of watercolor as a painting medium. Emphasis on fundamental skills, color and composition while painting from a variety of subjects. Should be taken in sequence. Recommended prerequisites: ART 131 and ART 185 or instructor approval.

Credits: 3 Lecture: 1.5 Lab: 4.5

**ART 197
ART PORTFOLIO CREATION**

Art Portfolio Creation prepares students for the business and professional art world. Students will create both digital and hard-copy portfolios while learning about public relations (PR), marketing, promoting, business guidelines, time management, contacts, presentations, goal setting, long-term inspiration and commitment to their craft, as well as exhibition hanging, timelines and reception setups. Students will review art school requirements and learn how to fill out applications for art schools, residencies, grants and art scholarships. This course also includes practical experience in art exhibitions in the Pence Gallery at Pinckney Center.

Credits: 2 Lecture: 2

AUTOMOTIVE TECHNOLOGY**AUT 101
BASIC ELECTRICITY FOR AUTOMOTIVE**

Provides understanding of fundamental principles of electricity. Covers basic electrical quantities, Ohm's law, power, series, and parallel circuits, magnetism, electromagnetism and an introduction to DC current troubleshooting. Introduces student to the use of a digital multimeter and oscilloscope. Student will also be introduced to electrical schematics. A self-paced course. Recommended prerequisites: AUT 106 and MTH 10.

Credits: 2 Lab: 6

**AUT 102
AUTOMOTIVE ELECTRIC I**

Studies disassembly, testing and rebuilding of various electrical equipment. Stresses troubleshooting and using various test equipment common to the automotive trade. Recommended prerequisites: AUT 101, AUT 111 and AUT 107.

Credits: 4 Lecture: 2 Lab: 6

**AUT 103
AUTOMOTIVE ELECTRIC II**

Studies disassembly, testing and rebuilding of various electrical equipment. Stresses troubleshooting and using various test equipment common to the automotive trade. Recommended prerequisites: AUT 101, AUT 102, AUT 107 and AUT 110..

Credits: 2 Lecture: 1 Lab: 3

**AUT 104
AUTOMOTIVE ELECTRIC III**

A hands-on study and familiarization of repair procedures for air bag, security entry, and cruise control systems. Learn diagnostic and repair procedures using body control modules. Learn diagnostics and repair procedures for hybrid and new electrical systems. Recommended prerequisites: AUT 101, AUT 102, AUT 103, AUT 107 and AUT 110.

Credits: 2 Lecture: 1 Lab: 3

**AUT 105
DIESEL PERFORMANCE I**

Introduces principles of diesel systems and basic diagnosis. Includes engine analysis, cooling and exhaust systems, fuel management systems and diesel engines. Recommended prerequisites: AUT 101, AUT 107 and AUT 110.

Credits: 2 Lecture: 1 Lab: 3

**AUT 106
AUTOMOTIVE PROGRAM ORIENTATION**

Introduction to the Automotive Program. Provides an understanding of the fundamental principles of automotive shop safety and tool care. Instruction given to the self-paced course program.

Credits: 1 Lecture: 1

**AUT 107
MECHANICAL SYSTEMS I**

Provides an understanding of the fundamental principles of automotive shop safety and tool care. Develops mechanical knowledge and skills utilized throughout a career in the automotive field. Includes techniques of routine vehicle maintenance. Includes customer vehicle identification and handling, new vehicle pre-delivery inspection and preparation, safety inspection, lubrication tasks, and light line tasks. A self-paced course. Recommended prerequisite: AUT 106.

Credits: 3 Lab: 9

**AUT 110
SMALL GAS ENGINES**

Designed to study and apply the theory, operation, diagnoses and repair of small gas engines and their use in the world today. A self-paced course. Recommended prerequisites: AUT 106 and MTH 10.

Credits: 3 Lab: 9

AUT 111**COMPUTERIZED ENGINE CONTROLS**

Studies advanced electrical systems found on late-model vehicles. Provides solid understanding of computerized automotive engine control systems and how they operate and the ability to diagnose, troubleshoot and repair computerized engine control systems. Recommended prerequisites: AUT 101, AUT 102, AUT 103, AUT 106, AUT 107, AUT 110, AUT 205 and MTH 20.

Credits: 5 Lecture: 3.5 Lab: 4.5

AUT 199**SELECTED TOPICS: AUTOMOTIVE**

Credits: 1 to 4

AUT 201**AUTOMOTIVE ENGINES**

Provides information on the construction, operation and design of the internal combustion engine. Teaches the concepts and procedures of engine work to cover the proper procedure in rebuilding a four-cycle internal combustion engine. Includes a combination of guided lecture and laboratory applications, stressing safety, accuracy of measure, proper usage of tools, and application of repair manuals through actual overhaul of engines. Recommended prerequisites: AUT 101, AUT 106, AUT 107, AUT 110 and MTH 10.

Credits: 4 Lecture: 2 Lab: 6

AUT 202**MANUAL DRIVE TRAINS I**

A self-paced course that studies standard transmissions and transaxles. Students will learn on college-owned component. The students will learn operating principles, diagnosis, construction, approved repair procedures, and overhaul of current transmission types on manual transmissions and transaxles. Recommended prerequisites: AUT 101, AUT 106, AUT 107, AUT 110.

Credits: 3 Lab: 9

AUT 203**MANUAL DRIVE TRAINS II**

Second part of a manual transmission sequence. A study of standard transmission and the relationship to clutches, driveshafts, rear axle assembly, transaxle, shift controls and four-wheel drive components. Students will learn on college-owned components. The student will learn operating principles, diagnosis and approved repair procedures on manual transmissions and related power train components. Includes emphasis on diagnosis, service, and procedure to conform to current service manuals. Recommended prerequisites: AUT 106, AUT 107, AUT 101, AUT 110.

Credits: 3 Lecture: 1.5 Lab: 4.5

AUT 204**STEERING AND SUSPENSION**

Designed to study and apply the theory, operation, diagnoses and repair of the modern suspension and steering systems of both domestic and import vehicles. Recommended prerequisites:

AUT 106, AUT 107, AUT 101, AUT 110, AUT 208 and MTH 10.

Credits: 3 Lecture: 1.5 Lab: 4.5

AUT 205**ENGINE PERFORMANCE I**

Studies the diagnosis of drivability problems. Covers engine analysis, cooling and exhaust systems, ignition and fuel management systems. Recommended prerequisites: AUT 101, AUT 102, AUT 103, AUT 107, AUT 110.

Credits: 2 Lecture: 1 Lab: 3

AUT 206**ENGINE PERFORMANCE II**

Studies diagnosis of drivability problems. Includes further study of engine analysis, ignition and fuel management systems, and super performance diagnosis. Provides the technician with a look into the causes of automotive emissions in relation to vehicles that are four years old and newer. Looks at various methods of emissions inspection/maintenance testing, the diagnosis of failed vehicles, and enhanced on-board computer systems. Also covers the testing of alternative fuel vehicles. Recommended prerequisites: AUT 101, AUT 102, AUT 103, AUT 107, AUT 110, AUT 111, AUT 205.

Credits: 2 Lecture: 1 Lab: 3

AUT 208**AUTOMOTIVE BRAKES**

Studies the theory, operation, diagnosis and repair of the modern braking systems of both domestic and import vehicles. Includes an introduction to anti-lock brake systems. Recommended prerequisites: AUT 106, AUT 107, AUT 110, AUT 101 and MTH 10.

Credits: 3 Lecture: 1.5 Lab: 4.5

AUT 216**CO-OP WORK EXPERIENCE AUTOMOTIVE**

Provides an environment in which students can begin to recognize their strengths and limitations in their chosen career. The student is placed in an actual job environment where the experiences of pressure, production and personalities are experienced. Cooperative Work Experience is a program requirement for students in the Automotive Technology Program. Two CWE sections are required for the student who will achieve the Master Automotive Technician Certificate. Prerequisite: completion of two terms of Automotive Technology curriculum. Instructor approval required.

Credits: 1 to 4

AUT 251**AUTOMATIC TRANSMISSIONS I**

Provides an understanding of the basic principles and theory of planetary gear sets, torque converters and hydraulic controls as applied to automatic transmissions. Includes construction, operation and overhaul of current transmission types with emphasis on diagnosis, service and procedures to conform to

current service manuals. A self-paced course. Recommended prerequisites: AUT 101, AUT 106, AUT 107, AUT 110 and MTH 20.

Credits: 3 Lab: 9

AUT 252 AUTOMATIC TRANSMISSIONS II

Second part of an automatic transmission sequence. Course continues principles and theory of planetary gear sets, torque converters and hydraulic controls as applied to automatic transmissions. Includes emphasis on diagnosis, service and procedures to conform to current service manuals.

Recommended prerequisites: AUT 101, AUT 106, AUT 107, AUT 110, AUT 251 and MTH 20.

Credits: 1 Lecture: .5 Lab: 1.5

AUT 253 AUTOMOTIVE AIR CONDITIONING

A hands-on study of automotive air conditioning and heating systems, concurrent with EPA Recovery Requirements for R-12, R-134a systems, diagnosis and service. A study of advanced electrical systems found on late-model vehicles. Recommended prerequisites: AUT 101, AUT 102, AUT 106, AUT 107, AUT 110 and MTH 20.

Credits: 3 Lecture: 1.5 Lab: 4.5

AVIATION - PROFESSIONAL PILOT

AV 101 INTRODUCTION TO AVIATION

Designed to help students explore various career options and prepare for a career in aviation. A variety of employment opportunities are investigated, including commercial, business, corporate, military and general aviation-related business. Emphasis will be given to careers in operations and flight technology. Airplane and helicopter pilot careers will be emphasized.

Credits: 3 Lecture: 3

AV 104 INTRODUCTION TO AIRCRAFT SYSTEMS

Introduces the student to the training aircraft that are used in general aviation, and will look in detail at those aircraft used in this program. Aircraft in current use for training by the industry will be studied and emphasis placed on basic aircraft systems operations, including emergencies. Applicable aviation regulations, including the use of minimum equipment lists, will be studied.

Credits: 4 Lecture: 4

AV 108 METEOROLOGY I

A survey course in atmospheric science that covers weather basics and atmospheric circulations. Included is a systematic development of the following: the atmosphere, energy and

temperature, wind, atmospheric moisture, horizontal and vertical pressure patterns, clouds, atmospheric circulation, stability, air masses, fronts, fog, icing, thunderstorms, jet streams and turbulence. Students will study surface weather observations, routine weather reports and forecasts, surface maps and constant-pressure maps.

Credits: 4 Lecture: 4

AV 110 PRIVATE PILOT - AIRPLANE

Provides initial ground instruction in aeronautical skills and knowledge for the private pilot rating. Involves an introduction to fundamentals of flight, aerodynamics, flight operations, airspace, weather and weather products, flight planning, decision making, human factors, human factors in aviation, and crew resource management. Comprehensive course that prepares student for the Private Pilot written exam. Passing of FAA private pilot knowledge exam required. Student will be required to pay the testing service a fee to take the exam. Recommended prerequisite: MTH 20.

Credits: 5 Lecture: 5

AV 110A PRIVATE PILOT SEL FLIGHT LAB

This course is primarily flight instruction in preparation for the award of the private pilot airplane certificate by the FAA. Flight instruction consists of dual and solo flight time necessary for completion of the FAA requirements for certification, including preflight inspection of the airplane, safe operation of an airplane, air traffic control procedures and communications, and safety considerations. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 3 Lab: 10.8

AV 111 FLIGHT MANEUVERS

Provides the preflight training required for the FAA approved FAR Part 141 private pilot syllabus. Topics include global positioning systems, aircraft and pilot logbooks/documents, preflight preparation, flight maneuvers and phase exams. Recommended corequisite: AV 110 Private Pilot.

Credits: 3 Lecture: 3

AV 115 PRIVATE PILOT-HELICOPTER

Covers fundamentals of flight, flight operations, aviation weather, performance, navigation, aircraft systems, aeronautical publications, federal aviation regulations, flight planning, radio procedures, meteorology, and human factors. Students will be required to take and pass the FAA Private Pilot Helicopter knowledge test. A fee is charged for the FAA exam, payable to the testing service by the student. Student should be prepared to pay the testing service with a credit card. Recommended prerequisite: MTH 20.

Credits: 8 Lecture: 8

AV 115A**PRIVATE PILOT HELICOPTER FLIGHT LAB**

This course is primarily flight instruction in preparation for the award of the private pilot helicopter certificate by the FAA, and is the foundation for all future aviation training. Flight instruction consists of dual and solo flight time necessary for completion of the FAA requirements for certification, including preflight inspection of the helicopter, safe operation of a helicopter, air traffic control procedures and communications, and safety considerations. Flight and simulator training is required. An FAA Medical Certificate is required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 3 Lab: 10.8

AV 150**AERODYNAMICS**

An in-depth study of aerodynamics, beginning with a brief history of the development of flight and flight theory. The physics of lift, drag, weight and thrust are related to airfoil and airplane design and operational characteristics. Aircraft stability and control are related to airplane performance and safety. Students will demonstrate their knowledge of aerodynamics through projects in which they predict aircraft performance. Recommended prerequisite: MTH 85.

Credits: 4 Lecture: 4

AV 188**SPECIAL STUDIES: AVIATION**

Credits: 1 to 5

AV 199**SELECTED TOPICS: AVIATION**

Credits: 1 to 8

AV 200**AVIATION LAW**

This course offers an introductory analysis of legal concepts related to the aviation industry, including aircraft operations, airports, fixed based operators (FBOs), contracts, insurance and liability, regulatory statutes, and case law. The historical development of aviation law in the United States is included.

Credits: 3 Lecture: 3

AV 201**AIRPORT MANAGEMENT**

This course is a study of the development of airports and the functions and responsibilities of airport management. This course provides an historical background and studies the roles of various governmental agencies in the management and regulation of airports.

Credits: 3 Lecture: 3

AV 204**ADVANCED AIRCRAFT SYSTEMS**

Encompasses a detailed study of aircraft systems and structures and enables the students to progress into heavier, more complex

single and multi-engine aircraft. Aircraft in current use by the industry will be studied with an emphasis placed on operations, including emergencies. Applicable federal aviation regulations, including use of minimum equipment lists, will be studied.

Recommended prerequisite: AV 104.

Credits: 4 Lecture: 4

AV 208**METEOROLOGY II**

Focuses on application of meteorology theory and the availability, understanding and use of available weather products. Emphasis is placed on maximizing aircraft performance and minimizing exposure to weather hazards. Includes examining the weather forecasting models, detailed use and interpretation of graphic weather products, access to telephone and internet weather briefing sites, and utilization of weather products.

Recommended prerequisite: AV 108 or instructor approval.

Credits: 4 Lecture: 4

AV 210**INSTRUMENT - AIRPLANE**

The instrument rating ground school prepares students for the FAA instrument written exam and an FAA Instrument rating. Includes an in-depth study of basic altitude instrument flying, IFR navigation systems and procedures, aircraft flight instruments, aviation weather, applicable federal aviation regulations and the instrument charts required for IFR flight. Passing of FAA instrument airplane knowledge exam required. Student will be required to pay the testing service fee to take the exam. Recommended prerequisites: AV 110 and/or Private Pilot certificate.

Credits: 5 Lecture: 5

AV 210A**INSTRUMENT SEL FLIGHT LAB**

Instrument-Airplane single-engine flight lab. Students receive flight instruction to prepare for the FAA instrument rating in single engine airplanes. Flight and simulator instruction includes precise control under actual or simulated instrument conditions, including instrument approaches. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 3 Lab: 10.8

AV 210B**INSTRUMENT MEL FLIGHT LAB**

Students receive flight instruction to prepare for FAA instrument rating in multi-engine airplanes. Flight and simulator instruction includes precise control under actual or simulated instrument conditions, including instrument approaches to airfields. Flight, ground, and simulator training fees apply. Recommended prerequisites: AV 230 and AV 230A. See Aviation Program director for current fee schedule.

Credits: 3 Lab: 10.8

AV 215**INSTRUMENT HELICOPTER**

The instrument rating ground school for helicopter prepares students for the FAA instrument written exam and an FAA Instrument rating. Includes an in-depth study of aircraft flight instruments, basic altitude instrument flying, IFR navigation systems and procedures, aviation weather, applicable federal aviation regulations, and the instrument charts required for IFR flight. Passing the FAA instrument knowledge test is required. Student should be prepared to pay fee by credit card to the testing service. See instructor for current fee. Recommended prerequisites: AV 115 and/or Private Pilot certificate.

Credits: 5 Lecture: 5

AV 215A**INSTRUMENT HELICOPTER FLIGHT LAB**

Students receive flight instruction to prepare for FAA helicopter instrument rating. Precision aircraft control under actual or simulated instrument conditions, including instrument approaches to airfields, will be emphasized. Student will receive training in the maneuvers and procedures necessary to meet the standards contained in the FAA instrument rating practical test standards. Flight and simulator training is required. FAA Medical and Pilot Certificates are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 2 Lab: 7.2

AV 220**COMMERCIAL PILOT-AIRPLANE**

Ground instruction of aeronautical skills and knowledge applicable to the commercial pilot certification portion of the Professional Pilot training syllabus. Covers night flight, aviation physiology, advanced aerodynamics, aircraft performance, weight and balance, complex aircraft operations, advanced airplane systems, commercial operations and federal aviation regulations for commercial pilots and noncommercial flight operations, with emphasis on human factors, crew resource management, and decision making. Recommended prerequisite: AV 110 and/or FAA Private Pilot rating.

Credits: 4 Lecture: 4

AV 220A**COMMERCIAL PILOT SEL FLIGHT LAB**

This course consists of ground and flight instruction to prepare for the FAA Commercial Pilot single engine land certificate. Flight instruction includes precision maneuvers, extended cross country and night flight, and transition to more sophisticated aircraft. Ground instruction emphasizes advanced aerodynamics, aircraft performance, relevant federal aviation regulations and airplane systems. Flight and simulator training required. An FAA Medical certificate and a Private Pilot certificate are required. Flight, ground and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 2 Lab: 7.2

AV 220B**COMMERCIAL PILOT MEL FLIGHT LAB**

This course provides the ground and flight instruction for the FAA Commercial Pilot Certificate with a multi-engine land rating. Flight instruction includes precision maneuvers, extended cross-country and night flight, and transition to more sophisticated aircraft. Ground instruction emphasizes advanced aerodynamics, aircraft performance, relevant federal aviation regulations, and airplane systems. Flight and simulator training required. An FAA Medical certificate and a Private Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 2 Lab: 7.2

AV 225**COMMERCIAL PILOT-HELICOPTER**

Reviews the principles of flight, aircraft systems, pertinent federal aviation regulations and airman publications and service in order to prepare the student for the FAA Commercial Helicopter Pilot written exam. FAA Commercial Pilot written knowledge exam is required, and students should be prepared to pay the testing center the fee for the test. Recommended prerequisites: AV 115 and/or Private Pilot certificate.

Credits: 4 Lecture: 4

AV 225A**COMMERCIAL HELICOPTER FLIGHT LAB**

This course consists of ground and flight instruction to prepare for the FAA Commercial Pilot Certificate. Flight instruction includes precision maneuvers, extended cross-country and night flight, and off-airport landings. Ground instruction emphasizes advanced aerodynamics, aircraft performance, relevant federal aviation regulations, and helicopter systems. Flight and simulator training is required. An FAA Medical certificate and at least a Private Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 2 Lab: 7.2

AV 230**MULTIENGINE PILOT**

Ground instruction of aeronautical skills and knowledge applicable to the private multi-engine pilot certification in light twins. The course may also be taken by those pilots who have a commercial single-engine rating to obtain an additional rating for commercial multi-engine. Emphasis is on engine failure, multi-engine aerodynamics, minimum controllable airspeed, propeller feathering, V-speeds, flight planning, decision making, human factors, and crew resource management. Recommended prerequisites: AV 110 and/or FAA Private Pilot rating.

Credits: 2 Lecture: 2

AV 230A**MULTIENGINE MEL FLIGHT LAB**

Ground and flight instruction of aeronautical skills and knowledge applicable to the private and commercial multi-engine pilot certification in light twins. Emphasis is on engine failure, multi-engine aerodynamics, minimum controllable airspeed, propeller feathering, V-speeds, flight planning, decision making, human factors, and crew resource management. An FAA Medical certificate and a Private Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule. Recommended prerequisites: AV 110 and/or FAA Private Pilot certificate.

Credits: 1 Lab: 3.6

AV 230B**MEL COMM/MEI FLIGHT LAB**

Multi-engine Conversion course is intended for the student who has pursued a single-engine track to commercial and CFI. Students receive ground and flight instruction in preparation for additional commercial multi-engine and multi-engine instructor (MEI) ratings. Course content includes flight instruction methodology, instructor responsibilities, and comprehensive coverage of the instrument and multi-engine flight maneuvers necessary for instructing private and commercial pilots. An FAA Medical certificate and a Commercial Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 1 Lab: 3.6

AV 235**HUMAN FACTORS**

An introduction to the field of human behavior and characteristics as critical factors in the design and operation of electronic/machine systems. Emphasis is on crew resource management and human factors, including the study of human performance in complex systems with an examination of personality, stress, anxiety, fatigue, communication skills, decision making, situational awareness, analysis of aviation and accidents, and practical application of human factors and performance to modern aviation. Three hours of simulator training are required to complete this course.

Credits: 4 Lecture: 4

AV 245**ADVANCED HELICOPTER OPERATIONS**

The course will address advanced helicopter operations in a ground school environment. Students will be introduced to operations of turbine helicopters. The mountain flying phase will provide student with a working knowledge of operations in and around mountainous terrain. The external load phase covers the basic skills of flying with an external longline attached to the aircraft. The night vision goggle (NVG) phase will introduce the student to a new realm of flying safely at night, and will

be completed using an Internet-based, FAA-approved Part 141 training syllabus and classroom instruction. NVG course licensing fee applies. See Aviation Program director for current course fee.

Credits: 4 Lecture: 4

AV 245A**HELICOPTER TURBINE TRANSITION & MOUNTAIN OPERATIONS FLIGHT LAB**

Turbine transition course is to help the student become familiar with the operation of turbine helicopters. Students will be given the tools to help them understand different aircraft that they will be flying in the commercial world. The mountain-flying course is to familiarize a student with a working knowledge of operations in and around mountainous terrain. Flight and/or simulator training is required. An FAA Medical certificate and at least a Private Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 1 Lab: 3.6

AV 245B**HELICOPTER TURBINE TRANSITION & EXTERNAL LOAD FLIGHT LAB**

Turbine transition course is to help the student become familiar with the operation of turbine helicopters. The External Load course helps a student learn the basic skills of looking outside the aircraft and flying with a longline attached to the aircraft. The student will be prepared both with ground knowledge and flight knowledge to be able to fly their first external load. Flight and/or simulator training is required. An FAA Medical certificate and at least a Private Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 1 Lab: 3.6

AV 245C**HELICOPTER TURBINE TRANSITION & NIGHT VISION GOGGLE FLIGHT LAB**

Turbine transition course is to help the student become familiar with the operation of turbine helicopters. The night vision goggle (NVG) course is to introduce the student to a new technology enhanced night operations. The student will be given the ability to understand the workings of the NVG equipment and how to properly use them. Included in this phase of training is completion of a Virtual Training Board (VTB) system, which is designed to introduce new NVG users to the capabilities and limitations of NVGs. This training will propel the student towards the EMS field. Flight and/or simulator training is required. An FAA Medical certificate and at least a Private Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 1 Lab: 3.6

AV 245D**COMMERCIAL HELICOPTER FLIGHT LAB II**

This course consists of ground and flight instruction to prepare for the FAA Commercial Pilot Certificate. Flight instruction includes precision maneuvers, extended cross-country and night flight, and off-airport landings. Ground instruction emphasizes advanced aerodynamics, aircraft performance, relevant federal aviation regulations and helicopter systems. Flight and simulator training is required. An FAA Medical certificate and at least a Private Pilot certificate are required. Flight, ground and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 1 Lab: 3.6

AV 246**AVIATION SAFETY**

A detailed introduction into aspects of aviation safety, intended to promote flight safety in the general aviation and training environment. Topics include risk management, pilot psychology, human factors, accident trends and analysis of accident reports.

Credits: 3 Lecture: 3

AV 250**CERTIFIED FLIGHT INSTRUCTOR-AIRPLANE**

Provides the flight instructor applicant with fundamental concepts and practice for successful flight instruction at the recreational, private and commercial pilot level. Elements include fundamentals of instruction, developing lesson plans for private pilot and commercial pilot syllabus, designing curriculum, creating objective evaluation and grading criteria, and practical application in presenting technical material in an interactive classroom setting. Two FAA written-knowledge tests are required, and a third is recommended. Student must pay the testing service for the tests using a credit card. See Aviation Program director for current fees. Recommended prerequisite: AV 220 or FAA Commercial Pilot Certificate and Instrument Rating.

Credits: 5 Lecture: 5

AV 250A**CFI/CFII SEL AIRPLANE FLT LAB**

Flight Instructor Airplane Single Engine; Instrument Airplane Flight Lab. Students receive ground and flight instruction in preparation for a flight instructor certificate. Course includes flight instruction methodology, instructor responsibilities, and comprehensive coverage of the flight maneuvers necessary for instructing private and commercial pilots. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 3 Lab: 9

AV 250B**MEI/CFII AIRPLANE MEL FLT LAB**

Multi-engine and instrument flight lab. Students receive ground and flight instruction in preparation for a certified multi-engine instructor (MEI) instructor(CFI) and flight instructor instrument (CFII) certificate in multi-engine land

aircraft (MEL). Course content includes flight instruction methodology, instructor responsibilities, and comprehensive coverage of the instrument and multi-engine flight maneuvers necessary for instructing private and commercial pilots. An FAA Medical certificate and a Commercial Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule. Recommended prerequisite: AV 230.

Credits: 3 Lab: 10.8

AV 250C**SEL COMM/CFI FLIGHT LAB**

Single-engine commercial and flight instructor (CFI) Additional Rating Flight Lab. Designed for those students who already have multi-engine commercial and flight instructor multi-engine ratings. Students receive ground and flight instruction in preparation for the single-engine commercial and the single-engine instructor (CFI) additional ratings. Course content includes flight instruction methodology, instructor responsibilities, and comprehensive coverage of the single-engine flight maneuvers necessary for instructing recreational, private and commercial pilots. Flight and/or simulator training required. An FAA Medical certificate and a Commercial Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 1 Lab: 3.6

AV 255**CERTIFIED FLIGHT INSTRUCTOR-HELICOPTER**

Teaches techniques of flight and ground instruction, analysis of maneuvers, aircraft performance and federal aviation regulations applicable to flight instructors. Practice instructing will be required. Preparation for the FAA Fundamentals of Instruction (FOI), CFI Helicopter, and Advanced Ground Instructor (AGI) exams included. Students are required to pass the FOI exam and either the CFI and/or the AGI exams. Student should be prepared to pay the testing service for the required exams. See Aviation Program director for current fee schedule. Recommended prerequisites: AV 225 and/or Commercial Pilot certificate.

Credits: 5 Lecture: 5

AV 255A**CERTIFIED FLIGHT INSTRUCTOR-HELICOPTER FLIGHT LAB**

Students receive ground and flight instruction in preparation for a Certified Helicopter Flight Instructor (CFI) certificate and Instrument Helicopter Instructor (CFII) rating. Course content includes flight instruction methodology, instructor responsibilities, and comprehensive coverage of the flight maneuvers necessary for instructing private and commercial pilots. Flight and simulator training is required. An FAA Medical certificate and a Commercial Pilot certificate are required. Flight, ground, and simulator training fees apply. See Aviation Program director for current fee schedule.

Credits: 2 Lab: 7.2

AV 288
SPECIAL STUDIES: AVIATION
Credits: 1 to 5

AV 299
SELECTED TOPICS: AVIATION
Credits: 1 to 8

BIOLOGY

BI 101 **GENERAL BIOLOGY I**

Designed to fulfill general education requirements, courses are intended for non-major students whose program requires biology courses. Centers on concepts of unity of living organisms including evolution, biochemistry, cell biology (morphology and physiology), genetics and development.

Credits: 4 Lecture: 3 Lab: 3

BI 102 **GENERAL BIOLOGY II**

Designed to fulfill general education requirements, courses are intended for non-major students whose program requires biology courses. Focus is on concepts of biological diversity including evolution and adaptations to local environments. Recommended prerequisite: BI 101.

Credits: 4 Lecture: 3 Lab: 3

BI 103 **GENERAL BIOLOGY III**

Designed to fulfill general education requirements, courses are intended for non-major students whose program requires biology courses. Focus is on interconnections such as co-evolutionary adaptations among organisms and interactions with environmental factors/resources. Recommended prerequisite: BI 101.

Credits: 4 Lecture: 3 Lab: 3

BI 121 **ANATOMY AND FUNCTION I**

Covers body organization, cell, skin, blood, heart and circulation, immunity, respiration, bones and skeletal muscles. Designed for medical assisting, health records, practical nursing and massage therapy programs. Lecture and lab must be taken simultaneously; not offered as separate classes. Should be taken in sequence.

Credits: 4 Lecture: 3 Lab: 3

BI 122 **ANATOMY AND FUNCTION II**

Covers the nervous system, eyes, ears, reproduction, genetics, digestion, urinary system, hormones and diabetes. Designed for medical assisting, health records, practical nursing and massage therapy programs. Lecture and lab must be taken simultaneously; not offered as separate classes. Should be taken in sequence.

Credits: 4 Lecture: 3 Lab: 3

BI 188
SPECIAL STUDIES: BIOLOGY
Credits: 1 to 6

BI 205 **SCIENTIFIC TERMINOLOGY: LATIN AND GREEK ROOTS**

Designed for majors in natural science and social science wishing to enhance their understanding of the basic Latin and Greek prefixes, suffixes and language roots that are applicable to study and reading in science-related fields. Develops skill in how words are formed, the history, meaning, pronunciation and spelling of scientific terms.

Credits: 3 Lecture: 3

BI 211 **PRINCIPLES OF BIOLOGY I**

Introduces basic principles common to all living organisms. Emphasizes cellular morphology and physiology, genetics, evolution and ecology. Designed for majors in the life sciences and should be taken in sequence. Recommended prerequisite: CH 221 or concurrent enrollment.

Credits: 5 Lecture: 4 Lab: 3

BI 212 **BIOLOGY OF PLANTS II**

Surveys bacteria, kingdoms of protists, fungi and plants; examines evolutionary interrelationships and emphasizes aspects of plant morphology and physiology. Designed for majors in life sciences as well as those pursuing botany, and should be taken in sequence. Recommended prerequisite: BI 211 or instructor approval.

Credits: 5 Lecture: 4 Lab: 3

BI 213 **BIOLOGY OF ANIMALS III**

Examines types of living animals, their interrelationship, morphology and physiology. Designed for majors in life sciences and should be taken in sequence. Recommended prerequisite: BI 211 or instructor approval.

Credits: 5 Lecture: 4 Lab: 3

BI 214 **BIOCHEMISTRY AND GENETICS**

Through a combination of lectures, problem solving, and laboratory exercises this course explores amino acid chemistry, the structures and functions of proteins, basic metabolism and energy conservation, the genetics of biochemical pathways, assortment and linkage of genes, the structure and replication of DNA, mutation, and repair; gene mapping, complementation and the structure and regulation of genes. Recommended prerequisite: BI 211 or CH 223 or equivalent.

Credits: 4 Lecture: 3 Lab: 3

BI 231**HUMAN ANATOMY AND PHYSIOLOGY I**

Examines the structure and function of the human body utilizing a systems approach. Emphasizes body organization, cells, tissues, as well as microscopic and gross anatomy of the integumentary skeletal and muscular systems. Concurrent labs include hands-on dissections of a variety of tissues, organs, fetal pigs and/or cats. First course of a sequence for students in pre-nursing and other pre-professional health programs. Recommended prerequisite: basic knowledge of chemistry.

Credits: 4 Lecture: 3 Lab: 3

BI 232**HUMAN ANATOMY AND PHYSIOLOGY II**

Continuation of examination of the structure and function of the human body utilizing a systems approach. Emphasis on gross and microscopic anatomical and physiological relationships between nervous, endocrine and cardiovascular systems. Concurrent labs include hands-on dissections of a variety of tissues, organs, fetal pigs and/or cats. For students in pre-nursing and other pre-professional health programs. Should be taken in sequence. Recommended prerequisite: BI 231.

Credits: 4 Lecture: 3 Lab: 3

BI 233**HUMAN ANATOMY AND PHYSIOLOGY III**

Continuation of examination of the structure and function of the human body utilizing a systems approach. Emphasis on gross and microscopic anatomical and physiological relationships between lymphatic/immune, respiratory, digestive, urinary and reproductive systems. Concurrent labs include hands-on dissections of a variety of tissues, organs, fetal pigs and/or cats. For students in pre-nursing and other pre-professional health programs. Should be taken in sequence. Recommended prerequisite: BI 232.

Credits: 4 Lecture: 3 Lab: 3

BI 234**MICROBIOLOGY**

Introduces microorganisms, especially bacteria and viruses which cause serious infectious diseases, and introduces the study of those diseases and the defenses against them. Designed especially for pre-nursing students and other pre-professional health programs.

Credits: 4 Lecture: 3 Lab: 3

BI 280**CO-OP WORK EXPERIENCE BIOLOGY**

Credits: 1 to 4

BI 288**SPECIAL STUDIES: BIOLOGY**

Credits: 1 to 4

BI 299**SELECTED TOPICS: BIOLOGY**

Credits: 1 to 5

BOT 203**GENERAL BOTANY**

Surveys flowering plant families by identification of local flora and the use of taxonomic keys. Studies floral morphology, history and development of classification, and systematics. Recommended prerequisite: BI 212 or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

BUSINESS ADMINISTRATION**BA 080****WORKING INTERNSHIP**

Provides college credit for student employment in fields pertaining to business curriculum. Credit is given based upon a total workload of 35 hours and completion of learning objectives. Learning experience coordinated with student's supervisor and teacher. This course is designed for students entering the work force or a particular industry. May not be repeated for credit. Instructor approval required.

Credits: 1 Other: 3

BA 081**PUBLIC RELATIONS**

Illustrates history and theory of public relations (PR). Describes interactions of PR with other marketing promotion activities. Examines basic uses of media and provides experience in creating news releases and public announcements. Recommended prerequisite: BA 223.

Credits: 3 Lecture: 3

BA 101**INTRODUCTION TO BUSINESS**

Provides basic understanding of components of business. Introduces economic and legal environments affecting business. Includes discussions on management, marketing and finance. Term-long projects supporting team presentation using instructor-specified technology.

Credits: 4 Lecture: 4

BA 104**BUSINESS MATH**

Designed to equip students with skills to handle everyday arithmetic problems relative to a business environment and lay the foundation for other business courses including computer classes that use basic business math as examples and assignments. Topics include ratio, proportion, percent, interest, time value of money, markup and discounts, payroll, stocks and bonds, and depreciation. Prerequisite: Grade of "C" or better in MTH 60, MTH 60 equivalency met, or appropriate placement exam score.

Credits: 3 Lecture: 3

**BA 111
APPLIED ACCOUNTING I**

Designed to acquaint students with the basic functions of the bookkeeping and accounting process: journalizing transactions into the journal, posting to the general ledger, analyzing and adjusting the ledger, preparing simple financial statements for a service business and gaining an understanding and working knowledge of the overall payroll function. No previous accounting is required. Recommended prerequisite: MTH 60.

Credits: 3 Lecture: 3

**BA 112
APPLIED ACCOUNTING II**

Continuation of Applied Accounting I. Provides a detailed study of the mechanical and theoretical aspects of the bookkeeping and accounting process as it relates to a merchandising business. Recommended prerequisite: BA 111.

Credits: 3 Lecture: 3

**BA 113
APPLIED ACCOUNTING III**

Continuation of Applied Accounting II. Provides students with an in-depth, more detailed background of specific areas of accounting so that they will be able to effectively deal with most accounting situations as they relate to all business forms. Recommended prerequisite: BA 112.

Credits: 3 Lecture: 3

**BA 150
THE BUSINESS OF MASSAGE**

Designed specifically for massage therapy students to answer the many questions involved in turning their skill and knowledge into a successful career and business. Presents basic tenets of business entrepreneurship. Covers identifying trends, target markets, analyzing competition, location analysis, distribution, financing businesses, legal issues, management of small businesses, and writing a business plan.

Credits: 3 Lecture: 3

**BA 156
BUSINESS ECONOMICS**

Examines principles involved with and dependent upon the American economic system. Covers laws of supply and demand, pricing policy, differences between economic systems and business organizations, money and monetary policy, Keynesian vs. supply-side economics and global economics.

Credits: 3 Lecture: 3

**BA 177
PAYROLL ACCOUNTING**

Provides the fundamental accounting skills to calculate payroll for any business organization. Topics include calculating payroll based on current laws and regulations, recording payroll

transactions in the general journal and general ledger, and completing required federal payroll tax forms and reports. Recommended prerequisite: BA 112 or BA 212.

Credits: 3 Lecture: 3

**BA 178
CUSTOMER SERVICE**

Introduces concepts of basic customer service. Covers how to develop and establish a customer service vision. Examines how to understand customer expectations before, during and after service delivery. Reviews tenets of developing, managing and evaluating service strategies.

Credits: 3 Lecture: 3

**BA 180
CO-OP WORK EXPERIENCE**

Cooperative work experience is a learning strategy designed to enhance a student's knowledge, personal development, professional development, and professional preparation by integrating academic study with practical experience. Student completes on-the-job training in an office environment. BA 180 is designed for Level I and Level II students participating in AAS Business or Office Administration program. Emphasis will be placed on management, marketing, accounting, and operational concepts covered in Introduction to Business and/or Level II classes. Recommended pre- or corequisite: BA 101 and instructor approval required.

Credits: 1 to 3

**BA 188
SPECIAL STUDIES: BUSINESS**

Engages students with projects from local businesses in the areas of accounting, marketing, management and operations. Recommended prerequisite includes completion of most Level I and Level II classes from the AAS degree. Instructor approval required.

Credits: 1 to 3

**BA 199
SELECTED TOPICS: BUSINESS**

Offers selected topics of study through workshop and independent study formats. Provides opportunities for students to investigate topics of interest beyond what is covered in current degrees. Instructor approval required.

Credits: 1 to 5

**BA 203
GLOBAL BUSINESS**

Prepares students for better understanding of many facets of dealing with foreign entities. Surveys institutions, environments, forces and problems involved with the conduct of global trade. Examines trade organizations, monetary systems, government relations, language and custom barriers, and future trends. Recommended prerequisite: BA 223. May be taught with MIC designation.

Credits: 3 Lecture: 3

**BA 206
MANAGEMENT FUNDAMENTALS I**

Introduces students to the theory and vocabulary of management in a business setting. All of the major theoretical foundations for understanding individual and group behavior and leadership are reviewed in a lecture and discussion instructional format.

Recommended prerequisite: BA 101.

Credits: 4 Lecture: 4

**BA 207
MANAGEMENT FUNDAMENTALS II**

Covers the scope of activities and roles required to be an effective manager. Applying individual and group behavior and leadership theories, and exploring the critical skills of self-management, communication, logical thinking and team building, the major functional areas of management are examined in depth through the exploration of practical applications. Case study analysis and discussion is used extensively as the instructional method.

Recommended prerequisite: BA 206.

Credits: 4 Lecture: 4

**BA 209
BUSINESS ETHICS**

Explores current issues in business ethics from the owner, employee and consumer viewpoints. Ethical theories are reviewed and cases are used to evaluate conflicts existing between business profits, the legal environment and morality. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

**BA 211
FINANCIAL ACCOUNTING I**

Introduces financial accounting theory, including the accounting cycle, recording transactions, financial analysis, and reporting corporate financial information in accordance with generally accepted accounting principles. BA 111, 112 and 113 are required for AAS accounting specialization. Recommended prerequisite: MTH 60.

Credits: 3 Lecture: 3

**BA 212
FINANCIAL ACCOUNTING II**

Continues the presentation of fundamental accounting issues begun in BA 211, with emphasis on corporate investing and financing activities and preparation of the statement of cash flows. Recommended prerequisite: BA 211.

Credits: 3 Lecture: 3

**BA 213
MANAGERIAL ACCOUNTING**

Introduces managerial accounting theory, including cost-volume-profit analysis, product costing, budgeting, capital investing, and cost management in manufacturing and service organizations.

Recommended prerequisite: BA 212.

Credits: 3 Lecture: 3

**BA 217
ACCOUNTING FUNDAMENTALS**

Introduces non-business majors to the accounting process and the informational reports it generates. Topics include the analyzing, recording, summarizing, and reporting of business transactions, with a special focus on using accounting reports to make informed business decisions. This course is for non-business majors and no previous accounting is required.

Recommended prerequisite: MTH 60.

Credits: 3 Lecture: 3

**BA 218
PERSONAL FINANCE**

Gives students skills in basic money management. Investigates spending habits and develops personal and family financial budgets. Also focuses on dealing with financial institutions, applying for loans and establishing personal credit. Develops understanding of managing major household expenses. Develops skill in renting, buying and selling residential property. Also focuses on buying and leasing transportation, personal income taxes and different types of insurance. Covers scope and planning of investments and retirement planning. Students develop understanding of different investments including mutual funds, stock market, real estate as an investment and social security.

Also covers wills and trusts.

Credits: 3 Lecture: 3

**BA 220
MATH FOR BUSINESS DECISIONS**

Designed to develop mathematical analytical skills in performing the daily tasks of a manager or salesperson. Course has a threefold focus: strengthening understanding and use of business terminology in regard to financial information; developing spreadsheet skills in evaluating the costing, pricing and financing strategies of products and services; and developing skills in evaluating and making budgeting, financial and investment decisions. This is a hands-on, skills-oriented course. Prerequisite: CIS 131.

Recommended prerequisites: BA 113, BA 104 and CIS 125E.

Credits: 4 Lecture: 3 Other: 2

**BA 222
BUSINESS FINANCE**

Targets the role of financial management in business and provides understanding of the effect of finance on business decisions. Covers financial forecasting, capital budgeting and risk, financial institutions, securities markets, the investment process and working capital management. Recommended prerequisites: BA 104 and either BA 113 or BA 212.

Credits: 3 Lecture: 3

**BA 223
MARKETING PRINCIPLES I**

Develops skills in understanding and developing strategies in the marketing environment. Covers principles and techniques of market research, consumer behavior, product development, pricing, distribution and promotion. Establishes basis for creating a marketing plan. Recommended prerequisite: BA 101.

Credits: 4 Lecture: 4

**BA 224
HUMAN RESOURCES MANAGEMENT**

Covers principles and techniques of human resources management. Includes the following topics: hiring practices, orientation, training, job enrichment, motivation, and performance and review. Covers wage policies, benefits programs and how to comply with a myriad of legal requirements. Recommended prerequisite: BA 206.

Credits: 4 Lecture: 4

**BA 226
BUSINESS LAW I**

Introduces general concepts, principles and individual conduct of business. The overview of law presented by this course introduces the general concepts of contract law which forms the foundation for the general conduct of business. Covers contract formation, dispute resolution, warranties, legal forms of business, and credit and collections. Emphasizes managing risk in the business environment. Recommended prerequisites: sophomore standing, WR 121 and BA 101.

Credits: 4 Lecture: 4

**BA 228
COMPUTER ACCOUNTING APPLICATIONS**

Introduces double-entry, fully integrated computerized accounting software on the microcomputer. Students will get hands-on experience recording a variety of business transactions and preparing financial statements using the software.

Recommended prerequisite: BA 111 or BA 211.

Credits: 3 Lecture: 2 Other: 2

**BA 229
QUICKBOOKS**

Introduces students to QuickBooks accounting software. It is designed to give students the basic skills to effectively use QuickBooks and to reinforce the concepts students learned in their first accounting course. Students will get hands-on experience using the software, including recording a variety of accounting transactions and creating financial statements and other financial reports useful in making business decisions. Recommended prerequisites: CIS 131 and BA 111 or BA 211.

Credits: 3 Lecture: 2 Lab: 2

**BA 238
SELLING AND NEGOTIATION**

Covers the role of personal selling in the firm's marketing mix. Emphasizes creating value and the techniques used for

building buyer relationships during the selling process. Also emphasizes customer service, handling complaints and sales force management techniques. Recommended prerequisite: BA 223.

Credits: 4 Lecture: 4

**BA 239
MARKETING PRINCIPLES II**

Previously titled BA 239, Advertising. Develops understanding of the principles and techniques necessary to develop an advertising campaign for a business with a focus on the promotion component of the marketing mix. Examines the ways in which advertising fits into the scheme of business marketing. Also discusses advertising and its relationships with other promotional activities. Includes a thorough look into the use of different media choices and the planning of advertising campaigns. Also covers some of the basics regarding the design of commercials and printed copy. Includes work on real-life advertising campaigns. Recommended prerequisite: BA 223.

Credits: 4 Lecture: 4

**BA 249
RETAILING**

Develops skills in understanding and developing strategies in the retail environment. Examines the retail industry including store location, layout, display, merchandise selection, inventory and operational controls and promotion. Includes tours of local retail stores. Recommended prerequisite: BA 223.

Credits: 4 Lecture: 4

**BA 250
ENTREPRENEURSHIP**

Covers basic tenets of business entrepreneurship. Instruction covers identifying trends, target markets, analyzing competition, location analysis, distribution, financing businesses, and legal and management issues. Recommended prerequisite: BA 101.

Credits: 4 Lecture: 4

**BA 261
CONSUMER BEHAVIOR**

Explores the determinants of consumer buying behavior and the process consumers use to make buying decisions. Study includes psychological and sociological principles and their impact on purchasing behaviors. Understanding of these behaviors and the purchase process are used to help design marketing strategies. Recommended prerequisite: BA 223.

Credits: 4 Lecture: 4

**BA 280
CO-OP WORK EXPERIENCE BUSINESS**

Provides work-learning credit for student employment in fields pertaining to the business curriculum. Credit is given based upon a total workload of 100 hours per term and completion of learning objectives. Learning experience coordinated with student's supervisor. May be repeated once. Instructor approval required.

Credits: 1 to 3

BA 285**BUSINESS HUMAN RELATIONS**

Examines the sociological and psychological aspects of the workplace with practical applications. Based on the premise that the practice of sound human relations is essential to success in any context. Group exercises, discussion, and lecture are the pedagogies used, in that order of importance. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

BA 286**MANAGING BUSINESS PROCESSES**

Introductory course in understanding and managing business processes. Develops understanding of general concepts and principles of process management. Includes implementation procedures and specific tools used in analyzing processes, uncovering problems and finding solutions to those problems. Recommended prerequisite: BA 101.

Credits: 4 Lecture: 4

BA 290**BUSINESS SEMINAR**

Tests student's knowledge of all facets of business curriculum. While assessing outcomes from the Business Administration program, this capstone course provides practice in decision making and problem solving. Involves competing in a sophisticated computer simulation. Special projects may be included. Students should complete management, marketing and accounting coursework prior to enrolling in this seminar.

Credits: 3 Lecture: 3

CAREER/LIFE PLANNING

HD 110**CAREER PLANNING**

Career Planning is a lifelong process that strengthens academic and career decisions. The process of self-awareness includes clarifying values, exploring preferences, defining interests, identifying skills and strengths, and developing strategies to support and use personal preferences. Personal knowledge is merged with current labor market information to begin the lifelong process of career decision-making.

Credits: 3 Lecture: 3

HD 155**MENTORING FOR OREGON LEADERSHIP INSTITUTE I (OLI)**

HD 155 is the first course in a three-quarter series. Provides a theoretical and practical framework for exploring the mentoring process as well as intercultural skills and effective communication strategies. Mentors learn and practice skills required that promote lifelong learning and leadership. They demonstrate and share these skills with high school student mentees, who are primarily of Latina/o descent, at nine intensive day-long sessions one Saturday per month. The mentoring relationship requires a three-quarter commitment.

Credits: 3 Lecture: 2 Other: 2

HD 156**MENTORING FOR OREGON LEADERSHIP INSTITUTE II (OLI)**

HD 156 is the second course in a three-quarter series. Students will build on the skills required to promote lifelong learning and leadership and to apply these skills to their own lives as well as to convey them to high school student mentees, who are primarily of Latino/a descent. Practice of the mentoring process, communication and presentation skills, development of and modeling team-building skills are covered. The mentoring relationship requires a three-quarter commitment. Instructor approval required.

Credits: 3 Lecture: 2 Other: 2

HD 157**MENTORING FOR OREGON LEADERSHIP INSTITUTE III (OLI)**

HD 157 is the third course in a three-quarter series. Students will build on the skills required to promote lifelong learning and leadership and to apply these skills to their own lives as well as to convey them to high school student mentees, who are primarily of Latino/a descent. Practice of the mentoring process, communication and presentation skills, development of and modeling team-building skills are covered, as well as formal reflection upon the experience gained from exploring and building upon theoretical applications in a cultural context. The mentoring relationship requires a three-quarter commitment. Instructor approval required.

Credits: 3 Lecture: 2 Other: 2

HD 190**OLI LEADERSHIP SKILLS I**

HD 190 is the first in a three-quarter series. This first quarter lays the foundation for the series by providing high school students, who are primarily of Latina/o descent, with activities that encourage them to: establish personal and team goals; develop effective teamwork skills; explore and articulate their cultural identity; explore aspects of leadership including varying styles, qualities, and cultural implications. Interaction with college mentors prepares students of varying races and ethnicities to embrace post-secondary education as both desirable and attainable. Instructor approval required.

Credits: 1 Other: 2

HD 191**OLI LEADERSHIP SKILLS II**

HD 191 is the second in a three-quarter series. Building upon the foundation of leadership and teamwork considered in a cultural context, high school students explore issues of personal responsibility; strategies for advocacy and organizing; and opportunities for developing intercultural awareness. Interaction with college mentors expands to focus on the college challenges, requirements, tools for success, and the application process. Instructor approval required.

Credits: 1 Other: 2

HD 192**OLI LEADERSHIP SKILLS III**

HD 192 is the third in a three-quarter series. It provides high school students with opportunities to explore and attain skills in leadership, teamwork, communication and conflict resolution. Interaction with college mentors prepares students of varying races and ethnicities to embrace post-secondary education as a viable option. Instructor approval required.

Credits: 1 Other: 2

HD 188**SPECIAL STUDIES: HUMAN DEVELOPMENT**

Credits: 1 to 3

HD 199**SELECTED TOPICS: HUMAN DEVELOPMENT**

Credits: 1 to 4

HD 299**SELECTED TOPICS: HUMAN DEVELOPMENT**

Credits: 1 to 6

CASCADE CULINARY INSTITUTE

CCI 071**BASIC SANITATION**

Helps students practice skills that result in serving safe and healthy food. Two thrusts of this course are learning what causes food-borne illness and how to prevent food-borne illness. Class standards based upon National Restaurant Association Education Foundation ServSafe Certification program and meets state food code requirements for food handler training and certification.

Credits: 2 Lecture: 2

CCI 081**FOOD SERVICE NUTRITION**

Focuses on nutrition as it relates to the body, as well as to food preparation and diet planning. Basic nutrients covered include carbohydrates, fats and proteins, vitamins and minerals. Special diet modifications are discussed in relation to menu preparation.

Credits: 2 Lecture: 2

CCI 093**WINE AND BEVERAGES**

Combines an understanding of the origin and production of spirits, wines, beers and ales with how they are to be served. Discusses how alcoholic beverages should be priced, purchased, inventoried and poured. Students will be exposed to mixology, glass wear and the equipment that is customary to beverage operations. Beverage operations analysis for profitability is covered. Legal aspects of alcoholic beverage service will also be discussed including how to minimize legal exposure and proper methods of service control. Instructor approval required.

Credits: 3 Lecture: 3

CCI 101**CHEF WORLD INTRODUCTION**

Prepare to embark on a journey of the culinary world, from tasting regional cuisines and spices to the fundamentals of making a flavorful stock. Hands-on labs will include basic knife skills, the mother sauces, kitchen safety, sanitation, plating design and dessert production. Trips to local restaurants and resorts will give you a glimpse into the fast-paced work environment of a professional kitchen.

Credits: 2 Lecture: 1 Other: 2

CCI 107**CULINARY SUPERVISION**

Introductory course in first-line supervision (team leader, shift supervisor, kitchen manager, or sous chef). Includes topics on work management, problem solving, running meetings, effective delegation, business communications, and how to lead effective teams. Course focuses on both business and human relations viewpoints of supervision practices.

Credits: 3 Lecture: 3

CCI 121**HOT FOOD PRODUCTION I**

Introduces procedures and techniques of commercial food production. Principles underlying the selection, composition and preparation of major food products are presented. Students participate in baking, roasting, broiling, grilling, etc. of basic food items such as fish, poultry, meat, breads and desserts. Instructor approval required.

Credits: 4 Lecture: 2 Other: 4

CCI 122**HOT FOOD PRODUCTION II**

Preparation of breakfast fare, egg cookery, simple desserts with emphasis on correct technique; identification of basic stocks and sauces; effects of heat on foods, cooking methods; the art of seasonings and flavorings; and developing an understanding of recipes combined with correct use of weights and measures and scaling techniques. Recommended prerequisite: CCI 121 with a grade of "C" or higher.

Credits: 4 Lecture: 2 Other: 4

CCI 123**À LA CARTE COOKING**

Learn to prepare modern and seasonal dishes in a restaurant setting and put previously learned skills into practice in the College's dining room. This course will emphasize cooking techniques and ingredients used in contemporary and classical cuisines and cover planning and ordering for production, station organization, preparation and plating, timing, palate development, and other production realities of a restaurant. Recommended prerequisite: CCI 122.

Credits: 4 Lecture: 2 Other: 4

**CCI 141
BAKING I**

Students learn fundamentals of baking science, terminology, ingredients, weights and measures, formula conversions and storage; preparation of yeast goods, pies, cakes, cookies and quick breads; and use and care of equipment. Instructor approval required.

Credits: 4 Lecture: 2 Other: 4

**CCI 142
CAKES AND CHOCOLATE**

Production of desserts for the lunch operation; how to make torte and cake fillings; how to properly bake cakes; pie and tart doughs; frostings and icings; cake assembly and decoration; how to work with chocolate including tempering, molding and decorating; and showpiece. Also, students gain understanding of how to bake and cool cakes according to different altitude adjustments. Recommended prerequisite: CCI 141.

Credits: 4 Lecture: 2 Other: 4

**CCI 143
CUSTARDS, CREAMS AND PLATED DESSERTS**

Planning and assembling of specialty cakes and procedures for popular cakes. Preparation techniques and production skills for custards, puddings, Bavarians and mousses. Still frozen and churn frozen dessert production and presentations. Fresh seasonal fruit desserts and handling techniques. Background and guidelines for plated dessert presentations. Production and modeling of chocolate including tempering techniques used for molding and chocolate decorations. Recommended prerequisite: CCI 142.

Credits: 4 Lecture: 2 Other: 4

**CCI 151
GARDE MANGER I**

Teaches basic principles of garde manger, applying them to the pantry area and salad stations, and how they relate with other kitchen operations. Focuses on plate presentation and simple garnishes; product knowledge and identification; preparation of salads and salad dressings: preparing dressings by type, recipes and techniques; and sandwich breads and fillings. Instructor approval required.

Credits: 4 Lecture: 2 Other: 4

**CCI 153
CHARCUTERIE AND BUTCHERING**

Advanced garde manger preparations and techniques from the commonly used methods of preserving food through curing, sausage-making and smoking to pâtés, terrines and mousselines with an introduction to cheese making. Advanced garde manger will also include an overview of sculpting, modeling, carving, food decoration and culinary competitions. Recommended prerequisite: CCI 155.

Credits: 4 Lecture: 2 Other: 4

**CCI 155
MEDITERRANEAN CUISINE**

A comprehensive study of the cuisines of the countries surrounding the Mediterranean. Lecture class will include regional and historical ingredient and recipe importance pertaining to the countries of France, Italy, Spain, Greece, Morocco, Tunisia, Egypt, Turkey, Syria, Lebanon and Israel. Lab will include cooking methodology, equipment and ingredient use to prepare regional dishes. Instructor approval required. Recommended prerequisite: CCI 151.

Credits: 4 Lecture: 2 Other: 4

**CCI 156
DIETARY HEALTH AND SPA CUISINE**

This course is an intensive study of the foods we consume and how they interact with our body chemistry. Recipes and their ingredients are broken down to a molecular level which then enables a better understanding of the biochemical effects they truly have on the human body. Current and past trends in health foods are examined to determine myth from fact. A closer look at the organic and “slow food” movements and how they influence chefs in the kitchen. Recommended prerequisites: CCI 151 and CCI 121.

Credits: 3 Lecture: 1 Other: 4

**CCI 161
DINING ROOM OPERATIONS**

Hands-on table setting for differing meal periods and differing menus according to types of service used in various food service operations. Teaches importance of relationship between the kitchen and service staff; positions and responsibilities of dining room personnel; correct handling of guest checks, review of differing guest check systems, from manual to computerized, along with assets and liabilities of such systems; requirements for staffing the dining room for lunch operation. Instructor approval required.

Credits: 3 Lecture: 1 Other: 4

**CCI 163
DINING ROOM AND BANQUET MANAGEMENT**

Students will explore the many aspects of the restaurant and food world, expanding their understanding of the many opportunities a culinary degree can provide. Students will be exposed to the organization, planning, management and training procedures required for a restaurant career. In addition, students will be introduced to various food-writing techniques, food and prop styling and food photography. Recommended prerequisite: CCI 161.

Credits: 3 Lecture: 3

**CCI 199
SELECTED TOPICS CULINARY**

Credits: 1 to 4

CCI 280A**CO-OP WORK EXPERIENCE CULINARY**

Enhances student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience. On-the-job training in a restaurant or food service environment. Instructor approval required. Students must take CCI 280A, B and C for a total of nine credits and 300 employment hours.

Credits: 3 Other: 10

CCI 280B**CO-OP WORK EXPERIENCE CULINARY**

Enhances student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience. On-the-job training in a restaurant or food service environment. Instructor approval required. Students must take CCI 280A, B and C for a total of nine credits and 300 employment hours.

Credits: 3 Other: 10

CCI 280C**CO-OP WORK EXPERIENCE CULINARY**

Enhances student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience. On-the-job training in a restaurant or food service environment. Instructor approval required. Students must take CCI 280A, B and C for a total of nine credits and 300 employment hours.

Credits: 3 Other: 10

CHEMISTRY**CH 104****INTRODUCTION TO CHEMISTRY I**

Introduces basic principles of general chemistry, including atomic theory, chemical formulas and equations, bonding, stoichiometry, acid/base chemistry, and solutions. Supporting laboratory work included. Recommended prerequisite: one year of high school algebra or MTH 60 equivalent. Not designed for science majors and should be taken in sequence for those needing three terms of non-majors chemistry.

Credits: 4 Lecture: 3 Lab: 3

CH 105**INTRODUCTION TO CHEMISTRY II**

Introduces basic principles of general and organic chemistry, including bonding in carbon compounds, equilibrium, stereochemistry, and functional group chemistry. Supporting laboratory work included. Should be taken in sequence. Recommended prerequisite: CH 104 or equivalent. Not designed for science majors.

Credits: 4 Lecture: 3 Lab: 3

CH 106**INTRODUCTION TO CHEMISTRY III**

Introduces basic principles of general and biochemistry, including consideration of protein, carbohydrate and lipid structure and metabolism, bioenergetics, enzymes and nucleic acid chemistry. Should be taken in sequence. Recommended prerequisite: CH 105 or equivalent.

Credits: 4 Lecture: 3 Lab: 3

CH 188**SPECIAL STUDIES: CHEMISTRY**

Credits: 1 to 4

CH 221**GENERAL CHEMISTRY I**

Explores experimental and theoretical principles of chemistry including matter, measurement, atomic structure, periodicity, stoichiometry, solutions, molecular structure, bonding, oxidation/reduction, and thermochemistry. The course is algebra-based and includes supporting laboratory work. Should be taken in sequence. Recommended prerequisite: MTH 95 or equivalent. High school chemistry recommended.

Credits: 5 Lecture: 4 Lab: 3

CH 222**GENERAL CHEMISTRY II**

Explores experimental and theoretical principles of chemistry including gases, liquids, solids, solutions, kinetics, equilibrium, acids and bases. The course is algebra-based and includes supporting laboratory work. Should be taken in sequence. Recommended prerequisites: MTH 95 or equivalent, CH 221 or equivalent.

Credits: 5 Lecture: 4 Lab: 3

CH 223**GENERAL CHEMISTRY III**

Explores experimental and theoretical principles of chemistry including solubility equilibria, acid-based equilibria, electrochemistry, nuclear chemistry, metals and organic compounds. The course is algebra-based and includes supporting laboratory work. Should be taken in sequence. Recommended prerequisites: MTH 95 or equivalent, CH 222 or equivalent.

Credits: 5 Lecture: 4 Lab: 3

CH 241**ORGANIC CHEMISTRY I**

Explores bonding, structure, nomenclature, properties, syntheses and reactions of the major classes of organic molecules. Includes isomerism, stereochemistry, SN1, 2, E1 and 2 mechanisms. Supporting laboratory work is included. Should be taken in sequence. Recommended prerequisite: CH 106 or CH 223, or equivalent.

Credits: 5 Lecture: 4 Lab: 3

CH 242**ORGANIC CHEMISTRY II**

Explores bonding, structure, nomenclature, properties, syntheses and reactions of the major classes of organic molecules. Alkenes, alkynes, aromatics, alkyl halides, alcohols, ether, amines and carbonyl compounds are included, as well as discussions of resonance and spectroscopy. Supporting lab work is included. Should be taken in sequence. Recommended prerequisite: CH 241 or equivalent.

Credits: 5 Lecture: 4 Lab: 3

CH 243**ORGANIC CHEMISTRY III**

Explores bonding, structure, nomenclature, properties, syntheses and reactions of the major classes of organic molecules. Carbonyl compounds, polymers, and major classes or biomolecules are included. Supporting lab work is included. Should be taken in sequence. Recommended prerequisite: CH 242 or equivalent.

Credits: 5 Lecture: 4 Lab: 3

CH 288**SPECIAL STUDIES: CHEMISTRY**

Credits: 1 to 4

COMPUTER & INFORMATION SYSTEMS**CIS 010****COMPUTER KEYBOARDING**

Students will gain confidence in the use of personal computers be developing touch keystroking skills with emphasis on proper techniques, speed, accuracy and keyboard shortcuts. This class is for any student who wishes to learn or upgrade their skills prior to taking more advanced classes. Pass/No pass grading.

Credits: 1 Other: 2

CIS 070**INTRODUCTION TO COMPUTERS: WINDOWS**

Students will gain confidence in the use of personal computers and the Windows operating system. Topics include fundamental computer terminology, introductory use of a graphical user interface including mouse usage, windows, menus, icons and dialog boxes. Also included are file management and an introduction to word processing, control panel, task manager, Web browsing and e-mail. Pass/No pass grading.

Credits: 2 Lecture: 1 Other: 2

CIS 075**BEGINNING EXCEL**

Uses Microsoft Excel for Windows to efficiently create simple spreadsheets for business including editing, formatting and printing. Use formulas and functions to calculate typical business solutions, create charts and use database features. Recommended prerequisites: CIS 010 and CIS 070.

Credits: 2 Lecture: 1 Lab: 2

CIS 085**INTRODUCTION TO AUTOCAD**

An introductory course in AutoCAD designed for the non-CAD user. Students will be exposed to basic AutoCAD fundamentals focusing on drawing. Students will gain confidence in the use of AutoCAD through short lectures and practical hands-on experience. Topics include navigating the AutoCAD system, drawing, viewing and printing.

Credits: 2 Lecture: 2

CIS 099**SELECTED TOPICS: COMPUTER AND INFORMATION SYSTEMS**

Credits: 1 to 4

CIS 120**COMPUTER CONCEPTS**

Follows the Internet and Computing Core Certificate (IC3) national standard for digital literacy used at numerous colleges and universities across the country as well as the industry. The course objectives are broken down into three modules: Computer Fundamentals, Key Applications, and Living Online. This class provides students with the knowledge and skills needed to use computers successfully at the college level. Recommended prerequisites: CIS 010, CIS 070 or equivalent computer skills.

Credits: 4 Lecture: 3 Other: 2

CIS 122**INTRODUCTION TO PROGRAMMING**

Introduction to computer programming for those with little or no programming experience. Provides a strong, fundamental understanding of Visual Basic for Applications, a programming language used in the Microsoft Office applications as well as several non-Microsoft software products. Uses Excel VBA as programming environment and introduces students to elementary programming concepts of algorithm design, control structures, and user interface. Students will use the basic constructs of programming including constants, variables, expressions and control structures for sequential, iterative and decision processing to solve a variety of problems. Recommended prerequisite: CIS 120 and CIS 131.

Credits: 4 Lecture: 3 Other: 2

CIS 125A**ACCESS**

Microsoft Access is the most popular desktop database software. This course will help students prepare for the latest Microsoft certification for Access (#77-605) which helps students validate the skills industries require. The course teaches users how to create and modify database tables, forms, queries and reports. The focus is on optimizing the databases for efficient data entry and generating comprehensive reports. Database design issues are discussed but not emphasized in this course. Recommended prerequisites: CIS 135DB and CIS 131.

Credits: 4 Lecture: 3 Other: 2

**CIS 125A1
AUTOCAD I**

First course in a three-term sequence introducing AutoCAD software as a drafting tool. Instruction will be given in file handling, basic command function, drafting techniques, presentation and plotting. Architectural and mechanical applications will be used in lab exercises to demonstrate AutoCAD commands. Work will be completed with AutoCAD. Recommended pre- or corequisite: CIS 120.

Credits: 4 Lecture: 3 Lab: 3

**CIS 125A2
AUTOCAD II**

Second course in a three-term sequence covering intermediate AutoCAD commands including dimension styles, templates, CAD standards, attribute blocks, attribute extraction, external references, object linking/embedding, advanced drawing setup and plotting, and the program parameter file. Work will be completed with AutoCAD. Recommended prerequisite: CIS 125A1.

Credits: 4 Lecture: 3 Lab: 3

**CIS 125A3
AUTOCAD III**

Third course in a three-term sequence covering advanced AutoCAD commands including customizing AutoCAD environment, profiles, macros, tool palettes, work spaces, user coordinate system, 3-D modeling, 3-D rendering and presentation. Work will be completed with AutoCAD. Recommended prerequisite: CIS 125A2.

Credits: 4 Lecture: 3 Lab: 3

**CIS 125DW
INTRODUCTION TO DREAMWEAVER**

Explores the skills necessary to become an Adobe Certified Associate (ACA) in Web communication using Adobe Dreamweaver CS3. Outcomes include an overall understanding of Dreamweaver as well as setting project requirements and identifying, building and evaluating rich communication elements. Recommended prerequisite: CIS 120 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

**CIS 125E
EXCEL**

Covers intermediate and advanced features of Excel 2007 such as lists, pivot tables, working with multiple worksheets, templates, macros, what-if analysis, data tables, advanced formulas, goal seek, solver, consolidating and importing data, and basic concepts of using VBA. Students will apply these Excel features to create and revise business worksheets. Recommended prerequisites: CIS 120 and CIS 131.

Credits: 4 Lecture: 3 Other: 2

**CIS 125FL
INTRODUCTION TO FLASH**

Explores the skills necessary for a Web developer using Adobe Flash. Outcomes include an overall understanding of Flash as well

as setting project requirements, identifying rich media elements, building rich media elements, and evaluating rich media elements. Recommended prerequisites: CIS 120 or IC3 certification.

Credits: 4 Lecture: 3 Other: 2

**CIS 125G
INTRODUCTION TO PHOTOSHOP**

Covers the learning objectives as outlined by Adobe to become an Adobe Certified Associate (ACA) in visual communication using Adobe Photoshop. Outcomes include an overall understanding of Photoshop as well as setting project requirements, identifying design elements, manipulating images, and evaluating digital images. Recommended prerequisite: CIS 120 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

**CIS 125I
INTRODUCTION TO ILLUSTRATOR**

The course follows the Adobe Certification Guidelines for Illustrator. The goal of this course is help you be prepared to take the Adobe® Illustrator Exam # 9A0-088. The Adobe Certified Expert (ACE) certification is internationally recognized. An Adobe Certified Expert (ACE) is a person who has demonstrated a professional level in proficiency with one or more Adobe software products. Recommended prerequisite: CIS 120 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

**CIS 131
SOFTWARE APPLICATIONS**

Course outcomes focus on learning Word and Excel competencies as defined by the industry standard Microsoft Certified Application Specialist (MCAS) certification. A brief introduction to other components of the “office suite” such as PowerPoint and Access is included. Recommended prerequisites: CIS 120 or IC3 certification and MTH 060/085 or BA 104.

Credits: 4 Lecture: 3 Other: 2

**CIS 133JS
INTRODUCTION TO JAVASCRIPT**

Expands on existing Web development skills by introducing JavaScript for client-side scripting. Students will learn JavaScript language/syntax, functions, objects, arrays, and event handling as they are used for dynamic page content such as form validation, cookies, and navigation menus. Recommended prerequisites: CIS 195 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

**CIS 133P
INTRODUCTION TO PHP**

Expands on existing Web development skills by introducing PHP for server-side scripting. Students will learn to use PHP and MySQL (database) to create Web sites with e-mail forms, file submission forms, dynamic content, customer/client logins, and discussion boards. Recommended prerequisites: CIS 195 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 135A1**AUTODESK REVIT 1**

Introduces fundamental aspects of architectural drafting with AutoDESK Revit software. Covers drafting of residential and light commercial buildings, sections and elevations, schedules, design layouts, details, and working drawings. Recommended prerequisite: CIS 125A1.

Credits: 3 Lecture: 2 Lab: 3

CIS 135A2**AUTODESK REVIT 2**

Continues with AutoDESK Revit, covering construction drawing sets, commercial planning, residential remodeling, drawing details and drawing production. Term culminates with targeted project covering aspects studied in Revit. Recommended prerequisite: CIS 135A1.

Credits: 3 Lecture: 2 Lab: 3

CIS 135C1**AUTOCAD CIVIL 3D**

Students will learn basic civil drafting theory along with developing drawings that include plats, related civil infrastructure, public utilities, contours and roads. Work will be completed with AutoCAD Civil 3D. Recommended prerequisite: CIS 125A2, AutoCAD II.

Credits: 3 Lecture: 2 Lab: 3

CIS 135DB**DATABASE THEORY/SQL**

An introductory course of database concepts. This course includes discussion of the parts of a database and database management systems. Other topics include database design theory, the concept of normalization, and understanding data models. Introduces SQL. Students will be introduced to several of the most popular database management systems such as Access, Microsoft SQL Server, MySQL and Oracle. Recommended prerequisites: CIS 120 and CIS 131.

Credits: 4 Lecture: 3 Other: 2

CIS 135M1**AUTODESK INVENTOR I**

First course in a two-course sequence introducing mechanical drafting with AutoDESK Inventor. Will develop fundamental knowledge in the areas of part and sheet metal modeling, data management and layout presentation. Recommended prerequisites or recommended corequisites: CIS 125A1, AutoCAD I.

Credits: 3 Lecture: 2 Lab: 3

CIS 135M2**AUTODESK INVENTOR II**

Second course in a two-course sequence introducing mechanical drafting with AutoDESK Inventor. Will continue learning Inventor aspects of comprehensive assemblies, working drawing sets, motion analysis, content re-use, design for

manufacturability and Inventor Studio. Recommended prerequisite: CIS 135M1, AutoDESK Inventor I.

Credits: 3 Lecture: 2 Lab: 3

CIS 140**A+ ESSENTIALS**

For anyone who owns a computer or is interested in a job supporting microcomputers as well as those seeking the vendor-neutral CompTIA A+ Essentials certification (220-701). Useful for PC hobbyists wishing to transition their skills to the work force. Introduces the software skill set required of an entry-level computer technician, including operating system fundamentals, software installation and configuration and troubleshooting. Recommended prerequisite: CIS 120 and CIS 131.

Credits: 4 Lecture: 3 Other: 2

CIS 145**PC TECHNICIAN**

Course reviews the skills and knowledge associated with the CompTIA A+ PC Technician Exam (220-702) objectives. Completion of the course prepares the student for an entry-level technical support specialist position, supporting personal computer hardware and software. Recommended prerequisites: CIS 120 and CIS 140.

Credits: 4 Lecture: 3 Other: 2

CIS 151C**CISCO INTERNETWORKING**

First of a three-course sequence of preparation for the Cisco Certified Network Associate (CCNA) certification exam. Internetworking I implements Cisco's online semester 1 curriculum developed by Cisco Systems experts. Covers OSI models, LANs, cabling, cabling tools, topologies, networking devices, IP addressing, network standards and various protocols. The lecture/lab environment allows the student the opportunity to practice skills learned throughout the term. Recommended prerequisites: CIS 70, MTH 20, or field experience.

Credits: 4 Lecture: 3 Lab: 3

CIS 152C**CISCO ROUTER CONFIGURATION**

Second of a three-course sequence of preparation for the Cisco Certified Network Associate (CCNA) certification exam. Router Configuration implements Cisco's online semester 2 curriculum developed by Cisco Systems experts. Topics include commands used for configuring and monitoring a Cisco 2600 series router. Also included are commands used to secure a LAN. The lecture/lab environment allows the student the opportunity to practice skills learned throughout the term. Recommended prerequisite: CIS 151C.

Credits: 4 Lecture: 3 Lab: 3

CIS 154C CISCO VLAN AND WAN TECHNOLOGIES

Third of a three-course sequence of preparation for the Cisco Certified Network Associate (CCNA) certification exam. VLAN and WAN Technologies implements Cisco's online semester 3 and semester 4 curriculum developed by Cisco Systems experts. Topics include LAN switches, VLAN, LAN and WAN design, routing protocols and WAN protocols. The lecture/lab environment allows the student the opportunity to practice skills learned throughout the term. Recommended prerequisite: CIS 152C.

Credits: 4 Lecture: 3 Lab: 3

CIS 160 COMPUTER SCIENCE ORIENTATION

Gives a broad overview of the discipline of computer science. Students will learn about the foundations of computer science such as problem solving and algorithms, programming concepts and computer hardware. Students will also research different careers available in the computer science field and reflect on some of the influences computers have had and will continue to have on society. Students will also have the opportunity to write a few programs in a very low-level and a very high-level language. Strongly recommend some familiarity with programming concepts. Recommended prerequisites: CIS 120 and MTH 095 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 161 COMPUTER SCIENCE I

Examines the nature of computer programming. Includes discussion of a computer model, methods of problem solving and programming structures; information representation; algorithm construction; object-oriented design using Java. Appropriate for computer science/math/science. Recommended prerequisites: MTH 111 and CIS 160 or previous experience or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

CIS 162 COMPUTER SCIENCE II

Continuation of CIS 161. Emphasizes data structures, algorithm analysis and software engineering methods. Recommended prerequisite: CIS 161 or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

CIS 178 INTERNET IN DEPTH

Explores the history and philosophy of the Internet as well as its use as a tool for research, communication and entertainment. Students will demonstrate use and understanding of online applications (productivity software, image editing, education, etc.), communication tools (blogs, discussion boards, social networking, e-mail, IM, etc.), and basic Web development concepts (Microsoft Expression Web, usability/design, FTP, etc.). Recommended prerequisite: CIS 120 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 179 NETWORKING ESSENTIALS

Introduces current network technologies for small local area networks (LANs) and wide area networks (WANs), and the Internet. Introduces hardware, software, terminology, components, design, and connections of a network as well as topologies and protocols for LANs and WANs. Provides information necessary to pass the CompTIA Network+ (c) (exam number N10-004, 2009 Edition). Also provides information for those who support or administer networks. Recommended prerequisites: CIS 120 and CIS 140.

Credits: 4 Lecture: 3 Other: 2

CIS 195 WEB DEVELOPMENT I

Explores the use of development tools, HTML/XHTML and CSS, to create valid Web sites for a variety of topics. Along with the current markup language, cascading stylesheets (CSS) will be used to format Web pages for different media types. Topics include site planning, design, navigation, usability and publishing. Recommended prerequisites: CIS 178 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 198 COMPUTER AND INFORMATION SYSTEMS PROJECTS

Students are placed in local businesses working on small projects that a local business might need. Student is responsible for project, documentation and users' manuals, if necessary. Student is sponsored by a CIS instructor. Recommended prerequisites: CIS 120 and CIS 131 or instructor approval.

Credits: 3 Other: 9

CIS 199 SELECTED TOPICS: COMPUTER AND INFORMATION SYSTEMS

Reserved for courses that cover topics of general interest, projects in computer science and experimental courses. Recommended prerequisite: instructor approval.

Credits: 1 to 7

CIS 235 IT IN BUSINESS

Uses advanced software (Word 2007, Excel 2007, PowerPoint 2007 and Access 2007) to solve and analyze business problems using integration of the applications in a business environment. Recommended prerequisites: CIS 120 and CIS 131.

Credits: 4 Lecture: 3 Other: 2

CIS 244 INFORMATION SYSTEMS ANALYSIS

Explores the skills necessary for a systems analyst, consultant or project manager who works as an independent contractor or as part of an IT department. Topics include information systems concepts and tools, goal setting, project management, working in teams, documentation and communication. Recommended prerequisites: CIS 120 and CIS 131.

Credits: 4 Lecture: 3 Other: 2

CIS 275 INTRODUCTION TO DATABASE MANAGEMENT AND DESIGN

Introduces students to the design, uses, and terminology of a database management system. Course covers topics such as entity-relationship and object data modeling techniques, the importance of normalizing data models and methods to implement the models into a database schema and the basic concepts of business intelligence systems. Builds on SQL concepts introduced in CIS135DB. Recommended prerequisites: CIS 135DB or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 276 ADVANCED SQL

Focuses on design, development and implementation of SQL programming for all types of relational database applications including client/server and Internet databases. Learn to write complicated interactive and embedded SQL statements and learn the implications of multi-user database applications. Recommended prerequisite: CIS 122 and CIS 275 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279AD WINDOWS SERVER 2008, ACTIVE DIRECTORY, CONFIGURING

Introduces students to Microsoft Windows 2008 Active Directory and prepares them to plan, configure and administer an Active Directory infrastructure. Provides the information necessary to pass the Microsoft Certification exam 70-640, Windows Server 2008 Active Directory, Configuring. Recommended prerequisites: CIS 120, CIS 131, CIS 140, and CIS 179 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279ES EXCHANGE SERVER 2007, CONFIGURING

Introduces students to Microsoft Exchange Server 2007 and prepares them to plan, configure, and administer an Exchange Server 2007 electronic communications infrastructure. Provides the information necessary to pass the Microsoft Certification exam, 70-266: Exchange server 2007, Configuring. Recommended prerequisites: CIS 120, CIS 131, CIS 140, and CIS 179 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279L LINUX+

This course introduces the Unix operating system using Linux. It follows the CompTIA Linux + exam outcomes and competencies and is therefore vendor neutral. It is designed as an introductory course to the Linux operating system but previous experience with other PC operating systems is expected. The class teaches the basics of the Unix operating system from a command-line perspective including installation, management, configuration, security, documentation and hardware. Recommended prerequisites: CIS 120 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279NE MANAGING A WINDOWS 2003 NETWORK ENVIRONMENT

For anyone who wants to learn how to install, configure, administer and support primary services in the Windows Server 2003 operating system as well as those seeking Microsoft certification 70-290. Recommended prerequisites: CIS 120, CIS 140 or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

CIS 279NI WINDOWS SERVER 2008, NETWORK INFRASTRUCTURE, CONFIGURING

Introduces students to advanced configuration principles for Microsoft Windows 2008, including DNS, DFS, IPv4, IPv6, DHCP, WSUS, and GPO. The class also provides the information necessary to pass the Microsoft Certification exam 70-642, Windows Server 2008 Network Infrastructure, Configuring. Recommended prerequisites: CIS120, CIS131, CIS140 and CIS179 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279SA WINDOWS SERVER 2008, ADMINISTRATOR

Introduces students to basic administrative principles for Microsoft Windows 2008, and prepares them to manage the server operating system, file, and directory services as well as also distributing software and updates, monitoring server performance and troubleshooting. The class also provides the information necessary to pass the Microsoft Certification exam 70-646, Windows Server 2008, Server Administrator. Recommended prerequisites: CIS120 and CIS 131, CIS140 and CIS179 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279SE SECURITY +

CompTIA Security+ is an international, vendor-neutral certification that proves competency in system security, network infrastructure, access control and organizational security. Major organizations that employ CompTIA Security+ certified staff include Booz Allen Hamilton, Hewlett-Packard, IBM, Motorola, Symantec, Telstra, Hitachi, Ricoh, Lockheed Martin, Unisys, Hilton Hotels Corp., General Mills, the U.S. Navy, Army, Air Force and Marines. Recommended prerequisites: CIS140, CIS179, CIS 279SA and CIS279NI or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279V WINDOWS VISTA

Prepares the student for the Microsoft Certified Technology Specialist examination on the Vista operating system (70-620). Includes the beginning information and hands-on practice students need to build the knowledge and skills needed for IT professional certifications such as Enterprise Support Technician,

Network Systems Administrator, or Network Systems Engineer. Recommended prerequisites: CIS 120, CIS 131, CIS 140, and CIS 179 or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

CIS 279W7 WINDOWS 7

This Course prepares the student for the Microsoft Certified Technology Specialist examination on Windows 7, Configuring (# 70-680). It includes the beginning information and hands-on practice students need to build the knowledge and skills needed for IT professional certifications such as MCITP: Enterprise Administrator, and Enterprise Desktop Administrator. Recommended prerequisites: CIS 120, CIS 131, CIS 140 and CIS 179 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 279XP WINDOWS XP PROFESSIONAL

For anyone who wants to learn how to install, configure, customize and troubleshoot Microsoft Windows XP Professional as well as those seeking Microsoft certification 70-290. Recommended prerequisites: CIS 120 or CIS 131, CIS 140 or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

CIS 280 CO-OP WORK EXPERIENCE CIS

A learning strategy designed to enhance a student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience. Student completes on-the-job training in a computer environment. Students complete a minimum of 33 clock hours of work for each credit hour earned. Recommended prerequisite: instructor approval.

Credits: 1 to 3

CIS 295 WEB DEVELOPMENT II

Expands on existing HTML/XHTML/CSS skills and explores the process of making Web sites, particularly e-commerce sites, for clients. Students will practice site planning, development, content management and client relations as they create, document and present a single Web site project. Topics include search engine optimization, usability testing and marketing. Recommended prerequisite: CIS 195 or instructor approval.

Credits: 4 Lecture: 3 Other: 2

CIS 299 SELECTED TOPICS: CIS

Credits: 1 to 7

CRIMINAL JUSTICE

CJ 100 SURVEY OF THE CRIMINAL JUSTICE SYSTEM

Introductory survey of the functional components of the U.S. criminal justice system. Includes law enforcement, the courts and corrections.

Credits: 3 Lecture: 3

CJ 101 INTRODUCTION TO CRIMINOLOGY

Interdisciplinary approach to theoretical perspectives on the causes, treatment and prevention of crime.

Credits: 4 Lecture: 4

CJ 110 LAW ENFORCEMENT

Surveys the roles and responsibilities of local, state and federal law enforcement agencies in American society. Looks at historical development, role concept and conflicts, professionalization, current enforcement practices and career opportunities.

Credits: 3 Lecture: 3

CJ 120 JUDICIAL PROCESS

Examines the history and development of court systems and processes in the American justice system. Organization, administration and roles of the federal and state courts are examined, as well as distinctions between civil, criminal and appellate courts.

Credits: 3 Lecture: 3

CJ 123 SPANISH FOR LAW ENFORCEMENT PERSONNEL

Designed for students who are interested or are currently enrolled in the Criminal Justice Program as well as current criminal justice employees. Emphasizes important daily phrases that someone in the criminal justice fields may encounter. Students' basic skills in listening, reading, writing and speaking are developed as well as exposure to the culture of Spanish-speaking citizens and their customs that directly affect interaction with criminal justice professionals. Recommended prerequisite: SPAN 101.

Credits: 2 Lecture: 2

CJ 188 SPECIAL STUDIES: CRIMINAL JUSTICE

Instructor approval required.

Credits: 1 to 12

CJ 199 SPECIAL TOPICS: CRIMINAL JUSTICE

Presents selected topics of study in criminal justice offered on a temporary or experimental basis.

Credits: 1 to 4

CJ 201**INTRODUCTION TO JUVENILE JUSTICE**

Introduces the historical reason for establishment of juvenile courts in the United States, current juvenile justice process, and the functions of various components within the system. Prevention, intervention and rehabilitation aspects are covered in terms of Oregon's juvenile court law, as well as potential alternatives for change.

Credits: 3 Lecture: 3

CJ 204**CONTROVERSIES IN CRIMINAL JUSTICE**

This course defines, describes and evaluates the crises and conflicts which face law enforcement agencies today. Topics include use of force, police pursuits, recruitment and the death penalty.

Credits: 3 Lecture: 3

CJ 207**SEMINAR IN CRIMINAL JUSTICE**

Examines current issues, questions and procedures within the criminal justice system.

Credits: 3 Lecture: 3

CJ 210**CRIMINAL INVESTIGATION I**

Examines history, fundamentals and scientific resources involved in criminal investigation. Emphasizes practical aspects of the investigator's approach to criminal acts, crime scene, gathering facts and information, seizing evidence, reporting the total investigation and presenting evidence within court.

Credits: 3 Lecture: 3

CJ 211**CRIMINAL INVESTIGATION II**

Reviews fundamental and scientific resources involved in criminal investigations. Examines in-depth criminal investigation techniques and skills necessary to conduct investigations into the more serious and complex crimes.

Credits: 3 Lecture: 3

CJ 220**INTRODUCTION TO SUBSTANTIVE LAW**

Examines basic concepts of substantive law and criminal procedural law. Explores effects of substantive laws upon the lives of American citizens through topics such as crimes involving property, fraud and deception, or against persons, state and public order.

Credits: 3 Lecture: 3

CJ 222**SEARCH AND SEIZURE**

Study of procedural aspects of criminal law, i.e., how criminal law is enforced and administered by agents of the criminal justice system. Emphasis on examining the law of arrest, searches and seizures, and interrogation of suspects.

Credits: 3 Lecture: 3

CJ 230**JUVENILE CORRECTIONS**

Studies historical and contemporary perspectives on juvenile offenders, juvenile code and juvenile court procedures. Describes treatment programs and differences between adult and juvenile court procedures.

Credits: 3 Lecture: 3

CJ 243**DRUGS AND CRIME IN SOCIETY**

Introduction to problems of substance abuse, including alcohol, in our society. Equips criminal justice, social service and other human service workers with increased awareness of today's drug technology and options for dealing with substance abusers.

Credits: 3 Lecture: 3

CJ 253**CORRECTIONS**

Focuses on historical background, current practices and contemporary issues within correctional processes, institutions and policies pertaining to offenders. Emphasizes the goals of corrections, including deterrence and rehabilitation and the role of local, state and federal corrections in the criminal justice system, including community corrections.

Credits: 4 Lecture: 4

CJ 280**CO-OP WORK EXPERIENCE CRIMINAL JUSTICE**

Provides an opportunity to work for a local agency in a field of criminal justice applying classroom theory with on-the-job experience. Credit given based on total workload of 60 hours per term. Learning experience will be coordinated with student's supervisor. Permission of Co-op Work Experience coordinator required prior to registration. May be repeated for 6 credits. Students must pass a criminal history background check. Instructor approval required.

Credits: 1 to 3

DENTAL ASSISTING**DA 110****BASIC DENTAL ASSISTING**

General overview of the dental assisting profession through lecture, discussions, demonstrations, laboratory activities and on-site clinic visitation. Includes examining dentistry as a profession, charting and data collection, taking and recording vital signs, four-handed dentistry and equipment use and maintenance. Laboratory portion gives students initial skills for the clinical experience in the areas of instrument identification and transfer, oral evacuation and use of the air-water syringe. Infection control protocols established by the Oregon Board of Dentistry and the Centers for Disease Control and Prevention will be implemented. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 115, DA 125, DA 145.

Credits: 4 Lecture: 2 Other: 4

DA 115 DENTAL SCIENCE

Introduces the student to the following areas of study: basic anatomy and physiology, basic head and neck anatomy, dental embryology, oral histology, anatomy of the face and oral cavity, and tooth morphology. Also includes an introduction to the study of oral pathology. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 110, DA 125, DA 145.

Credits: 4 Lecture: 4

DA 120 ADVANCED DENTAL ASSISTING

Continuation of DA 110 and furthers student's knowledge of the dental assisting profession. Includes lecture, PowerPoint presentations, videos, discussions, demonstrations and lab participation. Covers the advanced dental assisting skills of dental dam placement and procedures involved with the dental specialties of endodontics, periodontics and oral surgery. Also covers the expanded functions of coronal polishing, suture removal and pit and fissure sealants as mandated by the Oregon Board of Dentistry. Prerequisite: DA 110. Corequisites: DA 130, DA 134, DA 160, DA 181, DA 190.

Credits: 4 Lecture: 2 Lab: 4

DA 125 DENTAL INFECTION CONTROL

Covers the principles of infection control related to the dental office, including an introduction to microbiology, cross-contamination and hazard control. Also covers OSHA standards of hazard communication and blood-borne pathogens. The management of material safety data sheets and labeling of hazardous material will be implemented. After successful completion of this course, the student will be eligible to take the Dental Assisting National Board (DANB) Infection Control Exam (ICE). Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 110, DA 115, DA 145.

Credits: 3 Lecture: 3

DA 130 DENTAL MATERIALS I

Covers lecture and laboratory experience in alginate impression materials, impressions and impression trays, diagnostic casts, pouring study models, trimming diagnostic casts, occlusal bite registrations and bleach tray fabrication on a vacuum former. Also covers tofflemire matrix placement, the armamentarium for amalgam and composite, and assisting with the placement of amalgam and composite on a manikin. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 120, DA 134, DA 160, DA 181, DA 190.

Credits: 3 Lecture: 2 Lab: 3

DA 131 DENTAL MATERIALS II

Provides a fundamental knowledge of the materials commonly used in dental practice. Lectures cover physical, chemical and manipulative characteristics of final impression materials, cements, bases, cavity liners, cavity varnishes, waxes, composites, metals and resins. Additionally explores the indications and contra-indications of each. Laboratory portion prepares students to correctly manipulate all of these materials. Students will acquire the skills necessary to fabricate custom impression trays on preliminary casts which will be used for final impressions for crowns, bridges and dentures; to clean and polish removable appliances and prostheses; and to fabricate acrylic, polycarbonate and preformed aluminum provisional restorations. Various types of laboratory fabricated fixed prosthodontics and their indications and contraindications are also covered. Prerequisite: DA 130.

Corequisites: DA 135, DA 150, DA 151.

Credits: 3 Lecture: 2 Lab: 3

DA 134 DENTAL RADIOLOGY I

Introduces Dental Radiology for the dental auxiliary. Includes basic principles of radiography, the history of radiation and an introduction to the physics of radiation. Also covers biological effects of radiation for both the safety and comfort of the patient and the operator. Introduces the radiographic unit and dental X-ray film. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 120, DA 130, DA 160, DA 181, DA 190.

Credits: 2 Lecture: 2

DA 135 DENTAL RADIOLOGY II

Continuation of DA 134. Furthers the student's knowledge of dental radiology. Covers the relationship of dental anatomy and facial structure to the exposure and mounting of dental films. Includes instruction in the various types of film available to the dental professional. The student will perform exposure and processing techniques to a determined level of competency on manikins and then to a determined level of competency on patients. Prerequisite: DA 134. Corequisites: DA 131, DA 150, DA 151.

Credits: 3 Lecture: 2 Lab: 3

DA 145 PREVENTIVE DENTISTRY

Covers the components of preventive dentistry including oral hygiene education, plaque control, fluoride and dietary considerations for the dental patient. Includes ergonomics, dentistry for the special patient and the dental specialties of pediatric dentistry and orthodontics. Also includes the exploration of dental public health programs. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 110, DA 115, DA 125.

Credits: 3 Lecture: 3

DA 150**DENTAL OFFICE MANAGEMENT**

Covers key competencies related to office practices and administrative responsibilities of the dental assistant as identified by the American Dental Association. Covers dental record preparation and maintenance, applicable computer applications, legal issues, general office management principles and professionalism in the dental office. Provides related instruction in computation. Teaches cover letter and resume writing, interviewing skills and HIPAA regulations. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 131, DA 135, DA 151

Credits: 3 Lecture: 3

DA 151**DENTAL COMPUTING**

Computers are an integral part of today's dental offices. They have become the method of choice for managing patient dental records, appointment scheduling, charting, processing insurance claims and establishing financial arrangements. Computer systems allow for the generation of reports, patient statements, professional and patient correspondence, treatment plans, and fees for service. This course is designed to give students the training necessary to successfully complete these front-office tasks. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 131, DA 135, DA 150

Credits: 1 Lecture: 1

DA 160**ORAL MEDICINE**

Introduces students to diagnosis, treatment and pharmacology used in the practice of dentistry. Also includes additional information on oral pathology and the dental assistant's role in dealing with dental emergencies in the dental office. Students completing this course will be capable of recognizing, reacting to, and treating the most common medical emergencies in the dental practice. Emphasis will be placed on prevention of such emergencies. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 120, DA 130, DA 134, DA 181, DA 190

Credits: 3 Lecture: 3

DA 181**DENTAL SEMINAR I**

Seminar discussions on various aspects of winter-term practicums in local dental offices. Guest speakers representing dental specialties and alternative dental employment possibilities will also be scheduled. Students will share work-related experiences with the instructor and their peers. Addresses employment opportunities, completing job applications, and interviewing skills. Prerequisite: entrance into the Dental Assisting program. Corequisites: DA 120, DA 130, DA 134, DA 160, DA 190

Credits: 1 Lecture: 1

DA 182**DENTAL SEMINAR II**

Seminar discussions on various aspects of spring-term practicums in local dental offices. Guest speakers representing dental specialties and alternative dental employment possibilities will also be scheduled. Students will share work-related experiences with the instructor and their peers. Covers employment opportunities, resume writing, completing job applications, and interviewing skills. Student will also prepare for the Dental Assisting National Board (DANB) General Chairside Exam. Prerequisite: entrance into the Dental Assisting program.

Credits: 1 Lecture: 1

DA 190**DENTAL ASSISTING PRACTICUM I**

A supervised, unpaid learning experience which takes place on site at a prearranged clinical facility. Provides students with the opportunity to perform clearly identified competencies within the clinical setting. Each credit is equivalent to 30 hours in the clinical setting. Prerequisites: entrance into the Dental Assisting program and DA 110, DA 115, DA 125. Corequisites: DA 120, DA 130, DA 134, DA 160, DA 181

Credits: 1 to 5

DA 191**DENTAL ASSISTING PRACTICUM II**

A supervised, unpaid learning experience which takes place on site at a prearranged clinical facility. Provides students with the opportunity to perform clearly identified competencies within the clinical setting. Each credit is equivalent to 30 hours in the clinical setting. Prerequisites: entrance into the Dental Assisting program and DA 190.

Credits: 5 to 10

DA 199**SELECTED TOPICS: DENTAL ASSISTING**

Credits: 4

DIETARY MANAGEMENT**DM 111****PRACTICUM: CULINARY SUPERVISION**

Practical application of concepts presented in Culinary Supervision. Includes work experience and completion of a notebook. Corequisite: CCI 107, Culinary Supervision.

Credits: 1 Other: 3

DM 121**PRACTICUM: SANITATION**

Practical application of concepts presented in Basic Sanitation. Includes work experience and completion of a notebook. Corequisite: CCI 71, Basic Sanitation.

Credits: 1 Other: 3

DM 131**PRACTICUM: FOOD SERVICE MANAGEMENT**

Practical application of concepts learned in Food Service Management. Includes work experience and completion of a workbook. Corequisite: HTRM 105 Food Service Management.

Credits: 1 Other: 3

DM 210**NUTRITION THERAPY**

In-depth study of common diseases and the specific diets used in their treatment. Class format is based on case studies, with nutrition assessment including reviewing laboratory data, developing care plans and discussing recommended diet modifications. This course is open to students not enrolled in the Dietary Management program and is especially useful for nursing majors.

Credits: 2 Lecture: 2

DM 211**PRACTICUM: NUTRITION THERAPY**

Practical application of concepts presented in Nutrition Therapy. Includes work experience, attendance at patient care conferences and completion of a notebook. Corequisite: DM 210, Nutrition Therapy.

Credits: 1 Other: 3

DM 221**PRACTICUM: FOOD SERVICE NUTRITION**

Practical application of concepts presented in Food Service Nutrition. Includes work experience, attendance at patient care conferences and completion of a notebook. Corequisite: CCI 81.

Credits: 1 Other: 3

EARLY CHILDHOOD EDUCATION

ED 140**INTRODUCTION TO EARLY CHILDHOOD EDUCATION**

Beginning course in early childhood education which focuses on the teacher as a professional (advocacy, ethical practices, work-force issues, associations); provides strategies to manage an effective program operation; how to plan a safe, healthy learning environment; and gives an overview of the philosophy and history of ECE. Three hours of supervised weekly field placement required.

Credits: 4 Lecture: 3 Other: 3

ED 150**ENVIRONMENTS & CURRICULUM IN EARLY CHILDHOOD EDUCATION**

Utilizes knowledge in child development to design, implement and evaluate activities in the major domains of development for children ages birth to 8 years. Three hours of supervised weekly field placement required. Recommended prerequisite: ED 140.

Credits: 4 Lecture: 3 Other: 3

ED 151**OBSERVATION & GUIDANCE IN EARLY CHILDHOOD EDUCATION LEARNING**

Introduces observation techniques and tools to accurately collect data on children and how to use assessments to make appropriate decisions about the child's needs regarding programming and the early childhood education environment. Three hours of supervised weekly field placement required. Recommended prerequisites: ED 140 and ED 150.

Credits: 4 Lecture: 3 Other: 3

ED 172**LANGUAGE AND LITERACY IN EARLY CHILDHOOD EDUCATION**

Covers language and literacy development as it relates to early childhood education. Also covers the history of literacy development, the family's role, how young children learn to read and write, using books with children, concepts of print, comprehension, differing abilities in literacy development, and the role of observation and assessment. Three hours of supervised weekly field placement required. Recommended prerequisite: ED 140.

Credits: 3 Lecture: 2 Other: 3

ED 173**MOVEMENT, MUSIC AND THE ARTS IN EARLY CHILDHOOD EDUCATION**

Introduces physical education, rhythmic activities, visual arts, and performing arts in the early childhood years. Covers basic motor skills and artistic processes from a developmental perspective. Three hours of supervised weekly field placement required. Recommended prerequisite: ED 140.

Credits: 3 Lecture: 2 Other: 3

ED 174**MATH, SCIENCE, AND TECHNOLOGY IN EARLY CHILDHOOD EDUCATION**

Introduces program and curricular activities that enhance a child's development of math, science, and technology understanding and skills. Processes explored are constructivist in nature, with a focus on interdisciplinary approaches. Three hours of supervised weekly field placement required. Recommended prerequisite: ED 140.

Credits: 3 Lecture: 2 Other: 3

ED 188**SPECIAL STUDIES: PRACTICUM**

Credits: 1 to 3

ED 199**SELECTED TOPICS: EARLY CHILDHOOD EDUCATION**

Credits: 1 to 4

ED 250**ADVANCED CURRICULUM DEVELOPMENT & TEACHING METHODS IN EARLY CHILDHOOD EDUCATION**

Compares and contrasts various teaching methods for children ages 3 to 8 years. Focuses on constructivist teaching methodology and strategies, based on best practices in early childhood education. Three hours of supervised weekly field placement required. Recommended prerequisites: ED 140, ED 150 and ED 151.

Credits: 4 Lecture: 3 Other: 3

ED 261**EARLY CHILDHOOD EDUCATION PRACTICUM I**

Students participate in a weekly 50-minute seminar and six hours of weekly practicum work in an ECE setting, outside of student's workplace. Students select, with their COCC practicum supervisor, an appropriate ECE practicum placement. Instructor approval required.

Credits: 3 Other: 9

ED 262**EARLY CHILDHOOD EDUCATION PRACTICUM II**

Students participate in a weekly 50-minute seminar and six hours of weekly practicum work in an ECE setting, outside of the student's workplace. Students select, with their COCC practicum supervisor, an appropriate ECE practicum placement. Recommended prerequisite: ED 261.

Credits: 3 Other: 9

ED 265**CHILDREN AT RISK**

Issues of child abuse are presented from the multidisciplinary perspectives of education, criminal justice and psychology. Topics covered include definition and prevalence of child abuse, lifelong effects, prevention, identification and intervention. The course will focus on biopsychosocial outcomes and education concerns, as well as legal processes and implications from criminal justice.

Credits: 3 Lecture: 3

ED 269**EXCEPTIONAL CHILDREN IN EARLY CHILDHOOD EDUCATION**

Acquaints students with the exceptional child and his/her family. Local resources explored to understand the referral process for children, birth to 8 years of age. Explores typical and atypical development and common delays and disabilities in all domains of child development. Includes discussion about teaching methods and strategies that are adapted or modified to meet individual child needs. Three hours of supervised weekly field placement required. Recommended prerequisites: ED 140 and ED 150.

Credits: 3 Lecture: 2 Other: 3

ED 299**SELECTED TOPICS: EARLY CHILDHOOD EDUCATION**

Credits: 1 to 4

ECONOMICS**EC 188****SPECIAL STUDIES: ECONOMICS**

Credits: 1 to 3

EC 199**SELECTED TOPICS: ECONOMICS**

Credits: 4

EC 201**MICROECONOMICS**

Presents theoretical analysis of the market system in capitalism and analyzes how the market operates under various degrees of competition. Studies supply, demand, price determination, production, monopoly power, allocation of resources, distribution of income and environmental economics.

Recommended pre- or corequisites: WR 121 and MTH 65.

Credits: 4 Lecture: 4

EC 202**MACROECONOMICS**

Analyzes our national economy as a whole and basic subdivisions of the economy: business, households and government. Also looks at the international economy. Studies unemployment, inflation, economic growth, fiscal, monetary and growth policies, money, banking and international economics. Recommended pre- or corequisites: WR 121 and MTH 65.

Credits: 4 Lecture: 4

EDUCATION**ED 200****INTRODUCTION TO EDUCATION**

Survey of the field and foundations of education, especially the teaching profession and the role of education in society. Explores philosophical, economic, legal, ethical, historical, psychological and social foundations of teaching and learning, and includes an overview of educational methods and approaches. Specializations within the field and training requirements for prospective teachers will also be addressed. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

ED 210**PRACTICUM IN TEACHING**

Acquaints potential educators with roles and responsibilities of teachers at elementary and secondary levels. Students will observe and work as an instructional assistant in a local classroom to assess interests and potential for making teaching a career. ED 210 includes six hours field placement per week. Recommended prerequisite: ED 200 or instructor approval.

Credits: 3 Lecture: 1 Other: 6

ED 216**PURPOSE, STRUCTURE AND FUNCTION OF EDUCATION IN A DEMOCRACY**

Analyzes the system of education in a democratic society—its past, present and future. Introduces the historical, social, philosophical, political, legal and economic foundations of education in Oregon, the United States, and other countries to provide a framework from which to analyze contemporary educational issues in various schools, communities, and workplaces. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

ED 219**MULTICULTURAL ISSUES IN EDUCATION SETTINGS**

Examines the context of working with students, school, communities and workplaces. Explores the diversity of learners, learning cultures (urban, suburban, and rural) and the diversity among learners within those different cultures. Considers the influence of culture on one's learning. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

ED 253**LEARNING ACROSS THE LIFE SPAN**

Explores how learning occurs at all ages from early childhood through adulthood, major and emerging learning theories, individual learning styles including one's own learning styles, self-reflection on implications of how learning occurs, and the impact of these issues on the development and delivery of instruction. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

EMERGENCY MEDICAL SERVICES**EMT 151****EMERGENCY MEDICAL TECHNICIAN BASIC PART A**

Follows the approved Oregon EMS Division and National Registry of EMT. Upon completion of the two-term (140-hour) program, candidate will be eligible for Oregon DHS EMS testing at National Registry EMT Basic level. Mandatory prerequisites: must meet requirements of enrollment regarding entrance testing and vaccinations records. Only students who successfully pass EMT Basic Part A are allowed to enroll in EMT Basic Part B.

Credits: 5 Lecture: 4 Lab: 3

EMT 152**EMERGENCY MEDICAL TECHNICIAN BASIC PART B**

Follows the approved Oregon Department of Human Services-EMS and National Registry of EMTs curriculum for EMT Basic. Upon successful completion of the two-term (140-hour) program, candidate will be eligible for Oregon EMS testing at National Registry EMT Basic level. Mandatory prerequisites: Successful completion of EMT 151 (grade of 75% and 80% attendance), students must maintain current immunizations and hold current American Heart Association CPR card.

Credits: 5 Lecture: 4 Lab: 3

EMT 165**EMERGENCY MEDICAL TECHNICIAN-INTERMEDIATE PART A**

Covers theory and practical applications including responsibilities delegated to the Oregon EMT-1 by the Department of Health for the state of Oregon. Incorporates discussion, didactic written demonstration, and practical demonstration with applications for the following: roles and responsibilities, ethics, HIPPA, patient assessment--medical and traumatic, oxygenation, ventilation, airway adjuncts, shock management, intravenous and intraosseous therapy, basic EKG monitoring and, when applicable, defibrillation and/or proper pharmacology medication interventions, and proper EMT-Intermediate protocols. Upon successful completion of the two-term course (76 hour didactic with 44 hours clinical skills program), the candidate will be eligible for the Oregon DHS EMS testing at an Oregon EMT Intermediate level at an approved Oregon site. Student must hold a current Oregon EMT-B certification and show proof of current immunizations required by our accrediting agency, the DHS office. Additionally, a current NREMT-B or Oregon Basic plus CPR and AED certification must be on file prior to acceptance into the course. All students must meet all requirements of enrollment entrance testing and vaccinations records. Only students who successfully pass EMT Intermediate Part A are allowed to enroll in EMT Intermediate Part B.

Credits: 4 Lecture: 3 Lab: 3

EMT 166**EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE PART B**

Covers theory and practical applications including responsibilities delegated to the Oregon EMT-1 by the Department of Health for the state of Oregon. Incorporates discussion, didactic written demonstration, and practical demonstration with applications for the following: roles and responsibilities, ethics, HIPPA, patient assessment--medical and traumatic, oxygenation, ventilation, airway adjuncts, shock management, intravenous and intraosseous therapy, basic EKG monitoring and, when applicable, defibrillation and/or proper pharmacology medication interventions, and proper EMT-Intermediate protocols. Upon successful completion of the two-term course (76 hour didactic with 44 hours clinical skills program), the candidate will be eligible for the Oregon DHS EMS testing at an Oregon EMT Intermediate level at an approved Oregon site. Prerequisite: current immunizations required by our accrediting agency, the Oregon DHS office. Additionally, a current NREMT-B or Oregon Basic plus CPR and AED certification must be on file prior to acceptance into the course. All students must meet all requirements of enrollment regarding entrance testing and vaccinations records. Only students who successfully pass EMT Intermediate Part A (75% grade and 80% attendance) are allowed to enroll in EMT Intermediate Part B.

Credits: 4 Lecture: 3 Lab: 3

EMT 170
**EMERGENCY RESPONSE COMMUNICATION/
 DOCUMENTATION**

Covers principles of therapeutic communication, verbal, written, and electronic communications in the provision of EMS, documentation of elements of patient assessment, care and transport, communication systems, radio types, reports, codes, and correct techniques.

Credits: 2 Lecture: 2

EMT 171
EMERGENCY RESPONSE PATIENT TRANSPORT

Covers ambulance operations, laws, maintenance and safety, emergency response driving and route planning.

Credits: 2 Other: 4

EMT 175
INTRODUCTION TO EMERGENCY SERVICES

Mandatory introductory course for all students seeking to enter either the Structural Fire or EMS degree programs. Includes a broad-based overview of the career, with emphasis on fire behavior, history of fire departments, organizational structure and terminology of contemporary structural fire and EMS agencies. Introduces various equipment and tools including hand tools, hose ladders and protective equipment used to combat fires and provide emergency medical care within the Fire Service. Also discusses other allied functions such as training, public education, prevention, investigation and inspections.

Credits: 3 Lecture: 3

EMT 188
SPECIAL STUDIES: EMERGENCY MEDICAL TECHNICIAN
Credits: 5

EMT 195
CRISIS INTERVENTION

Prepares the student to deal with situations facing both the patient and caregiver. Included are all facets of crisis intervention techniques and recent advances in critical incident stress debriefing intervention. Offered fall and spring term.

Credits: 3 Lecture: 3

EMT 199
**SELECTED TOPICS: EMERGENCY MEDICAL
 TECHNICIAN**

Credits: 5

EMT 280
EMT-PARAMEDIC CO-OP WORK EXPERIENCE

The CWE program is a significant element of the EMS Paramedic coursework. Students may take this field internship in a variety of locations. This requires the students to work with an EMS agency, responding as a member of the EMS team on emergency responses, while performing skills under the direct supervision of a paramedic field preceptor. In addition to emergency response, shift responsibilities and other related

non-emergency response duties are included. Shifts may be up to 24 hours in length and require the student to stay overnight. This is a pass/no pass portion of the program requiring successful completion of the predetermined objectives provided to the student upon placement. Instructor approval required and enrollment in the two-year Paramedic program.

Credits: 7

EMT 288
SPECIAL STUDIES: EMERGENCY MEDICAL TECHNICIAN
Credits: 5

EMT 290
**EMERGENCY MEDICAL TECHNICIAN PARAMEDIC
 PART 1**

These courses make up the core of the paramedic course requirements. Includes 300+ hours of didactic, 240 hours of clinical and 250+ hours of field internship listed as “co-op work experience.” This rigorous program follows the DOT National Registry curriculum, and successful candidates will be eligible for testing at the National Registry EMT Paramedic level. Course will include required weekend coursework, and a high degree of dedication from the student. Note: entrance into the EMT Paramedic program at COCC is a selective process, and students entering must meet AAS EMS degree requirements as required by the Oregon Human Services EMS administrative rules. Candidates successfully completing EMT Basic certification exams will be eligible for enrollment in the EMT Paramedic portion of the program if the aforementioned selective admission and AAS degree requirements have been met. Prerequisites: proof of current immunizations, current Oregon EMT-B/1 certification and acceptance into the second year Paramedic program. Concurrent enrollment in EMT 290 (lab).

Credits: 8 Lecture: 6 Lab: 6

EMT 291
**EMERGENCY MEDICAL TECHNICIAN PARAMEDIC
 PART 1 CLINICAL**

These courses make up the core of the paramedic course requirements. Includes 300+ hours of didactic, 240 hours of clinical and 250+ hours of field internship listed as “co-op work experience.” This rigorous program follows the DOT National Registry curriculum, and successful candidates will be eligible for testing at the National Registry EMT Paramedic level. This course will include required weekend coursework, and a high degree of dedication from the student. Note: Entrance into the EMT Paramedic program at COCC is a selective process, and students entering must meet AAS EMS degree requirements as required by the Oregon Human Services EMS administrative rules. Candidates successfully completing EMT Basic certification exams will be eligible for enrollment in the EMT Paramedic portion of the program if the aforementioned selective admission and AAS degree requirements have been met. Concurrent enrollment in EMT 290, Paramedic Part 1 required.

Credits: 3 Other: 9

EMT 292 EMERGENCY MEDICAL TECHNICIAN PARAMEDIC PART 2

These courses make up the core of the paramedic course requirements. Includes 300+ hours of didactic, 240 hours of clinical and 250+ hours of field internship listed as “co-op work experience.” This rigorous program follows the DOT National Registry curriculum, and successful candidates will be eligible for testing at the National Registry EMT Paramedic level. This course will include required weekend coursework, and a high degree of dedication from the student. Note: Entrance into the EMT paramedic program at COCC is a selective process, and students entering must meet AAS EMS degree requirements as required by the Oregon Human Services EMS administrative rules. Candidates successfully completing EMT Basic certification exams will be eligible for enrollment in the EMT Paramedic portion of the program if the aforementioned selective admission and AAS degree requirements have been met. Prerequisites: successful completion of EMT 290, maintain proof of current immunizations. Concurrent enrollment in EMT 293 Paramedic Lab required.

Credits: 8 Lecture: 6 Lab: 6

EMT 293 EMERGENCY MEDICAL TECHNICIAN PARAMEDIC PART 2 CLINICAL

These courses make up the core of the paramedic course requirements. Includes 300+ hours of didactic, 240 hours of clinical and 350+ hours of field internship listed as “co-op work experience.” This rigorous program follows the DOT National Registry curriculum, and successful candidates will be eligible for testing at the National Registry EMT Paramedic level. This course will include required weekend coursework, and a high degree of dedication from the student. Note: Entrance into the EMT Paramedic program at COCC is a selective process, and students entering must meet AAS EMS degree requirements as required by the Oregon Human Services EMS administrative rules. Candidates successfully completing EMT Basic certification exams will be eligible for enrollment in the EMT Paramedic portion of the program if the aforementioned selective admission and AAS degree requirements have been met. Prerequisite: EMT 291, EMT Paramedic Part 1 Clinical. Concurrent enrollment in EMT 292 required.

Credits: 3 Other: 9

EMT 294 EMERGENCY MEDICAL TECHNICIAN PARAMEDIC PART 3

These courses make up the core of the paramedic course requirements. Includes 300+ hours of didactic, 240 hours of clinical and 250+ hours of field internship listed as “co-op work experience.” This rigorous program follows the DOT National Registry curriculum, and successful candidates will be eligible for testing at the National Registry EMT Paramedic level. This course will include required weekend course work, and a high

degree of dedication from the student. Note: Entrance into the EMT Paramedic program at COCC is a selective process, and students entering must meet AAS EMS degree requirements as required by the Oregon Human Services EMS administrative rules. Candidates successfully completing EMT Basic certification exams will be eligible for enrollment in the EMT Paramedic portion of the program if the aforementioned selective admission and AAS degree requirements have been met. Prerequisites: successful completion of EMT 292, maintain proof of current immunizations. Concurrent enrollment in EMT 295 required.

Credits: 8 Lecture: 6 Lab: 6

EMT 295 EMERGENCY MEDICAL TECHNICIAN PARAMEDIC PART 3 CLINICAL

These courses make up the core of the paramedic course requirements. Includes 300+ hours of didactic, 240 hours of clinical and 250+ hours of field internship listed as “co-op work experience.” This rigorous program follows the DOT National Registry curriculum, and successful candidates will be eligible for testing at the National Registry EMT Paramedic level. This course will include required weekend coursework, and a high degree of dedication from the student. Note: Entrance into the EMT Paramedic program at COCC is a selective process, and students entering must meet AAS EMS degree requirements as required by the Oregon Human Services EMS administrative rules. Candidates successfully completing EMT Basic certification exams will be eligible for enrollment in the EMT Paramedic portion of the program if the aforementioned selective admission and AAS degree requirements have been met. Prerequisite: EMT 293. Concurrent enrollment in EMT 294 required.

Credits: 3 Other: 9

EMT 299 SELECTED TOPICS: EMERGENCY MEDICAL TECHNICIAN

Credits: 5

ENGINEERING & ENGINEERING TECHNICIAN

ENGR 188 SPECIAL STUDIES: ENGINEERING

Provides an opportunity to explore an area of engineering by doing a special project or to gain practical experience by working with a professional engineer.

Credits: 1 to 6

ENGR 201 ELECTRICAL FUNDAMENTALS

Studies electrical theory laws and circuit analysis techniques in direct current resistive circuits and in alternating current circuits containing resistance, capacitance, and inductance. Also explores circuit modeling, covers characteristics of operational amplifiers, use of laboratory instrumentation, and how to

report experimental results. For engineering transfer students. Recommended pre- or corequisites: MTH 252, PH 202/212.

Credits: 3 Lecture: 2 Lab: 3

ENGR 211 STATICS

Analyzes forces induced in structures and machines by various types of loading. Recommended prerequisites: MTH 251 and PH 201/211.

Credits: 4 Lecture: 3 Lab: 2

ENGR 212 DYNAMICS

Studies kinematics, Newton's law of motion, and work-energy and impulse-momentum relationships as applied to engineering systems. Recommended prerequisites: ENGR 211 and MTH 252.

Credits: 4 Lecture: 3 Lab: 2

ENGR 213 STRENGTH OF MATERIAL

Studies properties of structure materials. Analyzes stress and deformation in axially loaded members, in circular shafts and beams and in statically indeterminate systems containing these components. Recommended prerequisites: MTH 252, ENGR 211.

Credits: 4 Lecture: 3 Lab: 2

GE 101 ENGINEERING ORIENTATION

Introduces students to many different engineering fields through guest lectures, field trips, and hands-on engineering projects and problem solving exercises. Develops understanding of similarities and differences between the engineering fields. Discusses professional engineering testing, and licensing requirements.

Credits: 3 Lecture: 2 Lab: 2

GE 102 ENGINEERING PROBLEM SOLVING AND TECHNOLOGY

Introduces the use of Microsoft Excel for the solution of engineering problems and familiarizes students with the decision making and report preparation process in engineering design. Development of spreadsheets for analyzing engineering problems and preparation of final design reports that outline in detail design evaluation, recommendation, and implementation.

Recommended prerequisite: MTH 112.

Credits: 3 Lecture: 2 Lab: 2

FOREIGN LANGUAGES

FR 101 FIRST YEAR FRENCH I

Designed for beginners. Emphasizes active communication in French. Develops students' basic skills in listening, reading, writing and speaking. Successful completion of this sequence prepares students for entry into second-year level at COCC or any other university. Should be taken in sequence. If students

have previously learned French, it is recommended to take the "self-test" located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

FR 102 FIRST YEAR FRENCH II

Continues the development of reading, writing, listening and speaking skills. Students are expected to have completed FR101 material, and are encouraged to review French 101 concepts and vocabulary prior to class. Recommended prerequisites: FR 101, one year of high school French, or instructor approval. Course should be taken in sequence. If students have previously learned French, it is recommended to take the "self-test" located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

FR 103 FIRST YEAR FRENCH III

Continues the development of reading, writing, listening and speaking skills. Students are expected to have completed FR102 material, and are encouraged to review the concepts of FR 101 and 102 prior to class. Recommended prerequisites: FR 102, two years of high school French, or instructor approval. Course should be taken in sequence. If students have previously learned French, it is recommended to take the "self-test" located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

FR 199 SELECTED TOPICS: FRENCH

Credits: 1 to 4

FR 201 SECOND YEAR FRENCH I

Continues the work of First Year French, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Emphasis on writing and reading skills. Incorporates culture in all aspects of course; class taught mostly in French. Recommended prerequisite: FR 103 or equivalent, or instructor approval. It is recommended to take the "self-test" located at: <http://web.cocc.edu/mbellavia/tests.htm>. Course should be taken in sequence.

Credits: 4 Lecture: 4

FR 202 SECOND YEAR FRENCH II

Continues the work of FR 201, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills.

Incorporates culture in all aspects of course; class taught mostly in French. Recommended prerequisite: FR 201 or equivalent, or instructor approval. Students may also wish to take the "self-test" located at: <http://web.cocc.edu/mbellavia/tests.htm>. Course should be taken in sequence.

Credits: 4 Lecture: 4

**FR 203
SECOND YEAR FRENCH III**

Continues the work of FR 202, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Incorporates culture, regionalisms, and argot; class taught mostly in French. Recommended prerequisite: FR 202 or equivalent, or instructor approval. Students may also wish to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>. Course should be taken in sequence.

Credits: 4 Lecture: 4

**FR 211
FRENCH CONVERSATION AND CULTURE I**

Intended for students who wish to maintain and continue mastering fluency in the acquisition of French. Also an excellent option for the non-degree-seeking student. Counts only as an elective. Recommended prerequisite: FR 103 or equivalent, or instructor approval.

Credits: 3 Lecture: 3

**FR 212
FRENCH CONVERSATION AND CULTURE II**

Intended for students who wish to maintain and continue mastering fluency in the acquisition of French. Also an excellent option for the non-degree-seeking student. Counts only as an elective. Recommended prerequisite: FR 211 or FR 201 or equivalent, or instructor approval.

Credits: 3 Lecture: 3

**FR 213
FRENCH CONVERSATION AND CULTURE III**

Intended for students who wish to maintain and continue mastering fluency in the acquisition of French. Also an excellent option for the non-degree-seeking student. Counts only as an elective. Recommended prerequisite: FR 212 or FR 202 or equivalent, or instructor approval.

Credits: 3 Lecture: 3

**GER 101
FIRST YEAR GERMAN I**

Designed for the beginner. Emphasizes active communication in German. Develops students’ basic skills in listening, reading, writing and speaking. Successful completion of this sequence prepares students for entry into second-year level at COCC or any other university. Should be taken in sequence. If students have previously learned German, it is recommended to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

**GER 102
FIRST YEAR GERMAN II**

Continues the development of reading, writing, listening and speaking skills. Students are expected to have completed GER101 material, and are encouraged to review German 101

concepts and vocabulary prior to class. Recommended prerequisite: GER 101, one year of high school German, or instructor approval. Course should be taken in sequence. If students have previously learned German, it is recommended to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

**GER 103
FIRST YEAR GERMAN III**

Continues the development of reading, writing, listening and speaking skills. Students are expected to have completed GER102 material and are encouraged to review the concepts of GER 101 and 102 prior to class. Recommended prerequisites: GER 102, two years of high school German, or instructor approval. Course should be taken in sequence. If students have previously learned German, it is recommended to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

**GER 188
SPECIAL STUDIES: GERMAN**

Credits: 1 to 4

**GER 201
SECOND YEAR GERMAN I**

Continues the work of First Year German, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in German. Should be taken in sequence. Recommended prerequisite: GER 103 or equivalent. If students have previously learned German, it is recommended to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

**GER 202
SECOND YEAR GERMAN II**

Continues the work of GER 201, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in German. Recommended prerequisite: GER 201 or equivalent, or instructor approval. Course should be taken in sequence. If students have previously learned German, it is recommended to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

**GER 203
SECOND YEAR GERMAN III**

Continues the work of GER 202, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in German. Recommended

prerequisite: GER 202 or equivalent, or instructor approval. Course should be taken in sequence. If students have previously learned German, it is recommended to take the “self-test” located at: <http://web.cocc.edu/mbellavia/tests.htm>.

Credits: 4 Lecture: 4

**GER 211
GERMAN CONVERSATION AND CULTURE I**

Intended for students who wish to maintain and continue mastering fluency in the acquisition of German. Excellent option for non-degree-seeking students. Does not meet baccalaureate degree language requirements. Counts only as elective. Recommended prerequisite: GER 103 or instructor approval.

Credits: 3 Lecture: 3

**GER 212
GERMAN CONVERSATION AND CULTURE II**

Intended for students who wish to maintain and continue mastering fluency in the acquisition of German. Excellent option for non-degree-seeking students. Does not meet baccalaureate degree language requirements. Counts only as elective. Recommended prerequisite: GER 211 or 201, or instructor approval.

Credits: 3 Lecture: 3

**GER 213
GERMAN CONVERSATION AND CULTURE III**

Intended for students who wish to maintain and continue mastering fluency in the acquisition of German. Excellent option for non-degree-seeking students. Does not meet baccalaureate degree language requirements. Counts only as elective. Recommended prerequisite: GER 212 or 202, or instructor approval.

Credits: 3 Lecture: 3

**GER 299
SPECIAL STUDIES: GERMAN**

Credits: 1 to 4

**IT 101
FIRST YEAR ITALIAN I**

Designed for the beginner. Emphasizes active communication in Italian. Develops students' basic skills in listening, reading, writing and speaking. Successful completion of this sequence prepares students for entry into second-year level at COCC or at any other university. Should be taken in sequence.

Credits: 4 Lecture: 4

**IT 102
FIRST YEAR ITALIAN II**

Continues the development of reading, writing, listening and speaking skills. Students are expected to have completed IT 101 material, and are encouraged to review Italian 101 concepts and vocabulary prior to class. Recommended prerequisite: IT 101, one year of high school Italian, or instructor approval. Course should be taken in sequence.

Credits: 4 Lecture: 4

**IT 103
FIRST YEAR ITALIAN III**

Continues the work of IT 202, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in Italian. Recommended prerequisite: IT 202 or equivalent. Should be taken in sequence. May not be offered every year.

Credits: 4 Lecture: 4

**IT 199
SELECTED TOPICS: ITALIAN**

Credits: 4

**IT 201
SECOND YEAR ITALIAN I**

Continues the work of First Year Italian, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in Italian. Recommended prerequisite: IT 103 or equivalent. Should be taken in sequence. May not be offered every year.

Credits: 4 Lecture: 4

**IT 202
SECOND YEAR ITALIAN II**

Continues the work of IT 201, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in Italian. Recommended prerequisite: IT 201 or equivalent. Should be taken in sequence. May not be offered every year.

Credits: 4 Lecture: 4

**IT 203
SECOND YEAR ITALIAN III**

Continues the work of IT 202, reviewing, expanding and perfecting pronunciation, structure and vocabulary for the purpose of active oral and written communication. Increasing emphasis on writing and reading skills. Culture, regionalisms and history incorporated; course taught mostly in Italian. Recommended prerequisite: IT 202 or equivalent. Should be taken in sequence. May not be offered every year.

Credits: 4 Lecture: 4

**IT 299
SELECTED TOPICS: ITALIAN**

Credits: 4

SPAN 101
FIRST YEAR SPANISH I

Begins the development of reading, writing, listening and speaking skills. Focuses on the concepts of pronunciation, gender, descriptions, possessives, verb tenses, numbers, question words, time, weather, demonstratives, verbs and vocabulary which includes the following categories: alphabet, calendar, clothing, people, greetings, school items, body, family and activities. This class is for beginners only. Advanced students are strongly discouraged from taking this as a review class. Students with prior Spanish experience should take the Spanish placement test which is available at www.cocc.edu/spt.

Credits: 4 Lecture: 4

SPAN 102
FIRST YEAR SPANISH II

Continues the development of reading, writing, listening and speaking skills. Focuses on irregular and stem-changing verbs, questions, ser vs. estar, reflexive verbs, indirect object pronouns, present progressive, obligation, the verbs estar, ir, hacer, salir, jugar, saber, poder, pensar and vocabulary which includes the following categories: prepositions, university, city, foods, holidays, daily routines, physical and mental states, classroom activities and workplaces. Class begins with a review of Spanish 101. Students are encouraged to review Spanish 101 concepts and vocabulary prior to class. Recommended prerequisite: SPAN 101, one year of high school Spanish, placement test score of 176-225 (www.cocc.edu/spt) or instructor approval.

Credits: 4 Lecture: 4

SPAN 103
FIRST YEAR SPANISH III

Continues the development of reading, writing, listening and speaking skills. Focuses on the concepts of comparisons, preterite (past) tense, direct object pronouns (lo, la), hacer as a past expression, negative statements, impersonal se, the verbs conocer, pedir, servir and vocabulary which includes these categories: house, furniture, neighborhood, chores, comparisons, nature, restaurant, foods, measurements and kitchen. Class begins with an overview of SPAN 101 and 102; however, students are encouraged to review the concepts of SPAN 101 and 102 prior to class. Recommended prerequisite: SPAN 102, two years of high school Spanish, placement test score of 226-280 (www.cocc.edu/spt) or instructor approval.

Credits: 4 Lecture: 4

SPAN 188
SPECIAL STUDIES: SPANISH

Credits: 1 to 4

SPAN 199
SELECTED TOPICS: SPANISH

Credits: 4

SPAN 201
SECOND YEAR SPANISH I

Continues, after SPAN 103, the development of reading, writing, listening and speaking skills. Focuses on the concepts of the imperfect (past) tense (with and without the preterit tense), the present perfect tense, past participles, exclamations, por and para, creating adverbs, polite commands, the present tense of the subjunctive mood, the imperfect progressive and vocabulary which includes the following categories: family and relatives, childhood activities, geography, climate, transportation, ecology, environment, animals, automobiles, driving, and trips. Recommended prerequisite: SPAN 103, three years of high school Spanish, placement test score of 281-360 (www.cocc.edu/spt), or instructor approval.

Credits: 4 Lecture: 4

SPAN 202
SECOND YEAR SPANISH II

Continues the development of reading, writing, listening and speaking skills. Focuses on the concepts of the verb haber, changes in states, indirect object pronouns with commands, unplanned occurrences, narrating past experiences, adjectives used as nouns, demonstrative pronouns, por and para, two object pronouns together and vocabulary which includes the following categories: the human body, illnesses, symptoms, health, medicines, medical professions, accidents, emergencies, materials that things are made of, clothing and jewelry, shopping and appliances. Recommended prerequisites: SPAN 201, four years of high school Spanish, placement test score of 361-430 (www.cocc.edu/spt), or instructor approval.

Credits: 4 Lecture: 4

SPAN 203
SECOND YEAR SPANISH III

Continues the development of reading, writing, listening and speaking skills. Focuses on the concepts of reciprocal pronouns, polite and informal commands, subjunctive mood in softened commands, future tense, subjunctive mood in adjectival clauses, subjunctive mood in time clauses, doubt, conditional, past subjunctive in "if" clauses, and vocabulary which includes the following categories: personal relationships, reciprocal actions, opinions, general lists of nouns, verbs, adverbs, adjectives and review of and additions to past vocabulary topics. Recommended prerequisite: SPAN 202, four years of high school Spanish, placement test score of 431-550 (www.cocc.edu/spt), or instructor approval.

Credits: 4 Lecture: 4

SPAN 211
SPANISH CONVERSATION AND CULTURE I

Designed for students who wish to continue mastering fluency in the speaking of Spanish. Objective is to study various Spanish-speaking cultures. Taught exclusively in Spanish and some student participation is required. Does not meet baccalaureate degree language requirements. Recommended pre- or corequisite: SPAN 203 or instructor approval.

Credits: 3 Lecture: 3

SPAN 212**SPANISH CONVERSATION AND CULTURE II**

Designed for students who wish to continue mastering fluency in the speaking of Spanish. Objective is to study various Spanish-speaking cultures. Taught exclusively in Spanish and some student participation is required. Does not meet baccalaureate degree language requirements. Recommended pre- or corequisite: SPAN 203 or instructor approval.

Credits: 3 Lecture: 3

SPAN 213**SPANISH CONVERSATION AND CULTURE III**

Designed for students who wish to continue mastering fluency in the speaking of Spanish. Objective is to study various Spanish-speaking cultures. Taught exclusively in Spanish and some student participation is required. Does not meet baccalaureate degree language requirements. Recommended pre- or corequisite: SPAN 203 or instructor approval.

Credits: 3 Lecture: 3

SPAN 288**SPECIAL STUDIES: SPANISH**

Credits: 1 to 4

SPAN 299**SELECTED TOPICS: SPANISH**

Credits: 1 to 4

FOREST RESOURCE TECHNOLOGY/ FORESTRY

FOR 100**FORESTRY PROGRAM ORIENTATION**

Provides students with an orientation to the Forest Resources Technology program. The course is designed to give students the knowledge and tools to succeed in the Forest Resources AAS, the natural resources work force, as well as general information pertaining to student success at COCC. This course is required of all students seeking the Forest Resources Technology AAS degree, and is highly recommended for students in the Wildland Fire Science program.

Credits: 1 Lecture: 1

FOR 105A**FOREST SPORTS INTRODUCTION**

Introduces students to the competition of forest sports which includes tree climbing, wood chopping, crosscut sawing, axe throwing and log rolling. Provides a comprehensive introduction to any student who is interested in acquiring or enhancing outdoor skills. Students have the opportunity to compete in collegiate local and regional contests. Instruction will include basic skills for the beginner or instruction for the experienced student.

Credits: 1 Lab: 3

FOR 105B**FOREST SPORTS CONDITIONING**

Forest Sports will introduce, define and interpret a variety of events making up the art of timber sports. Students will learn the correct weight training regimen for this sport. Course will focus on skills, training and conditioning during off-season periods to train for upcoming competitions.

Credits: 1 Lab: 3

FOR 105C**FOREST SPORTS COMPETITION**

Course will focus on development of skills and training for participation in forest sports contests to be held later in the fall. Course is intended to give newcomers to the sport an opportunity to experience the different events in a low-key environment without the pressure of immediate competition. Returning forestry sports competitors will work to enhance their skills while also assisting in demonstrations of technique and form for potential new competitors. When appropriate, members of the class will also be responsible for hosting a high school skills contest, showcasing a variety of the events at the high school level.

Credits: 1 Lab: 3

FOR 110**WILDLAND FIRE SCIENCE I**

Focuses on the effects of wildland fire policy, current fire suppression strategies and tactics; weather, topography, fuel models and how each interact to affect fire behavior. Additional topics include the wildland fire environment as it relates to situational awareness and personal safety and an overview of modern wildland firefighting with an emphasis on understanding and applying fireline safety. Course cannot be challenged, but will be waived for those with proof of Wildland Fire Single Resource status.

Credits: 2 Lecture: 1 Lab: 3

FOR 111**FORESTRY PERSPECTIVES**

Introduction to the entire discipline of forestry, including the history of forest use and management, North American forest regions, forest ecology, mensuration and management, forest products and the importance of forest resources other than wood fiber. Also provides overview of state, regional and local employment opportunities.

Credits: 4 Lecture: 3 Lab: 3

FOR 123**LICHENOLOGY BASICS**

Introduction and identification, distribution and ecology of lichens found in a variety of Oregon habitats and substrate types. This course has two parts: the lecture portion will present a number of lichen species found in Oregon and the lab portion will provide hands-on identification methods as well as some field trips to view lichens in their natural environment.

Credits: 3 Other: 6

**FOR 126
FIELD STUDIES OF PACIFIC NW FORESTS**

This course examines the ecology, management, and human uses of Pacific Northwest forests. Field experience takes place during a four-day field trip to the Oregon coast and Northern California and includes visiting forest environments, forest product manufacturing facilities, field lectures and guided tours, as well as individual and small-group exercises.

Credits: 1 Lab: 3

**FOR 127
PLANTS OF THE PACIFIC NORTHWEST**

Identification, classification and distribution of shrubs, forbs, and grasses found in low-, mid-, and high-elevation Oregon habitat types. Emphasis is placed upon proper field identification through use of terminology and taxonomic keys. Also discusses sensitive plants and noxious weeds.

Credits: 1 Lab: 3

**FOR 130
CHAINSAW USE AND MAINTENANCE**

Covers basic tree falling, bucking and limbing techniques. Equipment safety, use, maintenance and repairs of saws is covered. Designed for inexperienced or novice chainsaw operators or can be used as refresher course for experienced saw operators.

Credits: 2 Lecture: 1 Lab: 3

**FOR 180
CO-OP WORK EXPERIENCE FORESTRY**

Provides opportunity for on-the-job training in forestry field operations, forest products manufacturing or work related to these areas. Normally undertaken during summer months on a full-time basis but can occur any term.

Credits: 1 to 7

**FOR 188
SPECIAL STUDIES: FORESTRY**

Credits: 1 to 3

**FOR 195
WILDERNESS CONCEPTS**

Introduction to concepts of wilderness and wilderness management principles. Introduction to the history of wilderness and the National Wilderness Preservation System.

Credits: 2 Lecture: 2

**FOR 199
SELECTED TOPICS: FORESTRY**

Provides opportunity for students with exceptional background or need to continue beyond normal program content. Content and credit earned by mutual agreement between instructor and student and detailed in written agreement. Instructor approval required. Maximum of three credits may be applied to degree.

Credits: 1 to 3

**FOR 202
FOREST ENTOMOLOGY/PATHOLOGY**

Emphasizes the recognition and effects of diseases, insects and mammals affecting forest ecosystems in the Pacific Northwest. Course will examine the role of insects, diseases and animals in forest functioning, health and management, as well as control measures and integrated pest management. Lab work is largely field-based and emphasizes identification of damaging forest insects and diseases common in Oregon. Recommended corequisite: FOR 127.

Credits: 3 Lecture: 2 Lab: 3

**FOR 203
APPLIED FOREST ECOLOGY**

Applies principles of forest ecology to develop a basic understanding of forest stand dynamics and silvicultural principles. Emphasis is placed on stand development, regeneration and stand analysis. Students will develop a practical understanding of stand establishment, maintenance and stand data collection.

Credits: 3 Lecture: 2 Lab: 3

**FOR 205
SILVICULTURE AND HARVESTING PROCESSES**

Emphasizes interrelated systems of silviculture and harvesting. Discussions provide an understanding of the various treatments and harvesting systems applied to forest stands to meet various management objectives for forest ecosystems. Topics include forest regeneration processes and intermediate operations (thinnings, pruning, etc.) and different methods of timber harvest. Observation and data collection will be performed in lab sections. Written reports interpreting prescriptions and harvest systems will be required.

Credits: 5 Lecture: 3 Lab: 6

**FOR 208
SOILS: SUSTAINABLE ECOSYSTEMS**

Focuses on the basics of Soil Science, ranging from physical properties to use and management. Soils with respect to traditional agricultural, wildlands and rangelands, watersheds and modern environmental perspectives will be discussed. New and current events of soils applications and the science of soils in the world around us will be reviewed to better understand the role soil has in our everyday lives. Lab component will include in- and out-of-classroom lab work and field trips.

Credits: 4 Lecture: 3 Lab: 3

**FOR 209
FIRE ECOLOGY AND EFFECTS**

Discusses the role of fire in Pacific Northwest ecosystems. Identifies effects on flora, fauna, soils, water; fire and cultural/visual resource management; fire and insect interactions. Covers the effects of fire on different forest and range ecosystems.

Credits: 3 Lecture: 2 Lab: 3

**FOR 210
WILDLAND FIRE SCIENCE II**

A study of hazardous fuel management and treatment practices. Incorporates current fuel measurement and analysis techniques, fire behavior prediction models and hazardous wildland fuel mitigation methods.

Credits: 2 Lecture: 1 Lab: 3

**FOR 211
SUPERVISION AND LEADERSHIP**

Covers basic human relations and management skills as applied to first-line supervision in forestry, fire science and EMS. Defines work environment. Identifies and discusses subordinate, peer, and supervisory relationships. Case studies, including students' own work experiences will be used.

Credits: 3 Lecture: 3

**FOR 215
FOREST RESOURCE CAPSTONE**

Students conduct a sample survey of a large area and present their findings, along with recommendations for management of the area, in a written report. Oral presentation also made to department staff. Limited to second-year students or those who have fulfilled a majority of Forest Resources Technology Degree requirements. Instructor approval required.

Credits: 3 Lecture: 1.5 Lab: 4.5

**FOR 220A
AERIAL PHOTO**

Covers practical use of aerial photographs including photo interpretation, navigation, scale, area and distance determination, corner search, basic type-mapping and GPS application. Recommended prerequisite: FOR 230B.

Credits: 3 Lecture: 2 Lab: 3

**FOR 220B
RESOURCE MEASUREMENT**

Students learn fundamentals of measuring and quantifying natural resources including cruising and scaling timber, quantifying wildlife and fisheries habitat, measuring and estimating forage production for wildlife and livestock, and sampling wildlife populations. Also introduces basic statistical concepts and their applications in resource management. Recommended prerequisite: MTH 85. Corequisite enrollment in MTH 86 recommended. Instructor approval required.

Credits: 4 Lecture: 2.5 Lab: 4.5

**FOR 220C
RESOURCE SAMPLING**

Includes instruction in log scaling, tree measurement techniques, sampling statistics, tree volume and tree taper equations, sampling and field procedures for equal probability (sample tree and fixed area) and variable probability (3P and point sampling) sampling systems. Recommended prerequisite: FOR 220A.

Credits: 4 Lecture: 2.5 Lab: 4.5

**FOR 230A
MAP, COMPASS AND GPS**

Teaches the basic skills of field and forest navigation with compass and GPS. Competency obtained in pacing, paper and computer map use, compass and basic GPS use.

Credits: 3 Lecture: 2 Lab: 3

**FOR 230B
FOREST SURVEYING**

Studies basic surveying techniques and equipment emphasizing traversing, differential leveling, profiling, GPS mapping and basic coordinate geometry. Recommended prerequisite: FOR 230A or instructor approval.

Credits: 3 Lecture: 2 Lab: 3

**FOR 240A
FOREST ECOLOGY**

Provides students with an overview of basic plant structure and function and introduces students to functioning of forest ecosystems. Class will examine the physical environment and how it affects growth and distribution of organisms and ecological processes. Course concludes with an examination of communities, disturbance and succession.

Credits: 3 Lecture: 2 Lab: 3

**FOR 240B
WILDLIFE ECOLOGY**

Explores wildlife ecology and biodiversity in context of forest and range management. Focuses on relationship between wildlife and forest and range ecosystems, and examines the role of forest and range management in wildlife habitat management. Recommended prerequisite: FOR 240A.

Credits: 3 Lecture: 2 Lab: 3

**FOR 241A
FIELD DENDROLOGY**

Identification, classification, and distribution of common trees and shrubs found in the Western United States and major tree species of North America. The course emphasizes botanical nomenclature and proper identification using plant keys and field characteristics.

Credits: 3 Lecture: 1 Lab: 6

**FOR 241B
DENDROLOGY**

Covers identification, classification and distribution of plant communities (tree, shrub, forb and grass) found within Oregon and major North American plant communities. This class covers in lecture format the structure and function of the primary organs and tissues that comprise woody plants. This course is the classroom portion of FOR 241A. Course does not need to follow FOR 241A.

Credits: 3 Lecture: 3

**FOR 251
RECREATIONAL RESOURCE MANAGEMENT**

Overview of recreational resource management including study of land and water resources used for outdoor recreation. Includes planning and management of natural and cultural resources for long-term resource productivity.

Credits: 3 Lecture: 2 Lab: 3

**FOR 255
RESOURCE INTERPRETATION**

Introduces fundamental theories of interpretation and active and passive techniques of interpretation including: activities, presentations, signage, brochures and information kiosks. Course allows optional certification as an interpreter.

Credits: 3 Lecture: 2 Lab: 3

**FOR 260
CONSERVATION OF NATURAL RESOURCES**

Examines current utilization and issues surrounding natural resources availability and management, as well as the effect of human population on resource use and the environment. Includes critical analysis of sustainable development and resource use concepts, including principles of conservation and management. Emphasis placed on current issues. Two-day field trip required. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 2 Lab: 3

**FOR 262
URBAN FORESTRY**

Examination of the role and values of trees and other vegetation in the urban environment. Draws on traditional forest management concepts to describe successful urban forestry programs, including public participation, funding and the production of human benefits. Covers the role and duties of an urban forester.

Credits: 3 Lecture: 2 Lab: 3

**FOR 265
WOOD TECHNOLOGY & UTILIZATION**

Introduces manufacturing and use of forest products, including lumber, plywood, composition board, pulp, paper and other products. Lab work focuses on visiting manufacturing facilities and the identification of woods of different species.

Credits: 4 Lecture: 3 Lab: 3

**FOR 299
SELECTED TOPICS: FORESTRY**

Credits: 1 to 5

**FW 135
MUSEUM TECHNIQUES**

Course will teach the fundamentals of preparing and preserving mammal and bird specimens for use in education and research. Students will complete a minimum of three projects which requires skinning and preserving wildlife specimens suitable for display. This course is a hands-on technique course.

Credits: 1 Lab: 3

**FW 199
SELECTED TOPICS: FISH/WILDLIFE**

Provides students with hands-on field experience and aids students in acquiring experience which may meet basic qualification standards required by federal agencies. Content and credit earned by mutual agreement between instructor and student in detailed written agreement. Instructor approval required. Maximum of three credits may be applied toward degree.

Credits: 1 to 4

**FW 218
SURVEY OF NORTHWEST WILDLIFE**

Introduces mammal and bird systematics, and surveys the ecological, economical and social importance of selected bird and mammal species in the Pacific Northwest with an emphasis on identification and basic life history. Labs emphasize survey techniques and identification of bird and mammals. Recommended prerequisite: BI 102 or BI 213 or FOR 241A.

Credits: 3 Lecture: 1.5 Lab: 4.5

**FW 251
WILDLIFE CONSERVATION**

Introduces fundamentals of wildlife ecology and management and their role in wildlife conservation. Examines history of wildlife management, current issues and case examples in wildlife conservation. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GENERAL SCIENCE**GS 104
PHYSICAL SCIENCE: PHYSICS**

Energy is used as the theme to develop basic understanding of introductory principles of physics. Energy topics include mechanical, acoustic, heat, electric, radiant and nuclear. Emphasis placed on practical application of various energy forms. Recommended prerequisite: one year of high school algebra or equivalent or concurrent enrollment in MTH 60.

Credits: 4 Lecture: 3 Lab: 2

**GS 105
PHYSICAL SCIENCE: CHEMISTRY**

Provides an introduction to properties and structures of matter, chemical bonding, solutions, equilibrium, electrolytes, and acids and bases. Also includes quantitative discussions of the mole, stoichiometry and solution concentration. Recommended prerequisite: one year of high school algebra or equivalent or concurrent enrollment in MTH 60.

Credits: 4 Lecture: 3 Lab: 2

**GS 106
PHYSICAL SCIENCE: GEOLOGY**

Study of physical characteristics of, and processes within, solid Earth. Principal topics include minerals, earthquakes, plate tectonics, igneous, sedimentary and metamorphic processes, glaciation and geologic time. Recommended prerequisite:

one year of high school algebra or equivalent or concurrent enrollment in MTH 60.

Credits: 4 Lecture: 3 Lab: 2

GS 107

PHYSICAL SCIENCE: ASTRONOMY

Introduction to astronomy including solar system, stellar systems and cosmology. Some individual observing may be required. Recommended prerequisite: one year of high school algebra or equivalent or concurrent enrollment in MTH 60.

Credits: 4 Lecture: 3 Lab: 2

GS 108

PHYSICAL SCIENCE: OCEANOGRAPHY

Survey course that includes topics from four main areas of oceanography: geology of ocean basins and coasts; waves and currents; sea water chemistry; and marine biology. Recommended prerequisite: one year of high school algebra or equivalent or concurrent enrollment in MTH 60. Required: one day-long field trip. Currently offered online only.

Credits: 4 Lecture: 3 Lab: 2

GS 199

SPECIAL TOPICS: GENERAL SCIENCE

Credits: 1 to 6

GEOGRAPHIC INFORMATION SYSTEMS

GEOG 191

CO-OP WORK EXPERIENCE GIS

Credits: 1 to 3

GEOG 211

COMPUTER CARTOGRAPHY

Develops skills needed to produce maps using ArcGIS. Outlines cartographic principles and map use. Emphasis on mapping techniques that ensure efficient conversion of map into GIS format. Recommended prerequisite: FOR 230A. Usually offered winter term.

Credits: 4 Lecture: 3 Other: 2

GEOG 265

GEOGRAPHIC INFORMATION SYSTEMS

Introduces students to principles and practice of GIS, while providing experience using ArcView and Spatial Analyst GIS software. Develops both theoretical understanding of GIS and experience in accessing GIS datasets. Students exposed to raster and vector GIS. Usually offered fall and winter terms.

Credits: 4 Lecture: 3 Lab: 3

GEOG 266

ARC GIS

Provides working knowledge of ArcGIS. In addition, students undertake designing and developing a GIS database, performing spatial analysis, creating maps, and generating a report using the desktop products. Usually offered fall term. Corequisite: GEOG 265.

Credits: 5 Lecture: 4 Other: 2

GEOG 267

GEODATABASE DESIGN

Covers fundamentals of creating, using, editing, and managing spatial and attribute data stored in a geodatabase in ArcGIS. Topics include data migration; data loading; topology rules use of subtypes, attribute domains, and relationship classes. Also covered are creation, editing and analysis of geometric networks. Usually offered spring term. Recommended prerequisite: GEOG 266.

Credits: 5 Lecture: 4 Other: 2

GEOG 273

SPATIAL DATA COLLECTION

Provides the skills to collect location information for the purpose of integration with a Geographic Information System. The focus is on proper utilization of Global Positioning System (GPS) receivers and data collection. Usually offered fall term. Recommended prerequisite: FOR 230A or instructor approval.

Credits: 5 Lecture: 4 Other: 2

GEOG 275

GIS CAPSTONE

Culmination GIS project. Students are presented with a set of criteria and perform all steps necessary to complete the project including: project planning, designing and developing a GIS database, data collection and editing, performing spatial analysis, creating maps, generating reports and presenting of project output. See instructor for details. Usually offered spring term. Recommended prerequisite: GEOG 285 or instructor approval.

Credits: 5 Lecture: 4 Other: 2

GEOG 280

CO-OP WORK EXPERIENCE GIS

Provides opportunity for on-the-job experience in the GIS field. Normally taken summer term, but may occur during any term. See instructor for details. Instructor approval required.

Credits: 1 to 3

GEOG 284

GIS CUSTOMIZATION

Utilizes Visual Basic for Applications (VBA) to program the user interface for ArcGIS software. Emphasis is placed on creating customized applications. Usually offered winter term. Recommended prerequisite: CIS 122 or instructor approval.

Credits: 5 Lecture: 4 Lab: 2

GEOG 285

DATA CONVERSION AND DOCUMENTATION

Covers a variety of techniques to collect and convert data between various formats, projections and coordinate systems, etc. Cultivates student's ability to research and experiment with data and enhance problem-solving skills. Stresses use of Metadata which allows the data user to determine whether a particular data set is suitable for its proposed use. Usually offered winter term. Recommended prerequisites: GEOG 266 or instructor approval.

Credits: 5 Lecture: 4 Other: 2

GEOG 286 REMOTE SENSING

Introduces students to the theory and methods of remote sensing through use of satellite imagery. Practical exercises involve use of SPOT, LANDSAT and Quickbird images with ERDAS Imagine software. Digital analysis is discussed and performed including preprocessing, image classification and image evaluation. Usually offered spring term. Recommended prerequisite: FOR 220A or instructor approval.

Credits: 5 Lecture: 4 Other: 2

GEOG 287 ANALYSIS OF SPATIAL DATA

Leads students through the analytical capabilities of GIS. Course begins with the more elementary, but useful, techniques involving locating and describing features, then proceeds to more advanced techniques based on higher-level spatial objects. Lab exercises utilize the GRID syntax of ArcInfo and Spatial Analyst Extension of ArcGIS to perform analysis of raster datasets. Usually offered spring term. Recommended prerequisite: GEOG 266 or instructor approval.

Credits: 5 Lecture: 4 Other: 2

GEOGRAPHY

GEOG 100 INTRODUCTION TO GEOGRAPHY

Designed to examine the key themes, concepts and ideas in geography and to develop a geographical perspective of the contemporary world. A basic foundation of the fundamental themes in geographic education will be extended to the study of places and regions. Emphasis will be placed on the development of cartographic and map interpretation skills.

Credits: 4 Lecture: 4

GEOG 106 ECONOMIC GEOGRAPHY

Introductory view on how economic activity varies across space. Besides covering locational theories for different economic sectors, course explores such issues as economic development, resource distribution, urbanization patterns, population growth, rural economics and coping with a changing world economy. Recommended prerequisite: writing placement test score that places the student in WR 65 or WR 75.

Credits: 4 Lecture: 4

GEOG 107 CULTURAL GEOGRAPHY

Examination of different cultural traits in the world. Special emphasis on perception of space and landscape, language, world religion and folk and popular culture issues. Recommended prerequisite: writing placement test score that places the student in WR 65 or WR 75.

Credits: 4 Lecture: 4

GEOG 190 ENVIRONMENTAL GEOGRAPHY

Introductory view of the environment and how it is shaped by and shapes human activity. Includes pollution, famine, water resources, deforestation, biodiversity and land-use practices. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

GEOG 195WC THE WILDERNESS CONCEPT

Introduction to the concept of wilderness and management principles and issues associated with applying that concept to National Wilderness Preservation System units, using the Three Sisters Wilderness as example.

Credits: 1 Lecture: 1

GEOG 198 FIELD GEOGRAPHY OF CENTRAL OREGON

Field course that examines natural and cultural landscapes of Central Oregon subregions such as the Bend Core, Sisters Country, High Desert, and Upper and Lower Deschutes Basins. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GEOG 199 SELECTED TOPICS: GEOGRAPHY

Series of mini-courses focusing on selected geographical topics including the following: an invitation to geography and natural regions of the world (deserts, mountains, humid tropics) and thematic topics.

Credits: 1 to 4

GEOG 201 WORLD REGIONAL GEOGRAPHY I

Introductory geography course that explores the following regions: Europe, the former Soviet Union, Anglo-America, Australia and Japan. Evaluate how culture, politics, economics, history and the physical environment help create differences across regions. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

GEOG 202 WORLD REGIONAL GEOGRAPHY II

Introductory geography course that explores the following regions: Latin America, Middle East/North Africa, Sub-Saharan Africa, East, South and Southeast Asia. Evaluate how culture, politics, economics, history and the physical environment help create differences across regions. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

GEOG 207 GEOGRAPHY OF OREGON

Survey of the state of Oregon focusing on natural environment, economic developments and human geography. Special emphasis on historical geography and demographic changes. Includes studies of major regions of Oregon. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GEOG 208**PHYSICAL GEOGRAPHY: LANDFORMS AND WATER**

Introduction to the science of landforms and the processes which form them. We will study the surface of the earth and the internal and external forces which affect different types of landform development. We will survey different landform types, such as fluvial, Aeolian, glacial, volcanic, coastal, karst, and periglacial landforms and identify where, on a global basis, these landforms are likely to occur.

Credits: 4 Lecture: 4

GEOG 209**PHYSICAL GEOGRAPHY: WEATHER AND CLIMATE**

Introduction to the science of meteorology and climatology; a study of the factors that affect weather and climate both locally and globally, and climatic relationships with natural vegetation and human activity.

Credits: 4 Lecture: 4

GEOG 212**TOURISM AND RECREATION**

Includes a study of various components of the tourist industry and an analysis of the economic and environmental impacts of tourism and recreation upon communities. Examines tourism and recreation in Central Oregon and in other selected parts of the world. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GEOG 213**GEOGRAPHY OF PACIFIC NORTHWEST**

General introduction to geographical characteristics of the Pacific Northwest and, through this regional emphasis, to some of the basic principles and concepts of geography as a discipline. Comprises three broad sections dealing in turn with historical geography, physical geography and economic geography.

Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GEOG 235**LAND USE RESEARCH**

Introduces students to techniques in land-use research. Classroom instruction focuses on planning and zoning. Students are involved in a Bend-area research project. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 1 Lab: 6

GEOG 240**GEOGRAPHY OF CENTRAL OREGON**

Regional study of diversity of landscapes of Central Oregon with emphasis on natural environments, economy of the area, population growth and settlements. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GEOG 270**MAP INTERPRETATION AND DESIGN**

Looks at the world of maps and how to design, interpret and critique many forms of maps. Also includes introductory view

on how geographic information systems (ArcView) can be used to create and design maps. Required: working knowledge of a Windows-based computer.

Credits: 4 Lecture: 4

GEOG 272**GEOGRAPHY FOR TEACHERS**

Designed for public and private school teachers in Geography and for all teachers wishing to include geographic content and concepts in their social studies classes. Emphasizes how to teach Geography at any grade level and incorporates the benchmarks and curriculum goals of the state of Oregon Department of Education as well as National Geography standards.

Credits: 3 Lecture: 3

GEOG 290**ENVIRONMENTAL PROBLEMS**

Examines intentional and inadvertent human modification of the natural environment and local, regional and global problems it may cause. Includes deforestation, urbanization, acid rain and ozone depletion. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

GEOG 295**WILDERNESS AND SOCIETY**

Cultural and historical overview of the changing attitudes toward wilderness as reflected through literature and the history of federal land legislation. Attempt to define the social and economic values of wilderness lands and where they occur geographically.

Credits: 4 Lecture: 4

GEOG 299**SELECTED TOPICS: GEOGRAPHY**

Credits: 1 to 4

GEOLOGY**G 162****REGIONAL GEOLOGY**

Consists of field studies of selected areas with emphasis on the relationship between rock type, geologic setting and topography. Includes lectures, laboratory and weekend field trips. Topic areas include Cascade Volcanoes (G 162CV), Geology of the Pacific Northwest (G 162NW) and Geology of Oregon (G 162OR).

Credits: 3 Lecture: 1 Lab: 6

G 162CV**CASCADE VOLCANOES**

Credits: 3 Lecture: 1 Lab: 6

G 162NW**GEOLOGY OF THE PACIFIC NORTHWEST**

Credits: 3 Lecture: 1 Lab: 6

G 162OR
GEOLOGY OF OREGON
Credits: 3 Lecture: 1 Lab: 6

G 199
SELECTED TOPICS: GEOLOGY
Credits: 1 to 6

G 201
GEOLOGY I
 Examines the nature and origins of igneous metamorphic and sedimentary rocks, volcanism and volcanic hazards, geological resources, interior of the earth and plate tectonics.
Credits: 4 Lecture: 3 Lab: 3

G 202
GEOLOGY II
 Examines the nature of earthquakes, mass wasting, rivers, glaciers, groundwater, deserts, and rock deformation. Need not be taken in sequence.
Credits: 4 Lecture: 3 Lab: 3

G 203
GEOLOGY III
 Examines Earth history, geologic time, fossils and the origin of Earth. Need not be taken in sequence.
Credits: 4 Lecture: 3 Lab: 3

G 232
COASTAL OCEANOGRAPHY
 Coastal ecology is used as the theme to develop an in-depth understanding of relationships among biology, geology and physio-chemical factors of coastal marine environments of the Pacific Northwest. Inter-discipline topics include: coastal environments (rocky shores, beaches, estuaries), biology of common coastal marine organisms; geology of coasts and coastal sea floor structures and materials, sedimentation processes and regional plate tectonics; dynamics of ocean-land interface including effects of waves, tides, and currents in modifying coastal environments; and chemical properties of coastal ocean temperature, dissolved gases and pH. A significant aspect of this course is its focus on field sampling using modern oceanographic techniques. Required term project and weekend field trips. Recommended prerequisite: one term of any science course.
Credits: 5 Lecture: 4 Lab: 3

G 291
ROCKS AND MINERALS
 Studies identification, occurrence and origin of rocks and minerals, emphasizing most common materials of the Earth's crust and mineral resources of the Earth. Includes lectures, laboratory and field trips. Recommended prerequisite: G 106 or G 201.
Credits: 3 Lecture: 2 Lab: 3

HEALTH AND HUMAN PERFORMANCE: ACTIVITY CLASSES

HHP 185BB
SNOWBOARDING I
 For beginning snowboarders. Students will learn the fundamentals of snowboarding with qualified instructors. Equipment must be provided by the student.
Credits: 1 Lab: 3

HHP 185BC
SNOWBOARDING II
 For intermediate to advanced snowboarders. Students will be provided instruction to enhance their current skill level.
Credits: 1 Lab: 3

HHP 185BE
SNOWBOARDING III COMPETITIVE FREESTYLE RIDING
 Focuses on freestyle techniques for advanced riders. Emphasis of instruction is on freestyle maneuvers, including straight airs, 180s, and straight airs with grabs, as well as etiquette when riding in the half-pipe, slope-style facilities and natural freestyle terrain.
Credits: 1 Lab: 3

HHP 185BF
BASKETBALL
 Accommodates all skill levels of basketball and will focus on fundamentals of the game as well as team play.
Credits: 1 Lab: 3

HHP 185BJ
BRAZILIAN JUJITSU
 Modified version of traditional Japanese Jujitsu and martial art sport that focuses on gaining a dominant position over your opponent. Students will learn proper techniques, using leverage, sparring and self-defense drills to gain self-confidence.
Credits: 1 Lab: 3

HHP 185BS
SWIMMING I: SWIM FITNESS & TECHNIQUE
 Swim Fitness and Technique helps student feel safe and comfortable in the water for at least 10 minutes at a time, incorporating and refining swimming strokes.
Credits: 1 Lab: 3

HHP 185BW
BOOT CAMP FOR WOMEN
 Introduces a variety of exercises that will increase cardiovascular, endurance, strength, and flexibility in a team atmosphere. Focus will be on improving strength and aerobic fitness in one workout, utilizing interval training, core strength, plyometrics, running, games and weights.
Credits: 1 Lab: 3

**HHP 185CT
CIRCUIT TRAINING**

General, core and cardio. Traditional circuit training class for total body conditioning that includes interval training using various equipment and core circuit training using equipment that emphasizes core-area workout.

Credits: 1 Lab: 3

**HHP 185CY
CYCLING: ROAD, STUDIO, MOUNTAIN**

Three types of cycling modes are offered at varying times throughout the year: road cycling, indoor studio cycling, or mountain biking on local trail systems.

Credits: 1 Lab: 3

**HHP 185DA
AEROBIC DANCE I**

Kickboxing class incorporating traditional aerobic moves along with some resistance and abdominal training. Turbokick provides cross-training incorporating non-contact martial arts aerobic exercises.

Credits: 1 Lab: 3

**HHP 185DB
AEROBIC DANCE II-BENCH/STEP**

Traditional step bench and step class which has a combination of both cardio and strength exercises and routines.

Credits: 1 Lab: 3

**HHP 185DC
AEROBIC DANCE III-HIP HOP**

Explains the growing awareness of hip hop as a mind-body dance style aerobic movement. Includes choreographed moves with each class and building into a sequenced routine.

Credits: 1 Lab: 3

**HHP 185DD
DANCERCISE**

High-energy class emphasizing dance movements including jazz, contemporary and salsa styles.

Credits: 1 Lab: 3

**HHP 185GL
GOLF**

Held at local golf courses and taught by local pro instructors. Instruction of all skill levels will be accommodated.

Credits: 1 Lab: 3

**HHP 185GM
GOLF ADVANCED**

Designed for skilled golfers looking to improve on the fundamentals of golf. This course will also place emphasis on the mental game of golf, rules and etiquette of golf, as well as increasing skills on irons, woods, sand play, putting, and chipping/pitching.

Credits: 1 Lab: 3

**HHP 185GN
GYMNASTICS**

Along with an opportunity for improving fitness, this class will provide an insight into the history of gymnastics, its benefit to other sports, specific body positions used, skill progression, various conditioning activities appropriate for age and abilities, and the coaching and judging details of gymnastics.

Credits: 1 Lab: 3

**HHP 185JG
JOGGING**

Focuses on improving running skills through various running activities. Students will run at both on- and off-campus sites.

Credits: 1 Lab: 3

**HHP 185KA
KI AIKIDO**

Introduces the martial art of Aikido, a form of self-defense and non-fighting. It is based upon coordination of mind and body, not only in throwing, but also in the art of falling (ukemi). Can accommodate all levels.

Credits: 1 Lab: 3

**HHP 185SA
SKI ALPINE I**

For beginning downhill skiers. Students will learn the fundamentals of skiing with qualified instructors. Equipment must be provided by the student.

Credits: 1 Lab: 3

**HHP 185SB
SKI ALPINE II**

For intermediate to advanced skiers. Students will be provided instruction to enhance their current skill level.

Credits: 1 Lab: 3

**HHP 185SF
SOFTBALL**

Focuses on fundamental skill development and team play for all levels of players.

Credits: 1 Lab: 3

**HHP 185SH
STRETCH AND RELAXATION**

Introduces students to progressive stretching activities, including the value of stretching to the overall relaxation process.

Credits: 1 Lab: 3

**HHP 185SK
SKI CONDITIONING (NORDIC)**

Two levels of conditioning: a general course for all types of groomed and off-track Nordic skiing and a performance course for improving fitness and technique for racing and groomed skiing.

Credits: 1 Lab: 3

**HHP 185SR
SOCCER**

Focuses on fundamental skill development and team play for all levels of players.

Credits: 1 Lab: 3

**HHP 185SS
SOCCER ADVANCED**

Geared toward students demonstrating a high skill level. Recommended prerequisite: HHP 185SR.

Credits: 1 Lab: 3

**HHP 185ST
PILATES**

Familiarizes students with the awareness of core flexibility and strength, relative muscle groups and joint actions of the core. Provides Pilates vocabulary and training techniques, including specific stretching, as well as stretching for general health. Also provides proper sequence form for stretching, the slide, exercise balls and weights.

Credits: 1 Lab: 3

**HHP 185SU
PILATES-ALL LEVELS**

Includes a brief review of Pilate's fundamentals or proper spine alignment, elongation, thoracic breath and core control. Class sequence of Pilates exercises with appropriate modifications for all fitness levels.

Credits: 1 Lab: 3

**HHP 185SX
SKI X-COUNTRY I**

For beginning cross-country skiers with little or no experience. Students will learn the fundamentals of skate-skiing with a qualified instructor. Skate equipment must be provided by the student.

Credits: 1 Lab: 3

**HHP 185SY
SKI X-COUNTRY II**

Focus on skate-skiing for intermediate to advanced skiers. Students will improve technique and overall fitness required for groomed trail skiing or racing. Skate equipment must be provided by student. Offered as needed.

Credits: 1 Lab: 3

**HHP 185TA
TENNIS I**

Focuses on skill development for beginning tennis players. Students will learn through various drills and court games.

Credits: 1 Lab: 3

**HHP 185TB
TENNIS II**

Geared toward students with intermediate or advanced tennis skills. Should be able to demonstrate prior experience. Recommended prerequisite: HHP 185TA.

Credits: 1 Lab: 3

**HHP 185TF
TOTAL FITNESS**

High intensity and very demanding class. Geared toward improving overall fitness.

Credits: 1 Lab: 3

**HHP 185TI
TAI CHI/QIGONG**

Introduces the basic techniques of Tai Chi Yang style simplified form and three Qigong exercises, as well as theories and concepts for better health and relaxation through meditation in movement. Can accommodate all levels.

Credits: 1 Lab: 3

**HHP 185TJ
TAI CHI/QIGONG-INTERMEDIATE**

Introduces Tai Chi Chaun Yang Style 48 form and several additional Qigong exercises for continued health and relaxation through meditation in movement, at the intermediate level. Course encourages students to incorporate daily practice into their schedules and to practice together in study groups. Recommended prerequisite: HHP 185TI, Beginning Tai Chi/Qigong. Offered as needed.

Credits: 1 Lab: 3

**HHP 185TK
TAE KWON DO**

Improves cardiovascular endurance, muscular strength and flexibility. Includes self-defense, social, etiquette and cultural introduction of dojang.

Credits: 1 Lab: 3

**HHP 185VC
VOLLEYBALL ALL LEVELS**

Focuses on fundamental skill development and team play for beginning students and continuing students who want to enhance their skill level.

Credits: 1 Lab: 3

**HHP 185VD
VOLLEYBALL (DOUBLES)**

Provides rules and strategy of doubles volleyball. Includes communication with teammates on the courts due to the faster pace of the game.

Credits: 1 Lab: 3

**HHP 185WA
PROGRESSIVE WALKING**

A group class designed to prepare and progressively maintain health and fitness at a target heart rate through walking.

Credits: 1 Lab: 3

**HHP 185WE
WATER AEROBICS**

Introduces water aerobics which improves cardiovascular endurance, muscular strength and flexibility.

Credits: 1 Lab: 3

**HHP 185WN
WILDERNESS TRAINING**

Classes under the HHP 185WN Wilderness Training course number include the following: Wilderness Training Beginning, Orienteering, Hiking and Backpacking, Snowshoeing, Beginning Rock Climbing, Intermediate Rock Climbing, and Back Country Skiing. Recommended prerequisite for Intermediate Rock Climbing: Beginning Rock Climbing or instructor approval. See the footnote in the class schedule for further course descriptions.

Credits: 1 Lab: 3

**HHP 185WT
WEIGHT TRAINING**

Covers the basic principles of weight training and proper use of weight room equipment and safety. The course includes a variety of weight training methods and incorporates core strength and flexibility activities. Students will develop their own weight lifting program throughout the term.

Credits: 1 Lab: 3

**HHP 185WW
WILDERNESS TRAINING: WATER**

Rafting I; Rafting II; Kayaking I; Kayaking II.

Credits: 1 Lab: 3

**HHP 185YG
YOGA**

Introduces the basic techniques of yoga incorporating a wide range of yoga styles. Classes vary according to instructor offerings, which include Ashtanga, Hatha, Vinyasa and Kundalini.

Credits: 1 Lab: 3

**HHP 185YH
YOGA-ALL LEVELS**

Appropriate for all levels. Modification and additional variation in postures for students wanting a more challenging practice, using a blend of different yoga styles.

Credits: 1 Lab: 3

**HHP 185YI
YOGA/PILATES BLEND**

Focuses on a blend of two modalities, with the flexibility of yoga and core strength training of Pilates.

Credits: 1 Lab: 3

**HHP 185YJ
YOGA-VINYASA RISING**

A dynamic flow of yoga linking breath and movement for a strengthening cardio practice, set to rock and popular music. Emphasis is on Astanga Yoga in the tradition of Sri Jayakumar Swamysree from the University of Mysore, India. A combination of Vinyasa, Vini and Astanga yoga styles will be taught.

Credits: 1 Lab: 3

**HHP 188
SPECIAL STUDIES: HHP**

Credits: 1 to 6

**HHP 199
SELECTED TOPICS: HEALTH AND HUMAN
PERFORMANCE ACTIVITIES**

Includes both introductory courses and activities.

Credits: 1 to 6

**HHP 299
SELECTED TOPICS: HHP**

Health topics requiring advanced level of critical thinking, writing and/or other skills.

Credits: 1 to 3

**HEALTH AND HUMAN
PERFORMANCE: EXERCISE SCIENCE****HHP 131
INTRODUCTION TO EXERCISE/SPORT SCIENCE**

Introduces students to the profession of exercise science including an overview of basic concepts and careers in exercise physiology, athletic training, personal training, coaching, sports medicine, physical therapy and fitness management. Provides a comprehensive introduction to any student who is considering a career in the area of health, fitness, wellness, exercise physiology and sports medicine. Also, includes guest speakers currently working in the profession, as well as tours of local fitness facilities. Various fitness certifications are compared and contrasted.

Credits: 3 Lecture: 3

**HHP 259
CARE AND PREVENTION OF ATHLETIC INJURY**

Introduces management of athletic injuries, injury recognition and assessment, proper care and treatment of athletic injuries and rehabilitation of athletic injuries. Emphasizes hands-on experience included for mastery of surface anatomy, injury assessment and proficiency in rudimentary injury care and rehabilitation practices. Recommended pre- or corequisites: WR 122 or WR 227 and BI 121.

Credits: 3 Lecture: 3 Lab: 1

**HHP 260
INTRODUCTION TO HUMAN MOVEMENT**

Introduces the science of human movement (kinesiology). Explores anatomical elements such as muscle action and joint structure and function involved in gross motor movement. Structural anatomy, primary movers of each joint and muscle utilization for specific sport action are emphasized. Recommended pre- or corequisites: WR 122 or WR 227 and BI 121.

Credits: 3 Lecture: 3

HHP 261 BASIC EXERCISE PHYSIOLOGY

Introduces physiological and biochemical responses of the pulmonary, cardiovascular, nervous and skeletal systems to exercise. Considerable emphasis is placed on physiological adaptations to aerobic and anaerobic training. Four hands-on labs include the assessment of power, body composition, maximal oxygen consumption, and lactate threshold.

Credits: 3 Lecture: 3

HHP 262 TRAINING THEORY AND APPLICATIONS

Provides physiologic mechanisms underlying improvement in strength, flexibility and cardiovascular fitness. Explores various testing techniques, training methods, application and periodization as related to physical training. Acts as a practical guide for understanding of individualized exercise prescription (personal training). Initial client consultation, required paperwork, risk factor stratification, exercise modification for special populations and legal implications are also discussed.

Credits: 3 Lecture: 3

HHP 270 SPORT AND EXERCISE PSYCHOLOGY

Introduces broad range of topics relevant to sport and exercise psychology, including sport personality, motivation, psychological skills training, energy management, attention, imagery, competitive anxiety and mental relaxation. Content is relevant for coaches, athletes and others interested in the psychology of sport.

Credits: 3 Lecture: 3

HEALTH AND HUMAN PERFORMANCE: HEALTH CLASSES

HHP 212 CPR - AMERICAN HEART ASSOCIATION HEARTSAVER WITH PEDIATRIC

The Heartsaver Automatic External Defibrillator (AED) with Pediatric CPR course teaches the basic techniques of adult CPR and use of an AED. Pediatric CPR skills may be taught if students live or work in a setting where children are present. Students also learn to use barrier devices in CPR and give first aid for choking for responsive adult, child, and infant victims. Course teaches how to recognize the signs of four major emergencies: heart attack, stroke, cardiac arrest, and foreign body airway obstruction. Through the American Heart Association. Course meets the Dental Assistant Standards.

Credits: 1 Lecture: 1

HHP 212A CPR - AMERICAN HEART ASSOCIATION HEALTH CARE PROVIDER

Basic Life Support Health Care Providers course teaches the skills of CPR for victims of all ages (including ventilation with

a barrier device, a bag-mask device, and oxygen), use of an automatic external defibrillator and relief of foreign body airway obstruction in responsive and nonresponsive victims. The course is designed for health care providers who care for patients in a wide variety of settings, both in and out of hospital. Through the American Heart Association. Course meets the Allied Health and Nursing Standards.

Credits: 1 Lecture: 1

HHP 220 INTRODUCTION TO EPIDEMIOLOGY

Combines fields of statistics, sociology, microbiology and other relevant sciences. Considered a fundamental science of public health and defined as the study of distribution and determinants of disease frequency in human populations, and the application of this science to the control of health problems. Topics covered include: history of epidemiology, study design (cohort and case control), and measure of disease frequency, prevalence and incidence. Offered as needed. Recommended prerequisite: MTH 20.

Credits: 3 Lecture: 3

HHP 231 HUMAN SEXUALITY

Explores physiological, sociological and psychological factors relating to human sexual behavior. Topics include male and female sexual anatomy, gender identity and roles, relationships and communication, fertility management and sexual diseases and dysfunctions. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

HHP 242 STRESS MANAGEMENT

Helps students develop a comprehensive approach to the management of stress. Examines the historical, emotional, intellectual, spiritual, psychological and physiological foundations of the stress concept. This broad understanding of stress will be the basis for the study of the role that stress plays in health and disease. Students will experiment with a wide variety of stress management and relaxation techniques. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

HHP 248 HEALTH PSYCHOLOGY

Examines the interrelationships between biological, social, psychological, intellectual, spiritual, emotional, cultural and environmental factors. Examines the influences that these factors have on individual behaviors related to promoting health, preventing illness and coping with illness. Also reviews education, research and counseling activities that promote health, prevent or treat illness, identify health risk factors and analyze the health care system. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

**HHP 252
FIRST AID AND CPR**

Provides the knowledge and skills to respond to life-threatening and non-life-threatening emergencies, as citizen responders, in order to sustain life until medical help is available. Teaches skills to administer adult, child and infant CPR and first aid. Covers basic life support, bleeding, shock, burns, wounds, head, chest and extremity injuries, sudden illness, heat and cold disorders, and other environmental emergencies. Both conceptual information and practical application are included. Recommended pre- or corequisites: WR 75, WR 60 and/or WR 65 and MTH 20.

Credits: 3 Lecture: 3 Lab: 1

**HHP 252A
FITNESS/FIRST AID**

Introduces both first aid and wellness topics, such as immediate and temporary care for injury and illness, control of bleeding, care for poisoning, splinting, bandaging and transportation, as well as fitness, nutrition and stress management. Students earn first aid and CPR cards in both adult and infant from the National Safety Council upon completion of course. Recommended pre- or corequisites: WR 75, WR 60 and/or WR 65 and MTH 20.

Credits: 3 Lecture: 3

**HHP 258
HOLISTIC WELLNESS**

Examines how lifestyle choices affect immunity and the development of chronic diseases. Disorders covered include cardiovascular diseases, cancer, diabetes, osteoporosis, autoimmune disorders, depression and other chronic diseases. Discusses the impact that lifestyle plays on health and illness, models of health behavior change, the biomedical model flaws, and alternative health care options in managing and preventing chronic disease. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

**HHP 266
NUTRITION FOR HEALTH**

Introduces the basics of nutrition for a physically active, healthy lifestyle. The course emphasizes nutrient function, energy production, weight management, body composition, psychosocial health, global impact of nutrition, prevention of nutrition-related diseases, food guide pyramid, ergogenic aids, fad diets, dieting, and nutritional research. Course also includes a computerized nutritional assessment.

Credits: 3 Lecture: 3

**HHP 280
CO-OP WORK EXPERIENCE - HEALTH AND HUMAN PERFORMANCE**

Provides practicums by the department and in conjunction with the community in recreation, youth sports, intramurals, strength and conditioning, fitness programming, exercise science, and health promotion. Students must be approved for enrollment by an HHP advisor before registering for this course.

Credits: 1 to 3

**HHP 291
LIFEGUARD TRAINING**

Provides awareness of common hazards associated with various types of aquatic facilities and develops knowledge and skills to eliminate or minimize such hazards. Course develops skills necessary to recognize a person in a distress or drowning situation and helps students understand the lifeguard/employer and lifeguard/patron relationships. Provides explanations, demonstrations, practice and a review of the rescue skills essential for lifeguards.

Credits: 2 Lecture: 1 Lab: 2

**HHP 292
WATER SAFETY INSTRUCTOR**

Provides participants with the ability to teach swimming and water safety skills and a logical progression for aquatic skill development. Students receive Ellis & Associate Pool Lifeguard certificate upon successful completion of course.

Credits: 2 Lecture: 1 Lab: 2

**HHP 295
HEALTH AND FITNESS**

Introduces a comprehensive overview of wellness concepts including fitness, nutrition, stress, disease prevention, and various other lifestyle factors that improve the quality of life. Each student's health and fitness is individually evaluated through a series of tests measuring cardiovascular endurance, strength, body composition, flexibility, blood pressure, nutrition, stress levels and blood lipid and blood glucose. Recommended pre- or corequisites: WR 121, MTH 20.

Credits: 3 Lecture: 3

**HEALTH AND HUMAN
PERFORMANCE: OUTDOOR
LEADERSHIP****OL 111
INTRODUCTION TO OUTDOOR LEADERSHIP**

This class is designed to introduce students to the field of outdoor recreation, outdoor education, adventure education, therapeutic recreation, and experiential education. Upon completion of this course students should have a good understanding of the differences between the subspecialties in the field. The course includes the history of programs, an introduction to theories, current topics, career options, and preparation needed for those careers. This course may help students decide if an educational path in outdoor leadership is something they wish to pursue. Guest speakers representing various careers/areas will present their experiences to the class. This is a foundation course and a recommended prerequisite to Outdoor Leadership program courses.

Credits: 3 Lecture: 3

OL 194AA**AVALANCHE LEVEL I**

This course is designed to introduce the student to the various factors that contribute to avalanche hazard including terrain, weather, snowpack, and the human component (good vs. bad decision making). Avalanche safety equipment such as transceivers, probes and shovels are also presented, with instruction on how to use each of these critical pieces of safety gear. Additional field time is spent on practicing transceiver search techniques (single and multiple burial), snowpack assessment (through a “Test-pit Plus”), and safe travel practices/group travel skills. The course includes one or more mock avalanche rescues.

Credits: 1 Other: 2

OL 194AB**AVALANCHE LEVEL I REFRESHER**

This course is designed to review the materials from Avalanche Level I, including the various factors that contribute to avalanche hazard including terrain, weather, snowpack, and the human component (good vs. bad decision making). Avalanche safety equipment such as transceivers, probes and shovels are also reviewed, along with how to use each of these critical pieces of safety gear. Field time is spent practicing transceiver search techniques (single and multiple burial), snowpack assessment (through a “Test-pit Plus”), and safe travel practices/group travel skills. Students must have completed an Avalanche Level I course within the past five years. Recommended prerequisite: OL 194AA or instructor approval.

Credits: 1 Other: 2

OL 194AC**AVALANCHE LEVEL II**

This course is designed to build on the skills developed in an Avalanche Level I course. The various factors that contribute to avalanche hazard including terrain, weather, snowpack, and the human component (good vs. bad decision making) will be reviewed, as will avalanche safety equipment such as transceivers, probes and shovels and their correct use. New material will include use of a field notebook and standardized data recording, as well as completing full pit profiles. Field time is spent practicing/reviewing transceiver search techniques (single and multiple burial), snowpack assessment (through test pit, test pit plus, and full pit), and safe travel practices/group travel skills. Students must have completed an Avalanche Level I or Level I Refresher course within the past five years. Recommended prerequisite: OL 194AA or OL 194AB or instructor approval.

Credits: 2 Lecture: 1 Other: 2

OL 194MA**MOUNTAINEERING I**

This course is an introduction to safe travel in the mountains. The basics of outdoor clothing, nutrition, condition/fitness for mountain travel, snow camping, navigation and snow travel will be covered. Environmental hazards such as weather and avalanches will also be discussed.

Credits: 2 Lecture: 1 Lab: 3

OL 194MB**MOUNTAINEERING II**

This course is designed to introduce the student to technical mountain travel with specific emphasis on rock, snow and ice anchors, glacier travel and crevasse rescue, and climbing steep snow and ice. Additional relevant topics may also be introduced (avalanche safety, high altitude mountaineering, etc.). Recommended prerequisite: OL 194MA.

Credits: 2 Lecture: 1 Lab: 3

OL 207**SEMINAR IN OUTDOOR LEADERSHIP**

Discussion and examination of current trends and job opportunities in outdoor leadership. Preparatory work for practicum including resume writing and professional portfolios unique and specific to the field of outdoor leadership. Gives support to practicum students and therefore is to be taken prior to or concurrently with HHP 280: Practicum in Outdoor Leadership. Recommended pre- or corequisites: WR 122 and OL 271 or OL 273. Instructor permission required.

Credits: 2 Lecture: 2

OL 244**PSYCHOLOGY OF RISK AND ADVENTURE**

Introduces students to psychological theories and topics relevant to adventure and risk, including perception, motivation, anxiety, arousal, and risk-taking. This course will provide a theoretical and skills-based approach to understanding why the psychological components of risk and adventure play a pinnacle role in outdoor leadership. Recommended prerequisites: OL 111, OL 253 and OL 255. Recommended pre- or corequisite: WR 122. Instructor permission required.

Credits: 3 Lecture: 3

OL 253**WILDERNESS ADVANCED FIRST AID**

This Course is designed to provide the student with the necessary knowledge and skills to care for an injured or suddenly ill person in a remote location. The methods and protocols presented in this class follow the Wilderness Medical Society guidelines for a 36-hour certification and are specific to a wilderness setting. The Wilderness Medical Society defines wilderness as a remote geographical location more than one hour from definitive care.

Credits: 3 Lecture: 2 Other: 2

OL 255**OUTDOOR LIVING SKILLS**

This course is designed to educate the student on how to travel safely for extended periods in the back country. The essentials of life (water, food and shelter/clothing) and how they can be provided in an outdoors setting will be presented. Related topics such as navigation, back country medicine, and wilderness use/wilderness concepts will also be discussed. Class time will be composed of lecture, discussion and lab (demonstration, practical application and practice). In addition, students will conduct one solo overnight and one group weekend outing.

Credits: 3 Lecture: 2 Lab: 3

OL 271**FACILITATING GROUP EXPERIENCES**

Introduces the broad concepts of group facilitation and presents the various “generations” of adventure facilitation. Students will become familiar with various models of the facilitation process and how each relates to experiential learning. Coursework integrates introductory concepts of leadership, foundational experiential education theory and the practice of facilitation. Students are responsible for facilitating various group initiatives as a way to further comprehend the concepts presented. Successful students will be prepared to effectively and confidently facilitate groups in a variety of learning environments. This is a foundation course and a recommended pre-requisite to Outdoor Leadership program courses. Recommended prerequisites: OL 111, OL 253 and OL 255. Recommended pre- or corequisite: WR 122. Instructor permission required.

Credits: 3 Lecture: 2 Lab: 3

OL 273**OUTDOOR RECREATION LEADERSHIP**

This course provides both theoretical and practical knowledge of groups in outdoor setting. Topics are presented in lecture, discussed in various leadership scenarios, and then applied in group outings that the students plan and lead. Special emphasis is placed on group safety issues, risk assessment and risk management. Recommended prerequisites: OL 111, OL 253 and OL 255. Recommended pre- or corequisite: WR 122. Instructor permission required.

Credits: 3 Lecture: 2 Lab: 3

OL 294CC**CHALLENGE COURSE PRACTICES**

This course is designed to educate the student on the history, philosophy, principles, management and use of challenge courses (high and low). Course competencies will be fostered through experiential learning methodologies and practical experiences in challenge course environments. Risk management, maintenance, staff training, operational procedures, course construction, and program planning will be emphasized. Recommended pre- or corequisite: OL 271. Instructor permission required.

Credits: 3 Lecture: 1.5 Lab: 4.5

OL 294RC**TEACHING ROCK CLIMBING**

This course is designed as an introduction to guiding in rock climbing. Students will be instructed on the use of a variety of climbing equipment and techniques used for top-roped and lead climbing in guiding situations. (This course will not teach beginning-level material except in how to teach such material to the client.) Topics will include such areas as client care and welfare, managing a group setting, risk assessment, as well as technical skills. Emphasis will be placed on group work, discussion and practical application. Although some time will be spent climbing, this is not an activity course; all aspects of the course will be designed to teach the basic concepts of guiding clients in a variety of rock climbing situations. Recommended prerequisite: HHP 185WW, Beginning Rock Climbing. Instructor permission required.

Credits: 3 Lecture: 1.5 Lab: 4.5

OL 294WG**WHITEWATER RAFT GUIDING**

This course is designed to instruct the student on how to provide a fun and safe whitewater raft experience to people of all ages through a combination of lecture and hands-on practice. Students will learn how to guide paddle rafts and oar rafts, read whitewater, lead group trips, and execute various whitewater rescue techniques. The majority of the class time for this course will be spent in the field, including overnight camping. A background in camping/outdoor living skills is strongly recommended. Recommended pre- or corequisites: HHP185W, Rafting I and OL 255. Instructor permission required.

Credits: 3 Lecture: 1.5 Lab: 4.5

HEALTH INFORMATION TECHNOLOGY**HIT 103****HEALTH INFORMATION SYSTEMS AND PROCEDURES**

Provides an overview of the health care delivery system and health information field. Includes origin and uses of health records, admitting functions, filing and numbering systems, interdepartmental communication, computation of basic census data, micrograph concepts, and electronic data interchange. Lab will include application of health care procedures via the AHIMA Web-based virtual lab. Offered fall term.

Credits: 5 Lecture: 4 Lab: 3

HIT 104**HEALTH DATA CONTENT/STRUCTURE**

Utilization and application of health care data content (health record analysis) with special emphasis on mechanics of physician's orders, clinical lab tests, diagnostic and treatment modalities, pharmacology and an overview of applicable consent and confidentiality principles. Lab will include application of health care procedures via the AHIMA Web-based virtual lab. Enrollment limited to HIT majors. Prerequisite: HIT 103 or instructor approval. Offered winter term.

Credits: 5 Lecture: 4 Lab: 3

HIT 131A**DOCUMENT MANAGEMENT AND TECHNOLOGY**

Provides specific fundamental experience in the identification and application of inpatient and outpatient records and reports. It is important to have strong skills in spelling, medical terminology, the English language, attention to detail, proofreading, quality editing and grammatical appropriateness. Prerequisite: HIT 104 or instructor approval. Offered spring term.

Credits: 3 Lecture: 3

HIT 131C**MEDICAL TRANSCRIPTION APPLICATIONS**

Provides training and practical experience in the transcription of various medical reports and is designed to instill accuracy and perfection. Students will spend twelve hours per week in lab. This time affords the opportunity to obtain entry-level transcription skills. Required for Medical Transcription

certificate. Prerequisite: completion of HIT program first-year curriculum or instructor approval. Offered summer term.

Credits: 4 Lab: 12

HIT 180 HIPAA MANAGEMENT

Presents a medical-legal foundation with respect to HIPAA (Health Insurance Portability and Accountability Act), federal legislation enacted in 1996. HIPAA encompasses the privacy, security, and electronic transaction standards for maintaining and transmitting protected health information. This course is designed to provide a basis for understanding the impact this legislation imposes on the health care industry and on health information management. Offered winter and spring term.

Credits: 2 Lecture: 2

HIT 182 INTRODUCTION TO MEDICAL CODING

Explores the history, arrangement and application of ICD9CM and CPT coding systems: ICD9CM/CPT conventions, updates, influencing entities and how these expectations are communicated to health care providers, coding clearinghouses, ethical and quality coding, coder responsibilities, etc. Basic coding guidelines by body system and/or payor requirements will be explored and applied including reporting of ICD-9-CM/CPT codes, inpatient and ambulatory reporting/billing. Recommended pre- or corequisites: AH 111, AH 112, BI 121, BI 122, AH 113, HIT 104, or instructor approval. Offered spring term.

Credits: 4 Lecture: 4

HIT 183 HEALTH INFORMATION SEMINAR

Provides overview of Health Information Technology program. Discusses the health information profession as a career; job application; assertiveness; vital statistics; human relations and other related health care industry topics. Tour of a health care facility. Offered fall term.

Credits: 1 Lab: 2

HIT 193 DIRECTED PRACTICE I

In the realm of health information management, this is a course in which students report to a health care facility and experience planned activities in the environment of the actual workplace. Provision for technical experiences is an integral component of curricula. Provides for lecture preparation and application of classroom and laboratory objectives in supervised affiliation sites in Oregon, typically. Performed under leadership of a registered health information administrator or registered health information technician. Fulfills 60 of the 120 total clinical hours distributed in the curriculum at various points of program completion. 40 hours of actual clinical and 20 hours of preparatory instruction. Offered summer term between the first and second year. Prerequisite: completion of first-year HIT curriculum or permission of the HIT director.

Credits: 2 Other: 6

HIT 199 SELECTED TOPICS: HEALTH INFORMATION TECHNOLOGY

Credits: 4

HIT 201 LEGAL ASPECTS MEDICAL RECORDS

Emphasizes the legal system, hospital and staff liability, privacy, confidentiality and legal requirements affecting the control and release of health information and medical records. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered spring term.

Credits: 4 Lecture: 4

HIT 203 HEALTH CARE DELIVERY AND TECHNOLOGY

Provides analysis of the common terms and procedures related to the development and implementation of information systems; specifically, networks and interfaces (in reference to the electronic health record), the personal health record (PHR), public health and other administrative applications/systems, database architecture and design along with systems analysis and database informatics. Also provided in this class is an overview of the health care delivery system and its relationship to technology in health care. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered winter term.

Credits: 2 Lecture: 2

HIT 205 INTRODUCTION TO MEDICAL RECORD ANALYSIS

Application of qualitative and quantitative analyses of health records based on accreditation standards, licensing and certifying agencies. The applications of accrediting standards are also covered. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered fall term.

Credits: 3 Lecture: 3

HIT 272 HEALTH INFORMATION MANAGEMENT

Studies organization and management principles in order to develop effective skills in leadership, motivation and team-building techniques for the health care workplace. Covers computer concepts with emphasis on DRG grouping and encoding applications via AHIMA Virtual lab Web-based software. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered spring term.

Credits: 5 Lecture: 4 Lab: 2

HIT 281 HEALTH DATA COLLECTION

Studies data computation, presentation, and analysis of health statistics with an emphasis on validity and reliability. Includes definitions, the use of graphs and tables, measures of central

tendency, percentile and Z scores. Recommended prerequisite: MTH 20 or MTH 31. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered winter term.

Credits: 3 Lecture: 2 Lab: 2

**HIT 282
QUALITY IMPROVEMENT IN HEALTH CARE**

Application and analysis of quality management, utilization management, risk management and other related studies. Also covered is the analysis of clinical data to identify trends that demonstrate quality, safety and effectiveness of health care. Abstraction of data for facility-wide quality management and performance improvement programs is also utilized. In addition, review of registries (cancer, disease, diabetes, etc.), indexes and databases are attained. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered spring term.

Credits: 4 Lecture: 3 Lab: 2

**HIT 283
CODING CLASSIFICATIONS**

Places major emphasis on coding guidelines and application of codes for diseases and operations in the ICD-9-CM system. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered winter term.

Credits: 6 Lecture: 3 Lab: 6

**HIT 284
CLASSIFICATION AND REIMBURSEMENT SYSTEMS**

Applies advanced coding principles with application based on legislative developments. Emphasizes merger of clinical and financial data for patient care reimbursement. Focuses on specialized coding pertinent to the Prospective Payment System including HCPCS coding. Explores alternate coding systems and extensive application of CPT coding system. Offered for second-year program students and as a skill upgrade. Strongly recommend ICD-9-CM coding skills. Offered fall term.

Credits: 4 Lecture: 4

**HIT 285
ADVANCED CODING CLASSIFICATIONS**

This course is designed to provide advanced level hands-on application of ICD-10-CM/PCS (and ICD-9-CM until the complete transition). Utilizing patient charts and case studies, students will apply coding guidelines to accurately code diseases and injuries of multiple body systems. Students will explore the history, arrangement and application of ICD-10-CM/PCS. ICD-10-CM's conventions, updates, influencing entities and how these expectations are communicated to health care providers and coding clearinghouses, in addition to ethical and quality coding, coder responsibilities, etc. will also be covered. Instructor approval required. Offered spring term.

Credits: 3 Lecture: 3

**HIT 288
SPECIAL STUDIES: HEALTH INFORMATION
TECHNOLOGY**

Credits: 1 to 3

**HIT 293
DIRECTED PRACTICE II**

In the realm of health information management, this is a course in which students report to a health care facility and experience planned activities in the environment of the actual workplace. Provision for technical experiences is an integral component of curricula. Provides for application of classroom and laboratory objectives in supervised affiliation sites in Oregon, typically. Performed under leadership of a registered record administrator or accredited record technician. Fulfills 60 of the 120 total DP clinical hours for the program. Total of 40 clinical hours plus 20 preparatory instruction hours distributed in curriculum at various points of program completion. Offered summer term between the first and second year and summer term following graduation. Prerequisite: Must have completed first year and second year of HIT curriculum or permission of the HIT director.

Credits: 2 Other: 6

**HIT 294
RHIT EXAM PREPARATION**

Helps prepare students for the National RHIT examination. Students will review core curriculum identified by AHIMA as essential domains of learning and take practice exams to familiarize them with the types of questions and formats they will encounter when taking the national exam. Completion of the Health Information Technology AAS degree required.

Credits: 1 Lecture: 1

**HIT 296
AMBULATORY DATA SYSTEMS**

Focuses on electronic information systems in non-acute facilities with emphasis on professional medical billing. Course will focus on insurance, legal and regulatory conditions, coding systems, reimbursement issues, and filing claims utilizing electronic medical data systems. Prerequisite: completion of first-year HIT program curriculum; enrollment limited to second-year HIT majors or instructor approval. Offered fall term

Credits: 3 Lecture: 2 Lab: 2

**HIT 297
CURRENT TOPICS**

Discusses current trends, topics and procedures affecting the medical record professional and the delivery system in general. May be repeated once.

Credits: 1 Lecture: 1

**HIT 299
SELECTED TOPICS: HIT
Credits: 4**

HISTORY

HST 101

HISTORY OF WESTERN CIVILIZATION

Surveys political, social and cultural changes from prehistoric times to the early Medieval period. Emphasizes the great civilizations of the ancient world, contributions of the Greeks and Romans and the establishment of early European civilization. Need not be taken in sequence. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 102

HISTORY OF WESTERN CIVILIZATION

Surveys development of European civilization from the high Medieval period through the 1700s. Focuses on cultural, religious, political and intellectual changes brought about by the Renaissance, Reformation, Enlightenment and Scientific Revolution, as well as the tensions in European society which culminated in the French Revolution. Need not be taken in sequence. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 103

HISTORY OF WESTERN CIVILIZATION

Explores western European civilization from French Revolution to present. Focuses on the establishment of nations, the Industrial Revolution, major wars of the 19th and 20th centuries, and social and cultural trends accompanying these events. Need not be taken in sequence. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 104

WORLD HISTORY

World civilizations and their historical interactions. Origins of civilizations in the Middle East, the Mediterranean area, Africa, China, Indian subcontinent and the Americas. Chronologically covers the period from prehistory to the end of the classical era. Need not be taken in sequence. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 105

WORLD HISTORY

World civilizations and their historical interactions. Traces the post-classical through early modern period in Europe and China, the spread of Islamic empires in Africa, India, Middle East and Western Europe's first worldwide expansion. Need not be taken in sequence. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 106

WORLD HISTORY

World civilizations and their historical interactions. Impact of industrialization and imperialism in both a Western context

and a non-Western context; the modern period of world history with a focus on WWI, WWII and postwar reordering of world civilizations. Need not be taken in sequence. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 188

SPECIAL STUDIES: HISTORY

Credits: 1 to 3

HST 199

SELECTED TOPICS: HISTORY

Credits: 1 to 4

HST 201

HISTORY OF THE UNITED STATES

Surveys the development of America through the end of the Civil War. Examines the interaction of Native American Nations with the culturally diverse European settlers. This time period includes the colonial period, Revolutionary War, birth of a new nation, expansion from ocean to ocean, and unexpected disintegration into a Civil War pitting brother against brother. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 202

HISTORY OF THE UNITED STATES

Surveys rapid industrialization, impact of new immigration and resulting cultural diversity, from the end of the Civil War to the gradual emergence of the U.S. as a world power during the 20th century. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 204

HISTORY OF THE CIVIL WAR

Examines problems of the Civil War period including politics, military leadership, troop life and activity, civilians, Native Americans, African-Americans, technology, and unique geographic challenges in order to better understand the impact of the war on the entire nation of this "brothers' war." Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 207

HISTORY OF THE AMERICAN WEST

Examines Native American tribal life, the emergence of a multi-cultural frontier, the problems, failures, and success of new settlement patterns in the growing commercial development of the West's unique assets. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

HST 218

NATIVE AMERICAN HISTORY

Examines Native American (or First Peoples) lifestyles before and after contact with European settlers. With increasing demands by whites and new immigrants for land, Native Americans struggled

for survival implementing various tactics to retain control of their homelands and retain their unique cultures. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 225
US WOMEN'S HISTORY**

Survey of the problems and achievements of U.S. women from the 16th to the 20th century, including issues of race, ethnicity and class. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 236
WOMEN IN 20TH CENTURY EUROPEAN HISTORY**

Offers students an introductory survey of European women's history in the 20th century and provides them with a basic understanding of how gender has been a factor in this historical context. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 242
HISTORY OF THE PACIFIC NW**

Overview of Native American societies of the Pacific Northwest, patterns of white movement into the area, acquisition of the region by the United States, the long road to statehood, and the impact of national politics on this unique region. Recommended pre-or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 258
COLONIAL LATIN AMERICAN HISTORY**

Surveys the history of economic, political and social development in Mexico, Central America and South America from the 15th century through the Wars of Independence. Recommended that HST 258 and HST 259 be taken in sequence, but not required. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 259
MODERN LATIN AMERICAN HISTORY**

Surveys Latin American history in Mexico, Central and South America from the Wars of Independence through modern times. Recommended that HST 258 and HST 259 be taken in sequence, but not required. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 260
HISTORY OF THE MIDDLE EAST**

The Middle East is considered to be home of the three great monotheisms of Western theology and much of today's philosophy. This course will cover the 4000 years of history from origins to the modern era, providing students with a foundation to evaluate current events in the context of Middle Eastern influences.

Credits: 4 Lecture: 4

**HST 270
20TH CENTURY EUROPEAN HISTORY**

Introduces the intellectual, political and cultural history of 20th Century European history. Studies significant events in a European context, identifying the historical setting and significance of major occurrences in Europe, such as fascism, world war, communism and decolonization. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 280
CO-OP WORK EXPERIENCE HISTORY**

Credits: 1 to 3

**HST 290
EAST ASIAN HISTORY**

Traditional China as the foundation of East Asian civilization. Recommended that HST 290, HST 291 and HST 292 be taken in sequence, but not required. Recommended pre- or corequisite: WR 121.

Credits: 4 Lecture: 4

**HST 291
EAST ASIAN HISTORY**

Development of Chinese, Japanese and Korean societies through the late 19th century. Recommended that HST 290, HST 291 and HST 292 be taken in sequence, but not required. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

**HST 292
EAST ASIAN HISTORY**

Late Imperial China, Japan and Korea and their evolution/revolution into modern nation-states. Recommended that HST 290, HST 291 and HST 292 be taken in sequence, but not required. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

**HST 299
SELECTED TOPICS: HISTORY**

Credits: 1 to 4

**HOSPITALITY, TOURISM &
RECREATION MANAGEMENT**

**HTRM 105
FOOD SERVICE MANAGEMENT**

Covers principles of managing a food service operation including concept development, site selection, how to develop an operational plan, how to develop and price a menu, principles of local food service marketing, how to estimate sales, developing an understanding of food costs and controls, and how to obtain funding for building a restaurant. Involves students in assessing service and determining service niches in the community. Students prepare detailed business plans for fictitious or actual operations.

Credits: 4 Lecture: 4

**HTRM 106
LODGING MANAGEMENT**

Covers principles of managing lodging operations. Explores current operational practices of lodging operations throughout the world. Discusses management functions related to front office, housekeeping, marketing, reservations, maintaining customer accounts, laws affecting lodging operations and typical service problems. Students will go on field trips to learn about different kinds of lodging operations throughout the state.

Credits: 3 Lecture: 3

**HTRM 188
SPECIAL STUDIES: HOSPITALITY, TOURISM & RECR**

Credits: 1 to 3

**HTRM 233
EVENT PLANNING**

Introduces students to special event planning processes and techniques. Emphasis is on the designing, planning, marketing and staging of events. Additional topics will focus on management, legal compliance, risk management, financial control and successful event evaluation.

Credits: 3 Lecture: 3

HUMAN DEVELOPMENT

Please see sections entitled Addiction Studies, Career/Life Planning, or Study Skills.

HUMANITIES/FILM**FA 101
INTRODUCTION TO FILM**

Enhances student enjoyment and understanding of film through exploring the cinematic languages of acting, directing, cinematography and narrative.

Credits: 3 Lecture: 3

**FA 125
WORLD CINEMA**

Introduction to comparative study of compelling feature films and their directors from around the globe, analyzing subject matter, theme, genre, narrative structure, character, film style and technique as expressions of diverse cultural world views and distinctive artistic visions.

Credits: 4 Lecture: 4

**FA 257
LITERATURE INTO FILM**

Implements analysis of the structure of motion pictures to teach about the structure of literature, allowing students to see the comparative strengths of each form. Aspects of narrative to be compared include plot and structure, character development, point of view, figurative discourse, symbol and allegory and means of controlling and expressing passage of time.

Credits: 4 Lecture: 4

**HUM 188
SPECIAL STUDIES: HUMANITIES**

Credits: 1 to 4

**HUM 199
SELECTED TOPICS: HUMANITIES**

Credits: 1 to 4

**HUM 210
CULTURE AND LITERATURE OF ASIA**

Introductory study of representative literary texts, films and related language arts, in English or in translation, of Asian regions and countries, such as China, India and Japan, examined in the context of their histories and cultural traditions. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

**HUM 211
CULTURE AND LITERATURE OF AFRICA**

Introductory study of representative oral arts, literature, film and related creative arts, in English or in translation, of sub-Saharan African peoples, examined in context of their histories and cultural traditions. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

**HUM 212
CULTURE AND LITERATURE OF THE AMERICAS**

Interdisciplinary study of representative literary and historical texts (and other media) from Hispanic and Afro-Caribbean cultures of traditional, colonial and post-colonial origin.

Credits: 4 Lecture: 4

**HUM 213
CULTURE AND LITERATURE OF MIDDLE EAST**

Introductory study of representative Arabic, Persian and Hebrew literary texts in translation, placed in the context of films and other cultural media of the Middle East and Northern Africa. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

**HUM 230
IMMIGRANT EXPERIENCE AMERICAN LITERATURE**

Introductory survey of the immigrant experience in the United States as reflected in literature, autobiography and film. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

**HUM 240
NATIVE AMERICAN LITERATURE AND CULTURE**

Introduction to traditional oral and contemporary Native American texts with an emphasis on cultural contexts and continuity. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

HUM 256**INTRODUCTION TO AFRICAN-AMERICAN LITERATURE**

Survey of African-American literature (selected fiction, autobiography, poetry and drama of the 19th and 20th centuries), placed in the context of major African-American achievements in the visual arts, music and film. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

HUM 261**POPULAR CULTURE: SCIENCE FICTION**

Focuses on the significance of science, technology and the idea of the future as revealed in popular culture through fiction, film, music, comics and advertising. May be taught with a WIC designation.

Credits: 4 Lecture: 4

HUM 262**POPULAR CULTURE: THE AMERICAN WESTERN**

Historical study of the Western story and the cowboy hero in American culture through fiction, film, song, art and advertising. May be taught with a WIC designation.

Credits: 4 Lecture: 4

HUM 263**POPULAR CULTURE: DETECTIVE STORIES**

Historical study of crime stories and the detective figure as revealed in popular culture through fiction, film, television, comics and journalism. May be taught with a WIC designation.

Credits: 4 Lecture: 4

HUM 264**POPULAR CULTURE: SPY THRILLER**

Thematic study of espionage stories and the spy figure, as revealed in popular culture through fiction, film, advertising and journalism. May be taught with a WIC designation.

Credits: 4 Lecture: 4

HUM 265**POPULAR CULTURE: NOIR FILM AND FICTION**

Historical, thematic and technical study of film noir and related fiction as a subversive force in popular culture. May be taught with a WIC designation.

Credits: 4 Lecture: 4

HUM 266**POPULAR CULTURE: TRAVEL LITERATURE**

Cross-cultural study of travel as exploration, personal narrative, anthropological inquiry and social criticism of places and peoples represented as “other” or “exotic.” Examines popular culture as depicted in travel memoirs, journalism, advertising, educational videos and feature films that critique touristic assumptions. May be taught with a WIC designation.

Credits: 4 Lecture: 4

HUM 267**POPULAR CULTURE: COUNTERCULTURE**

An exploration of the chaos and transformation that shaped America in the second half of the 20th century. A study of key

personalities, artistic expressions and social movements in this period. Retraces the tumultuous trajectory of the time from precursors in Henry Miller and others through Kerouac and the Beats to Timothy Leary, Hippies, Yippies, communes, and ultimately the breakdown of the counterculture movement and its rejection in the Punk movement of the late 1970s.

Credits: 4 Lecture: 4

HUM 268**DIGITAL GAMES CULTURE**

Analytical inquiry into the nature, categories, history and development of digital games as an aspect of popular culture. The course examines popular culture as presented in video games and the impact of video games on popular culture. The course includes both study of video games and primary scholarship in the field. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

HUM 299**SELECTED TOPICS: HUMANITIES**

Credits: 1 to 4

WS 101**INTRODUCTION TO WOMEN’S AND GENDER STUDIES**

Explores impact of women’s and gender studies in many academic fields. Examines women’s status and achievements, and the issues raised for men and women by feminism and the women’s movement. May be taught with a MIC and/or WIC designation.

Credits: 4 Lecture: 4

JOURNALISM**J 188****SPECIAL STUDIES: JOURNALISM**

Credits: 1 to 3

J 199**SELECTED TOPICS: JOURNALISM**

Credits: 1 to 4

J 215**PUBLICATIONS LAB**

Practical application of communications instruction through work on the student newspaper. Students are involved in all areas of production including reporting, photojournalism, advertising, production and distribution. Recommended pre- or corequisite: J 216.

Credits: 1 Lab: 3

J 216**REPORTING 1**

A beginning class in newswriting. Emphasis is placed on writing leads, developing the story and a sense for news. The character and communication of news, rights and responsibilities of journalists are explored. Open to all students. Recommended prerequisite: WR 121 or instructor approval.

Credits: 3 Lecture: 3

**J 217
REPORTING 2**

A continuation of Reporting 1 with emphasis placed on comprehensive news story writing, covering speeches and meetings and interviewing. Recommended prerequisite: J 216 or instructor approval.

Credits: 3 Lecture: 3

**J 280
JOURNALISM PRACTICUM**

Community work experience in journalism (may include internships in local media).

Credits: 1 to 3

**J 299
SELECTED TOPICS: JOURNALISM**

Credits: 1 to 4

LIBRARY**LIB 199
SPECIAL TOPICS: LIBRARY**

Credits: 1 to 3

LITERATURE**ENG 104
INTRODUCTION TO LITERATURE: FICTION**

Explores human purposes, literary structures, cultural values and rich varieties of the short story and the novel. Close reading, interpretation and evaluation of selected works of fiction, with attention to authors' contexts, creative process, narrative elements (such as theme, character, plot, point of view, setting, symbol, and style) and reader responses. May be taught with WIC designation.

Credits: 4 Lecture: 4

**ENG 105
INTRODUCTION TO LITERATURE: DRAMA**

Examines drama as literature, through its traditions, imaginative purposes and organizing visions, such as tragedy, comedy and realism. Close reading and interpretation of selected plays with attention to the cultural contexts of their creation and to the literary dimensions of character, dialogue, plot, setting, language and theme. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 106
INTRODUCTION TO LITERATURE: POETRY**

Explores critical and personal pleasures of poetry as a powerful and compact means to express feelings and ideas and respond to the varieties of human experience. Close reading of a wide range of poetry with attention to poets' roles, literary traditions and poetic strategies expressed through tone, speaker, situation and event, theme, irony, language, images, sounds, rhythms, symbols, open and closed poetic forms. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 107
WESTERN WORLD LITERATURE: ANCIENT**

Explores origins of Western culture through a study of representative Greek, Roman and other literary, philosophical and historical texts. Mythology and the hero's quest as incorporated in Homer and Virgil may form the core of the readings. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 108
WESTERN WORLD LITERATURE: MIDDLE AGES**

Survey of representative texts explores Middle Ages, Renaissance, through the 18th century Enlightenment, including the rise of Christianity, chivalry, and the vision quest. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 109
WESTERN WORLD LITERATURE: MODERN**

Surveys representative texts, authors, and genres from the late 18th century to the present; explores Modern Western world literary movements and their historical-intellectual contexts, from romanticism and realism to post-colonialism and contemporary global trends. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 140
SHAKESPEARE REVIEW IN ASHLAND**

Reading and critical analyses of plays by Shakespeare and other dramatists performed by the Oregon Shakespeare Festival and other theaters in Oregon. Required field trip(s) to view productions. May be repeated with different content.

Credits: 3 Lecture: 3

**ENG 188
SPECIAL STUDIES: LITERATURE**

Credits: 1 to 4

**ENG 199
SELECTED TOPICS: LITERATURE**

Credits: 1 to 4

**ENG 201
SHAKESPEARE**

The major plays of Shakespeare's early and middle periods. May also include selected study of his sonnets. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 202
SHAKESPEARE**

The major plays of Shakespeare's middle and later periods. May also include selected study of his sonnets. Need not be taken in sequence.

Credits: 4 Lecture: 4

**ENG 204
SURVEY BRITISH LITERATURE I**

Examines representative texts from the heroic age (Medieval) through the Enlightenment (18th century). Literary forms such as the folk epic, chivalric romance, morality play and folk ballad, lyric poetry, drama, the speculative essay, and the novel are studied. Explores relations between texts and their cultural and historic contexts. Need not be taken in sequence. May be taught with a WIC designation.

Credits: 4 Lecture: 4

**ENG 205
SURVEY BRITISH LITERATURE II**

Examines representative texts from the romantic period through contemporary literature. The romance of nature, industrial growth, urban experience, the rise of new class identities and alienation of the individual are themes in this period. Literary forms such as lyric and narrative poetry, short stories, the novel, and the drama of social realism and literature of the absurd are studied. Explores relations between texts and their cultural and historical contexts. Need not be taken in sequence. May be taught with a WIC designation.

Credits: 4 Lecture: 4

**ENG 212W
AUTOBIOGRAPHY**

Examines diverse modes of autobiographical writing as texts that represent the self in society and where writers construct and represent memories. Explores the ways in which writers construct and represent memory and the impact these narratives have on our understanding of the political and cultural context in which they are produced. Explores autobiography from various places and periods.

Credits: 4 Lecture: 4

**ENG 221
INTRODUCTION TO CHILDREN'S LITERATURE**

Provides an overview of children's literature by examining the different genres of children's literature, including picture books, myths and folklore, poetry, nonfiction, historical fiction, and fantasy, as well as the criteria for evaluation of each genre. The course covers early childhood literature through late teen fiction and non-fiction. This course is recommended for education majors as well as parents (present and future) who are interested in children's literature and issues related to children's literature.

Credits: 4 Lecture: 4

**ENG 232C
TOPICS IN AMERICAN LITERATURE:
CONTEMPORARY FICTION**

In-depth study of several works of contemporary (late 20th/early 21st century) American fiction. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

**ENG 232M
TOPICS IN AMERICAN LITERATURE: LITERATURE &
MEDICINE**

This course examines fiction, poetry, drama and creative non-fiction by and about members of the health professions with the goal of examining how health and healing are presented in literature from the perspectives of nurses, physicians and other health workers. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

**ENG 250
INTRODUCTION TO FOLKLORE AND MYTHOLOGY**

Study of the systematic ways to explain how and why so many of the world's great religions, past and present, share similar stories, heroes and heroines, and ways of attempting to understand and explain the unknowable. Analyzes tales from, among other locales, India, China, Africa, and North and South America. Some of the key myths include the Aztecs and Mayans, Native North Americans, the Sumerians, and the Gnostics. The first few weeks of the course will provide an introduction to folklore. It will then provide insight into the social, psychological and aesthetic nature of mythology and an introduction to the theoretical approaches to understanding mythology.

Credits: 4 Lecture: 4

**ENG 253
SURVEY AMERICAN LITERATURE I**

Reading and interpretation of writings from the diverse cultures which inhabited, colonized or developed this country through material from the Civil War period. Includes the Native American oral tradition, the journals of Columbus and other explorers, the diaries of settlers in the British colonies, and more traditional forms of literature through the mid-19th century. May be taught with WIC designation.

Credits: 4 Lecture: 4

**ENG 254
SURVEY AMERICAN LITERATURE II**

Covers selected works of American literature written during the late 19th century and the 20th century. Covers the transition from Realism and Naturalism to Modernism, the Jazz Age, the Harlem Renaissance, the Confessional and Beat poets and writers and late 20th century short fiction. Need not be taken in sequence. May be taught with a WIC designation.

Credits: 4 Lecture: 4

**ENG 256
FOLKLORE AND US POPULAR CULTURE**

Explores the relationship between folklore and popular culture, with special emphasis on the analysis of legends, myths, icons, stereotypes, heroes, celebrities, rituals and celebrations.

Credits: 4 Lecture: 4

**ENG 260W
INTRODUCTION TO WOMEN WRITERS**

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.

Credits: 4 Lecture: 4

**ENG 288
SPECIAL STUDIES: LITERATURE**

Credits: 1 to 4

**ENG 299
SELECTED TOPICS: LITERATURE**

Credits: 1 to 4

MANUFACTURING TECHNOLOGY**MET 160
MATERIALS ENGINEERING**

A continuation of quality assurance topics focused on materials testing. Includes shear, hardness, tensile and compression testing and other material analyzing techniques. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 100
MFG ORIENTATION**

Provides students with the required information to participate in self-directed learning at MATC. Includes computer login procedures, tool room checkout procedures, student-supplied tools and safety issues.

Credits: 1 Lecture: 1

**MFG 101
BLUEPRINT READING**

Provides student with training to read and interpret various types of industrial blueprints. Includes interpretation of line types, geometric tolerancing and dimensioning, surface finish callouts, auxiliary views and orthographic projection. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 102
BLUEPRINT READING SHEET METAL**

Provides student with training to read and interpret various types of sheet metal blueprints. Covers line and print development, sheet metal layout, pattern drafting and bend allowances, maximum utilization of material, identification of sheet metal types and grades, correct use of sheet metal for the application and sheet metal bend and shear strengths. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 103
WELDING TECHNOLOGY I**

Introductory course covering basic welding processes. Includes relevant safety topics and introduction to shielded metal arc welding and gas metal arc welding. Prerequisite: instructor approval.

Credits: 3 Lab: 9

**MFG 105
WELDING TECHNOLOGY II**

Intermediary course focused on welding carbon steel plate in specific out-of-position setups. Includes continuing practice in GMAW and SMAW welding and interpretation of inspection standards related to weld quality. Prerequisite: instructor approval.

Credits: 3 Lab: 9

**MFG 107
WELDING TECHNOLOGY III**

Final course offered in the one-year certificate welding technology series. Includes welding practice utilizing electrodes F-1 through F-4 in the SMAW process and introduction to gas tungsten arc welding and flux core arc welding. Prerequisite: instructor approval.

Credits: 3 Lab: 9

**MFG 110
MANUFACTURING PROCESSES I**

Overview of manufacturing theory and manual operation of machine tools. Includes safety, using hand tools, bandsaw, drill press, lathe and milling machine operations. Prerequisite: instructor approval.

Credits: 3 Lab: 9

**MFG 112
MANUFACTURING PROCESSES II**

Introduction to computer numerical control programming and operations including feed and speed calculations, drilling canned cycles, and development of necessary programming documentation. Continued milling machine and lathe practice. Prerequisite: instructor approval.

Credits: 3 Lab: 9

**MFG 114
MANUFACTURING PROCESSES III**

Final course in the one-year certificate manufacturing processes series. Continued student proficiency development in the operation of basic machine tools and computer numerical control operations. Prerequisite: instructor approval.

Credits: 3 Lab: 9

**MFG 115
DESIGN PROCESSES I**

Introduction to computer-aided manufacturing. Includes interpretation and construction of technical drawings and technical sketching. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 116
MANUFACTURING ELECTRICAL SYSTEMS**

Studies electrical circuitry and components used in manufacturing applications. Includes introductory AC/DC electrical circuit construction and Ohm's Law. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 118
FLUID POWER SYSTEMS I**

Introductory fluid power class. Includes single/double-acting cylinder operations, directional control valve operations, fluid power symbols and the creating of operational hydraulic and pneumatic circuits. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 133
QUALITY ASSURANCE**

Introductory quality control course. Includes precision and semi-precision measuring, introduction to statistical process control, geometric dimensioning and tolerancing, and pneumatic gauging topics. Prerequisites: instructor approval.

Credits: 2 Lab: 6

**MFG 153
ROBOTIC PROGRAMMING I**

Introductory robotics course. Includes pendant operation, programming simple robotic movements, classification of robots, degrees of freedom, applications and end-effector designs. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 201
BENCH WORK**

Using hand tools, files, hacksaw, chisels, and coated abrasives. Includes shop safety, hand tapping, thread measurement, arbor press operations, micrometer and vernier caliper reading. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 202
METALS PREPARATION**

Bandsaw, cold saw auto-stop operations, ironworker hole punching and abrasive power tool operations. Includes safety, profile cutting, shearing, material identification, blade welding, blade selection and offhand grinding operations. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 203
LAYOUT**

Semi-precision and precision layout practices. Includes height gage operations, surface plate setups, bolt circle layout, and the use of hand and power tools to produce accurate workpiece profiles. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 205
DRILL PRESS**

Drill press operations training. Includes safety, machine nomenclature, measuring and sharpening drills, machine setup, cutting tool selection, magnetic based drill, electric drill motor, and radial arm drill operations. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 210
VERTICAL MILLING**

Vertical milling machine operations. Includes safety, work holding, table setups, power feeds, digital read-out operation, cutter selections, climb and conventional cutting and spindle speed changes. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 211
CNC MILL OPERATOR**

Computer numerical control machining center operator training. Includes safety, machine maintenance, tool offsets, controller editing and operations, cutting tool setups, carbide insert and holders, and part running. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 212
HORIZONTAL MILLING**

Horizontal milling machine operations. Includes safety, work holding, table setups, feed calculations, cutter selection, arbor changing, tool changing and spindle speed changes. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 213
CNC TURNING OPERATOR**

Computer numerical control turning center operator training. Includes safety, machine maintenance, coordinate systems, tool length offsets, controller editing and operations, overrides, tool setups and loading, carbide insert and holder selections, tool vectors, and part running. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 214
LATHE OPERATOR I**

Introductory manual lathe operations training. Includes safety, machine maintenance, quick-change tooling, chuck setups, compound taper cutting, general turning and drilling operations. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 216
LATHE OPERATOR II**

Advanced lathe operations training. Four-jaw chucking, taper turning, carbide cutting tool selections, boring, single-point threading, thread measurement and other precision turning operations. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 230
CNC PROGRAMMING MILL**

Programming computer numerical control mills and machining centers. Includes G & M programming, canned cycles, subroutines, profile milling, cutter diameter compensation, part proofing. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 232
CNC PROGRAMMING LATHE**

Programming computer numerical control turning center. Includes G & M manual programming, canned cycles, subroutines, profile shaping, TNR, tool vectors, cutter selection and part proofing. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 234
CAD/CAM MILL**

CAD/CAM operations related to programming a computer numerical control machining center. Includes drilling 2 1/2-D and 3-D milling operations using wire frame and solids model geometry. A student considering this course should be familiar with CNC milling machine operations and G & M programming. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 236
CAD/CAM LATHE**

CAD/CAM operations related to programming computer numerical control turning centers. Includes drilling, grooving and threading operations using wire frame and solids model geometry. A student considering this course should be familiar with CNC lathe operations and G & M programming. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 237
DIGITAL METROLOGY**

Digital measuring tool operations. Includes maintenance, zeroing, data transfers, cables, and measuring practice using digital gauges, micrometers, depth gage and height gage measuring tools. Prerequisite: instructor approval.

Credits: 1 Lab: 3

**MFG 238
OPTICAL COMPARATOR**

Optical comparator operations. Includes operation of H-14 metrology controller, stage setup and fixturing, inspection of rectangular and round workpieces. Prerequisite: instructor approval.

Credits: 1 Lab: 3

**MFG 239
COORDINATE MEASUREMENT MACHINE**

Coordinate measuring machine operations. Includes establishment of part coordinate systems, touch probe calibration procedures and measuring workpiece geometry. Prerequisite: instructor approval.

Credits: 1 Lab: 3

**MFG 242
PROGRAMMABLE LOGIC CONTROLLERS I**

Introduction to programmable logic controller programming. Includes ladder logic, sealing circuits and event sequencing. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 243
INDUSTRIAL SENSORS**

Sensor applications. Includes study of mechanical, electronic and proximity sensor applications found in a typical manufacturing environment. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 244
PROGRAMMABLE LOGIC CONTROLLERS II**

Continuation of Programmable Logic Controller training. Includes advanced programming problems, discrete IO interfacing, PLC timers and counters. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 254
MANUFACTURING JIGS AND FIXTURES**

Jig and fixture design practices. Includes clamps, locators, degrees of freedom, radial and conical locators, templates, automated clamping and modular fixturing. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 262
WELDING INSPECTION/QUALITY CONTROL**

Studies quality control issues related to weld joint inspection. Includes student exposure to visual and non-destructive inspection techniques that are utilized by welders and inspectors to interpret and monitor AWS quality standards. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 264
AUTOMATED WELDING AND CUTTING**

Cutting and welding steel shapes using numerically controlled processes. Includes cutting torch settings, setup, maintenance practices and plasma cutting exercises. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 266
MANUFACTURING COST ESTIMATION**

Cost estimation techniques used in the analysis and planning of manufacturing projects. Includes software estimates, manufacturing costs, standard vs. actual costs, fixturing and welding-related topics. Prerequisite: instructor approval.

Credits: 2 Lab: 6

**MFG 267
OXYGEN-FUEL AND PLASMA CUTTING**

Gas torch, air carbon arc, and plasma gas cutting. Includes torch setup and maintenance, flame setting, diagnostics, track torch operations, circle cutting and carbon arc scarfing practice. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 271**SMAW I**

Shielded metal arc welding. Includes machine setup, fillet and groove welds on plain carbon steel in all positions. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 272**GMAW I**

Gas metal arc welding. Includes machine setup for short-circuiting and spray transfer on plain carbon steel. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 273**SMAW II**

Shielded metal arc welding. Includes machine setup, groove welds on plain carbon steel plate, stainless steel plate, and pipe. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 274**GMAW II**

Gas metal arc welding. Includes machine setup for groove welds on plain carbon steel pipe and plate and aluminum plate. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 275**SMAW III**

Shielded metal arc welding. Includes machine setup, groove welds on plain carbon steel to a limited plate thickness of 3/4" and pipe in all positions. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 276**GMAW III**

Gas metal arc welding. Includes machine setup, groove welds on plain carbon steel and stainless steel in all positions. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 280**CO-OP WORK EXPERIENCE MANUFACTURING**

Credit granted for applicable on-the-job work experience. Minimum of 33 hours of work for each credit granted. Prerequisite: instructor approval.

Credits: 3

MFG 281**GTAW I**

Gas tungsten arc welding. Includes machine setup for fillet and groove welds on plain carbon steel in all positions. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 282**FCAW I**

Flux core arc welding. Includes machine setup for fillet and groove welds on plain carbon steel in all positions. Limited thickness to 3/4" plate. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 283**GTAW II**

Gas tungsten arc welding. Includes machine setup for fillet and groove welds on plain carbon steel, aluminum, stainless steel tubing and plate in all positions. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 284**FCAW II**

Flux core arc welding. Includes machine setup for fillet and groove welds on pipe and plain carbon steel plate to a limited plate thickness to 3/4". Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 285**GTAW III**

Gas tungsten arc welding. Includes machine setup, groove welds on plain carbon, aluminum and stainless steel pipe in all positions. Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 286**FCAW III**

Flux core arc welding. Includes machine setup and groove welds on plain carbon steel plate and pipe in limited positions to a plate thickness of less than 3/4". Prerequisite: instructor approval.

Credits: 2 Lab: 6

MFG 287**CNC PRESS BRAKE AND SHEARING**

Covers safety and operation of equipment utilized in parting, forming and fabricating sheet metal. Instructor approval required.

Credits: 3 Lab: 9

MFG 288**INDUSTRIAL FABRICATION**

Sheet metal fabrication focusing on proper fit techniques, length and width allowances, welding processes, utilization of jigs and fixtures, and the use of fasteners. Instructor approval required.

Credits: 3 Lab: 9

MFG 289**MATERIAL HANDLING-FORK LIFT SAFETY**

Focuses on identifying and ordering sheet metal materials, plus the safe storage and handling of those materials. Includes OSHA safety regulations and fork lift operation and safety. Instructor approval required.

Credits: 1 Lab: 3

MFG 290**CERTIFICATION TEST PREPARATION AWS I**

Testing materials preparation for Level One Weld Certification testing. Includes materials test sample preparation, setup, testing, grinding samples and evaluation. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 291**CERTIFICATION TEST PREPARATION NIMS I**

Testing materials preparation for Level One NIMS Certification testing. Includes materials test workpiece preparation, setup, testing and evaluation activities. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 292**CERTIFICATION TEST PREPARATION AWS II**

Testing materials preparation for Level Two Weld Certification testing. Includes materials test sample preparation, setup, testing and evaluation activities. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 293**CERTIFICATION TEST PREPARATION NIMS II**

Testing materials preparation for Level Two NIMS Certification testing. Includes materials test workpiece preparation, setup, testing and evaluation activities. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 294**CERTIFICATION TEST PREPARATION AWS III**

Testing materials preparation for Level Three Weld Certification testing. Includes materials test sample preparation, setup, testing, grinding samples and evaluation. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 295**CERTIFICATION TEST PREPARATION NIMS III**

Testing materials preparation for Level Three NIMS Certification testing. Includes materials test workpiece preparation, setup, testing and evaluation activities. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 296**CERTIFICATION TEST PREPARATION SME**

Testing materials preparation for Society of Manufacturing Engineers Certification testing. Includes setup, testing and evaluation activities. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MFG 297**CERTIFICATION TEST PREPARATION NAIT**

Testing materials preparation for NAIT Certification testing. Includes setup, testing and evaluation activities. Prerequisite: instructor approval.

Credits: 1 Lab: 3

MASSAGE THERAPY**LMT 095****INTRODUCTION TO A MASSAGE CAREER**

Introduction to career opportunities in massage. Each week of this course covers a different class that a LMT student experiences in the one-year certificate program. Prerequisite: none.

Credits: 1 Lecture: .5 Lab: 1.5

LMT 113**KINESIOLOGY I**

An introduction and overview of the basic principles of kinesiology. Emphasis is placed on anatomical terminology, skeletal anatomy and function, and the study of the joints and their functions. Palpation skills will be emphasized. This is the first part of a four-part series of Kinesiology for massage therapists. Prerequisite: Program director approval for entrance into the Massage Therapy program. Corequisites: LMT 130, LMT 155, LMT 170 and BI 121 or equivalent.

Credits: 3 Lecture: 2 Lab: 3

LMT 118**KINESIOLOGY II**

The basic study of the muscles of the head, trunk and upper body that will include origin, insertions, actions, nerves, and the bony landmarks. Palpation skills will be emphasized. This is the second of a four-part series of Kinesiology for massage therapists. Recommended prerequisites: successful completion of LMT 113 and BI 121 (with a minimum grade of 75 percent). Corequisites: LMT 145 and BI 122 or equivalent.

Credits: 4 Lecture: 3 Lab: 3

LMT 124**KINESIOLOGY III**

The basic study of the muscles of the lower body that will include origin, insertions, actions, nerves, and the bony landmarks. Palpation skills will be emphasized. This is the third of a four-part series of Kinesiology for massage therapists. Recommended prerequisite: successful completion of LMT 113, LMT 118 (with a minimum grade of 75 percent), BI 121 and BI 122 or equivalent. Corequisites: LMT 140, LMT 150 and LMT 175.

Credits: 3 Lecture: 2 Lab: 3

LMT 128**KINESIOLOGY IV**

A complete review of the muscles of the trunk and head, upper body and lower body that will include origin, insertions, actions, nerves, and the bony landmarks. Increased emphasis on the application of kinesiology in a massage session. Palpation skills will be emphasized. This is the last of a four-part series of Kinesiology for massage therapists. Recommended prerequisite: LMT 113, LMT 118, LMT 124 (with a minimum grade of 75 percent), BI 121 and BI 122 or equivalent. Corequisites: LMT 160 and LMT 180.

Credits: 3 Lecture: 2 Lab: 3

LMT 130**MESSAGE FUNDAMENTALS**

Introduces student to the fundamental skills needed to lay the foundation of an entry-level massage therapist. These skills will include: the history of massage, positive body mechanics, basic medical terminology, universal sanitation precautions, draping, communication and the effects of Swedish massage strokes.

Prerequisite: Program director approval for entrance into the Massage Therapy program. Corequisites: LMT 113, LMT 155, LMT 170 and BI 121 or equivalent.

Credits: 2 Lecture: 2

LMT 140**PATHOLOGY**

The study of the basic indications and the effects of massage therapy on the body systems. Contraindications to massage therapy will be discussed. The basic mechanisms of the disease process and medical terminology will be reviewed. Recommended prerequisites: LMT 113, LMT 118, LMT 130, LMT 145, LMT 155, LMT 170 and BI 121 or BI 122 or equivalent. Corequisites: LMT 150 and LMT 175.

Credits: 4 Lecture: 4

LMT 145**MESSAGE I**

Students will explore the basic theory, physiological effects and practical applications of the seven basic Swedish massage techniques. Students will practice an entry-level massage therapy routine and demonstrate healthy body mechanics. The student will explore the use of massage and bodywork tools. Basic SOAP charting, pregnancy massage and chair massage will be introduced. Recommended prerequisite: LMT 113, LMT 130, LMT 155, LMT 170 (with a minimum grade of 75 percent) and BI 121 or equivalent. Corequisites: LMT 118 and BI 122.

Credits: 4 Lecture: 2.5 Lab: 4.5

LMT 150**MESSAGE II**

Designed to utilize skills learned in Massage I and introduce students to new techniques and modalities. Students will learn basic assessment of client care and the development of a treatment plan. The use of client charting will be refined and knowledge in client communication, consent and safety will be reinforced. The student will gain a greater understanding of various techniques in sports massage, deep tissue, myofascial trigger point, muscle energy, and PNF stretching. The course will also enhance Swedish massage skills. Recommended prerequisites: BI 121, BI 122 or equivalent, LMT 113, LMT 118, LMT 130, LMT 155, LMT 145 and LMT 170 (with a minimum grade of 75 percent). Corequisites: LMT 124, LMT 140 and LMT 175.

Credits: 4 Lecture: 2.5 Lab: 4.5

LMT 155**EASTERN THEORY & PRACTICE**

Provides massage students with a fundamental introduction to Eastern philosophy, complimentary healing techniques, and acupressure points. Will focus primarily on traditional

Chinese medicine as the model is the most comprehensive and philosophically neutral. Prerequisite: Program director approval for entrance into the Massage Therapy program. Corequisites: LMT 113, LMT 130, LMT 155, LMT 170 and BI 121 or equivalent.

Credits: 2 Other: 4

LMT 160**HYDROTHERAPY**

Introduces the principles and techniques of the effects of water in its three forms: solid, liquid, and vapor while working within the massage therapy profession. Recommended prerequisites: LMT 130, LMT 145, LMT 140, LMT 150 (with a minimum grade of 75 percent) and BI 121, BI 122 or equivalent. Corequisites: LMT 128 and LMT 180.

Credits: 1 Other: 2

LMT 170**PROFESSIONAL ETHICS AND RULES**

Introduces and examines the professional boundaries, ethics, rules and laws that govern the practice of massage therapy. Oregon Administrative Rules and Statutes that apply to licensed massage therapists will be discussed. Prerequisite: Program director approval for entrance into the Massage Therapy program. Corequisites: LMT 113, LMT 130, LMT 155, LMT 170 and BI 121 or equivalent.

Credits: 2 Lecture: 2

LMT 175**CLINIC I**

Students will practice basic relaxation massage on the general public while demonstrating professionalism, client communication, client consent, and client safety during this supervised clinic. Recommended prerequisites: LMT 113, LMT 118, LMT 130, LMT 145, LMT 155 and LMT 170 (with a minimum grade of 75 percent) and BI 121, BI 122 or equivalent.

Credits: 2 Lecture: 1 Lab: 3

LMT 180**CLINIC II**

Students will practice treatment and relaxation massage on the general public. SOAP charting, treatment plans and assessments will be practiced. Students will demonstrate professionalism, client communication, client consent, and client safety during this supervised clinic. Recommended prerequisites: LMT 113, LMT 118, LMT 124, LMT 130, LMT 140, LMT 145, LMT 150, LMT 155, LMT 170, LMT 175 (with a minimum grade of 75 percent) and BI 121, BI 122 or equivalent. Corequisites: LMT 128 and LMT 160.

Credits: 3 Lecture: 1 Lab: 6

LMT 188**SPECIAL STUDIES: LMT**

Specific modules that relate to first year courses.

Credits: 1 to 4

LMT 199**SELECTED TOPICS: LICENSED MASSAGE THERAPY**

Selected topics related to massage therapy.

Credits: 4

LMT 210 ADVANCED CLINIC

Designed to expand the student's knowledge with SOAP charting, treatment planning and case-study documentation. Opportunities to experience massage therapy in different career settings will be available. A public clinic may be available for the students to practice their treatment skills and proof of massage therapy liability may be required. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 2 Lecture: 1 Other: 3

LMT 240 NEUROMUSCULAR TREATMENTS

Advanced myofascial coursework that focuses on the treatment of specific injuries and conditions that fall within the scope of a licensed massage therapist. Treatment protocols will be practiced. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 5 Lecture: 4 Lab: 3

LMT 245 EFFECTIVE OFFICE DECISIONS

This course will assist the student with choices that enhance the viability of a massage practice. Insurance billing, retail selling, target marketing, insurance credentialing and issues a practitioner may encounter will be explored. Peer reviews, case management, and research opportunities will be discussed. Guest speakers enhance this class. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 2 Lecture: 2

LMT 250 CRANIAL SACRAL LEVEL I

This cranio sacral course is transferable to the Upledger Institute for CS1 credit. Students will apply basic CS techniques while placing an emphasis on developing refined palpation skills and a deeper understanding of relevant human anatomy and physiology. Students will practice the clinical application of CST. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 5 Lecture: 4 Lab: 3

LMT 260 SPA TREATMENTS

This spa course will focus on wet and dry treatments commonly used in spa facilities. Hot stone, herbal linen wraps, body scrubs, reflexology, Feng Shui and a variety of other spa treatments will be practiced in the classroom or in a spa facility. Spa visits may be incorporated into this course. Contraindications, hygiene, sanitation, and spa etiquette will be included. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 5 Lecture: 4 Lab: 3

LMT 270 CLINICAL ASSESSMENTS

Students will explore the evaluation and assessment of a client's range of motion, posture and gait. Students will understand how this may pertain to the medical pathology of pain related to muscular or skeletal issues. In this non-treatment course a student will analyze when it may be necessary to refer a client to other health care providers. Tools, tests, and client charting will be incorporated into a client's evaluation and assessment. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 4 Lecture: 3 Lab: 3

LMT 288 SPECIAL STUDIES: LMT

Specific coursework related to massage therapy. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 4

LMT 295 INTEGRATED THERAPIES

A study of several different modalities that may include Thai, Energetic, Sound, Shiatsu, and Ayurveda. This is an in-depth exploration of the history, cultural aspects and benefits these modalities may play in a traditional massage therapy setting. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 3 Lecture: 2 Lab: 3

LMT 299 SELECTED TOPICS: LMT

Selected topics related to massage therapy. Recommended prerequisite: Program director approval, current LMT, or other related health professional.

Credits: 7

MATHEMATICS

MTH 010 DEVELOPMENTAL MATHEMATICS

Introduces mathematics and its application; explains language and symbols used in math; develops concepts in whole number, fraction, and decimal operations and applications; and develops analytical thinking while emphasizing study and learning skills necessary for success in math courses and overcoming anxiety toward math.

Credits: 4 Lecture: 4

MTH 020 PRE-ALGEBRA

Emphasizes applications of basic arithmetic skills. Equips students to handle everyday arithmetic problems and lays a foundation for algebra. Topics include ratio, proportion, percent, measurement, perimeter, area, volume and integers. Recommended prerequisite: MTH 10 or equivalent.

Credits: 4 Lecture: 4

MTH 029**FRACTION REVIEW WORKSHOP**

Provides a concentrated experience for students needing a review of fractions and associated number theory skills. This course is not a replacement for students who place into or need to take MTH 10. May be taken concurrently with another math class.

Credits: 2 Lecture: 2

MTH 031**HEALTH CARE MATH**

This is a three-credit course designed for students majoring in Addiction Studies, Massage Therapy, Health Information Technology, among others. Includes topics from pre-algebra and descriptive statistics. MTH 31 is not designed to serve as a prerequisite to MTH 60. Recommended prerequisite: MTH 10.

Credits: 3 Lecture: 3

MTH 060**ALGEBRA I**

Introduction to algebra, integers, rational and real numbers, algebraic expressions, linear equations and inequalities in one and two variables, and systems of equations and inequalities. Recommended prerequisite: MTH 20 or equivalent.

Credits: 4 Lecture: 4

MTH 065**ALGEBRA II**

Continues development of manipulative algebra skills from MTH 60. Includes algebraic expressions and polynomials, factoring algebraic expressions, rational expressions, roots and radicals, and quadratic equations. Recommended prerequisite: MTH 60.

Credits: 4 Lecture: 4

MTH 085**TECHNICAL MATHEMATICS I**

First in a two-term sequence designed for majors in Forest Technology, Fire Science, CADD and GIS, among others. Includes introduction to algebra and geometry with a focus on units of measurement, formula manipulation, solving linear and literal equations, lines in the Cartesian plane, exponents, three-dimensional geometry, simultaneous equations and preparation for trigonometry. Real-world applications and analyzing data are emphasized. Recommended prerequisite: MTH 20 and/or MTH 60 equivalent.

Credits: 4 Lecture: 4

MTH 086**TECHNICAL MATHEMATICS II**

Second in a two-term sequence designed for majors in Forest Technology, Fire Science, CADD and GIS, among others. Includes a review of geometry and a thorough discussion of trigonometry with an introduction to vectors and their applications. The second half of the term includes an introduction to functions and their applications including graphing equations, developing equations from graphs, analysis of linear and nonlinear functions and functions as models. Students will work in teams to develop and analyze a complex, real-world application and submit

a technical report detailing the results. A graphing calculator is required. TI-83 or TI-84 recommended. Recommended prerequisite: MTH 85 or equivalent.

Credits: 4 Lecture: 4

MTH 095**INTERMEDIATE ALGEBRA**

Provides the algebra foundation necessary to study college-level mathematics. Includes systems of equations and inequalities, functions, rational expressions and equations, roots, radicals, complex numbers, quadratic equations and inequalities.

Recommended prerequisite: MTH 65 or equivalent. Graphing calculator required. TI-83 or TI-84 recommended.

Credits: 4 Lecture: 4

MTH 099**SELECTED TOPICS: MATHEMATICS**

Offers selected topics in mathematics for courses generally available only once. Topics and credits to be arranged.

Credits: 1 to 3

MTH 105**INTRODUCTION TO CONTEMPORARY MATHEMATICS**

Introduces basic concepts of contemporary mathematics to students who are not planning further study of mathematics. Topics selected from finite mathematics, probability, descriptive statistics and mathematical problem solving, examples of major mathematical ideas and applications. Topic presentation includes group discovery activities and writing assignments. Major goal of the course is to capture the interest of the liberal arts major while stressing the importance of a working knowledge of math in today's society. Prerequisite: Grade of "C" or better in MTH 95, MTH 95 equivalency met, appropriate placement exam score, or instructor approval.

Credits: 4 Lecture: 4

MTH 111**COLLEGE ALGEBRA**

Introduces graphs and functions (linear, quadratic, polynomial, rational, exponential and logarithmic) using a graphing calculator. First term of a precalculus sequence for science students. Recommended prerequisite: MTH 95 or equivalent. Graphing calculator required. TI-83 or TI-84 recommended.

Credits: 4 Lecture: 4

MTH 112**TRIGONOMETRY**

Examines the applied, real-world and theoretical mathematical implications of the trigonometric functions. The symbolic, numerical, and graphical representations of these functions and their applications form the core of the course. Emphasizes solving problems symbolically, numerically and graphically and understanding the connections among these methods in interpreting and analyzing results. Recommended prerequisite: MTH 111 or equivalent. Graphing calculator required. TI-83 or TI-84 recommended.

Credits: 4 Lecture: 4

MTH 113**TOPICS IN PRECALCULUS**

Examines topics chosen from the applied, real-world and theoretical mathematical implications of analytic geometry, nonrectangular coordinate systems, vectors, matrices and sequences. The symbolic, numerical, and graphical representations of these functions and their applications form the core of the course. Emphasizes solving problems symbolically, numerically and graphically and understanding the connections among these methods in interpreting and analyzing results. Recommended prerequisite: MTH 112 or equivalent. Graphing calculator required. TI-83 or TI-84 recommended.

Credits: 4 Lecture: 4

MTH 198**PRACTICUM IN MATHEMATICS**

Allows students to gain exposure to an elementary classroom setting, gain experience in teaching/tutoring math to elementary school-age children and gain an understanding of learning theory and processes as they apply to mathematics education.

Credits: 2 Lecture: 1 Other: 3

MTH 199**SELECTED TOPICS: MATHEMATICS**

Offers selected topics in mathematics for courses generally available only once. Topics and credits to be arranged.

Credits: 1 to 3

MTH 211W**FUNDAMENTALS OF ELEMENTARY MATHEMATICS I - WIC**

Introduces problem-solving, sets, natural and whole numbers, number theory and fractions. First term of a sequence for students planning to become elementary teachers but open to any students wanting to study the foundations of mathematics. Recommended prerequisite: MTH 95 or equivalent.

Credits: 4 Lecture: 4

MTH 212W**FUNDAMENTALS OF ELEMENTARY MATHEMATICS II - WIC**

Covers decimals, percents, ratio and proportion, integers, rational and real numbers, and statistics and probability. Second term of a sequence for students planning to become elementary teachers but open to any student wanting to study the foundations of mathematics. Recommended prerequisite: MTH 211 or equivalent.

Credits: 4 Lecture: 4

MTH 213W**FUNDAMENTALS OF ELEMENTARY MATHEMATICS III - WIC**

Covers geometric shapes, measurement, congruence and similarity, and coordinate and transformational geometry. Third term of sequence for students planning to become elementary teachers but open to any student wanting to study the foundations of mathematics. Recommended prerequisite: MTH 211.

Credits: 4 Lecture: 4

MTH 241**CALCULUS FOR MANAGEMENT/SOCIAL SCIENCE**

Introduces basic concepts of differential and integral calculus for students majoring in management and social science. Includes elementary differential and integral calculus of polynomial, logarithmic and exponential functions, and their applications to business, management and social sciences. Recommended prerequisite: MTH 111. A graphing calculator is required. TI-83 or TI-84 recommended.

Credits: 4 Lecture: 4

MTH 243**MATHEMATICS FOR MANAGEMENT/LIFE/SOCIAL SCIENCE**

Introduces linear programming, probability and descriptive statistics for students majoring in business and social sciences. Includes graphical and algebraic techniques of solving linear programming problems, descriptive statistics, graphs of data, basic probability theory, random variables, and binomial and normal probability distributions. Recommended prerequisite: MTH 111 or instructor approval. A graphing calculator is required. TI-83 or TI-84 recommended.

Credits: 4 Lecture: 4

MTH 244**INTRODUCTION TO METHODS OF PROBABILITY AND STATISTICS**

Introduces methods of inferential statistical analysis. Includes sampling techniques, introduction to binomial and normal distributions, sampling distributions, the central limit theorem, confidence intervals, hypothesis testing for one and two-sample data, and tests of association: linear regression and categorical analysis. Real-world data sets and group activities are emphasized. Students will be introduced to and use a standard statistical software package. A graphing calculator is required. TI-83 or TI-84 recommended. Basic computer skills (especially spreadsheet knowledge) are desirable. Prerequisite: Grade of "C" or better in MTH 243 or MTH 243 equivalency met or instructor approval.

Credits: 4 Lecture: 4

MTH 251**CALCULUS I**

Introduces concepts of differential calculus for science, mathematics and engineering students. Includes limits and continuity; the derivative; rates of change; derivatives of polynomial, rational and trigonometric functions; applications including maximum-minimum problems; antiderivatives and definite integrals. Topic presentation includes group discovery activities. Real applications, technical writing, group activities and group projects are emphasized. A graphing calculator is required. TI-83 or TI-84 is recommended. Computer literacy recommended. Recommended prerequisites: MTH 112, MTH 113 or equivalent or instructor approval.

Credits: 4 Lecture: 3 Lab: 3

**MTH 252
CALCULUS II**

Introduces concepts of integral calculus to science, mathematics and engineering students. Includes antidifferentiation, fundamental theorem, integration techniques, numerical methods, improper integrals and mathematical modeling with applications to geometry, physics, economics, population dynamics and stochastic models. Topic presentation includes group discovery activities. Real applications, technical writing, group activities and group projects are emphasized. A graphing calculator is required. TI-83 or TI-84 recommended. Computer literacy recommended. Recommended prerequisite: MTH 251.

Credits: 4 Lecture: 3 Lab: 3

**MTH 253
CALCULUS III**

Introduces further calculus concepts to science, mathematics and engineering students. Includes infinite sequences, infinite series, Taylor series, parametric equations and functions in polar coordinates, and an introduction to linear algebra including systems of linear equations, vectors, matrices, linear independence/dependence, matrix inverses, determinants, eigenvalues, eigenvectors. Real applications, technical writing, group activities and group projects are emphasized. A graphing calculator is required. TI-83 or TI-84 is recommended. Computer literacy recommended. Recommended prerequisite: MTH 252.

Credits: 4 Lecture: 3 Lab: 3

**MTH 254
VECTOR CALCULUS I**

Introduces concepts of vector calculus to science and engineering students. Includes introduction to linear algebra, vectors and vector functions, parametric curves, functions of several variables, partial derivatives, gradients, directional derivatives and optimization problems. A graphing calculator is required. TI-83 or TI-84 is recommended. Computer skills required. Recommended prerequisite: MTH 253.

Credits: 4 Lecture: 3 Lab: 2

**MTH 255
VECTOR CALCULUS II**

Continuation of the study of vector analysis for science and engineering students. Includes double and triple integrals with applications to area, volume and center of mass; introduction to vector analysis including divergence, curl, line integrals and work, surface integrals; conservative fields and the theorems of Green and Stokes. A graphing calculator is required. TI-83 or TI-84 recommended. Basic computer skills required. Recommended prerequisite: MTH 254.

Credits: 4 Lecture: 3 Lab: 2

**MTH 256
APPLIED DIFFERENTIAL EQUATIONS**

Introduction to the application of differential equations for science and engineering students. Includes first- and second-

order linear and nonlinear equations, systems of linear first-order differential equations and applications appropriate for science and engineering; numerical, graphical, series, and analytical solutions are covered. Computer skills are recommended and a graphing calculator is required. TI-83 or TI-84 is recommended. Recommended prerequisite: MTH 253.

Credits: 4 Lecture: 3 Lab: 2

MEDICAL ASSISTANT**MA 113
INTRODUCTION TO MEDICAL ASSISTING**

First of three classes which cover key competencies related to clinical responsibilities of the medical assistant as identified by the American Association of Medical Assistants. Fundamental principles include medical aseptic technique, standard precautions for handling infectious material, preparing patients for and assisting with routine and specialty physical examinations, taking vital signs, performing patient interview and history, ensuring proper medical record documentation, pediatric care, immunization knowledge, and preparation and maintenance of the examination and treatment area. Math component includes basic skills review in preparation for understanding and calculating medication dosage. Must be enrolled in the Medical Assistant program to register in this course. Recommended prerequisites: WR 65 or WR 75 or WR 95 and MTH 20. Corequisite: MA 125.

Credits: 3 Lecture: 2 Lab: 3

**MA 123
MEDICAL ASSISTING BASIC PROCEDURES**

Second of three classes which cover key competencies related to clinical responsibilities of the medical assistant as identified by the American Association of Medical Assistants. Basic principles include: surgical aseptic technique, preparing patients for procedures, treatments and minor office surgeries, assisting with procedures, treatments and minor office surgeries, providing post-operative patient care, preparing patients for and performing diagnostic testing and screening, understanding the purpose and significance of diagnostic and screening tests, performing injections and application of basic pharmacology principles to prepare and administer oral and parenteral medications. Math component includes understanding and applying methods of dosage calculation to prepare and administer medication as directed by the clinician. Prerequisites: MA 113 and MA 125. Corequisite: MA 135.

Credits: 4 Lecture: 3 Lab: 3

**MA 125
MEDICAL OFFICE PROCEDURES I**

First of two classes which cover key competencies related to office practices and administrative responsibilities of the medical assistant as identified by the American Association of Medical Assistants. Includes maintaining professionalism and confidentiality. Also includes concepts related to acceptable

verbal and written communication, telephone techniques, medical records documentation and management, applicable legal concepts, appointment scheduling and monitoring, maintenance and inventory of supplies and equipment. Must be enrolled in the Medical Assistant program to register.

Corequisite: MA 113

Credits: 4 Lecture: 4

MA 133

MEDICAL ASSISTING ADVANCED PROCEDURES

Third of three classes which cover key competencies related to clinical responsibilities of the medical assistant as identified by the American Association of Medical Assistants. Advanced principles include injections, phlebotomy, performing and understanding purpose and significance of CLIA-waved testing, maintenance of certificates and accreditation, diagnostic testing (such as spirometry and EKGs), use of peak flow meters and administration of nebulizer treatments, interventions for office emergencies, bioemergency response and preparedness, monitoring of legislation related to current health care practices and application of advanced pharmacology principles as they apply to administration of medications. Math component includes applying methods of dosage calculation or prepare and administer medication as directed by the clinician. Prerequisites: MA 123 and MA 135. Corequisite: MA 145.

Credits: 4 Lecture: 3 Lab: 3

MA 135

MEDICAL OFFICE PROCEDURES II

Second of two classes which cover key competencies related to office practices and administrative responsibilities of the medical assistant as identified by the American Association of Medical Assistants. Includes bookkeeping procedures and special accounting entries, an introduction to coding systems, insurance billing, procedures and regulations, medical transcription and computer applications for office procedures. Prerequisites: MA 113 and MA 125. Corequisite: MA 123.

Credits: 4 Lecture: 4

MA 145

COMPUTERIZED MEDICAL OFFICE PROCEDURES

Computers are an integral part of today's medical facilities. They are the method of choice for managing patient demographics; appointment scheduling; processing billing for insurance and patients; tracking accounts receivable aging and status; and generating reports related to practice finances. This course gives students training necessary to successfully complete these administrative tasks. Prerequisites: MA 123 and MA 135. Recommended prerequisite: CIS 120. Corequisite: MA 133.

Credits: 1 Lab: 2

MA 147

MEDICAL ASSISTANT PRACTICUM I

The clinical practicum is a required, supervised, unpaid learning experience which takes place on site at a prearranged clinical

facility. Practicum provides students with the opportunity to perform clearly identified competencies within the clinical setting. Students must have a total of five clinical credits of practicum to earn the MA certificate. Primary practicum placements occur once all medical assisting course-work is completed. Students must be available to attend assigned practicums during weekday hours. Transportation to Central Oregon locations is required. Each credit of practicum requires a minimum of 40 clock hours of work in the clinical setting for a total of at least 160 hours. Instructor approval required.

Credits: 5 Other: 16

MA 199

SELECTED TOPICS: MEDICAL ASSISTANT

Credits: 1 to 4

MILITARY SCIENCE

MS 111

LEADERSHIP AND PERSONAL DEVELOPMENT

Introduces students to the personal challenges and competencies that are critical for effective leadership. Students will learn how the personal development of life skills such as goal setting, time management, physical fitness, and stress management relate to leadership, officership, the Army profession or civilian life. This class is open to any student in any course of study.

Credits: 1 Lecture: 1

MS 112

INTRODUCTION TO TACTICAL LEADERSHIP

Overviews leadership fundamentals such as setting direction, problem solving, listening, presenting briefs, providing feedback, and using effective writing skills. Students will explore dimensions of leadership values, attributes, skills, and actions in the context of practical hands-on and interactive exercises. Class is open to any student in any course of study.

Credits: 1 Lecture: 1

MS 113

ORIENTEERING AND LAND NAVIGATION

Focuses on orienteering methods, techniques and terminology and progresses into military map reading and land navigation. Students will learn through classroom instruction, assigned readings and practical application. This class is open to any student in any course of study.

Credits: 1 Lecture: 1

MS 180

ARMY PHYSICAL FITNESS

The course familiarizes the students with the Army Physical Fitness Program and FM 21-20 through an individually regimented physical fitness training program. Students will receive guidance on proper nutrition and fitness to excel in a physically demanding environment as well as being given the

opportunity to plan and implement their own total fitness program. Class is open to any student in any course of study.

Credits: 1 Lab: 3.6

MS 205

OCS PHASE I

Intensive two-week pre-commissioning phase held during summer term. Course is oriented on leader development and individual/small unit training and a physically and mentally demanding environment. Individual proficiency in land navigation and communications skills are evaluated. Each student is provided practical experience in a variety of leadership positions. Prerequisite: instructor approval.

Credits: 5 Lecture: 4 Lab: 3

MS 211

FOUNDATIONS OF LEADERSHIP

Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Aspects of personal motivation and team building are practiced planning, executing and assessing team exercises. While participation in the leadership labs is not mandatory during the MS II year, significant experience can be gained in a multitude of areas and participation in the labs is highly encouraged. This class is open to any student in any course of study.

Credits: 2 Lecture: 2

MS 212

AMERICAN MILITARY HISTORY

This course is designed to utilize American military history as a tool for studying military professionalism. This course examines the military heritage of the United States from the colonial period to the present time. Through an in-depth study of the extensive literature in American military history, students assess the key individuals, military policies, postures, organizations, strategies, campaigns, tactics and battles that define the American military experience.

Credits: 2 Lecture: 2

MS 213

MAP READING AND LAND NAVIGATION

Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). This course highlights dimensions of terrain analysis, patrolling and operation orders. Provides a smooth transition into MS 311. Students develop greater self-awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios.

Credits: 2 Lecture: 2

MS 299

SELECTED TOPICS: MILITARY SCIENCE

Credits: 4 Lecture: 4 Lab: 12 Other: 12

MUSIC

MUS 188

SPECIAL STUDIES: MUSIC

Credits: 1 to 3

MUS 101

MUSIC FUNDAMENTALS

Presents fundamentals of music, including notation of pitch, rhythm, music terminology, scales, key signatures, intervals and chord spelling. Requires no previous musical experience. This course is an ideal preparation for students who intend to enroll in MUS 111, Music Theory.

Credits: 3 Lecture: 3

MUS 111

MUSIC THEORY IA

Harmony of the common-practice period with attention to part writing (the melodic aspects of music). An entrance placement exam will be given during the first class session. This sequence course should be taken by all students who intend to major or minor in music. Recommended prerequisite: MUS 101 or equivalent. Recommended corequisite: MUS 114.

Credits: 3 Lecture: 3

MUS 112

MUSIC THEORY IB

Harmony of the common-practice period with attention to part writing (the melodic aspects of music). This sequence course should be taken by all students who intend to major or minor in music. Recommended prerequisite: MUS 111. Recommended corequisite: MUS 115.

Credits: 3 Lecture: 3

MUS 113

MUSIC THEORY IC

Harmony of the common-practice period with attention to part writing (the melodic aspects of music). This sequence course should be taken by all students who intend to major or minor in music. Recommended prerequisite: MUS 112. Recommended corequisite: MUS 116.

Credits: 3 Lecture: 3

MUS 114

MUSICIANSHIP IA

Focuses on developing practical skills necessary for any musician. Builds aural acuity through drill and practice in ear training, sight singing and dictation. Keyboard (piano) exercises will be an important part of the work. Course is designed to be taken concurrently with MUS 111.

Credits: 2 Lecture: 2

**MUS 115
MUSICIANSHIP IB**

Focuses on developing practical skills necessary for any musician. Builds aural acuity through drill and practice in ear training, sight singing and dictation. Keyboard (piano) exercises will be an important part of the work. Course is designed to be taken concurrently with Music Theory IB. Recommended prerequisite: MUS 114.

Credits: 2 Lecture: 2

**MUS 116
MUSICIANSHIP IC**

Focuses on developing practical skills necessary for any musician. Builds aural acuity through drill and practice in ear training, sight singing and dictation. Keyboard (piano) and computerized drill and exercises will be an important part of the work. Course is designed to be taken concurrently with Music Theory IC. Recommended prerequisite: MUS 115.

Credits: 2 Lecture: 2

**MUS 199
SELECTED TOPICS: MUSIC
Credits: 1 to 3****MUS 201
UNDERSTANDING MUSIC**

Introduces music and its literature. Encompasses the study of musical vocabulary, style, form, principal composers and the historical development of music from the Middle Ages through the 20th century. It is recommended that the sequence be taken in order: MUS 201, MUS 202 and MUS 203.

Credits: 3 Lecture: 3

**MUS 202
UNDERSTANDING MUSIC**

Introduces music and its literature. Encompasses the study of musical vocabulary, style, form, principal composers and the historical development of music from the Middle Ages through the 20th century. It is recommended that the sequence be taken in order: MUS 201, MUS 202, MUS 203.

Credits: 3 Lecture: 3

**MUS 203
UNDERSTANDING MUSIC**

Introduces music and its literature. Encompasses the study of musical vocabulary, style, form, principal composers and the historical development of music from the Middle Ages through the 20th century. It is recommended that the sequence be taken in order: MUS 201, MUS 202, MUS 203.

Credits: 3 Lecture: 3

**MUS 205
INTRODUCTION TO JAZZ HISTORY**

Covers the history of jazz. Styles and significant artists are studied in depth. No previous musical knowledge required. Not offered every year.

Credits: 3 Lecture: 3

**MUS 211
MUSIC THEORY IIA**

A continuation of common practice period harmony (Music Theory I) with stress on chromatic resources and style analysis including an introduction to harmonic practices of the 20th century. Recommended prerequisite: MUS 113. Recommended corequisite: MUS 214.

Credits: 3 Lecture: 3

**MUS 212
MUSIC THEORY IIB**

A continuation of common practice period harmony (Music Theory I) with stress on chromatic resources and style analysis including an introduction to harmonic practices of the 20th century. Recommended prerequisite: MUS 211. Recommended corequisite: MUS 215.

Credits: 3 Lecture: 3

**MUS 213
MUSIC THEORY IIC**

A continuation of common practice period harmony (Music Theory I) with stress on chromatic resources and style analysis including an introduction to harmonic practices of the 20th century. Recommended prerequisite: MUS 212. Recommended corequisite: MUS 216.

Credits: 3 Lecture: 3

**MUS 214
MUSICIANSHIP IIA**

Focuses on developing practical skills necessary for any musician. Builds aural acuity through drill and practice in ear training, sight singing and dictation. Keyboard (piano) and computerized drill and exercises will be an important part of the work. Recommended prerequisite: MUS 116. Recommended corequisite: MUS 211.

Credits: 2 Lecture: 2

**MUS 215
MUSICIANSHIP IIB**

Focuses on developing practical skills necessary for any musician. Builds aural acuity through drill and practice in ear training, sight singing and dictation. Keyboard (piano) and computerized drill and exercises will be an important part of the work. Recommended prerequisite: MUS 214. Recommended corequisite: MUS 212.

Credits: 2 Lecture: 2

**MUS 216
MUSICIANSHIP IIC**

Focuses on developing practical skills necessary for any musician. Builds aural acuity through drill and practice in ear training, sight singing and dictation. Keyboard (piano) and computerized drill and exercises will be an important part of the work. Recommended prerequisite: MUS 215. Recommended corequisite: MUS 213.

Credits: 2 Lecture: 2

**MUP 105
JAZZ COMBO**

Performance of wide range of jazz styles in a small group setting with an emphasis on developing knowledge and skills in improvising. Students should have some previously developed proficiency on an instrument or voice. Not offered every year.

Credits: 2 Lecture: 2

**MUP 111
WOODWIND ENSEMBLE**

The study and performance of chamber music for woodwind instruments in an ensemble such as a woodwind or a clarinet quartet. Instructor approval required. Not offered every year.

Credits: 2 Lecture: 2

**MUP 114
VOCAL ENSEMBLE**

A select group of singers that focuses on various jazz idioms: blues, funk, Latin, and straight-ahead. Enrollment is by audition. Recommended corequisite: MUS 197A, College Choir. Contact choral program director for information about required audition.

Credits: 2 Lecture: 2

**MUP 146
STRING ENSEMBLE**

Study and performance of chamber music for bowed string instruments in a group such as string quartet or for string ensembles including a keyboard instrument. Instructor approval required. Not offered every year.

Credits: 2 Lecture: 2

**MUS 161
JAZZ IMPROVISATION**

Introduces students to jazz improvisation in a laboratory (performance) setting. No previous experience or knowledge about jazz or improvisation necessary. Students should have some previously developed proficiency on an instrument or voice. Not offered every year.

Credits: 2 Lecture: 2

**MUS 194
BIG BAND JAZZ**

Study and performance of music for large jazz band. May be repeated; no limit. Contact ensemble conductor for information about required audition.

Credits: 1 Other: 3

**MUS 195
CONCERT BAND**

Study and performance of music for the concert band. One major concert is presented each term. May be repeated; no limit. Contact ensemble conductor for information about required audition.

Credits: 1 Other: 3

**MUS 196
SYMPHONY**

The study and performance of music for symphony orchestra. One major concert is presented each term. Instructor approval required. May be repeated; no limit. Contact ensemble conductor for information about required audition.

Credits: 1 Other: 3

**MUS 197
CASCADE CHORALE**

Study, rehearsal and performance of choral literature. Meets Tuesday evenings and welcomes both college students and community members. Performs a major concert each term. May be repeated; no limit. Please note: purchase of concert dress outfit required. Contact choral program director for information about required audition.

Credits: 1 Other: 3

**MUS 197A
COLLEGE CHOIR**

Focuses on preparation and performance of choral literature from a wide variety of styles and periods. Performs one major concert each term, and occasionally other concerts, that are often performed off campus. May be repeated; no limit. Contact choral program director for information about required audition.

Credits: 2 Lecture: 1 Lab: 3

**MUS 131
PIANO CLASS I**

Teaches fundamentals of piano performance in a class format.

Credits: 2 Lecture: 2

**MUS 134
VOICE CLASS I**

Teaches fundamentals of vocal performance in a class format.

Credits: 2 Lecture: 2

**MUS 137
CLASS GUITAR I**

Teaches fundamentals of guitar performance in a class format

Credits: 2 Lecture: 2

NURSING**NUR 088
SPECIAL STUDIES: NURSING**

Allows nursing students to pursue a special content area. Special study arrangements must be made through the Nursing program coordinator.

Credits: 1 to 8

**NUR 095
NURSING ASSISTANT**

Covers basic nursing assistant level-one care and effective communication skills for clients in acute and long-term care facilities. Issues of confidentiality, client rights and role of the nursing assistant are discussed. Students are eligible to sit for the Oregon State Board of Nursing sanctioned Certified Nursing Assistant Level One examination upon satisfactory performance of course outcomes and assessments; and completion of the minimum 150 mandatory student contact hours: 75 hours of lecture/lab and 75 hours of clinical experience. Clinic takes place in acute and long-term care facilities. To enroll in the course, students must hold a current Health Care Provider CPR card, pass a criminal history check, and meet immunization and TB test requirements. Department approval is required.

Credits: 7 Lecture: 3 Lab: 4.5 Other: 7.5

**NUR 096
LEVEL 2 NURSING ASSISTANT - ACUTE CARE**

Provides an Oregon State Board of Nursing approved standardized curriculum and competency evaluation for the designation of Level Two Nursing Assistant in Acute Care. This course focuses on technical skills, interpersonal skills and communication, safety, infection control, and documentation with the outcome of demonstrated proficiency in knowledge, skills and abilities in these areas. The course has a clinical component to be scheduled at an acute care facility. To enroll in the course, students must hold a current, unencumbered Oregon CNA 1 certificate, hold a current Health Care Provider CPR card, pass a criminal history check, and meet immunization and TB test requirements. Department approval required.

Credits: 6 Lecture: 2 Lab: 3 Other: 6

**NUR 099
SPECIAL TOPICS: NURSING**

Allows nursing students to pursue a special content area. Special study arrangements must be made through the Nursing program director.

Credits: 1 to 8

**NUR 106
NURSING I**

Introduces fundamental concepts of nursing practice including nursing process, critical thinking, therapeutic communication, grief, loss and cultural considerations. Students will have the opportunity to begin learning about clients with altered states of health. Students will become familiar with the major drug classifications and develop working knowledge of pharmacological principles. Students will transfer the concepts of safe patient medication administration to the Learning Resource Center and clinical setting. Lab skills focus on a core set of beginning-level nursing skills. The clinical practicum provides students with the opportunity to apply knowledge and clinical skills to the adult client with basic nursing care needs. First term of the Practical Nursing sequence and of the Nursing program. Prerequisite: admission to Nursing program.

Credits: 11 Lecture: 6 Lab: 6 Other: 9

**NUR 107
NURSING II**

Introduces students to the knowledge and skills that are necessary in providing nursing care to individual clients experiencing an altered state of health. Students are also provided with the opportunity to learn concepts relating to the care of developing families. The clinical lab focuses on developing skills in the areas of intravenous therapy, complex wound management and nutritional therapies. The clinical practicum provides students with the opportunity to apply knowledge and clinical skills to the adult client with medical-surgical nursing needs. Second term of the PN sequence and the Nursing program. Prerequisite: NUR 106.

Credits: 10 Lecture: 4 Lab: 4.5 Other: 13.5

**NUR 108
NURSING III**

Provides students with the opportunity to obtain the knowledge and skills that are necessary to implement the role of a practical nurse in providing care to acutely ill patients across the lifespan. Concepts of mental health nursing are introduced. The ability to communicate effectively, therapeutically and professionally is emphasized. Prepares students to think critically about medications prescribed to promote wellness and treat acute and chronic illnesses. The clinical skills lab provides a capstone comprehensive assessment of the students' complete set of core nursing skills from the first year of the Nursing program. The clinical practicum provides the opportunity for client centered care based on established standards and contribute to and participate in nursing care delivery at the practical nurse level. Students also have the opportunity to provide care for the childbearing family. Final term of the PN sequence and the third term of the Nursing program. Prerequisite: NUR 107.

Credits: 11 Lecture: 6 Lab: 3 Other: 12

**NUR 188
SPECIAL STUDIES: NURSING I**

Allows first-year nursing students to pursue a special content area in nursing. Special study arrangements must be made through the Nursing program director.

Credits: 1 to 8

**NUR 199
SELECTED TOPICS: NURSING I**

Presents selected topics of study in the field of nursing offered on a temporary or experimental basis.

Credits: 1 to 8

**NUR 206
NURSING IV**

Focuses on the integration of knowledge and skills acquired in the first year of the Nursing program as the student transitions from the practical nurse to the registered nurse role. Nursing curriculum expands on the concepts of nursing process, caring, holism and professionalism at the registered nurse level.

Emphasis is on the development of competency in critical thinking and caring interventions toward individuals and their significant others. Clinical skills lab focuses on the development of higher level assessment, intravenous medication and fluid therapy skills. Clinical practicum provides the students with an opportunity to provide holistic, individualized nursing care for complex medical-surgical and mentally ill clients. Fourth term of the Nursing program, first term of the RN sequence. Prerequisite: completion of the first-year nursing program or PN license and other advanced-placement requirements.

Credits: 11 Lecture: 6 Lab: 4.5 Other: 10.5

NUR 207 NURSING V

Focuses on the concepts of community-based nursing care of individuals and significant others, care of the critically ill client, as well as maternal child care of the child-bearing family. The nursing curriculum continues to expand on the role of the RN and to promote critical thinking and clinical decision making. Students further develop their skills in client teaching, client care planning and client care management skills. Clinical skills lab provides students with opportunities to simulate the care of complex, acutely ill clients. The clinical practicum focuses on applying the nursing process to provide and direct holistic, individualized client care. Students are provided additional experiences in community-based, critical care and mother-baby clinical settings. Fifth term of the Nursing program, second term of the RN sequence of the program. Prerequisite: NUR 206.

Credits: 10 Lecture: 5 Other: 15

NUR 208 NURSING VI

Focuses on refining clinical decision-making skills related to the complex health care needs of clients across the lifespan in a variety of health care settings. The holistic, individualized needs of the individual and family are the focus for collaborative care management decisions. Theoretical concepts of quality nursing care, legal and ethical issues, leadership and management of care; and nursing care of clients with life-threatening conditions are addressed in relation to clinical practice. Students participate in a four-week, full-time capstone clinical experience focusing on managing groups of clients or individual clients with high-level needs. The course concludes with a capstone case study presentation and a national board preparation exam. Sixth term of the Nursing program, third term of the RN sequence. Prerequisite: NUR 207.

Credits: 9 Lecture: 4 Other: 15

NUR 216 NURSING CRITICAL CARE

Basic intensive care course for graduate and registered nurses. Includes nursing care, methods of monitoring and discussion of pathologic conditions commonly encountered in the ICU. Not currently offered.

Credits: 3 Lecture: 3

NUR 218 BASIC EKG

Basic three-lead electrocardiograph interpretation. Open to Allied Health and Nursing students.

Credits: 1 Lecture: 1

NUR 288 SPECIAL STUDIES: NURSING

Allows second-year Nursing students to pursue a special content area in nursing. Special study arrangements must be made through the Nursing program director.

Credits: 1 to 4

NUR 299 SELECTED TOPICS: NURSING

Presents selected topics of study in the field of nursing offered on a temporary or experimental basis.

Credits: 1 to 3

NUTRITION

FN 225 HUMAN NUTRITION

In-depth introduction to the science of nutrition, stressing characteristics of nutrients and their food sources. Examines digestion, absorption and metabolism of nutrients. Includes individualized diet analysis and current-interest topics including weight management and some disease therapies.

Credits: 4 Lecture: 4

OFFICE ADMINISTRATION

OA 116 OFFICE PROCEDURES PRACTICUM

Introduces and applies typical office policies and procedures, including performing reception duties, handling office supplies, processing incoming and outgoing mail, organizing work and work environment, setting priorities, managing time, applying ergonomic and safety principles, developing proofreading skills, using the telephone, e-mail, handling financial matters, conducting business research, and working effectively with others. Instructor approval required.

Credits: 3 Other: 9

OA 180 CO-OP WORK EXPERIENCE OFFICE ADMINISTRATION

Designed to address specific office practice skills and theory covered in OA 116. Knowledge of office practices and skills developed on the job will be assessed through written work with the instructor. Learning experience must be coordinated with student's supervisor. Main idea is to either learn psychomotor or cognitive skills on the job or apply traditional classroom learning in a real-life environment. Instructor approval required.

Credits: 1 to 3

OA 188**SPECIAL STUDIES: OFFICE ADMINISTRATION****Credits: 1 to 3****OA 199****SELECTED TOPICS: OFFICE ADMINISTRATION****Credits: 1 to 3****OA 280****CO-OP WORK EXPERIENCE OFFICE ADMINISTRATION**

Enhances a student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience. In addition to completing on-the-job training in an office situation, students will discuss work attitudes, work ethics and other human relations topics as they relate to successful employment in an office environment. Faculty coordinator will work with the student to arrange a suitable work site. Instructor approval required.

Credits: 1 to 4**OREGON LEADERSHIP INSTITUTE (OLI)**

Please see the section entitled Career and Life Planning.

PHARMACY TECHNICIAN**PHM 100****INTRODUCTION TO PHARMACY TECHNICIAN**

This course orients students to the organization and practice of the pharmacy profession, providing an understanding of the regulatory agencies and laws that affect pharmacy practice. Emphasis is placed on the duties and responsibilities of the pharmacy technician. Course objectives explore employment opportunities, introduction to interpreting and processing prescriptions, pharmacy law, standards of practice and orientation to the skills required for the occupation of a pharmacy technician. Prerequisite: entrance to the Pharmacy Technician program or instructor approval.

Credits: 3 Lecture: 3**PHM 110****PHARMACY CALCULATIONS**

This course reviews basic mathematics related to the application of math concepts to the duties of the pharmacy technician. This course covers the systems of weight, measurement and temperature and the conversion from one system to the other. Emphasis is placed on the math skills needed to calculate doses, drug quantity or volume, intravenous flow rates and percentage concentrations and to learn the mechanics of proportions related to pharmaceutical dosing. The basics of retail pricing and accounting are introduced. Prerequisite: entrance to the Pharmacy Technician program or instructor approval.

Credits: 3 Lecture: 3**PHM 120****DRUG CLASSIFICATION AND THERAPEUTICS I**

This course introduces students to trade and generic names of commonly prescribed drugs used in prevention and treatment of various disease entities. Emphasis is placed on important contraindications, side effects, precautions and interaction of drugs and the process of drug utilization review. The course will provide a basic understanding of pharmacological categories and factors that can affect drug kinetics. Prerequisite: entrance to the Pharmacy Technician program or instructor approval.

Credits: 3 Lecture: 3**PHM 130****DRUG CLASSIFICATION AND THERAPEUTICS II**

This course continues the introduction to trade and generic names of commonly prescribed drugs used in prevention and treatment of various disease entities. Emphasis is placed on important contraindications, side effects, precautions and interaction of drugs and the process of drug utilization review. The course will provide a basic understanding of pharmacological categories and factors that can affect drug kinetics. Prerequisite: entrance to the Pharmacy Technician program or instructor approval.

Credits: 3 Lecture: 3**PHM 140****PHARMACY TECHNICIAN PROCEDURES**

This course provides students with the knowledge and skills to perform the tasks of a pharmacy technician, including interpreting, processing and distributing medications in the hospital and retail pharmacy. This includes preparation of non-compounded products, non-sterile compounded products, sterile compounded products, and the preparations and handling of cytotoxic and hazardous products. Students will have practice maintaining patient profiles and typing and filling drug orders. Students will be prepared to participate in the administration of a pharmacy practice. This course requires a one-credit (20-hour) face-to-face lab/lecture section. The lab will be provided at the COCC campus. The lab will be conducted over two weekends during the term and distance students will be required to travel to COCC. Prerequisite: entrance to the Pharmacy Technician program or instructor approval.

Credits: 4 Lecture: 3 Other: 2**PHM 181****PHARMACY TECHNICIAN SEMINAR**

Seminar discussions on various aspects of the practicum. Students will share work-related experiences with the instructor and their peers. Students will prepare to take the Pharmacy Technician National Certification exam. Covers employment opportunities, resume writing, completing job applications and interviewing skills. Prerequisite: entrance to the Pharmacy Technician program or instructor approval. Corequisites: PHM 190, PHM 191.

Credits: 1 Lecture: 1

PHM 190**PHARMACY TECHNICIAN PRACTICUM I: HOSPITAL/ INSTITUTIONAL**

An unpaid learning experience which takes place on site at a prearranged clinical facility and supervised by a registered pharmacist. Provides student with the opportunity to perform clearly identified competencies within the clinical setting. Each credit is equivalent to 30 hours participation in the clinical setting. Students will be prepared to participate in the administration of a pharmacy practice, including filling drug orders. Prerequisite: entrance to the Pharmacy Technician program or instructor approval. Corequisite: PHM 181.

Credits: 3 Other: 9

PHM 191**PHARMACY TECHNICIAN PRACTICUM II: RETAIL/ COMMUNITY**

An unpaid learning experience which takes place on site at a prearranged pharmacy and supervised by a registered pharmacist. Provides student with the opportunity to perform clearly identified competencies within the clinical setting. Each credit is equivalent to 30 hours participation in the clinical setting. Prerequisite: entrance to the Pharmacy Technician program or instructor approval. Corequisite: PHM 181.

Credits: 3 Other: 9

PHILOSOPHY**PHL 170****PHILOSOPHY OF LOVE AND SEX**

Provides an overview of the primary historical and contemporary Western views on the nature and meaning of romantic love. Students will analyze the links philosophers have found among beauty, friendship, passion, loyalty, and transcendence and will also create their own philosophies of romantic love.

Credits: 3 Lecture: 3

PHL 199**SELECTED TOPICS: PHILOSOPHY**

Credits: 1 to 3

PHL 201**PROBLEMS OF PHILOSOPHY-EPISTEMOLOGY**

Explores basic problems and different theories of knowledge along with related issues in metaphysics; for example, how to define the nature and limits of knowledge; rationalist vs. empiricist perspectives; assumptions about reality and existence; and arguments for and against the existence of God.

Credits: 3 Lecture: 3

PHL 202**PROBLEMS OF PHILOSOPHY - ETHICS**

Explores basic problems in moral and social philosophy along with issues related to human nature; for example, how to define a good life or a good society; what is the nature of happiness,

pleasure, virtue and justice; consequence vs. duty-based theories; the role of reason and/or passion; and arguments for and against natural law.

Credits: 3 Lecture: 3

PHL 203**PROBLEMS OF PHILOSOPHY - LOGIC**

Introduction to the study of reasoning and critical thinking. This involves identifying and evaluating deductive and inductive forms, distinguishing validity from truth/soundness, examining informal fallacies and the limits of language, constructing different types of arguments and applying these tools to issues in science, politics, morality and everyday life.

Credits: 3 Lecture: 3

PHYSICS**PH 201****GENERAL PHYSICS I**

Studies Newtonian Mechanics beginning with basic math concepts and continuing into kinematics, dynamics, uniform circular motion, energy, momentum, and rotational equivalents of some of these topics. Lab addresses experiments and applied settings of Newtonian Mechanics along with explorations of diverse methods for analyzing and interpreting scientific data. Meets the basic requirements for many pre-health and life science programs. Should be taken in sequence. Recommended corequisite: MTH 111.

Credits: 5 Lecture: 4 Lab: 3

PH 202**GENERAL PHYSICS II**

Studies basic electrostatic and magnetic interactions. Builds on concepts from PH 201 and continues into electrostatic forces, electric field concepts, electric potential, basic DC circuit concepts, magnetic interactions and forces, sources of magnetic fields and Faraday's Law. Lab addresses concepts and measurements in thermal physics and continues to explore the processes by which science seeks answers to questions. Meets the basic requirements for many pre-health and life science programs. Should be taken in sequence. Recommended corequisite: MTH 112.

Credits: 5 Lecture: 4 Lab: 3

PH 203**GENERAL PHYSICS III**

Studies periodic behavior and topics from modern physics. Builds on concepts from previous terms and considers the physics of periodic motion, mechanical waves, wave interference, standing waves, acoustic waves, electromagnetic waves, geometric optics, diffractions and topics from special relativity to quantum mechanics. Lab includes basic optical experiences along with a long-term project to affirm student abilities to integrate investigative lab concepts from previous terms. Meets the basic requirements for many pre-health and life science programs. Should be taken in sequence.

Credits: 5 Lecture: 4 Lab: 3

PH 211 GENERAL PHYSICS I

Studies Newtonian Mechanics beginning with basic math concepts and continuing into kinematics, dynamics, uniform circular motion, energy, momentum, and rotational equivalents of some of these topics. At all stages, applications of calculus to the solving of problems will be explored. Lab addresses experiments and applied settings of Newtonian Mechanics along with explorations of diverse methods for analyzing and interpreting scientific data. Required for engineering students and most students planning programs in the physical sciences. Should be taken in sequence. Recommended prerequisite: MTH 251.

Credits: 5 Lecture: 4 Lab: 3

PH 212 GENERAL PHYSICS II

Studies basic electrostatic and magnetic interactions. Builds on concepts from PH 211 and continues into electrostatic forces, electric field concepts, electric potential, basic DC circuit concepts, magnetic interactions and forces, sources of magnetic fields and Faraday's Law. At all stages, applications of calculus to the solving of problems will be explored. Lab addresses concepts and measurements in thermal physics and continues to explore the processes by which science seeks answers to questions. Required for engineering students and most students planning programs in the physical sciences. Should be taken in sequence. Recommended prerequisites: MTH 252 and PH 211.

Credits: 5 Lecture: 4 Lab: 3

PH 213 GENERAL PHYSICS III

Studies periodic behavior and topics from modern physics. Builds on concepts from previous terms and considers the physics of periodic motion, mechanical waves, wave interference, standing waves, acoustic waves, electromagnetic waves, geometric optics, diffractions and topics from special relativity to quantum mechanics. At all stages, applications of calculus to the solving of problems will be explored. Lab includes basic optical experiences along with a long-term project to affirm student abilities to integrate investigative lab concepts from previous terms. Required for engineering students and most students planning programs in the physical sciences. Should be taken in sequence. Recommended prerequisites: MTH 253 and PH 212.

Credits: 5 Lecture: 4 Lab: 3

PH 299 SELECTED TOPICS: PHYSICS

Credits: 1 to 5

POLITICAL SCIENCE

PS 188 SPECIAL STUDIES: POLITICAL SCIENCE

Credits: 1 to 3

PS 198 CO-OP WORK EXPERIENCE POLITICAL SCIENCE INTERNSHIP

Credits: 1 to 15

PS 199 SELECTED TOPICS: POLITICAL SCIENCE

Credits: 1 to 4

PS 201 INTRODUCTION TO US GOVERNMENT AND POLITICS

Examines the Constitution with its separation of powers, limited authority and guarantee of individual liberty. Includes English heritage, the colonial experience and the American Revolution, which shaped the charter of American government. Includes the process of self-government through public opinion and elections. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

PS 203 STATE/LOCAL GOVERNMENT

Examines the thousands of governments located at the state and local levels. Explores separation of powers between governors, legislatures and state court systems. Opportunity for individual involvement in the administration, innovation and promotion of democracy is investigated. Recommended pre- or corequisite: WR 121.

Credits: 3 Lecture: 3

PS 204 INTRODUCTION TO COMPARATIVE POLITICS

Surveys the field of comparative politics through in-depth analyses of countries in Western Europe, the former Soviet bloc, and the developing world. The first part of the course is structured around the history of liberal democracy and its challengers: fascism and communism. The next part of the course turns to the politics of development. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

PS 205 INTRODUCTION TO INTERNATIONAL RELATIONS

Introduces complex relations among the nations of a rapidly changing world. Focuses on the nature of the international system and factors affecting conflict and cooperation within the system. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

PS 206**INTRODUCTION TO POLITICAL THOUGHT**

Introduces the broad range of issues and approaches in political theory. Examines the diversity of the field, as it includes both classic and historical texts as well as contemporary treatments. Introduces the issue of political obligation with the trial of Socrates in ancient Greece. The notion of toleration and its limits is explored in the era of the Glorious Revolution. Covers the two most central issues of political theory: justice and democracy. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

PS 207**POLITICS OF THE MIDDLE EAST**

This course is intended as an introduction to politics in the Middle East and therefore provides a general overview of some of the chief issues of contemporary Middle Eastern politics. These include the impact of colonialism, nationalism and nation-state formation, regional crisis, the Arab-Israeli conflict, the politics of oil, Islamism, democratization, political economy, globalization, and human rights, etc.

Credits: 4 Lecture: 4

PS 280**CO-OP WORK EXPERIENCE POLITICAL SCIENCE**

Credits: 1 to 3

PS 299**SELECTED TOPICS: POLITICAL SCIENCE**

Credits: 4 Lecture: 4 Lab: 12 Other: 12

PSYCHOLOGY**PSY 188****SPECIAL STUDIES: PSYCHOLOGY**

Credits: 1 to 3

PSY 199**SELECTED TOPICS: PSYCHOLOGY**

Credits: 1 to 4

PSY 201**MIND AND BRAIN**

Introduces psychology as a scientific study of the biological bases of behavior. Includes history of psychology as a science and surveys methods of inquiry, statistics, sensation, perception, states of consciousness including drug effects, motivation, emotion, learning, memory, language, thinking and intelligence. The major theoretical approaches to psychology are included. Recommended prerequisite: placement scores that allow enrollment into college-level reading.

Credits: 4 Lecture: 4

PSY 202**MIND AND SOCIETY**

Emphasizes psychology as a scientific process, surveying methods of inquiry. Overview of selected areas of psychological study including: human development through the life span; human sexuality; health psychology; personality theories and assessment; psychological disorders; intervention and therapy; social psychology, and human factors psychology. The major theoretical approaches to psychology are included. Recommended prerequisite: placement scores that allow enrollment into college-level reading.

Credits: 4 Lecture: 4

PSY 207**APPLIED PSYCHOLOGY**

Introduces the basic foundation of psychology to degree-seeking students and career and technical students. Focuses on practical applications of psychological principles in the workplace and everyday life. Topics include motivation, emotions, individual development, identifying problem behavior, coping resources, group dynamics and communication skills. This course is considered a human relations component.

Credits: 3 Lecture: 3

PSY 214**PERSONALITY PSYCHOLOGY**

Examines the major theoretical perspectives on personality formation, including biological, psychodynamic, humanistic, cognitive, behavioral and sociocultural influences. Personality tests and measures are also discussed. The major theoretical approaches to psychology are included. Recommended prerequisites: placement scores that allow enrollment into college-level reading and PSY 201 or PSY 202.

Credits: 4 Lecture: 4

PSY 215**DEVELOPMENTAL PSYCHOLOGY**

Comprehensive study of human development over the life span from prenatal through late adult development. Focuses on physical, cognitive and psychosocial changes throughout the human life cycle and emphasizes an interactionist approach to explain developmental processes and outcomes. The major theoretical approaches to psychology are included. This course is considered a human relations component. Recommended prerequisites: placement scores that allow enrollment into college-level reading and PSY 201 or PSY 202.

Credits: 4 Lecture: 4

PSY 215N**DEVELOPMENTAL PSYCHOLOGY FOR NURSES**

Comprehensive study of human development over the life span from prenatal to late adult development. Focuses on physical, cognitive and psychosocial changes throughout the human life cycle and emphasizes an interactionist approach to explain developmental processes and outcomes. This course is considered a human relations

component. This course will be emphasizing the social-cognitive outcomes required by the Nursing program and is recommended for nursing students with some background in anatomy and physiology. Recommended prerequisites: placement scores that allow enrollment into college-level reading and PSY 201 or PSY 202.

Credits: 4 Lecture: 4

**PSY 216
SOCIAL PSYCHOLOGY**

Surveys influence of psychological processes on groups and influence of culture, society and groups on individuals. Includes analysis and exploration of social behavior from a social psychology perspective. Topics include aggression, prejudice, conformity, affiliation, altruism, persuasion, interpersonal attraction, social cognition, conflict resolution, attitude formation and change, and applied social psychology. Recommended prerequisites: placement scores that allow enrollment into college-level reading and PSY 202 or SOC 201.

Credits: 4 Lecture: 4

**PSY 219
ABNORMAL PSYCHOLOGY**

Introductory survey of the variety of emotional, mental and behavioral disorders experienced by humans. History, theoretical perspectives, diagnostic criteria and issues, etiology and treatment strategies are covered for major forms of psychopathology. Recommended prerequisites: placement scores that allow enrollment into college level reading and PSY 201 or PSY 202.

Credits: 4 Lecture: 4

**PSY 222
ANIMAL BEHAVIOR**

This course will cover the fundamental aspects of animal behavior: how and why animals behave and how animal behavior is studied. Topics include mechanisms of behavior, behavioral ecology, feeding, predation, mating, parenting, communication and social behavior. Recommended prerequisites: placement scores that allow enrollment into college-level reading.

Credits: 4 Lecture: 4

**PSY 233
PSYCHOLOGY OF VIOLENCE & AGGRESSION**

Addresses the developmental, social, physiological and cultural aspects that contribute to violence and aggression as well as the legal issues involved. Includes an overview of the theories of aggression, as well as factors influencing family violence, violent children, mob mentality, hate crimes, war and terrorism, stalking, sex crimes and murder. Recommended prerequisite: placement scores that allow enrollment into college-level reading.

Credits: 4 Lecture: 4

**PSY 280
CO-OP WORK EXPERIENCE PSYCHOLOGY**

Credits: 1 to 4

**PSY 299
SELECTED TOPICS: PSYCHOLOGY**
Credits: 1 to 4

READING

**RD 099
SELECTED TOPICS: READING**
Credits: 1 to 4

**RD 117
COLLEGE READING**

Offers instruction in flexible reading skills. Focuses on building reading speed and comprehension, and acquiring a repertoire of reading strategies suitable for understanding and retaining information acquired in typical college reading.

Credits: 3 Lecture: 3

**RD 199
SELECTED TOPICS: READING**
Credits: 1 to 3

SOCIOLOGY

**SOC 141
FILM & SOCIETY: RACE, GENDER, AND CLASS**

Examines the representation of race, social class and gender in film. Special attention is given to how particular representations reflect the broader historical context surrounding when the films were produced and culturally based audience sentiments. Anthropological and sociological analyses of the films will be provided to give a multidisciplinary account on how films reflect, create and support various ideological positions regarding race, class and gender.

Credits: 2 Lecture: 1 Lab: 3

**SOC 142
FILM & SOCIETY: GLOBAL CULTURES**

Examines global issues in both foreign and domestic films from sociological and anthropological perspectives. Selected films cover topics that are relevant to understanding global processes such as global economy and Islam in the contemporary world, as well as films that address the more regionally localized processes of community and family. The purpose of the course is to use film to expose students to diverse perspectives and to encourage the critical awareness of the global interconnections that influence and constrain our modern lives. Films will include documentaries, as well as feature films.

Credits: 2 Lecture: 1 Lab: 3

**SOC 143
FILM & SOCIETY: CONTEMPORARY ISSUES**

Examines contemporary issues in film from sociological and anthropological perspectives. Selected films cover such topics as youth culture, nationalism, local culture and poverty, mental health or other social problems. The content of the films, as well as issues of film production, historical context and audience reception will be the major focus of analysis.

Credits: 2 Lecture: 1 Lab: 3

SOC 199**SELECTED TOPICS: SOCIOLOGY****Credits: 1 to 4****SOC 201****INTRODUCTION TO SOCIOLOGY**

Provides conceptual tools for analyzing and understanding social forces that shape our lives. The relationships among socialization and social groups, as well as economic, political and religious systems are investigated. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4**SOC 206****SOCIAL PSYCHOLOGY**

Explores the relationship between individuals and society from the sociological perspective, with focus on symbolic interactionism. Examines current social-psychological issues including aggression and prejudice, altruism and moral development, love and friendship, “groupthink” and social movements. Recommended prerequisite: SOC 201.

Credits: 4 Lecture: 4**SOC 208****SPORT AND SOCIETY**

While we use sociology to help make sense of sport, we also use sport to develop the ability to think sociologically about society. Subjects include sport and values, socialization, deviance, social problems, and social inequities. Recommended prerequisite: SOC 201.

Credits: 4 Lecture: 4**SOC 211****SOCIAL DEVIANCE**

Examines the definition of deviant behavior. Focuses on deviant behavior of societies as well as individuals including issues such as drugs, organized crime, government deviance and crimes against women. Recommended prerequisites: WR 121, SOC 201 or instructor approval.

Credits: 4 Lecture: 4**SOC 212****RACE, CLASS, ETHNICITY**

Examines the interrelationships between race, class, and gender and political and economic systems. Historical and contemporary issues are highlighted. Different levels of analysis are provided, including societal structures, representations, and social interactions. Recommended prerequisites: WR 121 and SOC 201 or instructor approval.

Credits: 4 Lecture: 4**SOC 214****SOCIALIZATION**

Examines the lifelong processes by which people learn the norms and values of their society. Includes processes in primary and secondary socialization, resocialization, and anticipatory socialization. Explores impacts of socialization agents, including media, culture and societal composition. Surveys classic and contemporary theories of socialization in the sociological and broader social science perspective. Recommended prerequisite: SOC 201.

Credits: 3 Lecture: 3**SOC 215****SOCIAL ISSUES AND SOCIAL MOVEMENTS**

Applies sociological analysis to contemporary issues and movements. Examples include social class inequalities, contemporary and historical social movements, and health care. Recommended prerequisites: WR 121, SOC 201 or instructor approval.

Credits: 4 Lecture: 4**SOC 216****SOCIOLOGY OF GENDER**

Examines gender as an organizing principle of societies, from the individual through families, groups, and social institutions, and especially how gender is interconnected with race, class, and sexuality. Surveys the historical and cultural development of gender; the impact of gender polarization on relationships, the workplace, crime, and prostitution; and how gender affects religion, education, the state and mass media. Recommended prerequisite: SOC 201.

Credits: 4 Lecture: 4**SOC 219****SOCIOLOGY OF RELIGION**

Surveys a variety of religious traditions and introduces the sociological perspective for the study of religion as part of a larger social order. Explores the nature of religious beliefs and practices, both historically and in contemporary context. Examines the relationship between religious traditions and the current globalization of the institute of religion in culture and society. Recommended prerequisite: SOC 201.

Credits: 4 Lecture: 4**SOC 250****SOCIOLOGY OF POPULAR CULTURE**

Course applies a sociological perspective to the study of films, music, advertising and other forms of popular culture. Three separate elements of popular culture are examined: the production of culture, the reception of culture and the text or symbols themselves. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4**SOC 299****SELECTED TOPICS: SOCIOLOGY****Credits: 1 to 4**

SPEECH

SP 111

FUNDAMENTALS OF PUBLIC SPEAKING

Emphasizes enhancing the relationship between speaker and audience through the content, organization and delivery of short oral presentations. Helps relieve student speech anxiety.

Credits: 3 Lecture: 3

SP 114

ARGUMENTATION AND CRITICAL DISCOURSE

Explores theories of argumentation. Students will develop skills of inquiry and advocacy through oral and written discourse, including critical analysis and rules of evidence. Students will also practice planning, constructing and delivering persuasive arguments in a variety of extemporaneous formats. Through this course, students will learn how to more effectively influence others as well as raise their awareness of others trying to influence them.

Credits: 3 Lecture: 3

SP 115

INTRODUCTION TO INTERCULTURAL COMMUNICATION

Explores the impact of cultural differences in communication styles and social values and their impact on work, family, legal and economic systems. May be offered with a MIC designation.

Credits: 3 Lecture: 3

SP 188

SPECIAL STUDIES: SPEECH

Credits: 1 to 3

SP 199

SELECTED TOPICS: SPEECH

Credits: 1 to 3

SP 218

INTERPERSONAL COMMUNICATION

Promotes enhanced personal and work relationships by presenting the theoretical concepts and practical skills used in effective one-to-one communication.

Credits: 3 Lecture: 3

SP 219

SMALL GROUP COMMUNICATION

Provides theory and practice in leadership style, conflict resolution and role playing in the small group situation. The emphasis will be on task-oriented, decision-making groups.

Credits: 3 Lecture: 3

SP 220

GENDER COMMUNICATION

Introduces students to the differences between masculine and feminine communication styles and gives them the tools to manage those differences. Also reviews how communication is used to create, structure and maintain gender identities in a variety of contexts.

Credits: 3 Lecture: 3

SP 241

MEDIA, COMMUNICATION, SOCIETY

Analyzes the social and cultural impact of media, including broadcast, print, film, and computer-mediated communication. Also examines careers in selected areas of media. Taught once every two years. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

SP 250

LISTENING

Gives students a deeper understanding of and more practical skills in listening to increase understanding and to help others. This one-credit course is currently available on request.

Credits: 1 Lecture: 1

SP 252

TEAM SKILLS

Gives students an understanding of the systems nature of small groups and gives them the skills needed to manage decision-making, leadership, and the communication climate of the team setting. This one-credit course is currently available on request.

Credits: 1 Lecture: 1

SP 253

CONFLICT MANAGEMENT

Gives students an understanding of conflict management and the skills needed to become more successful in the conflict situation. This one-credit course is currently available on request.

Credits: 1 Lecture: 1

SP 270

COMMUNICATING LOVE

Provides an overview of the bio-psychological roots of romantic/erotic love, a critique of media images of love and offers practical training in communication skills that maintain and enhance long-term love relationships. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

SP 280

CO-OP WORK EXPERIENCE SPEECH INTERNSHIP

Credits: 1 to 3

SP 299

SELECTED TOPICS: SPEECH

Explores an area of communication not included in the regular curriculum. Possible topics include gender communication, media issues and relational communication.

Credits: 1 to 3

STRUCTURAL FIRE SCIENCE

SFS 101

INTRODUCTION TO EMERGENCY SERVICES

Provides an overview of fire protection and EMS; career opportunities within and related fields; philosophy and history of fire and EMS; fire loss analysis; organization and function of public and private fire and EMS services; fire department as part of local government; laws and regulations affecting the fire service; fire and emergency service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Credits: 3 Lecture: 3

SFS 102

FIRE SERVICE SAFETY AND SURVIVAL

Creates a positive attitude toward firefighter safety. Student will recognize the seriousness of the firefighter injury and death problem. Student will recognize their responsibility for reducing future injuries and deaths; provide information for improving safety considerations; foster the belief that most firefighter injuries and deaths are preventable.

Credits: 2 Lecture: 2

SFS 110

BUILDING CONSTRUCTION FOR FIRE PERSONNEL

Studies building construction with emphasis on how buildings fail when subjected to fire. Case studies used to illustrate points. Studies of roof and wall construction enable the student to predict failure points and adapt fire-fighting strategies accordingly. Buildings under construction and those subjected to external forces will also be studied. Field trips take students into the community to study various construction techniques. Recommended prerequisites: SFS 101, SFS 102.

Credits: 3 Lecture: 3

SFS 112

PUBLIC EDUCATION AND FIRE PREVENTION

Studies fundamentals of public relations pertaining to fire service including emergency operations, general public appearances, writing news releases, articles and speeches and general media contact. Students work in developing an effective public education campaign for delivery. Audience type and message content are carefully analyzed. Recommended corequisites: WR 121, SFS 101 and SFS 102.

Credits: 3 Lecture: 3

SFS 120

FIXED SYSTEMS AND EXTINGUISHERS

Studies portable and fixed extinguisher equipment, fire alarm and detection systems, sprinkler systems and standpipes, and special hazard protection systems. Covers extinguishing agents, system design and maintenance procedures. Field exercises expose students to systems discussed in class. Recommended prerequisites: SFS 101, SFS 102.

Credits: 3 Lecture: 3

SFS 121

FIRE LAW

Introduces the modern legal system with emphasis on cases related to fire service. Case law is studied to understand underlying concepts. Reviews case law affecting modern fire service agencies. Explores laws relating to medical treatment of patients, fire protection, codes, emergency response and department activities on the fire ground. Recommended prerequisites: SFS 101, SFS 102.

Credits: 1 Lecture: 1

SFS 122

FIRE DEPARTMENT BUDGET

Outlines the budget process as required by Oregon laws to include types of budgets, the process of preparing the budget and classifying expenditures. Recommended prerequisite: CIS 120 or pass computer competency test.

Credits: 1 Lecture: 1

SFS 188

SPECIAL STUDIES: STRUCTURAL FIRE SCIENCE

Credits: 1 to 4

SFS 199

SELECTED TOPICS: STRUCTURAL FIRE SCIENCE

Credits: 1 to 4

SFS 205

FIRE BEHAVIOR AND COMBUSTION

Explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. Department approval required.

Credits: 3 Lecture: 2 Lab: 3

SFS 210

FIRE INVESTIGATION

Provides basic information in fire cause determination. Studies arson detection, protection of point of origin, fire indicators, motives and vehicle fire investigation. Field trips and classroom props aid the student in understanding the science of fire investigation. SFS 210 is a technical elective. Recommended prerequisites: SFS 101, SFS 102. Department approval required.

Credits: 3 Lecture: 3

SFS 211

FIRE TACTICS AND STRATEGIES

Studies suppression, control and extinguishment methods. Identifies procedures of size-up, approach, attack, ventilation, overhaul and exposure protection. Studies strategy (the plan) and tactics (the how) of structural firefighting. Unusual fire behavior and changing fire conditions reviewed through case study and classroom exercises. Students practice skills learned on computer. Recommended prerequisites: SFS 101, SFS 102.

Credits: 3 Lecture: 3

SFS 212**FIRE CODES AND ORDINANCES**

Introduces the International Fire and Building Code (IFC) and laws promulgated by the Office of the State Fire Marshal relating to fire safety and prevention. Includes overview of administrative provisions and many of the applicable standards in the codes. Students apply the codes to specific situations to illustrate understanding and application of the codes and related laws. Students also identify applicable sections of the codes in response to scenarios presented in the classroom or in the field. Recommended prerequisites: SFS 101, SFS 102.

Credits: 3 Lecture: 3

SFS 215**URBAN INTERFACE**

Designed to assist structure and wildland firefighters who will be making tactical decisions when confronting wildland fire that threatens life, property, and improvements, in the wildland/urban interface. Instructional units include: interface awareness, size-up, initial strategy and incident action plan, structure triage, structure protection tactics, incident action plan assessment and update, follow-up and public relations, and firefighter safety in the interface. Prerequisite: completion of first year of program and/or department approval.

Credits: 3 Lecture: 2 Other: 2

SFS 230**RESCUE PRACTICES**

Explores techniques and applications of specialized rescue practices in modern fire service. Focuses on vehicle rescue, steep-angle rescue and swift-water rescue with basic overviews of ice rescue, electrical rescue and trench rescue techniques. Using modern tools and techniques, students apply classroom learning in several comprehensive and dynamic field exercises. Emergency Medical Technician - Basic training allows students to integrate fire and EMS activities at an emergency rescue scene. Note: EMT Basic certification and second-year status is required. Prerequisite: department approval required. Recommended corequisites: WR 121, SFS 101 and SFS 102.

Credits: 3 Lecture: 2 Lab: 3

SFS 232**FIRE PROTECTION HYDRAULICS AND WATER SUPPLY**

Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Recommended prerequisite: MTH 60.

Credits: 4 Lecture: 4

SFS 233**FIRE SERVICE ENTRANCE EXAMS**

Introduces and prepares student for processes and procedures of testing for employment in a structural fire agency. Course is also beneficial for career personnel preparing for promotional examinations within their agency. Tests students in oral and

written communication skills, offering strategies to improve weak areas. Students practice oral interview procedures, reading comprehension, concentration and memory. Several diagnostic tests evaluate mechanical ability, comprehension, basic chemistry and basic physics. SFS 233 is a technical elective. Recommended prerequisites: WR 121, SFS 101, SFS 102. Completion of first-year courses and/or department approval required.

Credits: 3 Lecture: 3

SFS 283**CAPSTONE FOR FIRE SCIENCE**

Structural Fire Science encourages practical application of concepts learned in the curriculum and applies it to real-world fire service situations. Two initial classes establish parameters and processes to be used in completing the capstone project. Final project encourages exploration and expansion of particular areas of the structural fire science curriculum. Project is presented to a panel of three area fire service professionals and the instructor. Prerequisites: completion of first-year courses and/or department approval required.

Credits: 1 Lecture: 1

SFS 288**SPECIAL STUDIES:STRUCTURE FIRE**

Credits: 1 to 3

SFS 299**SELECTED TOPICS: STRUCTURAL FIRE SCIENCE**

Credits: 1 to 4

STUDY SKILLS**HD 100CS****COLLEGE SUCCESS**

Identify essential college resources for the development of a realistic and workable academic plan. Designed to give new students a broad overview of college basics. Addresses both study skills and personal characteristics (critical thinking, decision making, and responsibility) a student needs to ensure a successful transition to college life. Introduces students to college resources and student services that support successful academic growth and planning. Explores learning styles, proactive communication strategies, and study skills such as note-taking, memory techniques for positive class performance. Provides students with techniques for effectively managing their time and achieving balance between school, work and personal commitments.

Credits: 2 Lecture: 2

HD 100NT**NOTE TAKING**

Introduces students to active listening and note taking for later recall of information from lectures, classroom and activities. Students will learn to identify key points, use the five most effective techniques for taking notes, use notes for class assignments and tests, and design a note-taking style for personal fit.

Credits: 1 Lecture: 1

**HD 100OL
EXPLORING ONLINE LEARNING**

Introduces students to the world of online education. By taking into account personal characteristics, learning styles, and knowledge of technology, students will determine if online courses fit their academic goals. Specific tools for evaluating the quality of online degree programs will be presented, while challenges and common misconceptions of online classes will be discussed.

Credits: 2 Lecture: 2

**HD 100PM
PROCRASTINATION & MOTIVATION**

Introduces students to the characteristics of procrastinating behaviors. The class explores reasons for procrastination and how to self-negotiate to eliminate non-productive behaviors. Specific tools to address individual styles of procrastination will be introduced with an emphasis on identifying personal values to motivate one to action and achieve defined goals.

Credits: 1 Lecture: 1

**HD 100TT
TEST TAKING**

Designed for students challenged by tests or assessment materials. The class introduces students to the process of effective test taking including preparation for all types of tests and classroom assessment tools, study and relaxation techniques and actual test taking. Students will be introduced to pro-active strategies to address test anxiety, utilize test results for improved performance, and access instructors for guidance and performance.

Credits: 1 Lecture: 1

**HD 100VC
VALUES CLARIFICATION**

Designed to assist students in defining the motivation behind their college investment and develop a compelling academic plan integrated with their personal life plan. Students will identify their key motivators (values), assess current life choices and roles in the framework of the defined values, develop a plan of action that realistically supports success, choose action steps resulting in the achievement of defined outcomes, and develop strategies to continually reassess and measure academic/personal success.

Credits: 1 Lecture: 1

**HD 101
STUDY STRATEGIES**

Emphasizes study skills, acquisition of college knowledge, resources, and personal responsibility while building and using strategies for college and workplace success. Effective learning and study strategies are reviewed and practiced including text reading, note taking, test taking, listening strategies, and time management. Learning styles are identified and connected to proactive behaviors. College resources, campus protocol and ethical student behavior are introduced and integrated with examination of self-talk and application of visualization processes to enhance confidence and self-esteem in the college environment.

Credits: 3 Lecture: 3

**HD 102
LEADERSHIP DEVELOPMENT**

Teaches basic principles of leadership development and staff management in order to prepare student/staff leaders to effectively work in their assigned roles within Student Life and together as a team. Includes topics designed to increase knowledge and skills in the areas of diversity awareness, communication, conflict management, teambuilding, group development, personal awareness, time management and values clarification. As a result of this class, students will become familiar with the roles and expectations of the Student Life staff and be able to professionally represent COCC in their leadership roles on campus. Department approval required.

Credits: 2 Lecture: 2

THEATER ARTS**TA 141
ACTING I**

Acquaints students with fundamental principles of acting. In-class performance in both comic and serious modes required. Grading based primarily on in-class participation. Attendance is mandatory.

Credits: 3 Lecture: 3

**TA 142
ACTING II**

Emphasizes in-depth character study and textual analysis through preparation of scenes from modern American plays. Attendance is mandatory. Recommended prerequisite: satisfactory completion of TA 141 or instructor approval.

Credits: 3 Lecture: 3

**TA 143
ACTING III**

Further in-depth character study and scene work. May be repeated for credit. Attendance is mandatory. Recommended prerequisite: successful completion of TA 141 and TA 142.

Credits: 3 Lecture: 3

**TA 200
INTRODUCTION TO THEATER**

Introduces student to the world of theater. Combines overview of historical facts and theory with contemporary practice. Explores career options in theatrical production.

Credits: 3 Lecture: 3

**TA 207
READINGS IN THEATER**

Offers a study of selected plays, loosely grouped by country of origin, theme, era or playwrights. Emphasis placed on texts in performance rather than on literary analysis. May be repeated once for credit.

Credits: 3 Lecture: 3

**TA 280
CO-OP WORK EXPERIENCE THEATER**

Credits: 1 to 3

WILDLAND FIRE/FUELS MANAGEMENT

WF 100 INCIDENT COMMAND SYSTEMS

This course introduces students to the principles of the Incident Command System (ICS) associated with incident-related performance. Topics include leadership and management, delegation of authority and management by objectives, functional areas and positions, briefings, organizational flexibility, transitions, and transfers.

Credits: 3 Lecture: 3

WF 101 INTRODUCTION TO FIRE BEHAVIOR AND FIREFIGHTER TRAINING

The purpose of this course is to train new firefighters in basic firefighting skills and the basic fire behavior factors that will aid them in the safe and effective control of wildland fires. Students will receive NWCG certification in S-130, S-190, L-180 and S-133.

Credits: 3 Other: 6

WF 102 S-131 AND S-134

Designed to meet training needs of both advanced firefighter/squad boss (FFT1) and incident commander type 5 (ICT5). Course is interactive and contains several exercises and group and class exercises. Topics include fireline reference materials, documenting activities, fireline communications, tactics, and safety. Students will be involved in designing their own safety program. Small groups will discuss and develop the L, C, E and S, creating a list of performance standards. Students will work together to produce and edit a contract, based on consensus which guides performance.

Credits: 2 Lecture: 2

WF 131 S-131 ADVANCED FIREFIGHTER

Trains students who wish to become qualified in the first-level supervision position of Advanced Firefighter/Squad Boss (FFT1). This is intended for an individual who: has the ability or desire to become a first level supervisor; is a potential Squad Boss; may be in the position of being a first responder to initial attack fires and responsible for five or fewer personnel. Recommended prerequisites: WF 100, WF 101.

Credits: 1 Lecture: 1

WF 134 S-134 LOOKOUTS, COMMUNICATION, ESCAPE ROUTES, SAFETY ZONES

Students become engaged in the process of designing their own safety program. The small group exercises will discuss and develop the L, C, E, S, creating a list of performance standards. The entire class will then work together to produce and edit a contract, based on consensus, which guides performance.

Credits: 2 Lecture: 2

WF 181 L-180 HUMAN FACTORS-FIRELINE

Establishes an awareness of human performance issues and how those issues can impact fireline job performance. Addresses human performance content that relates to the individual, including situation awareness, communication, decision making, risk management and teamwork skills. Improves awareness of human performance issues on the fireline so that individual firefighters can integrate more effectively into teams/crews working in dynamic, high-risk environments. Recommended prerequisites: WF 100, WF 101.

Credits: 1 Lecture: 1

WF 188 SPECIAL STUDIES: WILDLAND FIRE

Credits: 1 to 4

WF 199 SELECTED TOPICS: WILDLAND FIRE

Credits: 4

WF 200 S-200 INITIAL ATTACK INCIDENT COMMAND

Designed to meet the training needs of the ICT4. Presented in a lecture/discussion format and supplemented with group exercises. The six instructional units cover readiness and mobilization; size up, planning, and ordering; deployment and containment; administrative requirements; and post-fire evaluation.

Credits: 2 Lecture: 2

WF 201 NFPA INSTRUCTOR 1

NFPA Instructor 1 is an intensive instructional methodology program. It addresses the job performance requirement of the National Fire Protection Agency, 1041 Standard for Fire Service Instructor Professional Qualifications and the National Wildfire Coordinating Group. The course prepares students for planning instruction, using a variety of instructional methods, teaching diverse learners, and evaluating course outcomes. The course also provides guidelines for addressing the critical issues of safety and the legal issues of training, and it provides opportunities to participate in application activities.

Credits: 3 Lecture: 3

WF 203 S-203 INTRODUCTION TO INCIDENT INFORMATION

Provides students with the knowledge and skills they need to serve as type 3 information officers (IOF3). Touches on virtually all aspects of establishing and maintaining an incident information operation, communicating with internal and external audiences, to handling special situations. Format of the course is lecture and exercises with a final simulation.

Credits: 3 Lecture: 3

WF 210**FI-210 WILDFIRE ORIGIN/CAUSE**

Students will learn how to obtain and use information to determine the probable cause of a wildland fire. Includes obtaining pertinent information when traveling to a fire, locating and securing the probable ignition location, identifying witnesses, documenting any findings, evidence collecting, identifying laws, regulations, and related court procedures associated with administrative, civil and criminal litigation processes.

Credits: 3 Lecture: 3

WF 211**S-211 PORTABLE PUMPS**

Provides practical knowledge and application skills of portable pump operations. Recommended prerequisite: WF 100, WF 101.

Credits: 2 Lecture: 2

WF 212**S-212 WILDFIRE POWER SAWS**

Provides training in the use of power saws and techniques. Covers the duties and responsibilities of the power saw operator; parts and maintenance of the chain saw; application; safety and evaluation. Recommended prerequisites: WF 131, WF 134.

Credits: 3 Lecture: 2 Lab: 3

WF 215**S-215 FIRE OPERATIONS IN THE URBAN INTERFACE**

Covers size-up, initial strategy and action plan, structure triage, tactics, action plan assessment, public relations and follow-up, and safety. Recommended prerequisites: WF 100, WF 101.

Credits: 3 Lecture: 3

WF 230**S-230 CREW BOSS**

Designed to produce student proficiency in the performance of duties associated with the single resource boss position from initial dispatch through demobilization to the home unit. Topics include operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, offline duties, demobilization and post-incident responsibilities.

Credits: 3 Lecture: 3

WF 231**S-231 ENGINE BOSS**

Skill course designed to produce student proficiency in the performance of all duties associated with the single resource engine boss. Topics include: tactical use and safety precautions required to establish an effective engine operation on a large incident.

Credits: 2 Lecture: 2

WF 232**S-232 DOZER BOSS**

Skill course designed to produce proficiency in the performance of all duties associated with the single dozer boss (DOZB). Primary considerations are tactical use and safety precautions required to establish and maintain an effective dozer operation.

Credits: 2 Lecture: 2

WF 234**S-234 IGNITION OPERATIONS**

This is an entry-level course providing training in the functional roles and responsibilities connected with firing operations. The course covers planning, ignition procedures and techniques, and equipment applicable to wildland and prescribed fire. This course addresses the role of the ignition specialist or firing boss as the organization manages escalation from a non-complex to a complex fire situation. Note: This course is not intended to qualify or certify any personnel in the use or transport of any firing device. Rather, it is to provide the potential firing boss a description of available equipment and the requirements specific to each such device. Department approval required.

Credits: 2 Lecture: 2

WF 244**S-244 FIELD OBSERVER**

Provides students with the necessary skills to perform as a field observer (FOBS) and/or a prescribed fire effects monitor (FEMO). Topics include identifying and interpreting maps, making map calculations, using observation aids and instruments, performing field observations, and communicating information. There will be a daylong field trip.

Credits: 2 Lecture: 2

WF 260**S-260 INTERAGENCY INCIDENT BUSINESS MANAGEMENT**

Covers the following incident business management practices: rules of conduct for incident assignments, recruitment of casuals, pay provisions, timekeeping, commissary, travel compensation for injury, acquisition of equipment, supplies, services, property management, types and the necessity of cooperation agreements, reporting, investigating, documenting accidents and claims. Concurrent enrollment in WF 100, WF 101.

Credits: 2 Lecture: 2

WF 261**S-261 APPLIED INTERAGENCY INCIDENT BUSINESS MANAGEMENT**

This course is designed to provide the prerequisite skills/knowledge necessary to perform the tasks of the entry level finance positions, i.e., commissary manager, personnel time recorder, equipment time recorder, compensation for injury specialist and claims specialist, in the Incident Command System (ICS). It is designed to be taken after completion of Interagency Incident Business Management (S-260).

Credits: 2 Lecture: 2

WF 270**S-270 BASIC AIR OPERATIONS**

Covers aircraft types and capabilities, aviation management and safety, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. Recommended prerequisites: WF 131, WF 134.

Credits: 2 Lecture: 2

WF 281**L-280 FOLLOWERSHIP/LEADERSHIP**

Training course designed as a self-assessment opportunity for individuals preparing to step into a leadership role. There is one day of classroom instruction followed by a day in the field with small teams of students working through a series of problem-solving events (Field Leadership Assessment Course). Topic areas include leadership values and principles; transition challenges for new leaders; situational leadership; team cohesion factors; ethical decision-making.

Credits: 2 Lecture: 2

WF 284**I-400 ADVANCED INCIDENT COMMAND SYSTEMS**

This course directs the student towards an operational understanding of large single-agency and complex multi-agency/multi-jurisdictional incident responses. Topics include fundamentals review for command and general staff, major and/or complex incident/event management, area command, and multi-agency coordination. This course was developed in conjunction with the US Fire Administration (H467) and the Emergency Management Institute (G400). These courses are built on the same lesson objectives and content as the NWCG I-400 course and are interchangeable; they are all National Incident Management System (NIMS) compliant. Department approval required.

Credits: 2 Lecture: 2

WF 286**PACIFIC NORTHWEST ENGINE ACADEMY**

Students attending the Pacific Northwest Engine Academy will receive training utilizing a variety of methods and techniques, which will provide information about water handling and will improve engine operation skills. These skills are applicable to both fuels management and fire suppression activities. The student will be instructed using ICS terminology.

Credits: 3 Lecture: 2 Lab: 3

WF 288**SPECIAL STUDIES: WILDLAND FIRE**

Credits: 1 to 4

WF 290**S-290 INTERMEDIATE WILDFIRE BEHAVIOR**

Meets training requirements to work in the operations section of the Incident Command System. Instructs firefighters how to

recognize the numerous factors relating to fuels, topography and weather which affect fire behavior. Recommended prerequisites: WF 131, WF 134, WF 260.

Credits: 3 Lecture: 3

WF 291**I-300 INTERMEDIATE INCIDENT COMMAND SYSTEMS**

This course provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on expanding or Type 3 incidents. Topics include ICS fundamentals review, incident/event assessment and agency guidance in establishing incident objectives, Unified Command, incident resource management, planning process, demobilization, transfer of command, and close-out. Department approval required.

Credits: 2 Lecture: 2

WF 292**RX-300 PRESCRIBE BURN BOSS**

Designed to prepare the student for the use of fire to accomplish resource objectives by evaluation and implementation of a prescribed fire. Development of a burn plan is the primary product of this course which includes developing resource management objectives; safety and monitoring; operational criteria; legal liabilities; use of fire and fire effects; smoke management and prescription design.

Credits: 4 Lecture: 4

WF 293**RX-340 (RX-310) FIRE EFFECTS**

Provides the student with the knowledge and skills to recognize basic fire regimes, the results of fire treatment on first-order fire and fire effects, and to manipulate fire treatments to achieve desired first-order fire effects.

Credits: 3 Lecture: 3

WF 294**S-300 IC EXTENDED ATTACK**

Meets the training needs of the incident commander, type 3 (ICT3). Presented in a lecture/discussion format and supplemented with group exercises. There are six instructional units that cover information gathering, planning, supporting organization, operations, transition, and demobilization/administrative requirements.

Credits: 2 Lecture: 2

WF 295**S-330 TASK FORCE/STRIKE TEAM LEADER**

Prepares the student to perform in the role of task force leader (TFLD) or any strike team leader. Examples and exercises are specific to wildland fire suppression. If the student is expected to perform in another risk area, applicable examples and exercises in the area will be added.

Credits: 3 Lecture: 3

WF 296**S-336 SUPPRESSION TACTICS**

Meets training requirements in the Operations Section of the Incident Command System. Examples, simulations and exercises in this course are specific to wildland fire suppression.

Credits: 3 Lecture: 3

WF 297**S-339 DIVISION GROUP SUPERVISOR**

Prepares student to perform in the role of division/group supervisor. Provides instruction in support of the specific tasks of division/group supervisor, but will not instruct the student in general management/supervision or in the Incident Command System (ICS). Topics include division/group management, organizational interaction, and division operations.

Credits: 2 Lecture: 2

WF 298**S-390 FIRE BEHAVIOR CALCULATION**

Designed to develop knowledge and skills required for effective fire behavior prediction. Introduces fire behavior calculations by manual methods, using nomograms. Student will gain an understanding of the determinants of fire behavior through studying input (wind, slope, fuels, and fuel moisture). Students also learn how to interpret fire behavior output. Local and regional environmental differences are stressed.

Credits: 2 Lecture: 2

WF 299**SELECTED TOPICS: WILDLAND FIRE**

Credits: 1 to 4

WRITING**WR 060****RHETORIC AND CRITICAL THINKING I**

First course in a two-course series of instruction in developmental writing and reading. Reading and writing skills are taught through reading, analyzing, evaluating and writing texts and essays of varying lengths that show the full sequence of stages of the reading and writing process. Recommended prerequisites: Reading and Writing placement test scores that place the student in WR 60.

Credits: 4 Lecture: 4

WR 065**RHETORIC AND CRITICAL THINKING II**

Second course in a two-course series of instruction in developmental writing and reading. Students will study one long text and shorter selections from varying points of view representing the three major academic disciplines of humanities, science, and social science. Mirroring the reading and writing skills used in college, students read and write about the primary ways of thinking across the disciplines. Recommended

prerequisites: Reading and Writing placement test scores that place the student in WR 65; or a grade of “C” or higher in WR 60.

Credits: 4 Lecture: 4

WR 075**BASIC WRITING I**

Emphasizes advanced paragraph structure and development and simple essay structures, including some work on addressing specific audiences for specific purposes. Provides extensive practice in developing and organizing fully developed paragraphs and short essays. Recommended prerequisites: Reading and Writing placement test scores that place the student in WR 75 including college-level reading skills; or a grade of “C” or higher in WR 60.

Credits: 3 Lecture: 3

WR 095**BASIC WRITING II**

Provides instruction and practice in basic essay structures and development. Students learn effective options for introductions, transitions, body paragraphs and conclusions. Includes brief review of sentence mechanics and paragraphing principles within the context of student’s own writing. Also provides practice and instruction in the writing process, including peer review and analysis. WR 95 is an optional course in the developmental writing sequence for students who need or want additional preparation for WR 121. College-level reading skills required.

Credits: 3 Lecture: 3

WR 099**SELECTED TOPICS: WRITING**

Credits: 1 to 4

WR 121**ENGLISH COMPOSITION**

This transfer course emphasizes text-based academic writing and develops skills in expository and persuasive writing incorporating analytical reading, critical thinking, and credible sources. Students compose several essays using a variety of strategies to support a thesis. Students are placed into WR 121 based on writing and reading placement test scores; or a grade of “C” or higher in WR 65 or WR 75 or WR 95.

Credits: 4 Lecture: 4

WR 122**ENGLISH COMPOSITION**

Using critical reading, observation or investigation to explore topics in depth, students learn to incorporate, accommodate or refute other voices, use evidence including scholarly research and persuasion and follow patterns of reasoning to support their positions. WR 121 is a recommended prerequisite for this course.

Credits: 4 Lecture: 4

WR 123
ENGLISH COMPOSITION

Stresses skills necessary to produce college research papers. Students learn to focus a topic; to practice critical reading; to evaluate sources and incorporate them into their writing; and to formally organize, format and document their final revisions. Recommended prerequisite: WR 122.

Credits: 3 Lecture: 3

WR 170
DOCUMENTATION

Instruction emphasizes what constitutes plagiarism and how to avoid it by applying college-level documentation practices, using accepted discipline-appropriate academic and professional styles, in research-based writing assignments across the curriculum.

Credits: 1 Lecture: 1

WR 188
SPECIAL STUDIES: WRITING

Credits: 1 to 3

WR 199
SELECTED TOPICS: WRITING

Credits: 1 to 3

WR 214
BUSINESS COMMUNICATIONS

Introduces students to prevailing practices of written and oral communication in business organizations, with special attention to audience-adaptation strategies and developing a jargon-free style. Includes instruction in formatting techniques, document design, graphics, research strategies and documentation, as well as practice in the collaborative skills required for workplace writing. Recommended prerequisite: WR 121.

Credits: 3 Lecture: 3

WR 227
TECHNICAL WRITING

This transfer course emphasizes forms of writing appropriate in the workplace rather than academic essays. This course addresses the following topics: evaluation of audiences, writing situations, and sources; document design; research processes; visual aids; oral presentations; and collaborative writing. Writing assignments include memos, letters, informal reports, process reports, and research reports. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

WR 240
**INTRODUCTION TO CREATIVE WRITING:
NONFICTION**

Introduces students to writing creative nonfiction, adapting the personal essay to multiple purposes, such as science or nature writing, travel writing, memoir, biography, and journalistic essay. Prose craft exercises, critical reading of published authors and responding constructively to other student work are essential learning processes. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

WR 241
INTRODUCTION TO CREATIVE WRITING: FICTION

Practical study of effective strategies for creating vivid, dramatic stories. Students learn the basic craft of generating conflict and plot, openings that grab the reader, complications that build tension, and details that reveal character. Critical reading of published authors, prose craft exercises and responding constructively to other student work are essential learning processes. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

WR 242
INTRODUCTION TO CREATIVE WRITING: POETRY

Introduces students to the craft of poetry through study of the poetry and notebooks of established writers for writing techniques, forms, styles and work processes and through the writing and submission of approximately one complete poem per week for class discussion and analysis. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

WR 243
**INTRODUCTION TO CREATIVE WRITING:
SCRIPTWRITING**

Introduces students to dramatic writing for both stage and screen. Essential learning processes in the course include scene and dialogue craft exercises, developing strong characters and viable narrative structures, critical reading of plays, screenplays, and/or teleplays and responding constructively to other student work. Recommended prerequisite: WR 121.

Credits: 4 Lecture: 4

WR 288
SPECIAL STUDIES: WRITING

Credits: 1 to 3

WR 299
SELECTED TOPICS: WRITING

Credits: 1 to 4

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B.A. in European Literature and Thought, 1969, University of Iowa; M.A. in English Literature, 1973, University of Leeds; M.A., Educational Specialist in Community College Teaching English, 1976, University of Iowa; D.A. in English Language and Literature, 1983, University of Michigan. At COCC since 2004.

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B.A. in Organizational Communication, California State University, Stanislaus, 1984; M.S. in Rhetoric and Communication, University of Oregon, 1986; Ph.D. in Educational Policy and Management, University of Oregon, 1994. At COCC since 2010.

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FACULTY ACHIEVEMENT AWARD RECIPIENTS

The Faculty Achievement Award recognizes excellence in teaching. It is awarded each year at the College's faculty convocation ceremony. Those who have been honored are:

- 1986 Bruce Nolf, Professor of Geology
- 1987 Jack R. McCown Jr., Professor of Mathematics
- 1988 C. Wayne Eshelman, Professor of Biological Sciences
- 1989 Millie MacKenzie, Professor of Office Administration
- 1990 Raymond R. Hatton, Professor of Geography
- 1991 Michael A. Sequeira, Associate Professor of Mathematics and Computer Science
- 1992 Ellen M. Howe, Associate Professor of Nursing

- 1993 Darla J. Quesnell, Professor of Psychology
- 1994 Bruce W. McClelland, Professor of Chemistry
- 1995 E. Robert Powell, Professor of Physical Science and Chemistry
- 1996 Diana Glenn, Associate Professor of Office Administration
- 1997 Cora Agatucci, Associate Professor of English
- 1998 Mark E. Eberle, Associate Professor of Biological Sciences
- 1999 Patricia O'Neill, Associate Professor of History
- 2000 Bruce L. Emerson, Associate Professor of Physics
- 2001 Terry Krueger, Professor of English
- 2002 Gloria Ahern, Professor of Health Information Technology
- 2003 Julie A. Keener, Professor of Mathematics
- 2004 Rebecca L. Walker-Sands, Associate Professor of Psychology
- 2005 Charles T. Naffziger, Associate Professor of Mathematics
- 2006 Michael C. Gesme, Associate Professor of Music
- 2007 Robert W. Reynolds, Professor of Geology
- 2008 Stacey L. Donohue, Professor of English
- 2009 Karen Huck, Professor of Speech
- 2010 Julie F. Downing, Professor of Health and Human Performance

ADMINISTRATION

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Hotel and Restaurant Cookery, Theory and Practice, 1968-71, City and Guilds of London Institute. At COCC since 2009.

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