

CLATSOP COMMUNITY COLLEGE 2011 – 2012 CATALOG



Mission Statement

It is our purpose to build an educational community that provides open access to high quality learning opportunities for the people of our region, and preparing them for full and productive participation in a dynamic world. In fulfillment of this purpose we commit ourselves to being

Learner Centered

- o Providing a student-centered learning environment
- o Maintaining our open admission policy with equal educational access and opportunity
- o Being learners ourselves, maintaining currency and creativity in both the content and delivery of our educational programs

A Comprehensive Community College

- o Providing lower division transfer courses and programs
- o Providing a variety of professional technical courses and programs
- o Providing developmental courses and programs, and remedial assistance
- o Providing continuous learning opportunities

Accountable for Student Learning

- o Ensuring that students graduating from Clatsop Community College will have demonstrated the ability to:
 - Communicate effectively through writing, speaking, and imagery
 - Solve problems with current and emerging discipline-appropriate technology
 - Act with integrity
 - Understand and appreciate diversity
 - Work competently through knowledge of content, mastery of skills, and effective work habits
 - Work effectively individually, collaboratively, and as a leader
 - Solve problems through critical and creative thinking
 - Demonstrate the skills and tools needed for life-long learning

Community Focused

- o Fostering positive and productive relationships in order to develop and improve College programs
- o Participating in the activities of community-based organizations
- o Encouraging public input
- o Promoting and maintaining the College as both cultural and educational center for the community

A Quality Employer

- o Attracting and retaining the best qualified faculty and staff
- o Providing a congenial, cooperative atmosphere that supports employee participation
- o Promoting employee job satisfaction, performance, and advancement opportunities
- o Maintaining a firm commitment to equal opportunity in pursuit of being a more diverse community

Here for Our Future

- o Continuously reviewing the educational and facilities needs of the College
- o Continuously engaging in effective long range planning
- o Effectively and efficiently managing the resources of the College in support of our learner-centered educational purposes
- o Adapting our programs to educational and technological advancements

To receive information about the College's degree or certificate programs, write or call:

Clatsop Community College Admissions Office

1651 Lexington Ave., Astoria, OR 97103

(503) 338-2411 or Toll Free 1-855-252-8767, FAX (503) 325-5738, email: admissions@clatsopcc.edu

For general information, call (503) 325-0910 or access our website at: www.clatsopcc.edu

Specific inquiries about the Affirmative Action Policy should be directed to the:

Affirmative Action Officer/Human Resources Director

It is the policy of Clatsop Community College that there will be no discrimination or harassment on the grounds of race, color, sex, marital status, religion, national origin, age, sexual orientation, or disability in any educational programs, activities, or employment. Questions or complaints should be directed to the Affirmative Action/Gender Equity (Title IX) Officer in Library 108 (503 338-2450; TDD 503 338-2468). The Section 504 Coordinator is located in the Student Services Center (503 338-2474).

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Welcome to Clatsop Community College!

We're very excited about the positive changes that have taken place here recently, and extremely proud of the traditions that continue to make us the premiere post-secondary educational institution on the North Coast of Oregon.

From our award-winning campus buildings, dynamic website, refreshing new logo and our "feisty" new mascot - Bandit the Raccoon - we at CCC are working continuously to enhance your student experience.

At the same time that innovation and progress result in changes at CCC, we continue to maintain our traditional strengths. These include: small class sizes, caring, talented and accessible faculty and staff, a diverse student body, quality programs, and tuition and fees that will literally save you thousands of dollars when compared to other Oregon post-secondary colleges and universities.

So as you chart your course at Clatsop Community College, I strongly encourage you to get involved in a club, enroll in a course that gets you out of your comfort zone, and above all, take advantage of the exceptional variety of courses and services that we have to offer.

I hope to see you on campus soon!

A handwritten signature in black ink that reads "Larry Galizio". The signature is written in a cursive, flowing style.

Larry Galizio, Ph.D.
President

Clatsop Community College



Clatsop Community College is a public, two-year coeducational institution serving northwest Oregon and southwest Washington since 1958. Instruction and training in liberal arts and sciences, professional technical fields, community education, developmental education, and general education are offered. Located at the mouth of the Columbia River in historic Astoria, Oregon, its high-quality, low-cost education serves a district that covers all of Clatsop County and part of Columbia County in Oregon, and Pacific and Wahkiakum Counties in Washington. At Clatsop you may:

Earn a one-year certificate or two-year degree in a variety of fields leading directly to good careers or further education.

- Complete two years of lower division instruction that can be transferred to a four-year college or university.
- Enroll in classes, workshops and seminars which offer personal as well as occupational benefits.

Institutional Student Learning Outcomes

Students who complete a degree or certificate program will have transferable skills that are essential to any student's success, regardless of degree or employment. Institutional Student Learning Outcomes demonstrated by students graduating from Clatsop Community College include the ability to:

1. Communicate effectively through writing, speaking, and imagery.
2. Solve problems with current and emerging discipline-appropriate technology.
3. Act with integrity.
4. Understand and appreciate diversity.
5. Work competently through knowledge of content, mastery of skills, and effective work habits.
6. Work effectively individually, collaboratively, and as a leader.
7. Solve problems through critical and creative thinking.
8. Demonstrate the skills and tools needed for life-long learning.

Accreditation

Clatsop Community College is accredited by the Northwest Commission on Colleges and Universities (NWCCU), an independent, non-profit organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA) as the Northwest postsecondary regional accrediting authority on educational quality and institutional

effectiveness of higher education institutions. Accreditation by a postsecondary regional accrediting agency qualifies institutions and enrolled students for access to federal funds to support teaching, research, and student financial aid. Clatsop Community College's accreditation from the NWCCU assures students that their work will receive appropriate recognition from prospective employers and other colleges and institutions. You may receive information regarding accreditation by contacting the Office of the President.

Convenient, Student-Centered Facilities

The College's historic main campus in Astoria, on a hillside overlooking the magnificent Columbia River, has undergone extensive redevelopment to provide state-of-the-art laboratories and classrooms, full-accessibility, and inviting, student-centered learning spaces. Columbia Hall opened in January 2010 and houses classrooms and labs, Bookstore, Food Services, Student Government and a community meeting room.

In addition to the main campus, the College has a Performing Arts Center in Astoria and Marine and Integrated Manufacturing Technology training facilities east of Astoria along the Columbia River. The South County Campus in Seaside is home to the College's small business and economic development services as well as various classes convenient to South County residents.

A Sense of Place

The College district covers all of Clatsop County, bordered on the north by the Columbia River, on the west by the Pacific Ocean, and nestled against the mountains of the Coast Range on the east. This magnificent natural landscape provides inspiration for the College's art students and a living laboratory for its science students. The area's colorful history of exploration, fishing, and maritime trading is also evident in the College's arts and cultural offerings, such as the nationally recognized "Fisher Poets Gathering," and in its regionally unique Maritime Science degree program. Astoria, the county seat, is said to be the oldest American settlement west of the Rocky Mountains. Its beautiful, Victorian-era homes and commercial buildings, many constructed before the turn of the 20th century, speak to the craftsmanship of a bygone age and have inspired the College's degree program in Historic Preservation.

ADMISSION

DEGREE OR CERTIFICATE PROGRAM

If you are planning to earn a Clatsop degree or certificate you must apply and be admitted to Clatsop as a certificate or degree seeking student. In addition, many of the special program funding sources such as financial assistance, veterans benefits, and some scholarships require your admission before any funds can be released.

Admission Criteria: Clatsop is an open-door, equal-access institution. To qualify for admission, you must be 18 years of age or older, or possess a high school diploma or GED. To be admitted you must complete an admissions application and the COMPASS placement evaluation. The College reserves the right to deny admission to applicants whose admission is judged to be potentially detrimental to the institution.

Application Dates: As a prospective student, you are encouraged to apply early to be eligible for early registration dates. The end of the first week of the term is the deadline for completing admissions. You may visit, call, or write the Student Services Center for specific application dates and for assistance with beginning the admissions process.

You may call 503-338-2411 or 1-855-252-8767 (toll free), write to Admissions, Clatsop Community College, 1651 Lexington Ave., Astoria, OR, 97103, or reach us by e-mail at admissions@clatsopcc.edu. The following steps have been established to ensure that you begin your experience at Clatsop with ease and confidence.

Step 1: Complete the Online Admission Application

The first step in the admissions process is to complete the online admissions application. Go to www.clatsopcc.edu/getting-started and select your profile to apply. When you complete and submit your application, a \$15 application fee will be posted to your student account. This is a non-refundable fee.

If you are not transferring from another institution and have been out of high school or have obtained your GED within the last five years, you should request that your high school transcripts be mailed to the CCC Admissions department. You may request your GED transcripts from the Department of Education in the state where you took your GED test. You may request an application and transcript request forms from the Student Services Center (SSC). The application should be returned to the SSC as soon as possible. You must then contact the SSC to schedule an appointment for the next step, the COMPASS placement evaluation.

Step 2: Take the COMPASS Placement Evaluation

Online COMPASS sign-up is available once you submit your admissions application. A \$15 fee will be posted to your account when you sign up. This fee is refundable up to the date and time of your test, provided you cancel the session by logging in to your student account. Students who have earned a "C" or above in college writing & math may be waived from the COMPASS with proof of coursework. Fax transcripts to 503-338-2504 for COMPASS waiver consideration.

All new degree-seeking students at Clatsop Community College are required to take the WRITING, READING, and MATH portions of the COMPASS Placement Evaluation unless they have already successfully completed college-level courses in writing and mathematics. If you have been successful in

previous writing and/or math college classes, you may ask about an exemption from the COMPASS. The data from the placement evaluation will not be used to deny admission to Clatsop.

The evaluation consists of three basic areas:

1. **Writing Skills** measures your skills in punctuation, grammar, sentence structure, strategy, organization, and style.
2. **Reading Skills** measures your ability to read and understand factual material.
3. **Numerical Skills** measures your ability to understand and work with whole numbers, decimals, fractions, basic word mathematics experience, and algebra.

Transfer Admission: If you are transferring from another institution, you should follow the steps listed above. Your official transcript will be submitted for evaluation to the Student Services Center after you have completed the admissions process. Both lower and upper division credits in which you earned a "C" or better will be considered for evaluation.

Upper division credits may be transferred to Clatsop to meet group and elective requirements when it is determined that the upper division course content is essentially equivalent to Clatsop course content. Transfer credit for work done at nonaccredited collegiate institutions will not be granted.

Readmission: If you have been admitted and attended Clatsop before, but have been absent for one year or more, contact the Student Services Center to update your status as an admitted student.

INTERNATIONAL STUDENTS

To be admitted, you must meet the following requirements:

1. A paper-based score of 520 or above, or a computer-based score of 17 or above in each of the four competency areas on the International Test of English Language (TOEFL), or successful completion of and recommendation from an English Language Institute in the United States, or 30 quarter hours or 20 semester hours of transferable credits with a 2.5 grade point average or better from American colleges or universities.
2. The equivalent of a U.S. high school diploma.
3. A financial statement verifying that you have the financial resources to pay the normal expenses for one year's enrollment. You will be required to submit one year's tuition before final papers for immigration and college admission are issued. See the tuition and fee information in the International Student Packet.

Applicants are accepted to begin in the fall, winter, or spring terms. The application process must be completed two months prior to the term you plan to attend. If you are interested in applying for admission, you should request an "International Student Packet" from the Student Services Center. The packet outlines the application procedures and application deadlines. A \$150.00 non-refundable international student application fee must be submitted with your application.

This school is authorized under Federal law to enroll nonimmigrant students.

MONEY MATTERS

Payment Obligations

By registering for a class at the College, you have incurred a legal obligation to pay all tuition, fees, and any other charges relating to your enrollment, even if your charges are being paid by another party. Unless you officially withdraw from your courses, you are obligated to make payment by the due date published in the relevant college publications.

If you do not make payment, make arrangements for deferred payment, provide proof of payment in full by another party, or withdraw from your courses by the required date, you will also be responsible for payment of additional late charges and any collection costs and attorney fees.

You are responsible for keeping the College informed of any changes in your mailing address or name.

If you are under 18 years of age, you will be held liable for all charges incurred under Oregon Revised Statute 348.105.

Payment Options

Payments may be made by any of the following methods:

Cash: US funds only.

Checks: Local personal checks, non-local personal checks (with check guarantee card), travelers checks, cashiers checks and money orders are accepted. Make payable to Clatsop Community College.

A \$25 charge and all collection costs, including court costs, will be charged on returned checks. After the college has received two returned checks from you, all future payments must be made by cash, credit card, or cashiers check; personal checks will not be accepted. Returned checks of any nature, including NSF and stop payment, do not cancel your financial obligation for payment.

Credit Cards: Discover Card, VISA & Mastercard are accepted.

Financial Assistance/Scholarship: A signed Clatsop Community College financial assistance attendance form must be presented to the Student Accounts Specialist in the Student Services Center at the time you pick up your funding.

Alternate Funding Source: It is your responsibility to ensure that official payment authorization is received by the Student Account Specialist by the payment due date or late charges will be assessed and/or the account will be sent to collections.

Installment Payment Plan: Any student may participate in the Deferred Payment Plan, except those noted below. If you qualify, the following conditions apply:

- you must register using your social security number.
- a \$20 processing fee will be charged.
- a downpayment must be made equal to the application fee and one-third (1/3) of the outstanding balance — after applying all financial assistance, scholarships, and alternate funding source payments.
- the remaining balance, after downpayment, will be divided into two equal installments. A late payment charge of 10% or \$20, whichever is less, will be added to the outstanding balance for each installment that is not made by the due date.
- any balance remaining on the last day of the term may immediately be referred to a collection agency, the Oregon Department of Revenue, or an attorney for collection. Collection and/or attorney fees will be added to the outstanding balance.

- any balance due may be deducted from all financial assistance or scholarships awarded to you.
- you will not be allowed to register for subsequent terms until your account is paid in full.

NOTE: The college's Installment Payment Plan is not available to:

- 1) students receiving full funding from financial assistance, scholarships, or alternate source.
- 2) students owing less than \$100.
- 3) international students.

Refunds

Before dropping or withdrawing from a class, it is a good idea to see an advisor or student services representative to discuss support services that may make it possible for you to remain in classes.

General: Refunds are calculated when a class is dropped online at MyCCC. Refunds will be processed by the Business Office, as soon as possible, beginning the third week of each term.

Regular Courses: Students withdrawing from a course more than two days in length, and who comply with regulations concerning withdrawals, may receive a refund of tuition and fees. Withdrawals made within the first week of the term will qualify for a full refund.

Short Courses: If you withdraw from classes two days or less in length, you will receive a full refund if the action is initiated prior to a special preregistration deadline or if no such deadline, prior to the beginning of the class. No refunds will be issued after those times.

Course Cancellations: If a class is canceled by the College, there will be a 100% refund of the tuition and fees.

Special Provisions: Refunds of financial assistance will be pro-rated in accordance with federal regulations and are returned to the financial assistance programs, not to the student. Details are available at the Financial Assistance Office.

If you withdraw due to circumstances beyond your control such as job relocation or a medical emergency, you may file a petition for additional refund. The date of receipt of the petition, length of class attendance, and cost of course materials and services may be considered in denying or reducing the amount requested.

Gold Card

Clatsop Community College students 62 or older may hold a Clatsop Community College Gold Card. Card holders are entitled to a 25% tuition discount. Other fees, including technology and materials fees, are the responsibility of the bearer. Applicants must present proof of age.

The college reserves the right to exempt courses from the Gold Card discount.

Tuition & Fees

Current tuition and fee information is published in our academic class schedule, available online at www.clatsopcc.edu. All monies owed to the college for previous terms must be paid before you can register for the current term. Tuition and fee rates are subject to change without notice.

Technology Fee: in order to provide the most up-to-date computer hardware and software for students to utilize in the labs and instructional classrooms, it is necessary to periodically replace both the hardware and software. The Technology fee paid by the students helps the College with a portion of these costs. The fee also helps pay for the cost of operating the instructional labs each term. This includes helping pay for lab monitors, internet access, student email accounts, paper, print cartridges, and other current operating expenses. The fee is pro-rated for non-credit classes.

Residency: Residents of Oregon, Washington, Nevada, California or Idaho will be charged the in-state tuition rate. If you wish/need to retain residency in a state other than those listed above, you will be charged the out-of-state tuition rate. Declaration of intent must be made at the time of registration. Per Oregon Revised Statute, the following are considered residents:

- military personnel on active duty and their dependents.
- veterans enrolling within one year of separation from services.
- dependents of parent or guardian who qualifies as Oregon resident.

International students will be charged the international tuition rate.

Other Fees

Late Registration Fee: A late registration fee of \$25 will be charged to you if you enroll after the first week of the term for regular term-length credit classes.

Refundable Fees (in addition to or in lieu of tuition): Some classes such as art, integrated manufacturing technology, computer science and physical activity have additional fees. Depending upon circumstances, these fees may be refundable.

Non-refundable Fees for 2010-2011: The following fees are non-refundable:

Admissions application.....	\$15
Official transcripts	\$5 each
Faxed transcripts	\$1 each
Late registration fee.....	\$25
Late fee for not making payment arrangements by end of the first week of classes.....	\$50, plus \$15.00 per month
Installment Payment Plan processing fee.....	\$20
Returned check fee	\$25
International student application fee	\$150
Graduation petition fee.....	\$15
Graduation cap & gown fee	\$35

Contact the Student Services Center or the Testing Center for current non-refundable fees for the following:

- GED program participation fee
- GED testing fee
- GED retake fee
- COMPASS testing fee (per battery or individual test)

FINANCIAL ASSISTANCE

Clatsop Community College has a comprehensive financial assistance program that includes grants, loans, and part-time employment for students who qualify. The primary purpose is to provide financial assistance to students who would be unable to attend Clatsop Community College without such help. Financial assistance is available to help bridge the gap between the annual educational expenses and the student's ability to meet them. Each student and his or her parents (if applicable) bear the primary responsibility for meeting educational costs.

Eligibility: To be eligible to receive financial assistance, a student must be a U.S. citizen or permanent resident, have a United States high school diploma or GED, or pass an "Ability to Benefit" test, and be admitted to and enrolled in a program leading to a degree or certificate. Students applying for financial assistance must also submit official copies of all previous post-secondary grade transcripts to the Admissions Office for evaluation. Financial assistance (with the exception of some scholarships) is determined by careful analysis of financial resources from information furnished on the "Free Application for Federal Student Aid" (FAFSA). A federal formula calculates a student's financial need. Every effort is made to ensure fair distribution of the resources available to the college.

A student who is in default on any federal student loan is not eligible to receive additional financial assistance until the default has been cleared (See the Financial Assistance Office if you need help in clearing up a defaulted loan). A student who owes a repayment of Title IV Financial Aid funds is not eligible to receive additional financial assistance until full repayment (or satisfactory arrangements for repayment) have been made.

A student may have no federal or state drug convictions as an adult for possession or sale of illegal drugs. Students who have been convicted for the first time of possession (within the last year), for the second time of possession (within the last two years), or for the first time for sale (within the last two years) of an illegal drug may establish eligibility by completing a qualified drug rehabilitation program. Students convicted more than once for sale or more than twice for possession of illegal drugs are ineligible for federal funding.

Applying for Financial Assistance: Apply for financial assistance beginning in January for the following academic year (summer through spring terms). Students should begin the application process as soon as possible after January 1 regardless of the term they plan to attend. It is important to file early as the awarding process can take two months or more and some funding sources will run out of available funds early in the year.

Students can file a FAFSA (or a Renewal Application, if eligible and have a PIN number) at <http://www.fafsa.gov>
A student who is in default on a student loan that was taken out while attending Clatsop Community College will not be able to register for any classes at Clatsop until proof of

full repayment or documentation indicating that the loan has been rehabilitated and is in good standing is presented to the Financial Assistance Office. Either of these situations requires a letter from the Department of Education. See the Financial Assistance Office for further details.

Financial Need is the difference between the cost of education and the amount the student and his/her family are expected to contribute, known as the Expected Family Contribution (EFC).

Cost of education

-Expected Family Contribution

=Financial need

The EFC is determined by the federal processor using the information on your financial assistance application. The cost of education at Clatsop is a standard budget that includes regular tuition, fees, books and supplies, housing, transportation and personal expenses. Budgets may be adjusted annually to reflect increased costs and are pro-rated for number of terms you are attending and the number of credits enrolled for each term.

The amount of financial assistance offered depends on the student's financial need and the availability of funds. Supplemental Educational Opportunity Grant (SEOG) and Federal Work Study are limited and awarded first based on need, EFC, income and then on a first-come, first-served basis. Oregon Opportunity Grants are offered as long as state funds are available. Federal Pell Grants, and Federal Direct Stafford Student Loans are available to eligible students/parents all year.

The amount of funding varies with the number of credits a student takes. Students may enroll full-time (12+ credits), three-quarter time (9-11 credits), half-time (6-8 credits) or less than half-time (1-5 credits).

Financial Assistance Refunds & Returns

For any students receiving federal student financial aid, refunds for tuition and fees (excluding non-refundable fees) are returned to the financial assistance programs and not to the student. A return of federal student financial aid funds that were received by the student for other costs of education, such as living expenses, may be required if a student completely withdraws from all classes before completing at least 60% of the term or receives zero credits. Any refunds for tuition and fees and any financial assistance funds returned by the student will be applied in the following order:

1. Unsubsidized Direct Stafford loans.
2. Subsidized Direct Stafford loans
3. Direct PLUS loans
4. Federal Pell Grants
5. Federal Supplemental Educational Opportunity Grants
6. Other SFA Programs
7. Other federal, state, private, or institutional sources
8. The student

Students are required to notify the College of their withdrawal from all classes by completing a *Registration and Schedule Change Form* and submitting it to Student Services for any term in which they receive financial assistance funding. For any student who completely withdraws before more than 60% of

the term has been completed, the amount of any refund for tuition and fees, and the amount of federal student financial assistance funds that must be returned by the student are calculated based on the student's withdrawal date. A student's withdrawal date is the last date of attendance as indicated on the *Registration and Schedule Change Form*. For students who fail to complete a *Registration and Schedule Change Form* and submit it to Student Services, or in cases where no last date of attendance is indicated, the exact withdrawal date will be determined by the Financial Assistance Office. (Contact the Financial Assistance Office for further details on withdrawal date determination.)

If a financial assistance student completely withdraws from all classes before more than 60% of the term has been completed, the College will determine the refund amounts and the amount of financial assistance funds, if any, that must be returned by the student. The College must calculate these amounts, refund any tuition and fees, and notify the student of any amount due within 30 days of the withdrawal date or the date the College determines the student withdrew, whichever is later. The College calculates the refund amounts and the amount of funds that must be returned by the student based on the percentage of the term completed. For more information and examples of how the College calculates these amounts, contact the Financial Assistance Office.

A student must return the entire amount due by the end of the term in which he/she withdraws in order to continue assistance eligibility for the next term. A student/parent who cannot immediately return the full amount due may make other arrangements by contacting the College Student Accounts Specialist within 45 days of the date the College notifies the student of the amount due. If satisfactory arrangements are made with the Student Accounts Specialist, the student will continue to be eligible for assistance.

Student-Owed Repayments

Students receiving cash payments from the financial assistance programs (funds disbursed to the student after payment of tuition and fees, not including the Federal Work Study) who completely withdraw from all classes or receive zero credits may be required to repay a portion of the cash payment according to the percentage of term completed.

No repayment of financial assistance is required for students who complete more than 60% of the term. Students must submit written notification of complete withdrawal from classes by submitting a *Registration and Schedule Change Form* to Student Services. No additional financial assistance will be paid to a student who owes a repayment for early withdrawal until full repayment or arrangements for repayment are made.

***The last date of attendance is the date used to determine the tuition refund to the Financial Assistance program and the amount of repayment a student owes. If a student fails to withdraw, the last date of attendance is the mid-point of the term or as determined by information available to the Financial Assistance office.*

Satisfactory Progress Guidelines

Clatsop is required by federal and state regulations to define and enforce standards of satisfactory academic progress (SAP) which students must maintain to continue receiving financial assistance. SAP is determined each term based on your cumulative GPA and the total credits you have earned at Clatsop. Refer to the following chart:

Cumulative GPA	Percent of Credits
2.00	Complete 68% of your attempted credits each term.

Students who do not meet the minimum cumulative GPA and/or complete the required number of credits listed above will be placed on academic warning or disqualified from financial assistance. Other guidelines also apply. See the Financial Assistance website for further details.

Maximum Credit Limit: Federal regulations require that a school define a maximum number of credits within which a student must complete his/her program. At Clatsop a student is expected to complete a one year certificate within 150% of the published length of the certificate or a two year degree within 135 credits. All credits attempted at Clatsop and any credits a student attempted at other institutions will be used in the calculation.

Appeals: If you are disqualified for the following: not maintaining the appropriate cumulative GPA and/or not completing the required number of credits by the end of a term; completing zero credits any term; not completing your program within the maximum credits allowed, and you believe you have extenuating circumstances that caused you to be disqualified, you may petition the Financial Issues Committee for a review of your situation. Petitions are available at the Financial Assistance office, and must be submitted by Monday, 5:00 PM, the first week of classes. No petitions are accepted for Summer Term.

Scholarships and Institutional Funding

The application period for scholarships that are offered through Clatsop will open in Spring term (April) for funding for the following academic year beginning in September. See the CCC website at www.clatsopcc.edu/scholarships for details on scholarships being offered and application deadlines, or call the Financial Assistance Office at 503-338-2322. The list of scholarships being offered is updated annually in March or April. To qualify for Clatsop scholarships, print out the CCC Scholarship application from the CCC website, complete and submit it to the Financial Assistance Office by the deadline indicated.

	Brief Description	2011-12 <u>Annual</u> Award Limits	Enrollment Requirements
Pell Grant	Grant: A federal grant program for undergraduate students who demonstrate need. Does not have to be repaid.	Up to \$5,500.	Must be enrolled in 1-12 or more credits. Maximum amount listed but prorated based on enrollment & eligibility.
SEOG Grant (Supplemental Educational Opportunity Grant)	Grant: A federal grant program for undergraduate students who demonstrate need.	Up to \$600.	Must be enrolled in at least 6 credits. Individual amounts vary based on enrollment and eligibility.
Clatsop Community College Success Grant	Grant: ACCC institutional grant program for first-time CCC freshman and renewable up to 6 consecutive terms. Awarded on a first-come, first-served basis.	Up to \$900/year. Renewable up to 6 consecutive terms if meets 2.75 GPA term requirements.	Must be enrolled in at least 6 credits. Maximum amount listed for full time but will be prorated for half or three quarter time enrollment.
Opportunity Grant	Grant: A grant that is funded through the state of Oregon to Oregon residents or in some cases through Clatsop CC for students who meet income guidelines.	Up to \$1,800.	Must be enrolled in at least 6 credits. Maximum amount listed — adjusted for half or three quarter enrollment in most cases.
Federal Workstudy	Work commitment: A federal and college funded program that provides employment opportunities for students who demonstrate need. Jobs may be on or off campus. Students paid once a month. Wage range \$9.65 to \$11.65 per hour.	Up to \$3,000.	Must be enrolled in at least 6 credits. Maximum amount listed but vary based on enrollment & unmet need.
William D. Ford Federal Direct Subsidized Loan	Loan: A federal loan program with interest and repayment deferred until student leaves school. Interest is fixed currently at 6%. Student must demonstrate need. Money is borrowed and does have to be repaid.	Up to \$5,500 for freshman and \$6,500 for sophomores.	Must be enrolled in at least 6 credits.
William D. Ford Federal Direct Unsubsidized Loan	Loan: A non-need based federal loan program with principle repayment deferred until student leaves school. Interest is fixed currently at 6%. Student is responsible for the interest.	Up to \$3,500 for dependent student, \$7,500 independent student based on cost of education.	Must be enrolled in at least 6 credits.

** The above award amounts are for the 2011-2012 academic year and are subject to change for 2012-2013. Please check with the Financial Assistance Office for information on the 2012-2013 award amounts.*

REGISTRATION

Registration Information

The college produces a schedule of classes prior to the beginning of each term. The schedule contains current course offerings, location of classes, and tuition and fees charged for each class, and is available online at www.clatsopcc.edu. Classes and workshops of less than one term in length may be advertised in the schedule of classes or individually as they occur. To register, use our online MyCCC account and pay for tuition and fees.

Degree-Seeking Students

If you plan to earn a Clatsop certificate or degree and/or are receiving financial assistance, you must complete the admissions process. Admitted students are provided information about college degrees and services, are evaluated for correct placement in courses, and are assigned to an academic advisor. Your advisor will assist you in making informed decisions concerning career planning, in selecting appropriate courses, and in referrals for help with financial or personal issues. See the admissions section of this catalog for more information about becoming an admitted student.

A full-time certificate/degree-seeking student will usually have to complete 15 credits each term in order to complete certificate/degree requirements within three or six terms. If you need college preparatory work, plan to spend an additional term or terms to ensure that you are prepared to meet degree requirements. New degree-seeking students will be assisted with registration during their first scheduled advising session. Returning students are encouraged to register online during the announced early registration periods.

Non-Degree Seeking Students

If you do not intend to complete a degree or certificate, you are still encouraged to register prior to the beginning of the term. No approval is required except for those courses which require instructor permission for registration; however, you should follow course prerequisites as noted in the college catalog and term schedule. If you are unsure of whether you have the academic skills to be successful in a college course, you may arrange for a reading, writing, or math placement assessment. Contact the Student Services Center at 503-338-2411 for more information or to schedule an assessment session.

Your registration is complete when you have paid tuition and fees or when other funding arrangements have been completed.

Students Under the Age of 18

The College is part of an array of educational services offered throughout Clatsop County. The College does not usually serve students under the age of 18 unless they are high school graduates. However, provisions have been made, in exceptional circumstances, to allow the enrollment of younger students.

Examples of these unique circumstances include:

1. By special contract with a local school district.
2. Through pre-approval of specific classes which are open to younger students.
3. Simultaneous enrollment.
4. By special petition.
5. For GED preparation.

Specific policies and procedures are available from the Student Services Center. Parents or Guardians of dependent students are responsible for payment of tuition and fees.

Late Registration

If you wish to register for regular term length courses after the first week of the term, you must obtain instructor approval and pay a late registration fee.

Changes After Registration

You may make course changes at the Student Services Center. If you are a degree-seeking student you should consult your academic advisor before making any changes in your schedule. If you are adding a course the second week of the term, you must also obtain the approval of the instructor. The instructor will give you a code to use to make these changes using your MyCCC account. See the "Audit" section of this catalog for more information. If you are receiving financial assistance, you should check with the Financial Assistance Office prior to dropping a class to avoid losing funding. Funding from scholarships or outside agency sources may also be adversely affected by dropping a course.

For information regarding timelines for dropping courses in order to avoid a notation of "W" on your academic transcript, please refer to the following section on withdrawal.

Withdrawal

You have the responsibility to formally withdraw from courses for which you have registered, but do not intend to complete. Otherwise, you risk receiving an "F" for the course. Instructors do not withdraw students from courses. Withdrawal from one or more courses or a complete withdrawal from all courses will affect your financial assistance eligibility. It may also affect funding for students receiving scholarship funds or funds from outside agencies. Contact the Financial Assistance Office for more information.

REGISTRATION

You are expected to withdraw from classes in person at the Student Services Center using a *Registration and Schedule Change Form* or using your MyCCC account. Under exceptional circumstances, you may withdraw by writing a letter of explanation to the College's Registrar.

No record of the course will appear on your transcript if the withdrawal is done before the end of the fourth week. A notation of "W" will appear on your transcript for the course if the withdrawal is submitted from the fourth through seventh week.

The end of the seventh week of the term is the deadline for withdrawing from an individual course, as well as changing audit or credit status (*see note below under "Audit"*).

When circumstances are beyond your control, you may completely withdraw from the term, that is: drop all courses for that term. Withdrawal must be completed by the last Friday of classes prior to final exam week. Contact the Student Services Center for more information.

Audit

Students who do not wish credit for a course may register for audit. The following conditions apply to course audits:

1. Some courses may not allow auditors.
2. Instructors accepting auditors may expect those students to meet some or all of the same course requirements as credit seeking students. These requirements will be made clear on the course syllabus or by instructor.
3. An audit does not satisfy requirements for entry into courses where prerequisites are specific. For example, auditing Writing 121 will not satisfy the prerequisite for Writing 122.
4. Audited courses do not meet requirements for enrollment status required for Veterans, Social Security benefits, or Financial Aid. For example, a student needs twelve credits to be a full-time financial aid student, none of the twelve credits can have an audit status. Students should be aware that scholarships or funding from outside agency sources may be adversely affected by auditing a course.
5. Registration, tuition and fees are the same as for credit courses.
6. Changing from audit to credit requires instructor approval.
7. Changing from audit to credit or from credit to audit must be completed by the end of the 7th week of the academic quarter except for summer quarter, where changes must be completed by the end of the 5th week.

Transcripts

Your student transcript lists courses in which you are enrolled each term. This is your permanent, cumulative record of enrollment and grades. Courses dropped prior to the fourth

week are not recorded. Honor Roll, Dean's List, and Phi Theta Kappa are also noted on your transcript.

You may obtain a transcript by submitting a written request to the Student Services Center. There is a \$5.00 fee for official transcripts. There is no charge for unofficial transcripts. Transcripts may be faxed for a \$1 fee. Your transcript will not be issued if you have defaulted on a student loan or have financial obligations to the College including college-owned equipment, supplies or library books or materials.

If you retake a course for which you have already received a grade, the later grade will be transcribed and used in computing your grade point average (GPA). The earlier grade is removed from computation of the earlier term GPA and the cumulative GPA. You will be allowed two retakes to improve your grade. Subsequent retakes will be transcribed, but may not be used to meet degree requirements.

To ensure that your GPA is recalculated, you should inform the Student Services Center of the retake and request that the GPA be recomputed. Notations of P, I, NC, W, and audit are not used in computation of the grade point average. Retakes of courses for which you previously received non-passing grades, or grades lower than required by your program, can be funded by financial assistance. One retake of courses for which you previously received a passing or required grade can be funded.

Student Records

You have access to your records defined by the College as educational records. Examples of some student records are your admission application, transcript, and financial assistance data. For more information regarding access to your student records and other data the College is required to provide to you, see the "Student Consumer Information" section on page 19 of this catalog.

You can access your grades online through your MyCCC account. For a copy of your transcript, complete a request form and drop it off, or mail it to the Student Services Center with a check for \$5 for an official copy, or we will fax for \$1. There is no charge for unofficial transcripts.

Directory Information

Clatsop Community College has designated the following student data as "directory" information and it may be released without prior written authorization from the student: name, address, major field of study, terms of attendance, degrees and awards received. In addition, The Solomon Amendment requires by law that the College release a student's name, address, telephone number, date of birth, education level, major, and degrees received, upon request from recruiters of the branches of the United States military.

If you don't want information released, you must indicate so in writing by completing a *Request for Non-Disclosure of Student Information Form*. These forms are available at the Student Services Center.

Academic Information

Degrees

The College offers four degrees:

- Associate of Arts, Oregon Transfer (AAOT);
- Associate of Applied Science (AAS), in many majors;
- Associate of General Studies (AGS); and
- Associate of Science, Oregon Transfer Degree in Business (AS/OT-Bus).

Specific information may be found on pages 24-78. You may earn more than one degree at Clatsop Community College. To be awarded an additional degree or degrees, however, you must complete at least 24 credits of coursework different from each of the previous degree(s). In addition, you must fulfill all the specified requirements for each new degree. Degrees will be awarded once you have completed the graduation petition process.

Certificates

The College also offers structured state-approved certificates in particular Applied Science fields. Specific requirements are listed in the program descriptions in this catalog. A certificate may not be awarded concurrently with or subsequent to a degree in the same applied science program.

There are different types of certificates offered at the College. They are in the following categories:

- Career Pathway Certificate: typically 12-18 credits of coursework that provides a specific subset of skills.
- Less than One-year Certificate: less than 45 credits of coursework.
- One-year Certificate: requires a minimum of 45 credits.

At least 12 credits must be earned at Clatsop to receive any of these certificates from the College. Additionally, there are mathematics, writing, and human relations requirements for the Less than One-year, and One-year Certificate programs. Please see your advisor or the Student Services Center for further information.

Warranty

Clatsop Community College warrants the competencies you develop while obtaining an Associate of Applied Science (AAS) degree. If, during the two years immediately following completion of the AAS degree requirements, you need to upgrade skills or acquire additional training in your professional/technical specialty, certain eligible courses may be attended tuition free on a space-available basis. All fees remain your responsibility.

Eligible courses include any which meet major requirements in the degree program under which you graduated and occupational supplementary courses determined to be in the applicable occupational specialty. The Vice President of Instruction may approve appropriate Professional-Technical supplementary courses on an individual basis.

Academic Advising

When you are admitted to a certificate or degree program, the college provides you with an academic advisor to assist with your exploration of career and educational goals; development of a plan for completing degree requirements; and selection of courses each term. Advisors can also provide referrals to help you resolve financial or personal issues, and assist you in understanding institutional policies and procedures. You are encouraged to meet with your advisor prior to registering.

Academic Terms

The College is on a quarter term system, meaning there are four times during the year when most course offerings begin and end. The major course offerings are provided in the Fall, Winter, and Spring Terms. For specific dates for when courses will be offered, students can view an academic calendar on the inside back cover of this catalog. Students should also refer to the Clatsop Community College Schedule of Classes, available at www.clatsopcc.edu, for detailed information about what classes are offered during each term in the academic year.

Summer Term

The College offers a limited selection of course offerings during the summer. Lower division transfer, professional-technical, self-improvement and basic skill courses are offered. Summer term schedules are available online at the College's website at www.clatsopcc.edu by the third week of May.

The College is closed on Fridays July through Labor Day.

Credit

Your credits are earned on the basis of your successful completion of course requirements. The number of credits assigned to each course is usually related to the number of hours you spend in class. One credit is earned for each hour of lecture/discussion class attended per week. Laboratory and studio experience usually require two or three hours of attendance for each credit earned. Most courses have been assigned a definite number of credits per term, but some have been given variable credits. In some variable credit courses, the number of credits will be determined by your progress during the term.

Credit by Examination

Credit by examination recognizes alternative routes to obtaining college-level knowledge and skills independent of the classroom. The intent of this method for awarding credit is to enable you to proceed through an established program in accordance with your present ability and knowledge. To ensure that you have achieved at the same level as any other student completing the course, the following conditions have been set forth for gaining credit through examination:

1. You must be enrolled in a diploma or degree program before a credit by examination petition (challenge) can be initiated. Exceptions may be granted by the Vice President of Instruction.

Academic Information

2. You must submit a formal application approved by the Administrative Assistant to the Vice President of Instruction, your advisor, and the instructor who will administer the examination.
3. You may elect to challenge a course in which you are currently enrolled, provided the class is formally dropped prior to the beginning of the fourth week of classes. Courses in which you have previously enrolled and received a grade may not be challenged.
4. You may not challenge more than 24 credits. Credits earned through examination cannot be counted for the degree completion requirement of "complete at least 24 credits at Clatsop Community College". A maximum of six credits, taken by examination, may be in cooperative work experience.
5. The faculty of the College offering the instruction in the challenged course will be responsible for the formulation, administration, and compilation of the results of the equivalency test in accordance with other provisions of this policy. The examination may be either oral, written, performance, or a combination of these methods of evaluation. Under no circumstances will the requirement for credit by examination exceed the pre-established criteria for the course.
6. Examination for course credit may be taken only once. If successful, you will receive the grade of pass and the letter "P" will be entered upon your transcript. If unsuccessful, you will receive a "N/C" on your transcript. Credits so earned will not be calculated in your grade point average.
7. Courses involving laboratory or shop experience may be challenged in the same method as any other course; however, you must supply written references from qualified individuals indicating your sufficient background experience to cause a waiver of the laboratory or shop time.
8. Credits earned by examination may not exceed the total credits previously earned at Clatsop Community College in regular course work. Should a challenge be approved during your initial quarter at Clatsop, credit for the challenged courses will not be applied until evidence of your successful completion of regular course work is entered into your transcript.
9. You will be assessed a nonrefundable charge of 50 percent of the tuition for each course challenged. A year-long course series, which must ordinarily be taken in sequence, and which, at the discretion of the instructor, may be evaluated by a single comprehensive examination, may be handled as a single challenge for the standard fee. Upon successful completion of the course challenge examination, you must pay the remaining 50 percent tuition before the course(s) will be entered on your transcript.

All the conditions set forth above are applicable to each student requesting course credit through examination. Any waiver of

these conditions must be at the approval of the President of the College and these conditions are subject to change. For information or assistance regarding Credit by Examination, call the office of Vice President of Instruction at 503-338-2440.

Credit for Prior Learning

You may earn college credit by documenting learning acquired through job experiences, travel, hobbies and family and civic responsibilities. Start by enrolling in CPL 120, Credit for Prior Learning; it will teach you how to develop a portfolio of your activities. A maximum of 22 credits earned through development of your portfolio and six credits of CPL 120 may be applied to an associate degree.

The CPL course is an on-line course taught by an instructor at another campus. You must have your own computer, internet service provider and web browser. Call the Distance Learning Coordinator at 503-338-2341 for information, permission to register, and information on having your portfolio evaluated.

Work Experience (Cooperative Education)

Work Experience (Cooperative Education) is a nationally recognized program granting academic credit for various supervised internships. Work Experience staff advise you in the program and assist you with registration.

Work Experience staff work with local employers to find learning and career opportunities for students. In addition, staff meet with you and your supervisor at the job site at least twice during the academic quarter to discuss your progress toward completing your learning objectives. Call 503-338-2480 or email cwdirector@clatsopcc.edu for more information.

Companion Classes: A work experience seminar course is offered to augment the cooperative education experience. If you are enrolled in a work experience course, you must take the work experience seminar course concurrently, unless you have completed it in a previous term.

Job Placement: The Career Planning office receives job opportunities from employers. Local positions are posted on the Career Planning Job Board in Columbia Hall.

Independent Study

Clatsop Community College does not promote the use of independent study courses but will allow, under specific circumstances, your utilization of this mechanism only after all other alternatives have been explored.

It is the prerogative of the instructor to approve these courses. If the instructor genuinely feels that circumstances warrant such an expediency, and after other avenues have been exhausted, the instructor may petition the office of the Vice President of Instruction on your behalf, detailing the proposed course. Independent Study forms are available in the Office of Instruction. Call 503-338-2440 for additional information.

Academic Information

Transfer Credit

Coursework for which you earned a "C" or better grade from a regionally accredited institution may be accepted to meet degree or certificate requirements at Clatsop Community College. Transfer coursework, although it may be used to meet requirements, will not be included in your Clatsop Community College cumulative grade point average.

Continuing Education Units

The college works in conjunction with various professional associations and employers to offer continuing education units (CEUs) as a form of certification for the successful completion of specified occupational instruction. The CEU is a measure of the amount of professional upgrading instruction that you have successfully completed. Contact the Community Education office for more information about specific classes.

You may not earn CEUs and academic credit for the same class. Therefore, you may not pay for classes awarding CEUs with financial assistance funds and CEUs do not count toward financial assistance satisfactory progress eligibility or toward degree completion.

Course Numbering/Grading

1. Most of the courses that are fully transferable to Oregon University System universities are graded on the A - F system. A few courses are graded pass or no credit (P/NC). Information regarding grading is available in the course syllabus which the instructor distributes during the first week of class.
2. Courses that are primarily professional-technical in nature are listed on pages 36 & 37. These courses are designed to prepare you for particular skills and trades. Most of these courses are graded on the A - F system. An exception is the Work Experience classes which are graded pass or no credit (P/NC).
3. Alpha-numeric courses below 100 are not designed for transfer to other colleges or universities within the Oregon University System. (Most of these courses are graded P/NC.) A few are graded on the A - F system.
4. Alpha-prefixed courses, such as MUS0511, which have a zero (0) in the fourth place, are non-credit general self-improvement or hobby and recreation courses.

Grading Policies

By Friday of the first week of classes each term, you will be provided a course syllabus for each credit class in which you are enrolled. The course syllabi will provide required and recommended course syllabus components established in the Office of Instruction Course/Instructional Program Handbook.

If you understand the objectives and know how well you have done in achieving them, you will generally not be disappointed with your grades.

Graded work at Clatsop Community College is based on the following guidelines (grade point value is also indicated):

A - Excellent (4.0)

1. Scores superior on examinations and/or assignments.
2. Shows independent thinking in terms of the subject matter of the course.
3. Shows a grasp of the relationships among various parts of the subject.
4. Asks questions which are appropriate and which stimulate relevant discussion by the instructor and/or students.
5. Complies with the stated performance regulations of the instructor.

B - Commendable (3.0)

1. Scores above average on examinations and/or assignments.
2. Presents sound ideas on subject matter of the course.
3. Shows a grasp of the general organization of the subject matter.
4. Asks appropriate questions which clarify the presentation of the subject.
5. Complies with the stated performance regulations of the instructor.

C - Satisfactory (2.0)

1. Scores average on examinations and does average work on assignments.
2. Presents evidence of a grasp of the subject matter of the course.
3. Asks relevant questions.
4. Complies with the stated performance regulations of the instructor.

D - Minimal (1.0)

1. Scores below average on examinations; completes assignments at below average level, or fails to complete them.
2. May follow the course of discussion by others, but contributes little.
3. Shows some grasp of portions of the subject matter but little grasp of the overall picture.
4. Complies with the stated performance regulations of the instructor.

F - Unacceptable (0.0)

1. Scores unsatisfactory on examinations; completes assignments at an unsatisfactory level or fails to complete them.
2. Shows little or no grasp of the subject matter.
3. Does not comply with the stated performance regulations of the instructor.

Aud - Audit (N/A)

You may register for audit if you do not wish to receive credit for a course. For more information see page 11.

Academic Information

I - Incomplete

At your request an instructor may award an incomplete if you have completed at least 70 percent of the course work and shown an intent to finish the required work. An instructor will provide you with a statement describing the work needed to complete the course, and a copy of such statement will be maintained in the Student Services Center.

An incomplete does not imply an offer of tuition-free re-enrollment in the class. You will be allowed a maximum of one academic term to correct deficiencies noted on the statement of incomplete status. Incompletes received for spring term may be corrected during fall term of the following academic year. Under extenuating circumstances as approved by the Vice President of Instruction, you will be allowed an extension beyond the deadlines noted above for finishing an incomplete. Incompletes are temporary notations. If courses are not completed, an instructor-designated grade will be issued.

NC - No Credit

A designation used when you do not do passing work in a pass/no credit class.

P - Pass

You may earn credit for a course which is graded on a pass/no credit basis. The P grade denotes a level of accomplishment of "C" or higher. You may apply a maximum of 24 credits of "pass" grades toward a degree.

SP – Satisfactory Progress (N/A)

Student has made appropriate progress toward course skill outcomes in a course for which well-defined skill progress standards are established. This grade is available only in courses so designated. This grade denotes progress sufficient to qualify for financial aid, but is not included in the computation of the GPA. The student must re-enroll in the course in a subsequent term to earn a final completion grade and for the course to qualify as a prerequisite for enrollment in courses requiring mastery of skill outcomes.

W - Withdrawal

A student-initiated withdrawal. For more information see page 10.

Z - Failing, Did Not Complete Course (0.0)

Student did not attend course and failed to complete student-initiated withdrawal.

Academic Standards

To graduate from Clatsop Community College with a degree or certificate you must have a cumulative grade point average of 2.0 for all Clatsop Community College coursework.

If you are receiving funding from an external source such as financial assistance, scholarships or Veterans benefits you will be required to maintain satisfactory academic progress in order to continue to receive benefits. (Review the Financial Assistance, Scholarships, and Veterans sections of this catalog for details on satisfactory progress requirements.)

Graduation

To graduate from Clatsop Community College you must file a graduation petition with the Student Services Center. Due dates for petitions are printed in the Student Handbook, which is available in the Student Services Center.

No student shall be issued a degree or certificate who has not earned a cumulative grade point average of 2.0 for all Clatsop College coursework and completed a minimum of ninety pre-approved credits for an Associate Degree or a minimum of forty-five credits for a Certificate. Please check specific degree and certificate requirements. You must be admitted to a degree or certificate program to graduate. (See Student Services for information). You must complete at least 24 credits at Clatsop for a degree (12 credits at Clatsop for a certificate).

You may graduate under the academic requirements in effect in any year in which you were enrolled in any course which counts toward a Clatsop Community College degree or certificate, but not to exceed five years prior to your graduation date. You may not mix requirements from two or more academic years.

Multiple Degrees: You may earn more than one degree at Clatsop Community College. To be awarded an additional degree or degrees; however, you must complete at least 24 credits of coursework different from each of the previous degree(s). In addition, you must fulfill all the specified requirements for each new degree.

Student Responsibility: It is the responsibility of you, the student, to know and to observe the requirements of your degree or certificate program and the rules governing academic work. Although your advisor will attempt to help you make wise decisions, the final responsibility for meeting the requirements for graduation rests with you.

Graduation Fees: A \$15 graduation petition fee is payable to the cashiers in the Student Services Center, and payment is required prior to submitting your graduation petition to the Student Services Center. A \$35 cap and gown fee must also be paid by all students attending commencement.

Honors and Awards

Clatsop Community College recognizes superior academic achievement and distinctive service by:

Transcribing term honors and recognition:

- Dean's List (Degree-seeking; 12 or more graded credits; 3.75 to 4.00 grade point average {GPA})
- Honor Roll (Degree-seeking; 12 or more graded credits; 3.5 to 3.74 GPA)
- Phi Theta Kappa eligibility (12 or more graded credits and a 3.50 GPA first term; 3.00 GPA thereafter)

Graduation With Honors/High Honors

At commencement, qualifying students are recognized as meeting requirements for graduation with honors or high honors. To qualify for honors, you must have a cumulative grade point average of 3.50 to 3.74. To qualify for high honors, you must have a cumulative grade point average of 3.75 to 4.00. Transfer

Academic Information • Services

work may meet requirements for coursework for which you earned a grade of "C" or better but is not computed in your cumulative grade point average.

Conferring other honors and awards:

- ASG recognition cords (ASG Officers at graduation)
- President's Cup
- Student Body Plaque
- Helen Wheeler Extra Mile Award
- Unsung Student Hero Award
- Instructional Council Award (highest Clatsop GPA for graduating associate degree recipient)
- Outstanding Club Award
- Certificates of Appreciation
- Department awards
- Graduate Marshals
- Phi Theta Kappa cords at graduation

Dora Badollet Library

Located in the center of the main campus at 1680 Lexington, the Clatsop Community College Library is a gateway to the world of information. Services available at the Library include access to the collection of books and periodicals, access to on-line databases with journals, magazines and e-books, Internet access, interlibrary loan service, distance education, and media/audiovisual services. Librarians are available to help students with research projects and the use of information technology. There are quiet places to study, and seminar rooms where video and audio equipment are available for viewing or listening to library media materials.

The primary mission of the Library is to support the curriculum; the collection therefore contains materials on subjects in the liberal arts, sciences, and nursing, as well as technical and vocational fields. The Library uses a web-based Voyager system. The library webpage also provides a portal to journal indexes and full text articles from a variety of vendors. The library collects materials in a wide range of formats, including: books, magazines, electronic resources, software, microfilm, microfiche, videotapes, audiotapes, compact discs, DVDs, laserdiscs, slides, art, and maps.

The Library catalog is available on-line via <http://clatsopcclibrary.org>. Students can search the catalog, and the periodical databases, renew materials, and read e-books on-line. New resources and services are continually being added.

SEA Services Tutoring

Tutoring for enrolled students is provided in SEA (Student Educational Assistance) Services. Individual and group tutoring, study groups, computers for word processing and career counseling are some of the services offered in the SEA. Specialized tutoring in math and writing is offered every day with extended hours during finals week. Tutoring in other subject areas is scheduled throughout the term. A qualified

staff works closely with college instructors to support students, providing assistance in a relaxed atmosphere.

Students at all levels of study are welcome at the SEA. Appointments for math tutoring are not necessary and all tutoring is free. For more information, contact the SEA tutor coordinator at 503-338-2455.

Testing Center

The Testing Center administers a variety of tests, including the college placement test (COMPASS) and GED tests. Tests for distance education coursework can also be taken in the Testing Center by making arrangements with both the originating institution and the Testing Center staff.

Tests are administered by appointment only. For more information call 503-338-2426.

Volunteer Literacy Tutoring Program

Students and community members interested in assisting those learning to read and to speak English can participate in the volunteer literacy tutor program. Trainings are offered throughout the year and focus on both adult literacy and English Language Learning. Trained volunteers are matched with eager learners by the Volunteer Literacy Coordinator. For more information, call 503-338-2557.

Education For Life (Continuing Education)

Clatsop Community College's Education For Life program offers a variety of noncredit classes that are fun, informative and interesting. Each quarter, those in the community who want to continue their life-long learning can register for classes that are of interest to them. Education For Life classes are taught by experts who reside in our community and want to share their knowledge with you. No tests or exams!...just lots of information that provide self improvement, personal enrichment and invigorates your desire for continued learning. Sign up for a class today— it's never too late to begin learning about a subject or to just keep learning in life! Call 503-338-2408 for additional information.

ENCORE

Clatsop Community College sponsors ENCORE (Exploring New Concepts of Retirement Education), a learning in retirement organization. ENCORE is a member-run organization dedicated to providing quality educational opportunities and adventures for older adults, meeting the intellectual and cultural needs of its members. ENCORE offers a broad spectrum of programs and promotes an environment that fosters personal growth, vitality, and celebrates lifelong learning.

ENCORE members pay annual dues to the organization and may attend free any or all of the ENCORE scheduled classes they are interested in (except where special fees may apply).

Call 503-338-2408 for additional information.

Business Services: *Providing Support To Our Business Community.*

Workforce & Customized Training

The mission of Workforce & Customized Training is to assist businesses with identifying their learning needs and delivering training to ultimately increase performance. For example, training topics may include hiring and supervising, job analysis, customer service, computer software, new employee orientation, safety and regulatory, hospitality service, medical, and industrial and manufacturing. In addition, there is pre-employment preparation for job seekers, refresher workshops, and skill upgrading. Training is geared to meet the scheduling needs of business and staff, and the general public. For more information call 503-338-7696 or 503-338-2408.

Small Business Management

If you are a business owner/manager, the Small Business Management Program provides you with a variety of skills and tools that can lead you to greater business success. The program includes a practical once-a-month classroom session covering a variety of business topics and providing an opportunity to exchange ideas with other business owners. The program also includes a monthly visit to businesses by the SBM instructor to assist in applying the materials learned in class. The instructor/student relationship is completely confidential.

The course covers a variety of subjects, including financial control and management, supervision, sales and marketing, inventory control, quality control, accounting, customer relations, and computer applications. You will receive a certificate of completion at the conclusion of the three year program.

Additional information about this program can be obtained by contacting Jim Entler at the Business Center, South County Campus, 503-338-2402.

Clatsop Economic Development Resources (CEDR)

CEDR, a partnership between the Small Business Administration (SBA), the Oregon Economic and Community Development Department (OECDD), Columbia Pacific Economic Development District (ColPac) and Clatsop Community College, provides business counseling and training for new and existing businesses. The one-on-one business counseling is free and confidential. CEDR brings the power of state-wide network resources, including an electronic delivery of resources (eSBDC), and a focus on technical expertise to support companies' retention and expansion goals. Call 503-338-2402 to set up a confidential counseling session, or access other CEDR resources.

Arts & Ideas

In our mission to bring fine cultural programming to the Columbia Pacific Region, the Clatsop Community College Arts & Ideas program presents a wide spectrum of events throughout the year. Working with regional and nationally known artists, professionals and educators, Arts & Ideas provides opportunities for creativity and learning to audiences in a setting of artistry and education. Events presented in the annual series include forums, dance, music, theater, lectures, and films.

The Arts & Ideas program is supported by Clatsop Community College and our community partners. To find out more about the Arts & Ideas program visit www.clatsopcc.edu/artsandideas.

Career Services

Assistance with career planning, choosing a college major, and finding career-related internships is available to all CCC students. Students with clear career goals complete college degrees at much higher rates than “undecided” students.

Available services include: individual career counseling with a qualified Career Counselor; personality and interest assessments; a career library; and assistance using relevant career information websites including Oregon CIS (Career Information System), O*NET and OLMIS.

Call 503-338-2480 to schedule an appointment or request assistance with any aspect of the career planning process. You can also email questions to lnyberg@clatsopcc.edu.

Counseling

Confidential professional counseling, provided free of charge, is available to support students dealing with personal challenges that may affect their college performance. This may include help in managing stress, interpersonal conflicts, decision-making, personal crisis events, screening consultations for mental health and/or substance abuse problems, and other personal concerns. Resource information and referral is provided regarding support groups, self-help courses, and various community health and other support services. To make an appointment to consult with the college counselor, contact the Student Services Center front desk staff or call 503-338-2474, 503-338-2468 TTY, jholen@clatsopcc.edu.

Services

TRiO Plus Program

The Plus Program, a federally funded Student Support Services TRiO project, is designed to help eligible students succeed at Clatsop and, when appropriate, transfer to a four-year college or university. Free services include: in-depth academic and career advising; study skills; tutoring; scholarship assistance; four-year college transfer assistance; campus visits; laptop computer loans; workshops; and limited personal counseling. To be eligible, a student must be an admitted, degree-seeking student who has a need for our services and who is one of the following;

- 1) a first generation college student (neither parent has a four-year college degree),
- 2) low-income according to federal guidelines, or
- 3) a student with a documented disability.

Program information and applications are available in the Plus Program office, 503-338-2346, email plus_program@clatsopcc.edu or visit our website at www.clatsopcc.edu/plus.

The Plus Program is a 100% U.S. Department of Education funded TRiO/Student Support Services project.

Disability Support Services

The college is committed to providing equal opportunities for students with disabilities throughout the college community. Students with documented disabilities are entitled to reasonable accommodations under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Our philosophy is to maximize your independence and self-reliance, while making available a variety of support options, to assist you in achieving your educational and/or vocational objectives. To receive services you must submit documentation of your disabling condition(s) to the Disabilities Specialist. To initiate support services, please contact Disability Services at 503-338-2474, TTY 503-338-2468, jholen@clatsopcc.edu. Official documentation will be reviewed by the Disabilities Specialist prior to receiving accommodations. It is your responsibility to self identify and make the request for services within the first 2 weeks of classes. Services may include:

- Campus orientation
- Registration assistance
- Academic advising and counseling
- Reasonable and appropriate classroom accommodations
- Test taking facilitation
- Tutorial support
- Student advocacy
- Resource and referral; www.bookshare.org, www.naturalreader.com, recording for the blind and dsylexic: www.learningally.org, etc.
- Special adaptive devices

Veterans Educational Benefits

The Veterans Coordinator is located in the Student Services Center and provides assistance to students who are eligible for VA Education Benefits. The VA Coordinator will help veterans and eligible dependents with VA educational benefit applications and policies as well as general college information or referrals. The VA Coordinator tracks programs, enrollment, grades and progress on each student to report to the VA. Initiating VA educational benefit checks generally take 3-5 weeks. Typically, students are paid monthly for the prior month's enrollment, while the VA pays tuition and fees directly to the college for some benefit chapters.

While an application is being processed, students should be prepared to meet the costs of attendance. Tuition may be due before you receive your first VA payment. If you are unable to pay your tuition in full by the due date, you may set up a Deferred Payment Plan on or before the due date. If you cannot make any payments, late fees will be added to the cost of your tuition if you do not drop the courses by the specified date.

Admissions: Students receiving veterans' educational benefits must be officially admitted toward a certificate or degree program before the term they are requesting benefits. The VA will pay only for classes that advance students toward an approved degree or certificate program.

Transfer of credit: Students who enter as transfer students, or who have completed any college-level course work, are required to have all official transcripts submitted to the Admissions Office for evaluation. Students have until the end of their first term of enrollment to have submitted transcripts. The VA will not pay for the student to repeat any classes they have previously passed successfully. Transfer credit can be awarded for some military courses.

Satisfactory Progress: A term and cumulative GPA of 2.00 is necessary to maintain benefits. Students will be sent a Probation Letter notifying them of unsatisfactory progress at the end of any term in which they fail to meet minimum standards. A Termination of Benefits Letter is sent to students who fail to bring their GPA above 2.00 for a second consecutive term or withdraw or fail all classes in any one term. In most cases, a student must satisfactorily complete a subsequent term in order to have educational benefits reinstated after termination due to unsatisfactory progress. Students will receive a copy of the complete Satisfactory Progress Policy upon application for benefits. The VA will bill benefit recipients for courses from which students withdraw or are assigned a "Z" grade for non-attendance. Contact 503-338-2474, 503-338-22469 TTY, jholen@clatsopcc.edu.

Services • Information

Food Service and Bookstore

Food Service is available in Columbia Hall until early afternoon when classes are in session and serves meals and snacks. The Bookstore is on the first floor of Columbia Hall and provides textbooks and other class materials. You can contact Food Service at 503-338-2446, and the Bookstore at 503-338-2447.

Student Government Leadership Opportunities

The Associated Student Government (ASG) is a nonprofit student organization that coordinates student activities on campus and provides assistance and service to the student population. ASG officers hold office hours as their schedules permit.

Student government provides Clatsop Community College students with the opportunity to gain leadership skills and to help other students. Student government officers plan campus activities, develop the yearly budget, purchase equipment, and participate in various community service events. They also serve as members of some campus committees, providing advocacy for students in campus decision-making.

For more information on how you can participate in student government, stop by the ASG Office in room 109, Columbia Hall or call them at 503-338-2495. You may also contact the ASG Coordinator at 503-338-2371.

Organizations and Activities

Out-of-class activities are as important for education as traditional course work. At Clatsop, there are recreation and social activities throughout the year. If you have a special interest, you are invited to form a club and seek ASG approval as a recognized student organization.

Recreational Opportunities

City league sports, including basketball and triathlons, are available to students who choose to participate. For information, stop by the ASG Office, Columbia Hall 109, or call them at 503-338-2495.

Students' Rights, Responsibilities and Conduct

The College has established policies and procedures governing student rights and responsibilities, and outlining the rules for student conduct, procedures for disciplining students, and the process for filing student complaints. These policies and procedures are published in the Student Handbook and on the College's website at www.clatsopcc.edu. Copies of the handbook are available in the Student Services Center, or call 503-338-2371 to request a copy. Any changes to student policies and procedures made after the handbook has been published are also available in the Student Services Center or on the College website.

Student Consumer Information

Federal regulations (part 668.41 – Student Assistance General Provisions) require that certain information be provided to all enrolled students on an annual basis, and to all prospective students. Following is a list and brief description of the required disclosures and information on where you can obtain a detailed copy of each disclosure.

Institutional Information: The college is required to provide you with general information regarding Clatsop Community College, including: the cost of attendance, academic programs, accrediting agencies, special services for students, appropriate campus contacts for all information, a description of the institution's refund policies, return of funds to Title IV programs (financial assistance), and the institution's procedures for officially withdrawing. The primary sources for this information are the catalog, Student Handbook, and the Clatsop Community College website at www.clatsopcc.edu.

Available Financial Assistance: Information on available federal, state, and institutional financial need-based and non-need based assistance programs can be found by reviewing the Clatsop Community College Financial Assistance website. The Financial Assistance website includes descriptions of student assistance programs, application procedures and eligibility criteria, and the rights and responsibilities of students receiving financial assistance. The Financial Assistance website may be viewed at www.clatsopcc.edu. Scholarship information and applications may also be accessed on-line at www.clatsopcc.edu. Several student computers are available in the Student Services Center for use in accessing this information. You may also pick up scholarship information at the Financial Assistance Office.

Graduation Rates: This report provides information on the graduation rates of a cohort of full-time degree or certificate seeking students who graduated within 150% of normal time for graduation. This information is available in the Student Right-to-Know Report which can be picked up at the Student Services Center, or you may request a copy by phone at 503-338-2410 or view it on the college website at: www.clatsopcc.edu.

Family Education Rights and Privacy Act (FERPA): also known as the Buckley Amendment, gives students the right to:

- Access their educational records
- Consent to release a record to a third party
- Challenge information in their records
- Be notified of their privacy rights.

Information on FERPA is available in the student hand-out entitled "Your Student Records." You may request a copy by phone at 503-338-2410 or view it on the college website at www.clatsopcc.edu.

Campus Safety Report: This disclosure provides statistics on campus safety and crime for the three most recent calendar years, policies and procedures for reporting crimes, information regarding campus security provisions, and crime prevention

Information

programs on campus. The annual Campus Safety Report can be picked up at the Student Services Center, or you may request one by phone at 503-338-2438 or email registrar@clatsopcc.edu or you may review it on the college website: www.clatsopcc.edu.

Disclosure Statement

OAR 581-41-460 authorizes Community College to ask you to provide your social security number. The number will be used by the college for reporting, research, and record keeping. Your number will also be provided by the college to the Oregon Community College Unified Reporting System (OCCURS), which is a group made up of all community colleges in Oregon, the State Department of Community Colleges and Workforce Development and the Oregon Community College 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 your social security number to the following agencies or match it with records from the following systems: State and private universities, colleges, and vocational schools, to find out how many community college students go on with their education and to find out whether community college courses are a good basis for further education; The Oregon Employment Department, which gathers information, including employment and earnings, to help state and local agencies plan education and training services to help Oregon citizens get the best jobs available; The Oregon Department of Education, to provide reports to local, state and federal governments. The information is used to learn about education, training, and job market trends for planning, research, and program improvement; The Oregon Department of Revenue and collection agencies only for purposes of processing debts and only if credit is extended to you by the college; The American College Testing Service, if you take the COMPASS Placement test, for educational research purposes.

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

College Policy On Drug & Alcohol Use

Clatsop Community College has a policy of non-use of alcohol and illegal drugs. This is both in compliance with the Drug-Free School and Colleges Act effective 1990, and in the interest of student success. Your chance of success at college is severely reduced if you abuse alcohol or illegal drugs.

On College owned/controlled property, or at activities sponsored by CCC student organizations, the following are IN VIOLATION of college policy:

1. Possession, consumption, being perceptibly under the influence or furnishing of alcoholic beverages (as identified by state or federal law).
2. Possession, consumption, being perceptibly under the influence or furnishing of a narcotic or dangerous drug, as defined by ORS 475 or ORS 167.203 to 167, as now law or hereinafter amended, unless lawfully prescribed by a licensed medical practitioner or dentist.

SANCTIONS MAY BE IMPOSED FOR VIOLATIONS OF COLLEGE POLICY

Sanctions include; Expulsion (removal of privilege to attend CCC), suspension for a definite period of time, disciplinary probation with specific terms for continued enrollment, suspension or expulsion for violation of these terms, disciplinary admonition or warning.

THERE IS HELP

For substance abuse problems or addiction, a professional counselor in Student Services can advise you about actions to take for support and further help from community self-help groups, treatment programs and private counselors. This service is provided to students free of charge. Counseling Services are located in the Student Services Center. You may call for an appointment at 503-338-2474.

Special Programs

Lives In Transition

The Lives in Transition (LIT) program is designed to assist individuals gain greater self-sufficiency, explore career/vocational options, and develop personal action plans. To successfully complete the program, students participate in two, three-credit classes: “Life Transitions” and “Coping With Stress And Depression.” Classroom activities and discussions include:

- Improving self-esteem
- Promoting assertiveness and boundary-setting techniques
- Understanding the grief process
- Enhancing communication skills
- Learning and practicing stress management skills, and
- Developing educational, career or vocational goals.

A resource room is available to provide on-going support, guidance and camaraderie. The LIT program is free to participants and may include partial reimbursement for childcare and transportation expenses. For more information or to sign up for the mandatory, pre-class orientation, call 503-338-2377.

Apprenticeship Training

Related classroom training for registered apprentices is coordinated through the Office of Instruction. It is taught according to Oregon’s Law and Plan of Apprenticeship and Training, the U.S. Department of Labor, and the Oregon State Apprenticeship Council. Classes cover technical areas of the trades and are intended to complement skills learned on the job. Apprenticeship related training offered through Clatsop Community College currently includes plumber, inside wireman, plant electrician. This program is for indentured apprentices only. Call 503-338-2409 for information.

You can obtain information on how to become an apprentice from the Oregon Bureau of Labor and Industry, Apprenticeship Training Division, 800 NE Oregon St. #32, Portland, Oregon 97232; telephone 503-731-4072 ext. 270; Clatsop Community College, 503-338-7696.

Distance Education

Clatsop Community College offers online classes to serve students unable to enroll in traditional on-campus courses.

Online courses allow students to take classes at their convenience from home or workplace. Students need access to a computer with internet browser software and an Internet Service Provider account to access course material, to turn in assignments, and to communicate with the instructor and classmates. Some of these online courses are provided by colleges around the state, but most are developed by instructors here on-campus. Contact Kirsten Horning in the Library for details, 503-338-2341.

Degree Partnership Programs Oregon State University (OSU) and Portland State University (PSU)

The Degree Partnership program with OSU and PSU offers Clatsop Community College (CCC) students the opportunity to be jointly admitted and eligible to enroll concurrently at OSU or PSU and CCC. Students complete a single admission application and must meet OSU’s or PSU’s standard admission criteria. For more information about the OSU/CCC or PSU/CCC Degree Partnership Program contact the Student Services Center at 503-338-2411 or 503-338-2438.

Special Programs **Grant Funded**

SECONDARY EDUCATION

EDUCATIONAL TALENT SEARCH

Educational Talent Search (ETS) identifies and assists students in 6th through 12th grades who have the potential to succeed in higher education. ETS provides academic, career, and financial advising to its participants and encourages them to graduate from high school and continue on to the postsecondary institution of their choice. Educational Talent Search also serves high school dropouts by assisting them in reentering the education system to complete their education.

ETS services include:

- Academic, financial, career, or personal counseling including advice on entry or re-entry to secondary or postsecondary programs
- Career exploration and aptitude assessment
- Tutorial services
- Information on postsecondary education
- Exposure to college campuses
- Information on student financial assistance
- Assistance in completing college admissions and financial aid applications
- Assistance in preparing for college entrance exams
- Mentoring programs
- Special age-appropriate activities for sixth, seventh, and eighth graders
- Workshops for the families of participants

Educational Talent Search is 100% funded by the U.S. Department of Education TRiO programs. For information contact the Educational Talent Search office 503-338-2370.

UPWARD BOUND

Upward Bound (UB) provides advising, tutoring, mentoring, cultural enrichment and academic instruction for eligible students in the 9th through 12th grades. Through academic year and Summer Academy activities, UB provides

opportunities for participants to succeed in their pre-college performance and ultimately in their higher education pursuits.

Upward Bound services include:

- Academic, financial, and personal counseling
- Exposure to academic programs and cultural events
- Tutorial services
- Mentoring programs
- Information on postsecondary education opportunities
- Assistance in completing college entrance and financial aid applications
- Assistance in preparing for college entrance exams
- Summer Academy, a college simulation experience including instruction in reading, writing, study skills, and other subjects necessary for success in education beyond high school

Upward Bound is 100% funded by the U.S. Department of Education TRiO programs. For information contact Upward Bound at 503-338-2370.

POSTSECONDARY ASSISTANCE

Plus/SSS Program

The Student Support Services TRiO grant, known at Clatsop Community College as the Plus Program, serves the academic and personal needs of first generation and low income college students and students with disabilities. The Plus Program provides in-depth services to students so that they may succeed in college and graduate and/or transfer to a four-year college or university. For further information, please see the program description on page 18 of this catalog or contact Joanie Weatherly at 503-338-2307 or email plus_program@clatsopcc.edu.

Carl D. Perkins Career and Technical Education Act of 2006

The Carl D. Perkins Career and Technical Education Act of 2006 provides federal funds to develop the academic, career, and technical skills of high school and community college students by:

- developing challenging academic standards;
- integrating academic and professional technical instruction, and linking high school and community college education;
- developing, implementing, and improving professional technical education;
- providing professional development to improve professional technical education programs, services and activities.

Specifically, the grant provides for improving the linkage between

the area high schools and Clatsop Community College in the following program areas:

- Fire Science
- Business & Management
- Health Occupations
- Industrial & Manufacturing Technologies
- Early Childhood Education
- Maritime Science

Funding is available for staff training and curriculum development, including inservice training of both professional technical and academic instructors working with professional technical students for integrating academic and professional technical education.

General Information

The purpose of Adult Education and Family Literacy programs are to help you improve your basic reading, writing and mathematics skills. Instruction in basic skills enhances your opportunities for success in continued academic learning and in the workplace. Course offerings include basic skills classes, college preparation, GED, and English Language Learners (ELL). Career and workforce skills are integrated into the courses.

SEA (Student Educational Assistance) Services supports students at all levels of study offering tutoring, study groups and career counseling opportunities. SEA Services are free for Clatsop Community College students. See page 16 for a description of SEA Services.

College Preparation Courses/Reading and Writing Improvement

College preparation courses help you strengthen the reading, writing, and mathematics skills needed to prepare for college transfer classes, vocational programs and the workforce. After completing the COMPASS placement, your assigned advisor will direct you to the appropriate courses.

General Educational Development (GED)

The GED program offers classes for you to prepare for the GED certificate tests. The GED is accepted as a substitute for a high school diploma by most employers, apprenticeship programs and colleges throughout the United States. In Oregon the certificate is awarded by the Oregon Department of Education.

If you are interested in obtaining your GED, call 503-338-2347. Day and evening classes are offered at various sites.

English Language Learners

English Language Learner (ELL) classes are designed to help non-native speakers gain skills in reading, writing, and speaking. Strengthening English skills will increase opportunities for success in college courses and the workplace. Classes are offered in Astoria and at other community sites.

Literacy Program

Tutors are available to assist basic skills and ELL students with reading, writing, math, citizenship and workforce skills. Free tutor training is offered throughout the year. If you are interested in volunteering for the Volunteer Literacy Tutor program or want to refer someone for tutoring, phone 503-338-2557.

ASSOCIATE OF ARTS OREGON TRANSFER (AAOT)

Role Descriptions: The Oregon Transfer Program is designed for students who will continue with upper division studies in Oregon colleges and universities, and who will function as effective citizens in a democratic society and as members of a local and global community.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Engage in civic opportunities with a sense of personal empowerment.
2. Use research skills to access information from multiple sources; use critical thinking skills to evaluate and synthesize information in the form of conclusions, ideas, and opinions.
3. Express ideas clearly and creatively in diverse ways through art, speech, writing, technologies, and mathematics.
4. Draw on knowledge of the arts and sciences to compete effectively in upper division coursework.
5. Use effective life skills to improve and maintain mental and physical wellbeing.
6. Apply learning skills to advance in academic, career, and personal development.
7. Enter and compete effectively in the work force.
8. Recognize, understand, and respond to the wonders and challenges of the natural environment through participation in environmental literacy efforts.
9. Recognize one's role in world community issues with a respect for diverse cultures and differing world views while embracing a sense of pride in one's own regional values and historical heritage.

You have the opportunity to broaden your creative and critical knowledge through an Arts and Sciences program. You might enroll in the lower division program to explore several fields of study to clarify your educational and professional goals. Or you might seek a broad general education as a foundation in preparation for specialization during your junior and senior years at a four-year institution.

Many students attend Clatsop Community College for one or more terms and then transfer to a four-year college. The Associate of Arts, Oregon Transfer Degree allows you to complete lower division requirements at Clatsop Community College. If you complete this degree and are accepted at Oregon public universities, you are admitted as having completed all the lower division General Education requirements for a baccalaureate degree; however, some departments within State System institutions may require additional courses for admittance with junior standing.

You should confer with your advisor at Clatsop and with the institution to which you expect to transfer concerning the requirements of their baccalaureate major. Additional classes which are not on following lists may transfer as electives. The receiving school makes the decision concerning which classes it will accept for credit, which apply to its major and degree requirements, which classes transfer as electives, and which classes it will not accept. In any case, it is your responsibility to confer with the school to which you intend to transfer.

General Requirements

- Writing** Students taking writing classes of three credits each must complete WR 121, 122, and either WR 123 or 227.
- Mathematics** Students must complete one course in college-level mathematics, for which MTH 095 Intermediate Algebra is a prerequisite. This course cannot be used to meet the Math/Science requirement.
- Oral Communication** Students must complete one course in the fundamentals of speech or communication. This course cannot be used to meet the Arts & Letters discipline are requirement.
- Health/Wellness/Fitness** Students must complete one or more courses totaling three credits.

Discipline Requirements

Arts & Letters: Students must complete three courses chosen from two or more disciplines. The second year of a foreign language, but not the first year, may be included among courses that count toward the Arts and Letters requirement.

ARCH 215	History Pacific NW Architecture	3	ENG 110	Introduction to Film Studies	3
ART 115,116,117	Basic Design I, II, III	3 ea	◆ENG 180	Gothic Literature	3
ART 204,205,206	History of Western Art I, II, III	3 ea	ENG 201,202,203	Shakespeare I, II, III	3 ea
ASL 201	Amer Sign Language-Conv Skills	3	◆ENG 204	English Literature-Medieval	3
ENG 104	Intro to Literature-Fiction	3	◆ENG 205	English Literature-Renaissance	3
ENG 105	Intro to Literature-Drama	3	◆ENG 206	English Literature-Victorian/Modern	3
ENG 106	Intro to Literature-Poetry	3	◆ENG 220	Non-European Minority Literature	3
◆ENG 107	World Lit.-The Ancient World	3			
◆ENG 108	World Lit.-Medieval/Renaissance	3			
◆ENG 109	World Lit.-Africa/Asia/Latin Am	3			

continued on the next page

Arts & Letters, continued

◆ENG 221	Intro to Children's Literature	3	◆SP 112	Persuasive Speech	3
ENG 253,254,255	Survey of American Literature	3 ea	◆SP 115	Intro. to Intercultural Communication	3
◆ENG 263	Autism in Literature	3	◆SP 130	Business & Professional Speaking	3
◆HUM 101,102,103	Introduction to Humanities	3 ea	◆SP 219	Small Group Discussion	3
MUS 105	Music Appreciation	3	◆SPAN 201,202,203	Second Year Spanish	4 ea
PHL 101	Philosophical Problems	3	WR 227	Technical Report Writing	3
PHL 102	Ethics	3	WR 240	Creative Writing-Nonfiction	3
PHL 103	Critical Reasoning	3	WR 242	Creative Writing-Poetry	3
R 201,202,203	Great Religions of the World	3 ea	WR 270	Literary Publications	3
◆SP 111	Fundamentals of Public Speaking	3			

Social Science: Students must complete four courses chosen from two or more disciplines.

ANT 101	Intro to Biological Anthropology	3	◆HST 201,202,203	History of the United States	3 ea
◆ANT 102	Intro to Archaeology & Prehistory	3	HST 218	Native American History	3
◆ANT 103	Intro to Cultural Anthropology	3	HST 245	Lewis/Clark Course of Discovery	3
CJ 107	Criminal Justice Workshop	3	HST 277	History of the Oregon Trail	3
CJ 110	Introduction to Law Enforcement	3	◆PHL 208	Political Philosophy	3
CJ 111	Introduction to Criminal Justice	3	PS 201, 202	American Government	3 ea
CJ 114	Gender, Race, Class & Crime	3	PS 203	State and Local Government	3
CJ 120	Introduction to the Judicial Process	3	PS 205	International Politics	3
CJ 138	Understanding Terrorism	3	PSY 101	Psychology of Human Relations	3
CJ 243	Alcohol & Other Dangerous Drugs	3	PSY 201,202,203	General Psychology	3 ea
EC 201,202	Principles of Economics	4 ea	PSY 215	Intro. to Developmental Psychology	3
◆ECE 262	Teaching in Anti-Bias Classroom	3	◆SOC 204	General Sociology: Introduction	3
GEO 100	Physical Geography	3	◆SOC 205	General Sociology: Social Issues	3
◆GEO 110	Cultural and Human Geography	3	SOC 221	Juvenile Delinquency	3
GEO 120	World & Regional Geography	3	◆SOC 225	General Sociology: Global Issues	3
GEO 130	Economic & Resource Geography	3	◆WS 201	Intro to Women's Studies	3
HFS 226	Growing Years	3	◆WS 210	Cultural Percep. of Women of Color	2
◆HST 101,102,103	History of Western Civilization	3 ea	◆WS 221	Women, Difference & Discrimination	3
◆HST 104,105,106	World History I, II, III	4 ea	◆WS 230	Women and Social Action	3

Science/Mathematics/Computer Science: Students must complete four courses from at least two disciplines, including at least three laboratory courses in biological and/or physical science.

*BI 101,102,103	General Biology	4 ea	*GS 109	Physical Science-Meteorology	4
*BI 112	Cell Bio./Allied Health Occupations	4	*GS 112	Chemistry & Cell Biology	5
*BI 143	Marine Biology	4	GS 161	Field Biology of Oregon	3
*BI 211,212,213	Principles of Biology I, II, III	4 ea	MTH 103	Applied College Algebra	4
BI 222	Human Genetics	3	MTH 105	Intro. to Contemporary Mathematics	4
*BI 231,232,233	Human Anat. and Physiology I, II, III	4 ea	MTH 111	College Algebra	4
*BI 234	Introductory Microbiology	4	MTH 112	Elementary Functions (Trigonometry)	4
*BOT 101	Botany	4	MTH 116	Pre-Calculus	4
*CH 104,105	Introductory Chemistry I, II	4 ea	MTH 211,212,213	Fundamentals of Elementary Mathematics I,II,III	3 ea
*CH 106	Introductory Chemistry-Biochemistry	4	MTH 243,244	Intro. to Probability and Statistics	4 ea
*CH 120	Chemistry in Art	4	MTH 251	Calculus I	5
*CH 221,222,22	General Chemistry	5 ea	MTH 252,253	Calculus II,III	4 ea
*ES 160	Techniques in Environmental Information Analysis	4	*PH 201,202,203	General Physics	5 ea
*ES 202	Applied Environmental Studies: Prep for Problem Solving	4	*PH 211,212,213	General Physics with Calculus	5 ea
*GS 104	Physical Science-Physics	4			
*GS 106	Physical Science-Geology	4			

*Courses that meet the lab science requirements of the AAOT

◆Cultural Literacy: Students must select one discipline studies course that is designated as meeting the cultural literacy outcome and criteria.

Electives

Students may complete any college-level course that would bring total credits to 90 quarter hours including up to 12 credits of college designated Career and Technical Education courses from the OUS Transfer List B in this catalog.

Institutional Requirements

Students must complete a total of 90 quarter credits in order to be awarded the AAOT.

All courses should be aligned with the student's intended program of study and the degree requirement of the baccalaureate institution to which the student plans to transfer. Students are encouraged to work with an advisor in the selection of courses.

All Foundational Requirements and Discipline Studies courses must be a minimum of 3 credits, except for Health/Wellness/Fitness courses, which may be any number of credits.

All Elective courses may be any number of credits. All courses must be passed with a grade of "C" or better. Students must have a minimum cumulative GPA of 2.0 at the time the AAOT is awarded.

The Oregon Transfer Degree allows students to complete lower division (freshman and sophomore) degree requirements at Clatsop. Students who complete this degree and are accepted at Oregon public universities and colleges are admitted as having completed all lower division and General Education requirements for a baccalaureate degree.

General Requirements: Complete all classes with a grade of C or better.

Writing

WR 121 English Composition _____ Credit 3 Term _____

WR 122 English Composition _____ Credit 3 Term _____

_____ Credit 3 Term _____
WR 123 or WR 227

Mathematics

_____ Credit 4 Term _____
MTH 105 or higher number math

Oral Communication

_____ Credit 3 Term _____
SP 111, SP 112 or SP 219

Health/Wellness/Fitness - 3 Credits

_____ Credit _____ Term _____

_____ Credit _____ Term _____

_____ Credit _____ Term _____

Distribution Requirements: Include one course that is designated as meeting the cultural literacy outcome and criteria.

Arts and Letters - 12 Credits: A minimum of twelve (12) credits, chosen from at least two disciplines, with no more than nine credits from one discipline. (Chosen from the list on the previous pages)

_____ Credit _____ Term _____

Social Science - 15 Credits: A minimum of fifteen (15) credits, chosen from at least two disciplines, with no more than nine credits from one discipline. (Chosen from the list on the previous pages)

_____ Credit _____ Term _____

Science/Mathematics - 15 Credits: A minimum of fifteen (15) credits (including at least twelve credits in biological or physical sciences with laboratories) chosen from at least two disciplines. (Chosen from the list on the previous pages)

_____ Credit _____ Term _____

Electives: Complete electives to bring the total credits to 90. All elective credit must be from the approved transfer list. A total of 12 credits of Professional/Technical courses numbered 100 or higher may be applied. Students are limited to a maximum of 6 hours of physical education, no more than 18 credits of combined worksite and seminar Cooperative Work Experience courses, and in individual music lessons), a maximum of 12 credits on a major instrument and 6 credits on a secondary instrument.

_____ Credit _____ Term _____

Associate of Science, Oregon Transfer Degree in Business (AS/OT-Bus)

ASSOCIATE OF SCIENCE OREGON TRANSFER PROGRAM IN BUSINESS

Role Descriptions: The Oregon Transfer Program in Business is designed for the person intending to transfer to upper division work in Business at a four-year Oregon University.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Work within the ethical, legal, and regulatory parameters for business enterprises.
2. Calculate, compile, and analyze financial records to make prudent business decisions.
3. Draw on knowledge of the arts and sciences to address business-related issues.
4. Use an understanding of economic policy to reflect on personal, local, and world issues.
5. Express ideas clearly and creatively in diverse ways through art, speech, writing, technologies, and mathematics.
6. Use research skills to access information from multiple sources; use critical thinking skills to evaluate and synthesize information in the form of conclusions, ideas, and opinions.
7. Engage in civic opportunities with a sense of personal empowerment.
8. Apply identified learning skills to advance in academic, career, and personal development across the lifespan.
9. Show respect for diverse cultures and differing world views while embracing a sense of pride in one's own regional values and heritage.

You have the opportunity to broaden your creative and critical knowledge through an Arts and Sciences program. You might enroll in the lower division program to explore several fields of study to clarify your educational and professional goals. Or you might seek a broad general education as a foundation in preparation for specialization during your junior and senior years at a four-year institution.

Many students attend Clatsop Community College for one or more terms and then transfer to a four-year college. The Associate of Science, Oregon Transfer Degree in Business provides you an opportunity to complete the first two-years of a four-year business degree at Clatsop Community College. This degree allows you to complete all of the lower division general education requirements of Oregon University System institutions. Upon admission to the Oregon University System institution, you will have junior year standing for purposes of registration only. It may be possible that there may be some lower division course requirements that must be satisfied for the business program at the Oregon University System institution.

You should work closely with your academic advisor at Clatsop. It is very important that you attempt to identify the Oregon University System institution to which you plan to transfer for your baccalaureate degree as early as possible. As you will see on the following pages, each university has its unique business program prerequisite requirements, including, in some cases, grade point average. You should also confer with the university to which you intend to transfer to ensure that you are satisfying all of their requirements for admission into their business program.

General Requirements

Writing: Nine credits (three classes) with a "C" or better in each class from the following courses: WR 121 English Composition-Exposition and WR 122 English Composition-Argument and WR 227 Technical Report Writing.

Oral Communications/Rhetoric:

Three credits (one class) with a "C" or better in a fundamentals of speech or communication course. This course cannot be used to meet the Arts & Letters requirement.

Mathematics: Twelve credits with a "C" or better; MTH 111 College Algebra or a higher numbered math course; four credits of which must be a statistics course (MTH 243 or MTH 244).

Computer Applications:

Three or four credits with a "C" or better, showing proficiency in word-processing, spreadsheet, database, and presentation software as demonstrated by successful completion of either MIC 145 Intro to Integrated Software (3) or CS 131 Intro to Computer Information Systems (4).

Distribution Requirements

Arts & Letters: A minimum of 12 credits, chosen from at least two disciplines. (CHOOSE FROM THE FOLLOWING LIST)

ARCH 215	History Pacific NW Architecture	3	ENG 253,254,255	Survey of American Literature	3 ea
ART 115,116,117	Basic Design I, II, III	3 ea	ENG 263	Autism in Literature	3
ART 204,205,206	History of Western Art I, II, III	3 ea	HUM 101,102,103	Introduction to Humanities	3 ea
ART 211,212,213	Survey Visual Art of 20th Century	3 ea	MUS 105	Music Appreciation	3
ASL 201	Amer Sign Language-Conv Skills	3	PHL 101	Philosophical Problems	3
ENG 104	Intro to Literature-Fiction	3	PHL 102	Ethics	3
ENG 105	Intro to Literature-Drama	3	PHL 103	Critical Reasoning	3
ENG 106	Intro to Literature-Poetry	3	R 201,202,203	Great Religions of the World	3 ea
ENG 107	World Lit.-The Ancient World	3	SP 111	Fundamentals of Public Speaking	3
ENG 108	World Lit.-Medieval/Renaissance	3	SP 112	Persuasive Speech	3
ENG 109	World Lit.-Africa/Asia/Latin Am	3	SP 115	Intro. to Intercultural Communication	3
ENG 110	Introduction to Film Studies	3	SP 130	Business & Professional Speaking	3
ENG 180	Gothic Literature	3	SP 219	Small Group Discussion	3
ENG 201,202,203	Shakespeare I, II, III	3 ea	SPAN 201,202,203	Second Year Spanish	4 ea
ENG 204	English Literature:Medieval	3	WR 240	Creative Writing-Nonfiction	3
ENG 205	English Literature:Renaissance	3	WR 241	Creative Writing-Fiction	3
ENG 206	English Literature:Victorian/Modern	3	WR 242	Creative Writing-Poetry	3
ENG 220	Non-European Minority Literature	3	WR 249	Writing Children's Books	3
ENG 221	Intro to Children's Literature	3	WR 270	Literary Publications	3

Social Science: A minimum of 12 credits, with a minimum of eight credits of "principles of economics" (to include microeconomics and macroeconomics*) at the 200 level. The courses in economics must be completed with a grade of "C" or better. (CHOOSE FROM THE FOLLOWING LIST)

ANT 101	Intro: Biological Anthropology	3	HST 218	Native American History	3
ANT 102	Intro: Archaeology and Prehistory	3	HST 245	Lewis/Clark Course of Discovery	3
ANT 103	Intro: Cultural Anthropology	3	HST 277	History of the Oregon Trail	3
CJ 107	Criminal Justice Workshop	3	PHL 208	Political Philosophy	3
CJ 110	Introduction to Law Enforcement	3	PS 201, 202	American Government	3 ea
CJ 111	Introduction to Criminal Justice	3	PS 203	State and Local Government	3
CJ 114	Gender, Race, Class & Crime	3	PS 205	International Politics	3
CJ 120	Introduction to the Judicial Process	3	PSY 101	Psychology of Human Relations	3
CJ 130	Introduction to Corrections	3	PSY 190	Stress Theory & Management	3
CJ 138	Understanding Terrorism	3	PSY 201,202,203	General Psychology	3 ea
CJ 243	Alcohol & Other Dangerous Drugs	3	PSY 215	Intro. to Developmental Psychology	3
*EC 201,202	Principles of Economics	4 ea	PSY 216	Social Psychology	3
GEO 100	Physical Geography	3	PSY 219	Introduction to Abnormal Psychology	3
GEO 110	Cultural and Human Geography	3	PSY 231	Introduction to Human Sexuality	3
GEO 120	World & Regional Geography	3	SOC 204	General Sociology: Introduction	3
GEO 130	Economic & Resource Geography	3	SOC 205	General Sociology: Social Issues	3
HFS 226	Growing Years	3	SOC 210	Marriage, Family & Intimate Relations	3
HS 101	Alcohol Use, Misuse and Addiction	3	SOC 221	Juvenile Delinquency	3
HS 102	Drug Use, Misuse and Addiction	3	SOC 225	General Sociology: Global Issues	3
HS 154	Community Resources	3	WS 201	Introduction to Women's Studies	3
HS 201	Family Alcoholism/Addiction	3	WS 210	Cultural Percep. of Women of Color	2
HST 101,102,103	History of Western Civilization	3 ea	WS 222	Women, Difference & Discrimination	3
HST 104,105,106	World History I, II, III	4 ea	WS 230	Women and Social Action	3
HST 201,202,203	History of the United States	3 ea			

Science: A minimum of 12 credits in biological or physical sciences with laboratory courses. (CHOOSE FROM THE FOLLOWING LIST)

BI 101,102,103	General Biology	4 ea	CH 221,222,223	General Chemistry	5 ea
BI 112	Cell Bio./Allied Health Occupations	4	ES 160	Techniques in Environmental Information Analysis	4
BI 143	Marine Biology	4	ES 202	Applied Environ Studies:	4
BI 211,212,213	Principles of Biology I, II, III	4 ea	GS 104	Physical Science-Physics	4
BI 231,232,233	Human Anat. and Physiology I, II, III	4 ea	GS 106	Physical Science-Geology	4
BI 234	Introductory Microbiology	4	GS 109	Physical Science-Meteorology	4
BOT 101	Botany	4	GS 112	Chemistry & Cell Biology	5
CH 104,105,106	Introductory Chemistry I, II	4 ea	PH 201,202,203	General Physics	5 ea
CH 106	Introductory Chemistry-Biochemistry	4	PH 211,212,213	General Physics with Calculus	5 ea
CH 120	Chemistry in Art	4			

Business Specific Requirements

Each course in this section must be completed with a grade of “C” or better:

- BA 101 Introduction to Business (4)
- BA 211, 212, 213 Principles of Accounting (12)
- BA 226 Business Law I (4)

Elective and/or University-Specific Prerequisites (8-14 credits)

Depends on choice of transfer institution – see “University-Specific Prerequisites and Recommendations.” Please note: This list of prerequisites and recommendations is subject to change without notice. At time of admission, consult university catalog for binding course requirements.

Limitations on electives:

Electives must be from the approved list - OUS Transfer List in this catalog.

Professional/Technical courses - A total of 12 credits of courses numbered 100 or higher from the OUS Transfer List in this catalog.

Courses that are developmental in nature, designed to prepare students for college transfer courses, are not applicable to this degree.

Physical Education - A maximum of six hours.

Individual Music Lessons (MUP) - A maximum of 12 credits on a major instrument and six credits on a secondary instrument may be applied to an associate degree.

Cooperative Work Experience - no more than 18 credits of combined worksite and seminar courses.

Institutional Requirements

Complete a minimum of 90 credits of approved lower division collegiate courses listed in OUS Transfer List.

Earn a grade point average of 2.00 or above for all Clatsop Community College coursework.

Have earned a "C" grade or better on all coursework transferred from other institutions that is to be included in a Clatsop Community College degree or certificate.

Complete at least 24 credits at Clatsop Community College.

Foreign Language

Students, who have graduated from high school or completed a high school equivalency program in 1997 or after, must meet one of the following requirements for admission to an Oregon University System institution: either,

- 1) two years of the same high school level language, or
- 2) two terms of college level language with a grade of “C” or better (may be first year language; ASL [American Sign Language] classes also qualify).

University-Specific Prerequisites* and Recommendations

*Subject to change without notice. At time of admission, consult university catalog for binding course requirements.

Institution	Prerequisites	Recommendations
Eastern Oregon University	WR 227 Technical Report Writing. The Business Law course for the AS/OT-Bus is required.	
Oregon Institute of Technology	The Business Law course for the AS/OT-Bus is required.	PSY 201 (General Psychology). BA 206 (Management Fundamentals, equivalent to BUS 215 at OIT). WR 227 (Technical Writing).
Oregon State University	BA 271 Information Technology in Business. BA 275 Business Quantitative Methods MTH 241 Calculus for Biological/Management/Social Sciences MTH 245 Math for Biological/Management/Social Sciences. The Business Law course for the AS/OT-Bus is required.	
Portland State University	CS 106 Computing Fundamentals II. BA 205 Business Communications Using Technology. STAT 244 Introduction to Probability and Statistics II. GPA: 2.75 overall and 2.75 in pre-business core.	
Southern Oregon University	BA 271 or BA 282 Applied Business Statistics. GPA: 2.0 overall and 2.5 in all business courses. Students must apply for admission to the Business School/Program.	
University of Oregon	DCS 199 Special Studies: Business Applications Software. MTH 241, MTH 242 Calculus for Business and Social Science I, II. Multicultural requirement. GPA: 2.75 overall and 2.75 in pre-business core. Students must apply for admission to the Business School/Program.	
Western Oregon University	The Business Law course for the AS/OT is required.	

Associate of General Studies (AGS)

ASSOCIATE OF GENERAL STUDIES (AGS)

Role Descriptions: The General Studies Program is designed to meet the needs of students wanting to focus their studies in an area of personal choice across multiple disciplines.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Read and critically interpret text (written, visual, digital); process content and context to construct meaning.
2. Communicate clearly and effectively through verbal, written, visual, and quantitative expressions.
3. Engage in creative inquiry and expression.
4. Solve problems using science, math, and technology.
5. Draw from multiple disciplines in order to understand the human condition.
6. Contribute as a member of the local community with a cultural and historical understanding of the northwest region in a global context.
7. Bring an understanding of the value of diversity to the community, the workplace, and the home; learn from different cultures, belief systems, and life styles.
8. Investigate, interpret, and communicate ideas about both natural and cultural landscapes.
9. Develop habits and skills that lead to the accomplishment of goals.
10. Seek out and engage in lifelong learning opportunities that broaden perspective, deepen understanding, and increase personal fulfillment.

The Associate of General Studies (AGS) degree provides students flexibility in using a variety of college-level courses (generally 100-level or above) to design a two-year degree program in broad interdisciplinary areas. These courses can come from general education, academic, or collegiate-level professional-technical courses found in this catalog to the meet Clatsop Community College's associate degree requirements.

The AGS is tailored to the student's needs and interests while maintaining high general education standards. Students will need to work closely with an academic advisor at Clatsop in designing their individual degree plan of study. At least 24 of the credits earned for the AGS must be taken at Clatsop Community College.

Please note: students planning to transfer to a public four-year institution within Oregon should complete the AA/OT degree (found on page XX), which is articulated statewide with the Oregon University System four-year colleges and universities.

Complete 36 credits or more from a cluster of related courses the student and his/her advisor identify. Student should identify the cluster of courses as soon as possible after enrollment, but no later than the term prior to the term in which he/she plans to graduate.

Complete the following General Education Requirements:

Writing: Six credits (two classes) with a C or better in each class from the following:

- a. WR 121 English Composition-Exposition
and
- b. Three credits from the following: WR 122 English Composition-Argument, WR 123 English Composition - Research Writing; WR 227 Technical Report Writing; BA 214 Business Communication.

Mathematics: One course numbered 100 or higher, with a C or better.

Humanities and/ or Social Sciences: Six credits of Humanities and/or Social Science courses from the Arts and Letters and Social Science lists on page ____.

Institutional Requirements

Student must complete a minimum of 90 credits of coursework to include alpha-numeric courses 100-299, and a maximum of 21 credits of courses numbered 9.000-9.999 to be taken at Clatsop Community College.

Earn a grade point average of 2.00 or above for all Clatsop Community College coursework.

Have earned a "C" grade or better on all coursework transferred from other accredited colleges and universities that is to be included in a Clatsop Community College degree or certificate.

Apply no more than a maximum of 24 credits of pass grades toward and Associate Degree.

Complete at least 24 credits at Clatsop Community College.

See pages 38-78 for specific Applied Science programs and requirements.

Applied Science programs provide the skills and work experience you'll need to qualify for employment. With the help of a local industry advisory committee, each program is carefully planned to meet the needs of the current job market. Instruction is provided by trained, experienced professionals, and classes are conducted in an industry-like work setting. The Cooperative Work Experience program offers credit for on-the-job experience with local employers in the field of your choice.

Applied Science programs include general education courses to assure that you have a basic understanding of writing, mathematics, human relations, and social sciences and/or humanities. While courses are not specifically intended for transfer to a four-year college or university, certain courses are currently accepted for transfer credit at specific institutions. In most cases, Professional/Technical courses can be transferred to other community colleges which offer similar programs. If you are planning to transfer, consult with appropriate representatives of the school you are planning to attend and with your Clatsop Community college advisor.

We offer one-year, two-year, or specialized training programs depending on the type and amount of preparation required for entry-level employment or professional renewal. Several options are available in many programs. Individuals holding state certifications in programs such as Fire Science and Emergency Medical Technician may be able to get credit based on their previous training. See a counselor or your advisor as you begin planning a specific program. Specific degree and certification requirements are listed below.

General Requirements

Writing: **Six credits** (two classes) with a C or better in each class from the following:

- a. WR 121 English Composition-Exposition *and*
- b. Either WR 122 English Composition-Argument; WR 123 English Composition-Research Writing; WR 227 Technical Report Writing; BA 214 Business Communication; or a course specified by the specific Applied Science program.

Mathematics: **Four credits**, with a C or better, in MTH 65 Mathematics for the Applied Sciences or MTH 95 Intermediate Algebra or a higher numbered math course.

**Humanities and/
or Social Sciences:** **Six credits** of Humanities and/or Social Science courses from the Arts and Letters and Social Science lists on page 25.

Computer: **One credit** or more of computer-related courses as specified in the specific Applied Science program.

Human Relations: As specified by the specific Applied Science program.

Program Courses

Required Courses: As prescribed in the specific Applied Science program.

Technical electives: Technical electives provide student choice within an approved program. The number of technical option credits available is specified by the individual Applied Science programs.

Electives: The number of elective credits is specified by the specific Applied Science program. Students have the opportunity to choose these courses from the list of approved courses.

Institutional Requirements

- Complete a minimum of 90 credits of approved coursework which includes alpha-numeric courses and non-transfer courses numbered 9.000-9.999.

Oregon Transfer Module (OTM)

The Oregon Transfer Module represents approximately half (45 credits) of an associate degree or the first year of a baccalaureate degree. Although students do not earn a degree or certificate, any student successfully completing an OTM (which conforms to the guidelines below) will be able to seamlessly transfer their first year of general education requirements to any Oregon community college, Oregon University System institution or participating Oregon independent college or university. It is the student's responsibility to confer with the school to which they intend to transfer. The receiving institution may specify additional course work that is required for a major or for degree requirements or to make up the difference between the Transfer Module and the institution's total General Education requirements.

GUIDELINES: The Oregon Transfer Module includes the following course work, which is equivalent to 3 academic quarters. The coursework must be chosen from the courses approved for the categories below. These will be courses approved for the AA/OT degree. All courses must be passed with a grade of "C" or better and must be worth at least 3 credits.

Foundational Skills:

- Writing:** Students taking writing classes of three credits each must complete WR 121 and WR 122.
- Oral Communication:** Students must complete one course in the fundamentals of speech or communication. This course cannot be used to meet the Arts & Letters discipline requirement.
- Mathematics:** Students must complete one course in college-level mathematics, for which MTH 095 Intermediate Algebra is a prerequisite. This course cannot be used to meet the Math/Science requirement.

Discipline Requirements

Arts & Letters: Students must complete three courses chosen from two or more disciplines. The second year of a foreign language, but not the first year, may be included among courses that count toward the Arts and Letters requirement.

ARCH 215	History Pacific NW Architecture	3	ENG 253,254,255	Survey of American Literature.....	3 ea
ART 115,116,117	Basic Design I, II, III	3 ea	HUM 101,102,103	Introduction to Humanities	3 ea
ART 204,205,206	History of Western Art I, II, III.....	3 ea	MUS 105	Music Appreciation	3
ASL 201	Amer Sign Language-Conv Skills	3	PHL 101	Philosophical Problems.....	3
ENG 104	Intro to Literature-Fiction	3	PHL 102	Ethics.....	3
ENG 105	Intro to Literature-Drama.....	3	PHL 103	Critical Reasoning.....	3
ENG 106	Intro to Literature-Poetry.....	3	R 201,202,203	Great Religions of the World	3 ea
ENG 107	World Lit.-The Ancient World	3	SP 111	Fundamentals of Public Speaking.....	3
ENG 108	World Lit.-Medieval/Renaissance.....	3	SP 112	Persuasive Speech.....	3
ENG 109	World Lit.-Africa/Asia/Latin Am.....	3	SP 115	Intro. to Intercultural Communication	3
ENG 110	Introduction to Film Studies	3	SP 130	Business & Professional Speaking.....	3
ENG 180	Gothic Literature	3	SP 219	Small Group Discussion	3
ENG 201,202,203	Shakespeare I, II, III.....	3 ea	SPAN 201,202,203	Second Year Spanish	4 ea
ENG 204	English Literature-Medieval.....	3	WR 227	Technical Report Writing	3
ENG 205	English Literature-Renaissance	3	WR 240	Creative Writing-Nonfiction	3
ENG 206	English Literature-Victorian/Modern.....	3	WR 241	Creative Writing-Fiction	3
ENG 220	Non-European Minority Literature.....	3	WR 242	Creative Writing-Poetry.....	3
ENG 221	Intro to Children's Literature	3	WR 249	Writing Children's Books	3

Social Science: Students must complete three courses chosen from two or more disciplines.

ANT 101	Intro: Biological Anthropology.....	3	HST 218	Native American History	3
ANT 102	Intro: Archaeology and Prehistory	3	HST 245	Lewis/Clark Course of Discovery.....	3
ANT 103	Intro: Cultural Anthropology	3	HST 277	History of the Oregon Trail.....	3
CJ 107	Criminal Justice Workshop	3	PHL 208	Political Philosophy	3
CJ 110	Introduction to Law Enforcement.....	3	PS 201, 202	American Government.....	3 ea
CJ 111	Introduction to Criminal Justice.....	3	PS 203	State and Local Government.....	3
CJ 114	Gender, Race, Class & Crime	3	PS 205	International Politics	3
CJ 120	Introduction to the Judicial Process	3	PSY 101	Psychology of Human Relations.....	3
CJ 130	Introduction to Corrections	3	PSY 190	Stress Theory & Management.....	3
CJ 138	Understanding Terrorism	3	PSY 201,202,203	General Psychology	3 ea
CJ 243	Alcohol & Other Dangerous Drugs	3	PSY 215	Intro. to Developmental Psychology	3
EC 201,202	Principles of Economics	4 ea	PSY 216	Social Psychology	3
GEO 100	Physical Geography	3	PSY 219	Introduction to Abnormal Psychology	3
GEO 110	Cultural and Human Geography	3	PSY 231	Introduction to Human Sexuality	3
GEO 120	World & Regional Geography	3	SOC 204	General Sociology: Introduction	3
GEO 130	Economic & Resource Geography.....	3	SOC 205	General Sociology: Social Issues.....	3
HFS 226	Growing Years.....	3	SOC 210	Marriage, Family & Intimate Relations	3
HS 101	Alcohol Use, Misuse and Addiction	3	SOC 221	Juvenile Delinquency.....	3
HS 102	Drug Use, Misuse and Addiction.....	3	SOC 225	General Sociology: Global Issues.....	3
HS 154	Community Resources.....	3	WS 201	Introduction to Women's Studies	3
HS 201	Family Alcoholism/Addiction.....	3	WS 210	Cultural Percep. of Women of Color.....	2
HST 101,102,103	History of Western Civilization	3 ea	WS 222	Women, Difference & Discrimination	3
HST 104,105,106	World History I, II, III.....	4 ea	WS 230	Women and Social Action.....	3
HST 201,202,203	History of the United States.....	3 ea			

Science/Mathematics/Computer Science: Students must complete two courses totaling at least ten credits, including at least one laboratory course in biological or physical science.

*BI 101,102,103	General Biology	4 ea	*GS 112	Chemistry & Cell Biology.....	5
*BI 112	Cell Biology/Allied Health Occupations	4	GS 161	Field Biology of Oregon.....	3
*BI 143	Marine Biology	4	MTH 103	Applied College Algebra	4
*BI 211,212,213	Principles of Biology I, II, III	4 ea	MTH 105	Intro. to Contemporary Mathematics	4
BI 222	Human Genetics.....	3	MTH 111	College Algebra.....	4
*BI 231,232,233	Human Anat. and Physiology I, II, III	4 ea	MTH 112	Elementary Functions (Trigonometry).....	4
*BI 234	Introductory Microbiology	4	MTH 116	Pre-Calculus	4
*BOT 101	Botany	4	MTH 211,212,213	Fundamentals of Elementary Math. I,II,III	3 ea
*CH 104,105	Introductory Chemistry I, II.....	4 ea	MTH 243,244	Intro. to Probability and Statistics	4 ea
*CH 106	Introductory Chemistry-Biochemistry	4	MTH 251	Calculus I.....	5
*CH 120	Chemistry in Art.....	4	MTH 252,253	Calculus II,III	4 ea
*CH 221,222,223	General Chemistry	5 ea	*PH 201,202,203	General Physics	5 ea
*ES 160	Techniques in Environmental Information Analysis..	4	*PH 211,212,213	General Physics with Calculus	5 ea
*ES 202	Applied Environ Studies: Prep for Problem Solving.	4			
*GS 104	Physical Science-Physics	4			
*GS 106	Physical Science-Geology	4			
*GS 109	Physical Science-Meteorology.....	4			

*courses which meet the lab science requirement

Electives:

As required to bring the total credits to 45. Courses must be from the areas listed above (Arts and Letters, Social Science, or Science/Math/Computer Science).

Institutional Requirements:

Earn a "C" grade or better on all Clatsop Community College coursework.

Have earned a "C" grade or better on all coursework transferred from other institutions that is to be included in a Clatsop Community College OTM, degree or certificate.

You may apply a maximum of 12 credits of "pass" grades toward the OTM. However, Foundational Skills courses must be taken for a grade.

Complete at least 12 credits at Clatsop Community College.

OUS Transfer List - B

The following courses are generally applicable to AGS and AAS certificate and degree programs. They may be accepted by Oregon University System (OUS) institutions. Effective Fall term 1998, up to 12 credits of these Professional/Technical courses, numbered 100 and higher from the list below, can be used as elective credit for the AA-OT and AS-OT/Business degrees. **Consult an advisor at Clatsop and the four-year school regarding the transferability of specific programs and/or courses.**

(Apprenticeship Program Courses – see end of list)*

AUTO 101.....	Introduction to Automotive Technology	CJ 121	Concepts of Criminal Law
AUTO 108.....	Engine Fundamentals & Repair	CJ 130	Introduction to Corrections
AUTO 120.....	Steering and Suspension I	CJ 138	Understanding Terrorism
AUTO 125.....	Electrical/Electronics I	CJ 203	Crisis Intervention
AUTO 130.....	Brake Systems I	CJ 205	Female Offenders
AUTO 135.....	Electrical/Electronics II	CJ 210	Criminal Investigation
AUTO 210.....	Advanced Steering, Suspension, and Brakes	CJ 212	Report Writing in Criminal Justice
AUTO 215.....	Electrical/Electronics III	CJ 215	Issues in Criminal Justice Supv. & Admin.
AUTO 224.....	Engine Performance I	CJ 218	Interview and Interrogation Techniques
AUTO 229.....	Engine Diagnosis and Service	CJ 219	Introduction to Community Policing
AUTO 230.....	Automotive HVAC	CJ 225	Corrections Law
AUTO 234.....	Engine Performance II	CJ 230	Introduction to Juvenile Corrections
BA 177	Payroll & Business Tax Accounting	CJ 231	Juvenile Law
BA 131,132	Accounting Procedures I, II	CJ 232	Introduction to Corrections Casework
BA 206	Management Fundamentals	CJ 243	Alcohol & other Dangerous Drugs
BA 214	Business Communication	CS 295.....	CIS Directed Project
BA 218	Personal Finance	DRF 139.....	Technical Print Interpretation
BA 223	Principles of Marketing	DRF 150.....	Construction Drawing
BA 224	Human Resource Management	DRF 213.....	Computer Aided Design I
BA 228	Computer Accounting Applications	DRF 214.....	Computer Aided Design II
BA 230	Management Information Systems	DRF 215.....	Computer Aided Design III
BA 249	Retailing	DRF 217.....	AutoCAD - Upgrade
BA 250	Small Business Management	DRF 295.....	CADD Directed Project
BA 256	Income Tax	ECE 110	Planning ECE Environment
BA 285	Human Relations in Business	ECE 111	Fundamentals Early Childhood Education
BA 295A.....	Accounting Directed Project	ECE 120	ECE Core Curriculum Planning
BA 295M.....	Management Directed Project	ECE 130	Nutrition, Health and Safety
BLD 101.....	Introduction to Historic Preservation	ECE 140	Infant and Toddler Development
BLD 103.....	Residential Materials and Methods	ECE 150	Legal Issues in ECE
BLD 104.....	Construction Math	ECE 160	Family/Community Collaboration in ECE
BLD 110.....	Construction Safety for Historic Preservation	ECE 161	Observation and Assessment
BLD 111.....	Tool Safety for Historic Preservation	ECE 262.....	Teaching in Anti-Bias Classroom
BLD 121.....	Construction Skills: Foundation Systems	ECE 263.....	Classroom Guidance & Behavior
BLD 122.....	Construction Skills: Floor Systems	ECE 264.....	Curriculum Development & Implementation
BLD 123.....	Construction Skills: Wall Systems	ECE 266.....	Language Arts for Young Children
BLD 124.....	Construction Skills: Roof Systems	EM 101.....	Introduction to Emergency Services
BLD 125.....	Construction Skills: Moisture & Thermal Protection	EMT 151,152	Emergency Medical Tech. Basic, Part 1, Part 2
BLD 126.....	Construction Skills: Doors and Windows	EMT 165,166	Emergency Med. Tech. Intermediate, Part 1, Part 2
BLD 127.....	Construction Skills: Stairs	EMT 169	Emergency Medical Tech. Rescue
BLD 128.....	Construction Skills: Finish Work	EMT 176	Emergency Response: Transportation
BLD 140.....	Print Reading for Construction	EMT 177	Emergency Communication & Documentation
BLD 151.....	Building Codes I – Intro to Residential Codes	FRP 101.....	Principles of Emergency Services
BLD 206.....	Sustainable Building	FRP 121.....	Fire Behavior & Combustion
BLD 207.....	Project Management	FRP 151.....	Firefighter Skills I
BLD 210.....	Historic Preservation I	FRP 155.....	Instructional Methodology
BLD 211.....	Historic Preservation II	FRP 156.....	Firefighter Law
BLD 221.....	Historic Pres. & Rest. Tech.: Foundation Systems	FRP 157.....	Princ Fire/Emer Svcs Sfty/Surv
BLD 222.....	Historic Pres. & Rest. Tech.: Floor Systems	FRP 158.....	Fire Protection Hydraulics and Water Supply
BLD 223.....	Historic Pres. & Rest. Tech.: Wall Systems	FRP 164.....	Hazardous Materials
BLD 224.....	Historic Pres. & Rest. Tech.: Roof Systems	FRP 166.....	Building Construction for Fire Protection
BLD 225.....	Historic Pres. & Rest. Tech.: Moist/Therm Systems	FRP 168.....	Emergency Service Rescue
BLD 226.....	Historic Pres. & Rest. Tech.: Doors/Windows	FRP 169.....	Intro to Fire & Emergency Service Administration
BLD 227.....	Historic Pres. & Rest. Tech.: Stairs	FRP 170.....	Firefighting Strategy & Tactics
BLD 228.....	Historic Pres. & Rest. Tech.: Finish Work	FRP 171.....	Fire Protection Systems
BLD 295.....	Historic Preservation & Restoration Directed Project	FRP 172.....	Fire Codes & Ordinances
CJ 107	Criminal Justice Workshop	FRP 174.....	Fire Investigation I
CJ 110	Introduction to Law Enforcement	FRP 181.....	Fire Prevention
CJ 111.....	Introduction to Criminal Justice	FRP 190.....	Intro to Wildland Firefighting
CJ 114	Gender, Race, Class & Crime	GS 161	Field Biology of Oregon
CJ 120	Introduction to the Judicial Process	HD 209.....	Get the Job You Want

IT 110	Applied Technology Projects
IT 140	Industrial Safety
IT 141	Tool and Shop Basics
MA 112,113	Medical Assistant: Clinical Procedures I, II
MA 115	Pharmacology For Medical Assistants
MA 120	Body Structure and Function I
MA 121	Body Structure and Function II
MA 133	Medical Assistant Clinical Practicum I
MA 231	Medical Assistant Clinical Practicum II
MAS 100	Maritime Occupations
MAS 101	Exploring Marine Technology
MAS 110	Limited Operator Uninspected Passenger Vessel Certification
MAS 111	Limited Operator Uninspected Passenger Vessel Endorsement
MAS 120	U.S. Coast Guard Marine License Training
MAS 121	Able Seaman Training
MAS 122	OUPV Training
MAS 123	100 ton Master Training
MAS 124	200 ton Master Training
MAS 125	500/1600/Unlimited License Prep
MAS 126	Oceans Endorsement Program
MAS 130	Radar Observer: Original Endorsement, Unlimited
MAS 131	Radar Observer: Recertification
MAS 132	Radar Observer: Rivers
MAS 133	ARPA Training
MAS 134	STCW GMDSS Training
MAS 135	STCW Basic Safety Training
MAS 136	STCW Bridge Resource Management
MAS 137	Radar Navigation
MAS 138	STCW Proficiency in Survival Craft
MAS 139	STCW Basic Firefighting
MAS 144	STCW Advanced Firefighting
MAS 146	Vessel Operations
MAS 147	Vessel Regulations
MAS 148	Vessel Stability
MAS 150	Crewmember Marine Safety Training
MAS 155	Introduction to Watchkeeping
MAS 164	Introduction to Navigation
MAS 165	Practical Navigation
MAS 167	Celestial Navigation
MAS 168	Charts, Aids to Navigation & Marine Compasses
MAS 170	Marine Weather, Tides, Currents, & Waves
MAS 171	Coastal Navigation & Voyage Planning
MAS 172	Ocean Navigation & Voyage Planning
MAS 175	Rules of the Road
MAS 180	Marine Electronics
MAS 181,182,183	Seamanship I, II, III
MAS 184	Galley Cooking
MAS 185	Bridge to Bridge Communication
MAS 186,187,188	Small Vessel Operations I, II, III
MAS 189	Applied Rigging Technology
MAS 190	Vessel Practicum
MAS 191	Deckhand Practicum
MAS 192	Intro. to Deck Machinery and Safety
MAS 193	Intro. to Engine Room Maintenance and Safety
MAS 201	Tank Ship Dangerous Liquids
MAS 205	Shipboard Medical Care Provider
MAS 208	RFPNW
MIC 145	Introduction to Integrated Software
MIC 207	Presentation Software
MIC 295	Microcomputer Directed Project
NUR 101	Nursing: Foundations of Care
NUR 102	Nursing: Focus on Individuals
NUR 103	Nursing: Focus on Families
NUR 105	Foundations of Pharmacology for Nurses
NUR 109	Nursing: Focus on Mental Health
NUR 111	Nursing Concepts & Clinical Practice
NUR 112	Collaborative Practice I: Pharmacology
NUR 113	Collaborative Practice II: Pathophysiology and Pharmacology
NUR 115A	Strategies for Success in the Nursing Program
NUR 115 B,C	Physical Assessment I, II
NUR 201	Nursing: Clients in Crisis
NUR 202	Nursing: Families in Crisis
NUR 208	Nursing: Transition into Practice
NUR 231	Collaborative Practice III: Pathophysiology
NUR 232	Collaborative Practice IV: Pathophysiology and Pharmacology
OA 104	English for Business
OA 116	Office Procedures
OA 120	Computer Keyboarding
OA 121	Keyboarding I
OA 124	Keyboarding Skill Building
OA 126	Office Skills for the Medical Setting
OA 131	10-Key Skill Building
OA 142	Medical Transcription
OA 201,202	Word Processing Procedures I & II
OA 205	Desktop Publishing
OA 225	Machine Transcription
OA 240	Filing & Records Management
OA 295	Office Systems Directed Project
PULP 101	Introduction to Pulp & Paper Technology
PULP 102	Paper Processing
TTL 101	Intro. to Prof. Truck Driving & Logistics
TTL 121	Practical Apps. in Prof. Truck Driving & Logistics
TTL 141	Transportation Customer Service Skills
WLD 100	Materials Processing
WLD 101	Shielded Metal Arc Welding
WLD 102	Gas Metal Arc Welding
WLD 103	Flux Core Arc Welding
WLD 104	Gas Tungsten Arc Welding
WLD 150	Beginning Welding
WLD 160	Intermediate Welding
WLD 170	Advanced Welding
WLD 190	Welding Certification Preparation
Cooperative Work Experience Work Experience (all 180 or 280 numbers) and Work Experience Seminar (all 281 numbers)	
* APPRENTICESHIP PROGRAM COURSES	
APR 100-109	Construction - General
APR 110-112	Electrician
APR 120-127	Industrial Mechanics & Maintenance Technology
APR 130-131	Construction - Plumber
APR 140-159	Construction - General
APR 160-162	Electrician
APR 170-179	Construction - General
APR 180-181	Construction - Plumber
APR 190-199	Construction - General
APR 200-207	Industrial Mechanics & Maintenance Technology
APR 210-212	Electrician
APR 220-227	Industrial Mechanics & Maintenance Technology
APR 230-231	Construction - Plumber
APR 250-251	Industrial Mechanics & Maintenance Technology
APR 260-261	Electrician
APR 280-281	Construction - Plumber
APR 290	Construction - General

APPRENTICESHIP

LEARNING OUTCOMES: GENERAL APPRENTICESHIP, ASSOCIATE OF APPLIED SCIENCE DEGREES

- Construction Trades, AAS Degree
- Electrician Apprenticeship Technologies, AAS Degree
- Industrial Mechanics & Maintenance Technology Apprenticeship, AAS Degree

Role Descriptions: These apprentice programs are designed for the person intending to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles.

Intended Learning Outcomes: In addition to apprentice and related learning courses, the learning experiences which complete this degree program are designed to assist the student in demonstrating the following outcomes:

1. Apply critical thinking skills to investigate, interpret, and communicate issues involving the trade, the community, and the home.
2. Coordinate projects and supervise others.
3. Lead a team unit in a direction that aligns with stated vision, mission, and values.
4. Work within the legal, regulatory, and code parameters of the trade/community.
5. Work to establish and promote a collaborative work environment where all voices are heard and valued as they contribute to shared goals.
6. Seek out and engage in learning opportunities that broaden perspective, deepen understanding, and increase personal fulfillment throughout life.
7. Use verbal, non-verbal, and written communication skills effectively.

CONSTRUCTION TRADES, GENERAL APPRENTICESHIP ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

This associate of applied science degree program is **designed for a person currently in or who has completed a Bureau of Labor and Industries (BOLI) approved construction trades apprenticeship** and who intends to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles.

Employment Opportunities:

The labor market outlook for all construction trades in Oregon is projected to be strong and steady, with seasonal variations, through 2014, with growth rates from 17% to 29%. Job growth among first-line supervisors/managers of construction trades also can expect strong career opportunities, with Oregon growth rates of 15% through 2016, and with projected growth of 21.4% in Clatsop, Columbia, and Tillamook counties.

Potential Earnings:

The average Oregon entry wage for all construction workers is, on average, \$11.15. For first line supervisors, the entry wage is \$18.18, and the median wage is \$28.16. *See course list on next page.*

ELECTRICIAN APPRENTICESHIP TECHNOLOGIES ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

This associate of applied science degree program is **designed for a person currently in or who has completed a Bureau of Labor and Industries (BOLI) and Oregon Building Codes approved electrical trades apprenticeship** and who intends to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles.

Employment Opportunities:

Employment for electricians is expected to grow at about the statewide average. Total job openings are projected to be much higher than the statewide average. The labor market outlook for electricians in Oregon is to grow from 5% to 25%. Projected growth in Clatsop, Columbia, and Tillamook counties is 13.1%. Job growth among first-line supervisors/managers of electricians also can expect strong career opportunities, with Oregon growth rates of 15% through 2016, and projected growth of 21.4% in Clatsop, Columbia, and Tillamook counties.

Potential Earnings:

The average Oregon entry wage for electricians is, on average, \$17.79, and the median wage is \$29.08. Electricians in Clatsop, Columbia, and Tillamook counties earn from \$26.37 at entry to a median of \$31.81. For first line supervisors, the entry wage is \$18.18, and the median wage is \$28.16. *See course list on next page.*

INDUSTRIAL MECHANICS AND MAINTENANCE TECHNOLOGY APPRENTICESHIP ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

This associate of applied science degree program is **designed for a person currently in or who has completed a Bureau of Labor and Industries (BOLD) apprenticeship in the following trades** and who intends to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles. The trades are boiler/turbine operator, die cast mold, heat and frost insulator, industrial mobile mechanic, machinist, millwright, motor winder, pipefitter, roll turner, instrumentation technician, and welder.

Employment Opportunities:

Overall, the average growth rate for all of the industrial mechanics and maintenance apprenticeship trades is about 12%. Welders will be the largest number of openings in Oregon, with 2,092 opening between now and 2014. The growth rate for all trades in this category is less than 8% through 2014, however applicants with broad skills in machine repair and maintenance will have favorable job prospects due to many retirements and a shortage of young workers with the necessary skills.

Potential Earnings:

Depending upon the employers' geographic location and any union/open shop affiliation, those completing this program can expect to earn \$11.09 to \$28.54 per hour. The average Oregon wage for welders is, on average, \$16.09. Welders in Clatsop, Columbia, and Tillamook counties earn from \$13.29 at entry to a median of \$18.10. Instrument technicians in Oregon earn about \$25.10.

COURSE LIST: CONSTRUCTION TRADES, ELECTRICIAN, AND INDUSTRIAL MECHANICS & MAINTENANCE TECHNOLOGY APPRENTICESHIP AAS DEGREES:

Course Number	Course Title	Credits	Additional Course List
WR 121	English Composition-Exposition*	3	Select three (3) courses from following list:
WR 122	English Comp.-Argument* <i>and either</i> .3		
WR 227	Technical Report Writing* <i>or</i>	(3)	
BA 214	Business Communication*	(3)	
SP 111	Fundamentals of Public Speaking*	3	
MTH 65	Math for Applied Sciences** <i>or</i>	4	
MTH 95	Intermediate Algebra**	(5)	
PSY 101	Psychology of Human Relations.....	3	
CS 131	Intro. to Computer Info. Systems.....	4	
	Arts and Letters/Social Sciences***	3	
	Trade Competency +	22	
	Related Training ++	36	
	Additional Course List	9	
	<hr/>		
	Total Credits	90	
BA 206	Management Fundamentals	3	
BA 226	Introduction to Business Law	4	
BA 285	Human Relations in Business	3	
DRF 139	Technical Print Interpretation <i>or</i>	3	
BLD 140	Print Reading for Construction	(3)	
EC 201	Principles of Economics	4	
PHL 102	Ethics.....	3	
PHL 103	Critical Reasoning.....	3	
PSY 201	General Psychology	3	
SP 112	Persuasive Speech.....	3	
SP 115	Intro. to Intercultural Communication ..	3	
SP 219	Small Group Discussion	3	

* Minimum grade C or higher.
 ** Minimum grade C or higher. Higher level math may be substituted.
 *** Selected from Arts and Letters and Social Science listed on page 25.
 + Journey card (credit for prior certification).
 ++ Minimum of 36 credits required.

AUTOMOTIVE TECHNICIAN

CAREER PATHWAY CERTIFICATE *OR* ONE-YEAR CERTIFICATE *OR* ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

The automotive program at CCC is a real world, work based program of study and experience in the motor vehicle repair trade. It prepares those with automotive desire and aptitude to become the auto repair workforce for a hungry industry. Training is done with up-to-date, industry recognized equipment and instruction which meets national standards. The facility and it's instruction is reviewed regularly by the CCC Automotive Advisory Committee composed of industry and service professionals from the local area, so you can be assured that your training experience will relate to what's really out there. Successful completion of the Automotive Technology AAS Degree will prepare you to be a solid entry-level technician.

Employment Opportunities:

The need for trained and competent technicians in this field is critical, and job outlooks are very good. This occupation is expected to grow at about the statewide average, while total job openings are projected to be much higher than the statewide average. Projected annual job openings in Oregon are running nearly 300 per year.

Potential Earnings:

Average hourly wage for Oregon is \$18.00, with top experienced wages running up to \$30.00 per hour. Statewide average annual income for this occupation is just above \$38,000.

Entrance Requirements:

If you have either a high school diploma or a GED, the next step is to take the COMPASS test to determine your basic proficiency in math and reading/writing.

LEARNING OUTCOMES

Role Descriptions

The Automotive Technician Program is designed to prepare persons intending to enter the workforce as entry-level technicians in the automotive repair industry.

Program Learning Outcomes

Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Performing quality mechanical diagnosis and repairs to the following automotive systems:
 - Suspension and Steering • Brakes • Engine • Powertrain/Engine Performance • Electrical • HVAC • Trim
2. Using an understanding of electrical/electronic theory in assessing and diagnosing computer, module-based automotive repairs.
3. Assessing, prioritizing, and managing work tasks with a concern for customer satisfaction and fiscal responsibility.
4. Efficiently accessing resources (both electronic and print) for service and technical information necessary to complete specific automotive services and repairs.
5. Exhibiting personal punctuality, appearance, work time management, and communication skills that maximize continued employment.
6. Constantly assessing and resolving safety issues in the work environment using all the senses.

YEAR ONE

Automotive Career Pathway Certificate

FALL
WINTER
SPRING

Introduction to
Auto. Technology
AUTO 101, 4 Cr.

Engine Fundamentals
and Repair
AUTO 108, 4 Cr.

Industrial
Safety
IT 140, 1 Cr.

Electrical/
Electronics I
AUTO 125, 4 Cr.

Engine Diagnosis
and Service
AUTO 229, 4 Cr.

Brake System I
AUTO 130, 4 Cr.

YEAR ONE One-Year Certificate • AAS Degree

FALL	Intro to Automotive Technology AUTO 101, 4 Cr.	Engine Fundamentals and Repair AUTO 108, 4 Cr.	Industrial Safety *** IT 140, 1 Cr.	Math for Applied Sciences * <i>or</i> Intermediate Algebra* MTH 65, 4 Cr. MTH 95, 5 Cr.		
	WINTER	English Composition -Exposition** WR 121, 3 Cr.	Steering & Suspension I AUTO 120, 4 Cr.	Electrical/ Electronics I AUTO 125, 4 Cr.	Intro to Computer Info Systems CS 131, 4 Cr.	
		SPRING	Brake Systems I AUTO 130, 4 Cr.	Electrical/ Electronics II AUTO 135, 4 Cr.	Psychology of Human Relations PSY 101, 3 Cr. <i>or</i> Human Relations in Business BA 285, 3 Cr.	Materials Processing WLD 100, 2 Cr.

Certificate Notes: The program addresses the application of technical writing skill as the trainee delivers written quality control reports. Students demonstrate practical math applications throughout the program. Upon completion the trainees will receive a Certificate of Completion from CCC qualifying them as an entry-level automotive technician. With the addition of two years minimum field experience and upon successful completion of the NIASE exam, trainees may become a certified ASE Automotive Technician in their field of training.

YEAR TWO AAS Degree

FALL	Electrical/ Electronics III AUTO 215, 4 Cr.	Engine Diagnosis & Service AUTO 229, 4 Cr.	English Composition** <i>or</i> Technical Report Writing** <i>or</i> Business Communication** WR 122 <i>or</i> WR 227, 3 Cr. BA 214, 3 Cr. WR 123, 3 Cr.	Health & Fitness for Life HPE 295, 3 Cr.	Electives **** 3 Cr.	
	WINTER	Advanced Steering, Suspension/Brakes AUTO 210, 4 Cr.	Engine Performance I AUTO 224, 4 Cr.	Shielded Metal Arc Welding WLD 101, 2 Cr.	Intro/Intercultural Communication <i>or</i> Conversational Spanish <i>or</i> Alcohol, Abuse and Addiction SP 115, 3 Cr. SPAN 111, 3 Cr. HS 101, 3 Cr.	Electives **** 3 Cr.
		SPRING	Automotive HVAC AUTO 230, 4 Cr.	Engine Performance II AUTO 234, 4 Cr.	Applied Technology Project IT 110, 2 Cr.	Gas Metal Arc Welding WLD 102, 2 Cr.

AAS Notes: Upon completion the trainees will receive an Associate of Applied Science Degree, and a Competency Certificate from CCC qualifying them as an entry-level automotive technician. With the addition of two years minimum field experience, and upon successful completion of ASE exams of their choice, trainees may become ASE Automotive Technicians in their field of training.

Note: All AUTO, IT and WLD courses must be completed with a grade C or higher.

Legend Notes:

- * Minimum Grade C or higher. Math courses numbered higher than MTH 95 may be substituted.
- ** Minimum Grade C or higher.
- *** IT 140 uses CD-ROM training modules. Satisfactory completion of this class is required before taking classes in any of the shop facilities.
- **** Selected from the Arts and Letters and Social Science lists.

**ACCOUNTING TECHNICIAN
ASSOCIATE OF APPLIED SCIENCE DEGREE****Job Description:**

This program prepares people for entry-level positions as accounting clerks, junior accountants, or bookkeepers who maintain financial records needed for business management. They prepare financial statements, payroll records and reports, and keep books and records up to date. They put together reports to show statistics such as cash receipts and expenditures, accounts payable and receivable, profit and loss, and financial position. They may complete worksheets, bank reconciliations, inventory reports, depreciation schedules, and income tax forms. Knowing how to use the computer is essential.

Employment Opportunities:

The opportunities depend on the economy, replacement needs, and continued use of accounting and bookkeeping services in public, private, and governmental organizations. The use of computers to perform routine accounting and bookkeeping functions is present in all different sizes of organizations.

Potential Earnings:

The average entry wage is about \$1,700 per month and the average maximum wage is about \$3,000 per month.

**LEARNING OUTCOMES: ACCOUNTING: ASSOCIATE OF
APPLIED SCIENCE DEGREE**

Role Descriptions: The Accounting Program is designed for persons who intend to enter the accounting profession as assistant accountant, bookkeeper, or accounting clerk.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Apply fundamental accounting principles to the needs of an organization or individual client.
2. Compile and prepare accurate and timely financial information – journal entries, payroll, tax documents, reconciliations, and financial statements.
3. Organize, analyze, interpret, and present financial data that informs the decision-making process.
4. Convey financial information effectively to accounting professionals and non-financial persons both orally and in writing.
5. Use traditional and emerging technologies to improve quality of business solutions and increase productivity.
6. Collaborate effectively with diverse individuals and organizations to achieve their financial goals.
7. Articulate how accounting functions and practices impact an organization at every level.
8. Initiate and display professional and ethical behaviors individually and collaboratively that contribute to continued employability.

YEAR ONE Accounting Technician AAS Degree

FALL WINTER SPRING	Introduction to Business** BA 101, 4 Cr.	Accounting Procedures I BA 131, 3 Cr.	Intro. to Computer Info Systems CS 131, 4 Cr.	Personal Finance BA 218, 2 Cr.			
	Word Processing I OA 201, 3 Cr.	Accounting Procedures II+ BA 132, 3 Cr.	Beginning Database Program Development CSD 122, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	English for Business OA 104, 4 Cr.		
	English Comp. -Exposition** WR 121, 3 Cr.	Business Communication** BA 214, 3 Cr.	Computer Accounting Applications BA 228, 3 Cr.	Human Relations in Business BA 285, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 5 Cr.	Introduction to Business Law I BA 226, 4 Cr.	

YEAR TWO Accounting Technician AAS Degree

FALL WINTER SPRING	Principles of Accounting I BA 211, 4 Cr.	Management Fundamentals BA 206, 3 Cr. <i>or</i> BA 250 [Spring Term]	Income Tax ** BA 256, 3 Cr.	10-Key Skill Building OA 131, 1 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr. <i>or</i> Small Group Discussion SP 219, 3 Cr.		
	Payroll & Business Tax Accounting** BA 177, 3 Cr.	Principles of Accounting II + BA 212, 4 Cr.	Principles of Economics EC 201, 4 Cr. [Winter Term]	Electives 3 Cr.			
	Small Business Management** BA 250, 3 Cr. <i>or</i> BA 206 [Fall Term]	Principles of Accounting III + BA 213, 4 Cr.	Principles of Economics EC 202, 4 Cr. [Spring Term]	Coop. Work Experience BA 280, 2 Cr.	Coop. Work Ex. Seminar ++ BA 281, 1 Cr.	Accounting Directed Project BA 295A, 4 Cr.	Electives 2 Cr.

Legend Notes:

* Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.

** Minimum grade C or higher for successful completion of program.

+ C grade or better required in preceding course to take this level.

++ The CWE Seminar requirement for any Business degree can be met by completing one of the following courses: BA 281, CS 281, or OA 281.

BUSINESS: ADMINISTRATIVE OFFICE PROFESSIONAL

ADMINISTRATIVE OFFICE PROFESSIONAL ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

Office Managers have coordination and management responsibilities in an office. Their duties may include organizing and assigning work, supervising employees, monitoring and reporting productivity, and managing budgets.

Employment Opportunities:

Employment is estimated to be much larger than the statewide average. Reasonable employment opportunities exist largely due to the significant number of job openings projected for this occupation.

Potential Earnings:

A typical entry-level wage could be \$13.50 per hour, depending on experience; maximum may go to \$25.00 or more per hour.

**LEARNING OUTCOMES: ADMINISTRATIVE OFFICE PROFESSIONAL –
ASSOCIATE OF APPLIED SCIENCE DEGREE**

Role Descriptions: This Office Systems Degree prepares specialists for the career of General Office Manager.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Use current and emerging word processing technologies to produce organizational documents and presentation materials.
2. Meet or exceed the current speed and accuracy requirements for typing and 10-key operation in the industry.
3. Individually and collaboratively manage multiple office tasks, prioritizing and reprioritizing in response to changing demands.
4. Assess the image that is expected of office personnel in a specific industry group; reflect those expectations in personal appearance, professional conduct, and personal hygiene.
5. Produce clear, concise, and mechanically correct written documents.
6. Model effective customer service interactions.
7. Seek and respond to opportunities for increased responsibilities and professional advancement.
8. Understand office functions as they contribute to sound business practices and procedures.
9. Perform the general office procedures of filing, equipment operation, mail distribution, phone calls, and tasks requiring basic math calculations (like inventory).
10. Use transcription machines effectively.
11. Manage the clerical functions of an office, prioritize and delegate tasks, and supervise personnel.
12. Perform office bookkeeping, payroll, and general accounting tasks.
13. Use database and spreadsheet software effectively.

YEAR ONE AAS Degree

FALL	Introduction to Business BA 101, 4 Cr.	Accounting Procedures I + BA 131, 3 Cr.	Intro. to Computer Info Systems CS 131, 4 Cr.	Introduction to Business Law I BA 226, 4 Cr.	
	Word Processing I OA 201, 3 Cr.	Accounting Procedures II + BA 132, 3 Cr.	Beg. Database Program Development CSD 122, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	English for Business OA 104, 4 Cr.
	English Composition -Exposition** WR 121, 3 Cr.	Business Communication** BA 214, 3 Cr.	Computer Accounting Applications BA 228, 3 Cr.	Human Relations in Business BA 285, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 5 Cr.
WINTER					
SPRING					

YEAR TWO AAS Degree

FALL	Office Procedures *** OA 116, 4 Cr.	10-Key Skill Building OA 131, 1 Cr.	Word Processing Procedures II OA 202, 3 Cr.	Filing & Records Management OA 240, 3 Cr.	Management Fundamentals BA 206, 3 Cr.
	Payroll BA 177, 3 Cr.	Presentation Software MIC 207, 2 Cr.	Machine Transcription OA 225, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr. <i>or</i> Small Group Discussion SP 219, 3 Cr.	Desktop Publishing OA 205, 2 Cr.
	Management Info Systems BA 230, 3 Cr.	Coop. Work Experience OA 280, 3 Cr.	Coop. Work Ex. Seminar ++ OA 281, 1 Cr.	Office Systems Directed Project OA 295, 4 Cr.	Human Resource Management BA 224, 3 Cr.
WINTER					
SPRING					

Legend Notes:

- * Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.
- ** Minimum grade C or higher for successful completion of program.
- *** Contains human relations component.
- + Grade C or better required in BA 131 as a prerequisite to BA 132.
- ++ The CWE Seminar requirement for any Business degree can be met by completing one of the following courses: BA 281, CS 281, or OA 281.
- # To specialize for a career in a medical office, it is suggested that you take the following course as an elective: OA 142 Medical Transcription.

**BUSINESS MANAGEMENT
ASSOCIATE OF APPLIED SCIENCE DEGREE****Job Description:**

Business management is a term that collectively describes those who have management responsibilities in an organization. They may own and/or operate small firms or work for larger firms that sell goods and services or manufacture products. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and sales.

Employment Opportunities:

Employment in this field is expected to remain steady. Prospects are very good for those who want to own and manage a business, especially if they have determination, talent, and a unique service or product.

Potential Earnings:

A typical entry-level wage could be \$16,000 per year, depending on experience; maximum may go to \$40,000 or more per year.

LEARNING OUTCOMES: BUSINESS MANAGEMENT: ASSOCIATE OF APPLIED SCIENCE DEGREE

Role Descriptions: The Business Management program is designed for persons currently working in or intending to work in the following kinds of roles: Small business owner/manager; assistant manager; office administrator.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Work to establish and promote a collaborative work environment where all voices are heard and valued as they contribute to shared goals.
2. Work within the ethical, legal, and regulatory parameters of the industry.
3. Calculate, compile, and analyze financial records to make prudent business decisions.
4. Attract, screen, hire, train, and supervise personnel.
5. Select and integrate appropriate current and emerging technologies to support business functions.
6. Use verbal, non-verbal, and written communication skills effectively in the business context.
7. Interact effectively with clients and customers.
8. Use critical thinking skills to solve business problems.
9. Exhibit work behaviors that maximize opportunity for continued employment, increased responsibilities, and business success.
10. Assist in the design, implementation, and continuous assessment of business strategies based on consumer needs and market changes.
11. Lead a work unit in a direction that aligns with stated organizational vision, mission, and values.

YEAR ONE Business Management AAS Degree

FALL	Introduction to Business** BA 101, 4 Cr.	Accounting Procedures I + BA 131, 3 Cr. <i>or</i> Principles of Accounting I BA 211, 4 Cr.	Intro. to Computer Info Systems CS 131, 4 Cr.	Personal Finance BA 218, 2 Cr.		
	Word Processing I OA 201, 3 Cr.	Accounting Procedures II + BA 132, 3 Cr. <i>or</i> Principles of Accounting II BA 211, 4 Cr.	Beg. Database Program Development CSD 122, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	English for Business OA 104, 4 Cr.	
	English Comp. -Exposition** WR 121, 3 Cr.	Business Communication** BA 214, 3 Cr.	Intro. to Business Law I BA 226, 4 Cr.	Computer Accounting Applications BA 228, 3 Cr.	Human Relations in Business** BA 285, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 5 Cr.

YEAR TWO Business Management AAS Degree

FALL	Management Fundamentals** BA 206, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.	Small Group Discussion SP 219, 3 Cr.	Electives 8 Cr.		
	Payroll & Business Tax Accounting** BA 177, 3 Cr.	Principles of Marketing** BA 223, 3 Cr.	Principles of Economics EC 201, 4 Cr. [Winter Term]	Presentation Software MIC 207, 2 Cr.	Electives 2 Cr.	
	Management Info Systems BA 230, 3 Cr.	Small Business Management** BA 250, 3 Cr.	<i>or</i> Principles of Economics EC 202, 4 Cr. [Spring term]	Coop. Work Experience BA 280, 2 Cr.	Coop. Work Ex. Seminar ++ BA 281, 1 Cr.	Bus. Management Directed Project** BA 295M, 4 Cr.

Legend Notes:

* Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.

** Minimum grade C or higher for successful completion of program.

+ Grade C or better required in BA 131 as a prerequisite to BA 132.

++ The CWE Seminar requirement for any Business degree can be met by completing one of the following courses: BA 281, CS 281, or OA 281.

**GENERAL OFFICE
ONE-YEAR CERTIFICATE PROGRAM****Job Description:**

General office clerks perform a variety of clerical duties essential to office operations. Most clerks type, file, and operate calculating and copying machines. They may send, open, route, or answer mail; answer telephones; and greet visitors. They may also compile records and reports, tabulate and post data, and compute wages, taxes, and commissions or payments. Operating word processing equipment efficiently is essential.

Employment Opportunities:

Demand is greatest for those who have good clerical skills and who understand the organization, activities, and terminology of the business. Knowledge of bookkeeping or processing of payroll records may also increase chances for a job.

Potential Earnings:

The average wage is \$1,200 - \$1,800 per month.

LEARNING OUTCOMES: GENERAL OFFICE:**ONE-YEAR CERTIFICATE**

Role Descriptions: The General Office Certificate Program is designed for the person intending to work in an entry-level office position.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Use current and emerging word processing technologies to produce organizational documents and presentation materials.
2. Meet or exceed the current speed and accuracy requirements for typing and 10 key operation in the industry.
3. Individually and collaboratively manage multiple office tasks, prioritizing and re-prioritizing in response to changing demands.
4. Assess the image that is expected of office personnel in a specific industry group; reflect those expectations in personal appearance, professional conduct, and personal hygiene.
5. Produce clear, concise, and mechanically correct written documents.
6. Model effective customer service interactions.
7. Seek and respond to opportunities for increased responsibilities and professional advancement.
8. Understand office functions as they contribute to sound business practices and procedures.
9. Perform the general office procedures of filing, equipment operation, mail distribution, phone calls, and tasks requiring basic math calculations (like inventory).

YEAR ONE General Office One-Year Certificate

FALL WINTER SPRING	Introduction to Business BA 101, 4 Cr.	Accounting Procedures I + BA 131, 3 Cr.	Intro. to Computer Info Systems CS 131, 4 Cr.	Introduction to Business Law I BA 226, 4 Cr.		
	Word Processing I OA 201, 3 Cr.	Accounting Procedures II + BA 132, 3 Cr.	Beg. Database Program Development CSD 122, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	English for Business OA 104, 4 Cr.	
	English Composition -Exposition** WR 121, 3 Cr.	Business Communication** BA 214, 3 Cr.	Computer Accounting Applications BA 228, 3 Cr.	Human Relations in Business BA 285, 3 Cr.	Math for Applied Science* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 5 Cr.	

Legend Notes:

- * Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.
- ** Minimum grade C or higher for successful completion of program.
- + Grade C or better required in BA 131 as a prerequisite to BA 132.

BUSINESS: RETAIL MANAGEMENT

CAREER PATHWAY CERTIFICATE *OR* LESS-THAN-ONE-YEAR CERTIFICATE *OR* ONE-YEAR CERTIFICATE

Job Description:

Retail management describes those who have leadership responsibilities in a retail organization. They may own and/or operate small retail firms or work for larger retail firms. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and monitoring sales transactions.

Employment Opportunities:

Employment in this field is expected to grow. Prospects are very good for those who want to own a retail business or enter management in the retail field, especially if they have determination and retail management skills. Continued education has been identified by the retail industry as a trait of successful upwardly mobile retail managers. Those who wish to continue to progress into management and roles of responsibilities should consider continuing their education to obtain the one-year certificate and then a degree in management.

Potential Earnings:

One-year Certificate and Less-than-one-year Certificate: A typical entry level wage could be \$22,000 per year, depending on experience; maximum may go to \$60,000 or more per year with an average salary of \$33,000.

Career Pathway Certificate: A typical entry level wage in Oregon could be \$10.10 per hour, depending on experience; maximum may go to \$30.58 per hour with an average wage of \$16.92.

LEARNING OUTCOMES: RETAIL MANAGEMENT: ONE-YEAR CERTIFICATE AND LESS-THAN-ONE-YEAR CERTIFICATE

Role Descriptions: The Retail Management one-year certificate prepares students for leadership responsibilities in a retail organization. They may own and/or operate small retail firms or work for larger retail firms. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and monitoring sales transactions.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Establish and promote a collaborative work environment where all voices are heard and valued as they contribute to shared goals
2. Work within the ethical, legal, and regulatory parameters of the industry
3. Perform retail computations that are essential to sales and analyze the results of selling activities in retail
4. Demonstrate hard and soft skills in technology and communication to be effective support personnel, team leaders, and motivators
5. Select and integrate appropriate current and emerging technologies to support business functions
6. Use verbal, non-verbal, and written communication skills effectively in the business context
7. Interact effectively with customers
8. Use critical thinking skills to solve business problems
9. Exhibit work behaviors needed to successfully work as retail sales associates and to advance to higher levels of responsibility including supervisory management
10. Assist in the design, implementation, and continuous assessment of business strategies based on consumer needs and market changes
11. Demonstrate effective management, marketing, and human resource skills in the retail environment

YEAR ONE

Retail Management Career Pathway Certificate

FALL	Introduction to Business BA 101, 4 Cr.	Accounting Procedures I BA 131, 3 Cr.
	Principles of Marketing BA 223, 3 Cr.	Retailing BA 249, 3 Cr.
SPRING	Human Relations in Business BA 285, 3 Cr.	

YEAR ONE

Retail Management Less-Than-One-Year Certificate

FALL	Accounting Procedures I BA 131, 3 Cr.	Introduction to Business BA 101, 4 Cr.	<i>or</i>	Management Fundamentals BA 206, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.
	Principles of Marketing BA 223, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr.		Intro. to Computer Info Systems CS 131, 4 Cr.	
SPRING	Business Communication BA 214, 3 Cr.	Human Relations in Business BA 285, 3 Cr.		Human Resource Management BA 224, 3 Cr.	Retailing BA 249, 3 Cr.

Legend Notes:

- * Math 95, or courses numbered higher than MTH 95 may be substituted.
- ** Students must complete ten (10) credits of electives to be selected from credit courses over the 100 level. The college agrees to accept credit courses over the 100 level from other institutions approved to offer this one-year certificate.

YEAR ONE

Retail Management One-Year Certificate

FALL	Accounting Procedures I BA 131, 3 Cr.	Introduction to Business BA 101, 4 Cr.	<i>or</i>	Management Fundamentals BA 206, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.	Math for Applied Sciences * MTH 65, 4 Cr.	Electives ** 2 Cr.
	English Composition -Exposition** WR 121, 3 Cr.	Intro. to Computer Info Systems CS 131, 4 Cr.		Principles of Marketing BA 223, 3 Cr.	Electives ** 5 Cr.		
SPRING	Business Communication BA 214, 3 Cr.	Human Relations in Business BA 285, 3 Cr.		Human Resource Management BA 224, 3 Cr.	Retailing BA 249, 3 Cr.	Electives ** 3 Cr.	

(CADD TECHNICIAN) ONE-YEAR CERTIFICATE PROGRAM

Job Description:

This competency based program will provide an individual with the prerequisite knowledge, skills, work habits and attitude required to perform both routine and creative tasks. These entry level CADD Technician tasks involve computer skills, design activities and limited theoretical knowledge and are performed under supervision. Course curriculum follows national specifications for qualification and certification of an entry level CADD Technician. This program is one step on the ladder of skills the trainees may achieve in their quest for a rewarding career. People who are creative and enjoy mind-hand challenges will find opportunities for advancement and experience a great sense of pride in workmanship as they ply their trade.

Employment Opportunities:

The job outlook for CADD Technicians is good regionally, nationally and globally. Entry level CADD Technicians are employed in a wide range of industries that use related tasks during daily operations.

Potential Earnings:

Presently starting wages in Oregon are about \$11.00/hour, with top wages to about \$22.00/hour as the individual's skill level increases.

LEARNING OUTCOMES: COMPUTER AIDED DESIGN AND DRAFTING: ONE-YEAR CERTIFICATE

Role Descriptions: The computer Aided Design and Drafting Program is designed for persons intending to work as a drafter, graphic designer, CAD technician, or computer graphics technician.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Use CAD and graphic systems to produce professional design documents.
2. Pursue continuing education opportunities within the emerging fields of computer aided design and graphics.
3. Analyze and solve conceptual problems with appropriate levels of design detail.
4. Practice healthy work habits.
5. Comply with the ethical and legal standards of the design professions.
6. Work on multiple projects simultaneously, efficiently managing time and information.
7. Use effective verbal, graphic, and written skills to communicate design concepts to clients and colleagues.
8. Work in a collaborative design environment.

YEAR ONE CADD Technician One-Year Certificate

FALL	Technical Print Interpretation DRF 139, 3 Cr. <i>or</i> Print Reading for Construction BLD 140, 3 Cr.	Computer Aided Design I DRF 213, 4 Cr.	Basic Design ART 115, 3 Cr.	Intro to Integrated Software MIC 145, 3 Cr. <i>or</i> Intro to Computer Info Systems CS 131, 4 Cr.	Math for Applied Science* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 5 Cr.
	Computer Aided Design II DRF 214, 4 Cr.	English Composition ** WR 121, 3 Cr.	Psychology of Human Relations PSY 101, 3 Cr. <i>or</i> Human Relations in Business BA 285, 3 Cr.	Computer Graphics I ART 225, 3 Cr.	Technical Electives 3 Cr.
	Computer Aided Design III DRF 215, 4 Cr.	CADD Directed Project DRF 295, 4 Cr.	Cooperative Work Experience - CADD DRF 280, 2 Cr.	CWE Seminar DRF 281, 1 Cr.	Technical Electives 3 Cr.
WINTER					
SPRING					

Technical electives

6 Credits chosen from the following list:

ART 116	Basic Design II	3
ART 131	Introduction to Drawing	3
ART 226	Computer Graphics II	3
CS 125H	Beginning Website Design/Development.....	3
CSL 107	Spreadsheets	3
DRF 150	Construction Drawing	3
MIC 207	Presentation Software.....	2
WR 227	Technical Report Writing.....	3

Legend Notes:

- * Minimum Grade C. Math courses numbered higher than MTH 95 may be substituted
- ** Minimum Grade C.

Note:

Upon successful completion, students will be prepared to take a national certification exam demonstrating their competency and proficiencies in CADD.

CRIMINAL JUSTICE

CRIMINAL JUSTICE ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

The field of criminal justice includes jobs such as law enforcement officers, probation and parole officers, correctional officers, and juvenile workers. Law enforcement officers (police officers) are responsible for enforcing laws and maintaining order. Their primary duties are to protect life and property, prevent crimes, and arrest and help prosecute violators. They also prepare written reports of their activities and testify in court.

Parole and probation officers help legal offenders adjust to society. They provide support and guidance to help people identify and solve their problems. Parole officers work with persons who have been released from a correctional institution and spend most of their time counseling offenders who have returned to the community. Probation officers work with juveniles and adults who have been released by the court without sentence or imprisonment. They perform pre-sentence investigations, write reports, give court testimony, and help their clients work toward long range goals.

Correctional officers and juvenile detention workers supervise and control residents in prisons, jails, detention centers, and halfway houses to maintain security and enforce discipline. They oversee the daily activities of inmates, give out work assignments, and help the inmates with specific tasks. They inspect the facilities to ensure that conditions are sanitary and secure. They may supervise inmates in transit and escort them to and from cells, courts, and other facilities. They settle disputes among inmates, prevent escapes, and search and count inmates. Juvenile workers handle case loads similar to parole and probation officers, but work with offenders under 18 years of age.

Employment Opportunities:

Law enforcement officers: Employment is expected to grow as fast as the average for all occupations in Oregon. Parole and probation officers: A bachelor's degree is a minimum requirement for entering this field. Although there is currently a surplus of applicants, the recent passage of a ballot measure may eventually lead to the hiring of many more parole officers. Correctional officers: Employment is expected to grow as fast as the average for all occupations in Oregon. Juvenile Workers: These workers may also need to complete a four-year college degree for some types of employment. Employment opportunities do exist for persons with two years of college training.

Potential Earnings:

The average entry level wage for law enforcement officers is \$2,800 per month and the average maximum wage is \$3,800 per month; the average wage for correctional officers is about \$2,800 per month. The average wage for parole and probation officers and juvenile workers is \$3,500 per month.

LEARNING OUTCOMES: CRIMINAL JUSTICE: ASSOCIATE OF APPLIED SCIENCE DEGREE

Role Description: The Criminal Justice Program is designed to prepare a person for entry-level positions in the criminal justice field.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Communicate effectively in the criminal justice culture: verbally, non-verbally, and in writing.
2. Balance the unique responsibilities of criminal justice work with competing family and other personal needs.
3. Work equally well on independent assignments and team efforts within the criminal justice system.
4. Exhibit a commanding presence that is appropriate to specific criminal justice situations.
5. Locate and interpret current case law and statutes pertaining to specific criminal activity; take action that is supported by current law and statutes.
6. Recognize symptoms of mental health and substance abuse; take appropriate action.
7. Work effectively with persons of different cultural heritage, gender, and age.

YEAR ONE

FALL	Intro to Criminal Justice CJ111, 3 Cr.	Intro to Corrections CJ130, 3 Cr.	English Composition -Exposition** WR 121, 3 Cr.	Social Science/ Humanities *** 3 Cr.	Electives 3 Cr.		
	WINTER	Intro to Law Enforcement CJ 110, 3 Cr.	English Composition -Argument* WR 122, 3 Cr. <i>or</i> Technical Report Writing WR 227, 3 Cr.		Social Science/ Humanities *** 3 Cr.	Technical Electives 3 Cr.	Electives 3 Cr.
		SPRING	Intro to the Judicial Process CJ 120, 3 Cr.	Concepts of Criminal Law CJ 121, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.	Social Science/ Humanities *** 3 Cr.	Intro to Computer Info Systems CS 131, 4 Cr. <i>or</i> Fundamentals of Computing CS 101, 1 Cr.

YEAR TWO Criminal Justice AAS Degree

FALL	Alcohol and Other Dangerous Drugs + CJ 243, 3 Cr.	Crisis Intervention CJ 203, 3 Cr.	Persuasive Speech SP112, 3 Cr. <i>or</i> Small Group Discussion SP 219, 3 Cr.		Report Writing in Criminal Justice CJ 212, 3 Cr.	Social Science/ Humanities *** 3 Cr.
	WINTER	Criminal Justice Workshop + CJ 107, 3 Cr.	Criminal Investigation + CJ 210, 3 Cr.	Coop. Work Experience - C. J. CJ 280, 2 Cr.	CWE Seminar - Criminal Justice CJ 281, 1 Cr.	Math for Applied Science**** MTH 65, 4 Cr. <i>or</i> Intermediate Algebra **** MTH 95, 5 Cr.
SPRING		Interview & Interrogation Techniques + CJ 218, 3 Cr.	Coop. Work Experience - C. J. CJ 280, 3 Cr.	Technical Electives 6 Cr.	Electives 3 Cr.	

Technical Electives

Students must complete twelve credits from the following list of courses. Courses used to satisfy program requirements may not be used as technical electives.

Course Number	Course Title	Credits	Course Number	Course Title	Credits
CJ 114	Gender, Race, Class & Crime	3	HS 102	Drug Use, Misuse and Addiction	3
CJ 138	Understanding Terrorism	3	HS 154	Community Resources	3
CJ 205	Female Offenders	3	HS 201	Family Alcoholism/Addiction	3
CJ 215	Issues in CJ Supervision and Admin.	3	PHL 102	Ethics	3
CJ 219	Introduction to Community Policing	3	PSY 101	Psychology of Human Relations	3
CJ 225	Corrections Law 3	3	PSY 219	Intro to Abnormal Psychology	3
CJ 230	Intro. to Juvenile Corrections	3	SOC 221	Juvenile Delinquency	3
CJ 231	Juvenile Law	3	SPAN 101,		
CJ 232	Intro. to Corrections Casework <i>or</i>	3	102,103	First Year Spanish <i>or</i>	4 ea
HS 155	Interviewing for Social Services (3)	(3)	SPAN 111,		
CJ 280	Cooperative Work Experience – C. J.	3	112,113	Conversational Spanish	3 ea
GS 111	Introduction to Forensic Science	3			
HS 101	Alcohol Use, Misuse and Addiction	3			

Legend Notes:

Note: All Criminal Justice courses must be completed with a C grade or higher.

- * Minimum grade C or higher.
- *** Selected from Arts and Letters and Social Science lists, page 25; psychology and/or sociology courses strongly recommended.
- **** Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.
- + Prerequisite required, see catalog course descriptions.

EARLY CHILDHOOD EDUCATION ONE-YEAR CERTIFICATE OR ASSOCIATE IN APPLIED SCIENCE DEGREE

The Early Childhood Education (ECE) program prepares individuals for careers as childcare workers or assistant teachers in early childhood education settings such as childcare centers, preschools and Head Start programs, and as teacher aides in the early grades. The coursework is also strong preparation for higher level positions such as preschool teacher and manager, and may be used towards an Associate in General Studies degree, with a concentration in Early Childhood Education. A certificate will be awarded on completion of the required general education courses, a minimum of 25 credits from the core Early Childhood Education program, and additional credits from the technical electives for a total of 45 credits.

Job Description:

Childcare workers help supervise and provide care and learning experiences for children in daycare and preschool programs. Workers provide recreation and introduce basic concepts such as colors, shapes, numbers, and pre-reading skills. They plan classes and other activities designed to promote healthy mental and physical growth in children. They must also assist with classroom management, meals, and other daycare needs. Teacher aides provide classroom and clerical assistance to elementary and secondary teachers. Aides may grade papers and tests, assist with record keeping, supervise study halls, playgrounds, cafeterias, and hallways. Aides may also assist with classroom management, tutoring, and material preparation.

Employment Opportunities:

Employment opportunities vary, depending on public and private funding. Job opportunities are present in local daycare centers, Head Start Programs, private preschool programs, private and public elementary schools, and in-home day care.

Potential Earnings:

Many beginning childcare/aide positions start at minimum wage. Earnings potential ranges to \$10.00 per hour. In-home day care earnings vary according to the number of children cared for.

LEARNING OUTCOMES: EARLY CHILDHOOD

EDUCATION: ONE-YEAR CERTIFICATE

Role Descriptions: The Early Childhood Program is designed for the person intending to work as facilitators in a childcare facility or as an entry-level owner/operator of a child care center.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Communicate effectively with a diverse group of parents, children, co-workers, and community members concerning the needs of children and care-related issues.
2. Create and maintain a safe and healthy care and learning environment for children.
3. Comply with all state and federal regulations and laws for children in care.
4. Effectively supervise groups of children.
5. Recognize and respond appropriately to different cognitive, physical, social, and emotional developmental levels.
6. Engage children in developmentally appropriate foundational learning activities.
7. Identify environmental/family problems that are causing concern for children.

YEAR ONE **One-Year Certificate • AAS Degree** (Pending State Approval)

FALL	Infant & Toddler Development ECE 140, 3 Cr.	Legal Issues in ECE ECE 150, 3 Cr.	English Composition -Exposition* WR 121, 3 Cr.	Fundamentals of Elementary Math. I * MTH 211, 3 Cr.	Family & Community Collaboration ECE 160, 3 Cr.	
	Growing Years Child Development HFS 226, 3 Cr.	Lab Science Discipline Area ** 4 Cr.	Cooperative Work Experience - ECE ECE 280, 2 Cr.	Cooperative Work Experience Seminar EXE 281, 1 Cr.	ECE Core Curriculum Planning ECE 1220, 3 Cr.	Nutrition, Health & Safety of Young Children ECE 130, 3 Cr.
	Planning The ECE Environment ECE 110, 3 Cr.	Observation & Assessment ECE 1161, 3 Cr.	Intro to Developmental Psychology PSY 215, 3 Cr.	Intro to Children's Literature ♦ ENG 221, 3 Cr.	Cooperative Work Experience - ECE ECE 280, 2 Cr.	

YEAR TWO **AAS Degree** (Pending State Approval)

FALL	Fundamentals Of Education ECE 111, 4 Cr.	Health & Fitness For Life HPE 295, 3 Cr.	Curriculum Development And Implementation ECE 264, 3 Cr.	Cooperative Work Experience - ECE ECE 280, 1 Cr.	Oral Communication Requirement SP, 3 Cr.	Arts & Letters Discipline Area 3 Cr.
	Social Science Discipline Area 3 Cr.	Fundamentals of Elementary Math II * MTH 212, 3 Cr.	English Composition -Argument WR 122, 3 Cr.	Guidance & Classroom Behavior ECE 263, 3 Cr.		
	Teaching In An Anti-Bias Classroom ♦ ECE 262, 3 Cr.	Fundamentals of Elementary Math III * MTH 213, 3 Cr.	Literacy - Language Arts ECE 266, 3 Cr.	English Composition -Research Writing * WR 122, 3 Cr. <i>or</i> Technical Report Writing * WR 227	Arts & Letters Discipline Area 3 Cr.	Lab Science Discipline Area ** 4 Cr.

Legend Notes:

- ♦ Courses designated as meeting the cultural literacy outcome and criteria
- * Minimum grade C or higher for successful completion of program.
- ** Lab Science Discipline Area recommendations:
 - GS 106 Physical Science-Geology 4
 - GS 109 Physical Science-Meteorology .. 4
 - BI 101 General Biology..... 4
 - BI 143 Marine Biology..... 4
 - BOT 101 Botany..... 4

To earn an AAOT instead of the AAS, the following two requirements are needed in addition to the above:

- Lab Science Discipline Area 4
- Arts and Letters Discipline Area 3

FIRE SCIENCE ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

This program offers training and education for those wanting a fire science career, and for career or volunteer firefighters seeking advancement. Some courses offered by Clatsop Community College allow students the option of completing lower division fire science requirements by independent study.

Firefighters protect communities and forests against loss of life, injury, or destruction of property by fire, and respond to medical, rescue, hazardous materials, and other emergencies. Firefighters work as a team with each person assigned special tasks. They operate and maintain fire stations, equipment, and apparatus. They may inspect buildings for fire hazards and investigate fire causes. They spend time educating the public about fire safety, speaking in schools and to citizen groups. Coursework is accredited by the Oregon Fire Standards and Accreditation Board.

Students and entry level firefighters may be required to satisfactorily complete specific agility and endurance requirements, including climbing ladders while carrying tools; wearing personal protective equipment and self-contained breathing apparatus; entering hazardous areas; handling hoses and specified equipment, as well as demonstrating physical strength and overall flexibility.

Employment Opportunities:

The application process for fire department jobs is very competitive. Applicants who complete a Fire Science degree have a greater chance of gaining employment.

Potential Earnings:

The average salary for a firefighter is \$3,600 per month. In rural areas firefighting may be a volunteer position.

LEARNING OUTCOMES:

FIRE SCIENCE: ASSOCIATE OF SCIENCE DEGREE

Role Descriptions: The Fire Science program is designed for persons intending to work (or currently working) as a community fire fighter assuming leadership responsibilities and roles.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Perform the rescue and fire fighting functions in an emergency situation.
2. Maintain a sense of composure in an emergency situation.
3. Follow all safety guidelines and procedures to fully protect self and others in different conditions and work-related tasks.
4. Manage all aspects of successful day-to-day operations:
 - budget
 - equipment
 - records
 - human resources
5. Inspect premises and provide advice on compliance with safety codes and ordinances.
6. Plan, organize, and present educational activities that promote community awareness and safety.
7. Work effectively as a member of a fire fighting team and lead in specific department-related activities and operations.
8. Monitor one's own physical and mental health as it relates to job requirements, and engage in appropriate self-care actions.

YEAR ONE

FALL	EMT Basic - Part 1 EMT 151, 5 Cr.	Firefighter Law FRP 156, 1 Cr.	Princ. Fire/Emergency Svcs. Safety/Survey FRP 157, 1 Cr.	Fire Codes & Ordinances FRP 172, 3 Cr.	Fire Behavior & Combustion FRP 121, 4 Cr.	Electives 3 Cr.
WINTER	EMT Basic - Part 2 EMT 152, 5 Cr.	Fire Protection Hydraulics & Water Supply FRP 158, 3 Cr.	Health & Fitness for Life HPE 295, 3 Cr.	English Composition -Exposition** WR 121, 3 Cr.	Technical Electives 4 Cr.	
SPRING	Hazardous Materials FRP 164, 3 Cr.	Building Construction for Fire Protection FRP 166, 3 Cr.	Intermediate Algebra * MTH 95, 5 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.	Electives 2 Cr.	

YEAR TWO Fire Science AAS Degree

FALL	Intro to Computer Info Systems CS 131, 4 Cr. <i>or</i> Word Processing Procedures I OA201, 3 Cr. <i>or</i> Intro to Integrated Software MIC 145, 3 Cr.		Principles of Emergency Services FRP 101, 4 Cr.	Psychology of Human Relations PSY 101, 3 Cr.			
WINTER	Firefighter Skills I FRP 151, 3 Cr.	Intro to Fire & Emergency Service Admin. FRP 169, 3 Cr.	Fire Protection Systems FRP 171, 3 Cr.	Social Science/Humanities *** 3 Cr.			
SPRING	Emergency Service Rescue FRP 168, 3 Cr.	Firefighting Strategy & Tactics FRP 170, 3 Cr.	Fire Prevention FRP 181, 3 Cr.	Coop. Work Exp. - Fire Science FRP 280, 2 Cr.	CWE Seminar - Fire Science FRP 281, 1 Cr.	Technical Report Writing** WR 227, 3 Cr.	Technical Electives 4 Cr.

Technical Electives

Students must complete eight credits from the following list of courses. Courses which are used to satisfy program requirements may not be used as technical electives. Some listed courses may not be offered every year.

Course Number	Course Title	Credits
BI 231,232,233	Human Anatomy and Physiology I, II, III	4 ea
CJ 203	Crisis Intervention	3
CPL 120	Credit for Prior Learning	3
EMT 165, 166	Emergency Medical Technician Intermediate-Part 1,2	4 ea
FRP 155	Instructional Methodology	2
FRP 174	Fire Investigation I	3
FRP 190	Intro. to Wildland Firefighting	4
FRP 280	Cooperative Work Experience - Fire Science	3
EMT 176	Emergency Response: Transportation	2
EMT 177	Emergency Communication & Documentation	2

Legend Notes:

Notes: The FRP courses will be offered on a rotating basis every two years.

All FRP courses require instructor approval for registration.

* Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.

** Minimum grade C or higher.

*** Selected from Arts and Letters and Social Science lists, page 25.

ONE-YEAR CERTIFICATE *OR* ASSOCIATE OF APPLIED SCIENCE DEGREE

This program prepares individuals for work in the building trades with an emphasis on the preservation and restoration of historic and vintage residential and commercial buildings. The program offers both historic preservation theory and practical hands-on construction techniques. Students gain the necessary knowledge, skills and work habits to successfully plan, then renovate and/or restore structures in historically accurate ways utilizing both traditional and modern materials and techniques. Graduates will be able to work as remodelers, carpenters, subcontractors and general contractors.

The first year of the program emphasizes general construction skills and techniques. Students also develop a basic understanding of issues in historic preservation and restoration. Students successfully completing the first year will receive a Certificate in Historic Preservation and Restoration.

The second year of the program emphasizes planning for and completing historic preservation and restoration construction projects. Students develop a deeper understanding of the history, materials and methods for working on historic structures. Students successfully completing the second year will receive an Associate of Applied Science in Historic Preservation and Restoration.

Employment Opportunities

The job outlook for Remodeling and Restoration, Historic Preservation, and Construction is good locally, regionally and nationally. Job opportunities are available with contractors, remodelers, local historical societies, and city and county governments. Demand is greatest for those who have a well-rounded understanding of the organization, terminology, customer service, and activities of the business.

Potential Earnings

Potential starting wage in Oregon is \$11.15 per hour and the average wage is \$19.70 per hour as the individual's skill level increases. Historic restoration expertise often commands premium remuneration.

LEARNING OUTCOMES: CERTIFICATE: Role Descriptions: The Historic Preservation and Restoration Certificate program is designed for persons currently working in, or intending to work in, the construction trades with an emphasis on the preservation and restoration of historic and vintage buildings.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

- Communicate clearly and effectively through speech, writing and drawing.
- Practice healthy work habits; safely use tools and materials.
- Work on multiple projects simultaneously, efficiently managing time and resources.
- Work in a collaborative environment.
- Demonstrate knowledge of regional architectural history.
- Research, analyze and solve design and construction problems.
- Use appropriate materials and methods for renovation and new construction.
- Work within parameters of building codes, regulations and zoning.

LEARNING OUTCOMES: AAS DEGREE: Role Descriptions: The Historic Preservation and Restoration Degree program is designed for persons currently working in, or intending to work in, the construction trades with an emphasis on the preservation and restoration of historic and vintage buildings.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

- Communicate clearly and effectively through speech, writing and drawing.
- Practice healthy work habits; safely use tools and materials.
- Work on multiple projects simultaneously, efficiently managing time and resources.
- Work in a collaborative environment.
- Demonstrate knowledge of regional architectural history.
- Research, analyze and solve design and construction problems.
- Use appropriate materials and methods for renovation and new construction.
- Work within parameters of building codes, regulations and zoning.
- Incorporate historic preservation and restoration theory and methods into construction projects.
- Use sustainable building practices.
- Estimate, plan and manage construction projects.

YEAR ONE One-Year Certificate • AAS Degree

FALL	Introduction to Historic Preservation BLD 101, 1 Cr.	Construction Safety for Historic Preservation BLD 110, 1 Cr.	Tool Safety for Historic Preservation BLD 111, 1 Cr.	Printreading for Construction BLD 140, 3 Cr.	Construction Math BLD 104, 2 Cr.	Intro to Integrated Software MIC 145, 3 Cr. <i>or</i> Intro to Computer Info Systems CS 131, 4 Cr.	Workshops ¹ 4 Cr.
	Residential Materials & Methods BLD 103, 3 Cr.	Construction Drawing DRF 150, 3 Cr.	Workshops ¹ 5 Cr.	English Composition -Exposition** WR 121, 3 Cr.			
	Math for Applied Science*** MTH 65, 4 Cr. <i>or</i> Intermediate Algebra*** MTH 95, 5 Cr.	Psychology of Human Relations PSY 101, 3 Cr. <i>or</i> Small Group Discussion SP 219, 3 Cr.	Building Codes I BLD 151, 3 Cr.	Historic Preservation & Restoration Techniques ¹ 4 Cr.	History of Pacific Northwest Architecture ARCH 215, 3 Cr.		
WINTER							
SPRING							

YEAR TWO AAS Degree

FALL	Historic Preservation I BLD 210, 3 Cr.	Sustainable Building BLD 206, 3 Cr.	Workshops ¹ 5 Cr.	Electives **** 3 Cr.		
	Historic Preservation II BLD 211, 3 Cr.	Project Management BLD 207, 3 Cr.	Workshops ¹ 5 Cr.	Electives **** 3 Cr.		
	Cooperative Work Experience BLD 280, 2 Cr.	CWE Seminar BLD 281, 1 Cr.	Historic Preservation & Restoration Project BLD 295, 4 Cr.	Historic Preservation & Restoration Techniques ¹ 3 Cr.	Technical Report Writing ** WR 227, 3 Cr.	Electives **** 3 Cr.
WINTER						
SPRING						

Workshops:

¹ For the Certificate Program, 13 credits must be taken from any of the one-credit workshops listed below. For the Associate of Applied Science Program, another 13 credits from the following lists must also be successfully completed, for a total of 26 credits.

Construction Skills: BLD 120-BLD 129 Historic Pres. & Rest. Techniques: BLD 220-BLD 229

Materials: BLD 131-BLD 139 Historic Materials: BLD 231-BLD 239

Topics of the above workshops will include:
 Materials Moisture and Thermal Protection
 Stairs Foundation Systems
 Floor Systems Doors and Windows
 Wall Systems Finish Work

Legend Notes:

- ** Minimum grade C.
 - *** Minimum grade C. Math courses numbered higher than MTH 95 may be substituted.
 - **** Total of nine (9) credits of electives chosen from OUS Transfer List; however, suggested electives are listed below.
- | | |
|---------|----------------------------------|
| ART 225 | Computer Graphics I..... 3 |
| ART 226 | Computer Graphics II..... 3 |
| ART 131 | Introduction to Drawing..... 3 |
| BA 101 | Introduction to Business..... 4 |
| DRF 213 | Computer Aided Design I 4 |
| DRF 214 | Computer Aided Design II..... 4 |
| DRF 215 | Computer Aided Design III..... 4 |
| PHL 102 | Ethics..... 3 |

CAREER PATHWAY CERTIFICATE *OR* ONE-YEAR CERTIFICATE

ONE-YEAR CERTIFICATE: Job Description:

Individuals completing this competency-based training program will have the requisite knowledge, skills, work habits and attitude to perform work on a vessel in an entry level position. A seaman employed in the maritime industry works as a deckhand on commercial vessels and is responsible for keeping the vessel and its equipment in working order. The individual may stand watches—conducting the vessel from one point to another while adhering to the principles of navigation and the rules of the road. Upon completion of the One-Year Certificate program, students will have the skills and knowledge to pass the United States Coast Guard Able Seaman exam and, those meeting USCG requirements, may complete the program with a Merchant Mariner’s Document.

Employment Opportunities:

The job outlook for crewmembers in the maritime industry is excellent regionally, nationally, and globally. Entry level deckhands work on a wide range of vessels performing a variety of tasks. Contracts often require crewmembers to work twelve hour days for weeks or months at a time while away from home.

Potential Earnings:

Wages for sailors and marine oilers average \$17.00 per hour.

CAREER PATHWAY CERTIFICATE: JOB DESCRIPTION:

Individuals completing this competency-based training program will have the requisite knowledge, skills, work habits and attitude to perform work as a deckhand on commercial vessels and with experience may be responsible for keeping the vessel and its equipment in working order. The individual may stand watch—conducting the vessel from one point to another while adhering to the principles of navigation and the rules of the road.

Employment Opportunities:

The job outlook is excellent, nationally and is projected to grow.

Potential Earnings:

The entry level rate of pay for sailors and marine oilers, varies with individual companies, in Oregon the average is \$17.00 per hour. Employee may be provided with meals and living quarters while on-board the vessel.

LEARNING OUTCOMES: SEAMANSHIP:

ONE-YEAR CERTIFICATE

Role Descriptions: The Seamanship Certificate is designed for persons intending to work in an entry level position on maritime vessels.

Intended Learning Outcomes: Learning experiences in the certificate program are designed to assist the student in realizing the following outcomes:

1. Carry out orders to implement the voyage plan as directed by the officer of the watch.
2. Perform the duties of a “lookout” on a vessel.
3. Perform the duties of a “helmsman” on a vessel under the officer of the watch.
4. Safely assess the potential risk from an accidental chemical release; respond appropriately based on the level of threat to both people and the environment.
5. Exhibit safe work habits in daily and emergency situations on the deck of a vessel.
6. Operate and maintain deck equipment on a vessel both in port and at sea.

YEAR ONE Seamanship One-Year Certificate

FALL	Marine Safety MAS 150 2 Cr. <i>or</i> STCW Basic Safety Training MAS 135, 3 Cr.	Intro to Watch Keeping MAS 155 2 Cr.	Practical Navigation MAS 165 2 Cr.	Charts, Aids to Nav & Mag. Compasses *** MAS 168, 3 Cr.	Rules of the Road *** MAS 175 3 Cr.	Seamanship I MAS 181 2 Cr.	Technical Electives 3 Cr.
	WINTER	Seamanship II MAS 182, 2 Cr.	Math for Applied Science* MTH 65, 4 Cr.	Intermediate Algebra * MTH 95, 5 Cr.	Technical Electives 6 Cr.		
		SPRING	Seamanship III MAS 183, 2 Cr.	Psychology of Human Relations PSY 101, 3 Cr.	English Composition - Exposition** WR 121, 3 Cr.	Technical Electives 6 Cr.	

Legend Notes:

- * Minimum grade C or higher. Math courses numbered higher than MTH 95 may be substituted.
- ** Minimum grade C or higher.
- *** Course is offered in an individualized format.
- + Four (4) credits of MAS 191, Deckhand Practicum, may be applied toward the One-Year Maritime Science certificate.

TECHNICAL ELECTIVES: Students must complete 17 credits from the following list of courses.

Course Number	Course Title	Credits
MAS 100	Maritime Occupations	2
MAS 121	Able Seaman Training	4
MAS 130	Radar Observer: Original Endorsement, Unlimited..	2
MAS 135	STCW Basic Safety Training	3
	(if not already taken as a degree requirement)	
MAS 137	Radar Navigation.....	2
MAS 138	STCW Proficiency in Survival Craft.....	2
MAS 139	STCW Basic Firefighting	1
MAS 144	STCW Advanced Firefighting	2
MAS 147	Rules and Regulations	3
MAS 148	Vessel Stability	3
MAS 164	Introduction to Navigation***	3
MAS 170	Marine Weather, Tides, Currents, and Waves***	3
MAS 171	Coastal Navigation & Voyage Planning	3
MAS 180	Marine Electronics***	3
MAS 184	Galley Cooking.....	2
MAS 185	Bridge to Bridge Communication	3
MAS 189	Applied Rigging Technology.....	2
MAS 190	Vessel Practicum.....	1-3
MAS 191	Deckhand Practicum +	1-4
MAS 192	Intro to Deck Machinery & Safety	2
MAS 193	Intro to Engine Room Maintenance & Safety	2
MAS 201	Tank Ship Dangerous Liquids (Tankerman PIC)	4
MAS 208	Ratings Forming Part of a Navigational Watch.....	2
MAS 280	Cooperative Work Experience: Maritime Sciences... Welding (any class)	4 3

Career Pathway Seamanship Certificate

The **Career Pathway Seamanship Program** prepares students for entry level employment as a seaman in the maritime industry. Upon completion of this program, students will have the skills and knowledge to continue studies to complete the Seamanship One-year Certificate and/or Vessel Operations Associate of Applied Science Degree. This program will also assist students in obtaining the basic skills and knowledge to continue their studies towards the United States Coast Guard Able Seaman document exam. Those meeting USCG requirements and having the commensurate deck service time, may qualify for a U.S. Merchant Mariner's Document.

Course #	Course Title	Credits
MAS 135	STCW Basic Safety Training*	3
MAS 155	Introduction to Watch Keeping*.....	2
MAS 164	Introduction to Navigation*, **	3
MAS 168	Charts, Aids to Nav. & Mag. Compasses *, **	3
MAS 181	Seamanship I*	2
MAS 182	Seamanship II*	2
MAS 183	Seamanship III*	2
	Total Credits:	17

- * Classes are available Fall, Winter and Spring terms. Some classes are also available Summer term.
- ** Course is offered in an individualized format.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Job Description:

This competency-based program will provide an individual with the requisite knowledge, skills, work habits and attitude to perform work on a vessel as an entry level deckhand. Job tasks include handling lines, performing routine vessel and gear maintenance, participating in drills, performing galley duties, standing watches, and becoming part of a working crew in a close quarters environment. Course curriculum follows industry needs as presented by the Maritime Science Department advisory committee. Classes are taught in a practical atmosphere and employ extensive use of a training vessel. This program would be of interest to people who desire a professional career path with advancement opportunities that are in a non-traditional setting. Students completing this program will be qualified to work as crewmembers on research vessels, merchant ships, tugs, charter and passenger vessels, and commercial fishing vessels. Professional licensing is available to students who meet US Coast Guard requirements.

Employment Opportunities:

The job outlook for crewmembers in the maritime industry is good regionally, nationally, and globally. Entry level deckhands work on a wide range of vessels performing a variety of tasks. Contracts often require crewmember to work twelve hour days for weeks or months at a time while away from home.

Potential Earning:

Wages for sailors and marine oilers average \$17.00 per hour. Captains and mates may earn 3 to 4 times as much, depending upon experience.

LEARNING OUTCOMES: VESSEL OPERATIONS: ASSOCIATE OF APPLIED SCIENCE DEGREE

Role Description: The Vessel Operations degree is designed for the person who intends to be employed in higher level positions within the maritime industry.

Intended Learning Outcomes: Learning experiences in the degree program are designed to assist the student in realizing the following outcomes:

1. Carry out orders to implement the voyage plan as directed by the officer of the watch.
2. Perform the duties of a "lookout" on a vessel.
3. Perform the duties of a "helmsman" on a vessel under the officer of the watch.
4. Safely assess the potential risk from an accidental chemical release; respond appropriately based on the level of threat to both people and the environment.
5. Exhibit safe work habits in daily and emergency situations on the deck of a vessel.
6. Operate and maintain deck equipment on a vessel both in port and at sea.
7. Plan and organize voyage and modify voyage plan enroute to reach destination safely.
8. Recognize changes to the handling and stability characteristics of a vessel; make calculations necessary to solve handling, loading, and stability safety issues.
9. Knowledge of routine navigational procedures and deck operations. Preparation to become a functioning crew member when reporting on board a vessel.
10. Knowledge of the items required for inspected vessel compliance with Coast Guard regulations. Knowledge in the use of CFRs to determine vessel requirements. Prepare vessels for Coast Guard examination.
11. Principles of ship handling and the ability to safely operate vessels in varied environments.

YEAR ONE

Course #	Course Title	Credits
HM 120	Hazardous Waste Operations and Emergency Response (<i>or higher</i>)..1	
MTH 65	Math for Applied Sciences* <i>or</i>4	
MTH 95	Intermediate Algebra* (<i>or a MTH course higher than MTH 95</i>)..... (5)	
WR 121	English Composition-Exposition*3 (<i>or a Writing course higher than WR 121</i>)	
PSY 101	Psychology of Human Relations3	
IT 140	Industrial Safety.....1	
MAS 181	Seamanship I2	
MAS 182	Seamanship II2	
MAS 183	Seamanship III.....2	
MAS 150	Crewmember Marine Safety Training, <i>or</i>2	
MAS 135	STCW Basic Safety Training (3)	
MAS 155	Introduction to Watchkeeping.....2	
MAS 164	Introduction to Navigation3	
MAS 165	Practical Navigation2	
MAS 168	Charts, Aids to Navigation, & Marine Compasses.....3	
MAS 175	Rules of the Road3	
MAS 190	Vessel Practicum..... S 1	
MAS 100	Maritime Occupations S 2	
MAS 170	Marine Weather, Tides, Currents & Waves S 3	
WLD	Welding (any class) S 1	

YEAR TWO

Vessel Operations
AAS Degree

Course #	Course Title	Credits
BA 214	Business Communication* (<i>or a WR course higher than WR 121</i>)3	
HS 101	Alcohol use, Misuse, and Addiction (<i>or HS 102, Drug Use, Misuse, & Addiction or any acceptable 3 credit Humanities or Social Science course</i>) .3	
CS 101	Fundamentals of Computing (<i>or CS or MIC course higher than CS 101</i>).....1	
GS 104	Physical Science - Physics <i>or</i>4	
GS 106	Physical Science - Geology <i>or</i>4	
GS 109	Physical Science - Meteorology4	
MAS 186	Small Vessel Operations I.....2	
MAS 187	Small Vessel Operations II.....2	
MAS 188	Small Vessel Operations III2	
MAS 171	Coastal Navigation & Voyage Planning3	
MAS 180	Marine Electronics.....2	
HM 120	Hazardous Materials & Emergency Response Training1	
MAS 190	Vessel Practicum..... S 2	
MAS 147	Rules and Regulations S 3	
MAS 148	Vessel Stability..... S 3	
MAS 185	Bridge to Bridge Communication..... S 3	
MAS 130	Radar Observer: Original Endorsement, Unlimited S 2	
IT 110	Applied Technology Project S 2	

Technical Electives Course List

Students must complete 34 elective credits chosen from either the suggested electives or the list of technical electives. The following technical electives may be substituted for any suggested elective (S).

MAS 184	Galley Cooking..... 2
MAS 190	Vessel Practicum..... 1 - 3
MAS 191	Deckhand Practicum..... 1 - 4
MAS 125	500/1600/Unlimited License Prep.....2 - 8
MAS 201	Tank Ship Dangerous Liquids (Tankerman PIC) 3
MAS 208	Ratings Forming Part of a Navigational Watch..... 2
MAS 280	Marine Cooperative Work Experience 1 - 4
*MAS	Any other Maritime Science course numbered 100 or above may be used for Technical Electives
AUTO 108	Engine Fundamentals and Repair..... 4
IT 101	Engine Rebuilding – Gasoline..... 4
IT 110	Applied Technology Project 2
IT 208	Mechanical Drives and Transmission of Power 4
PH 201,202,203	General Physics 5 ea
PH 211,212,213	Physics with Calculus.....5 ea

***NOTE:** No more than a total of 9 (nine) credits of any combination of the following courses may be applied to this degree:

MAS 120	U.S. Coast Guard Marine License Training .. 3
MAS 121	Able Seaman Training..... 4
MAS 122	OUPV Training 4
MAS 123	100 Ton Master Training 5
MAS 124	200 Ton Master Training 6
MAS 125	500/1600/Unlimited License Prep..... 2

Legend Notes:

S = Suggested Elective

* Minimum grade C or higher.

SPECIALIZED TRAINING PROGRAMS AND COURSES IN THE MARITIME SCIENCES

Clatsop Community College's Maritime Science Department (MSD) offers specialized maritime training programs and courses. We offer training for individuals at entry skill levels and for mariners employed within the industry. An example of a group of specialized training courses and programs are the U.S. Coast Guard approved programs. The approved programs may do one, or more, of the following; (1) meet U.S. Coast Guard and International Maritime Organization (IMO) training requirements; (2) lead to Coast Guard and STCW (Standards of Training, Certification and Watchkeeping for Seafarers) endorsements; or (3) satisfy Code of Federal Regulation (CFR) requirements.

Courses that lead to U.S. Coast Guard license endorsements include:

1. Radar Observer Original, "Unlimited". (40-hour course)
2. Radar Observer Original, "Rivers". (24-hour course)
3. Radar Observer Re-Certification, "Unlimited" and "Rivers". (8 and 24-hours)
4. Automatic Radar Plotting Aids. (ARPA)
5. Global Marine Distress Safety System. (GMDSS)
6. Celestial Navigation, "Upon Ocean" endorsement for licenses up to 1600 gross tons. (Minimum of 60-hours required for licenses of 500 gross tons or greater)*
7. Proficiency in Survival Craft. (32-hour course)

The College's License Training Program is approved to satisfy CFR requirements. The approval allows students to complete the Training Program in lieu of U.S. Coast Guard testing for the following licenses:

1. Master/Mate 200 Gross Tons - Near Coastal/Inland Waters.*
2. Master/Mate 100 Gross Tons - Near Coastal/Inland Waters.*
3. Operator of Uninspected Passenger Vessels.*
4. Master/Operator Limited Scope Waters. (40-hours)

*See the section on class format for an explanation of required hours for modular classes.

Maritime Science Department courses that meet CFR, IMO or Federal Communication Commission (FCC) requirements include:

1. Marine Safety (24-hour), CFR requirements.
2. Basic Safety Training (40-hour), IMO and CFR requirements.
3. HAZWOPER (24 and 40 hour), CFR requirements.
4. Global Marine Distress Safety System (GMDSS) Radio Operator, CFR requirements.
5. Bridge Resource Management (24 hour) IMO & CFR requirements.

Maritime Science Department's class format

Classes in the Maritime Science Department meet 8:00 A.M. - 5:00 P.M., Monday through Friday. The courses, or programs, marked with an asterisk (*) are modular classes. Students may start modular classes any day of the week and complete the required modules at their own learning rate. We sell most modules in forty-hour blocks of time.

The modular format allows students working in the industry additional flexibility for upgrading skills and training requirements.

Certificate and Degree Programs

The College offers a Seamanship One-Year Certificate and an Associate of Applied Science Degree in Vessel Operations.

Marine Fire Training

The College offers Basic, Advanced & Combined Marine Fire Fighting training in the Fire Research and Response Center (FRRC). The Basic Fire class is a two-day USCG approved course that meets international standards and includes the theory of fire, fire prevention principles, fire detection systems, self-contained breathing apparatus, search & rescue, emergency egress and live fire fighting. The Combined (basic & advanced) Marine Fire Fighting training is a five-day USCG approved course that meets all requirements for basic & advanced fire fighting. Course elements include those of Basic Fire Fighting, plus stowage and handling of hazardous materials, fire fighting effects on ship stability, incident command systems (ICS), fire fighting in port, team training, and complex live fire fighting scenarios.

The FRRC provides a training facility for land-based fire fighters from the regional area and beyond. Classes can be arranged to meet the needs of specific groups. For additional information contact the Maritime Science Department at (503) 325-7962.

Radar Observer Program

The U.S. Coast Guard approved Radar Observer Program offers you five different courses: Five-day original endorsement, three-day "Rivers" original endorsement, one-day "Rivers" recertification, three-day recertification, and one-day recertification. The five-day original endorsement class is required if you are operating vessels 200 gross tons or over on an ocean route or 300 gross tons on any route. The three-day "Rivers" original endorsement course meets federal requirements for operators of towing vessels of 26 feet or more in length operating solely on rivers. The three-day recertification class is designed for you if you need to renew your "unlimited" endorsement and would like to practice your plotting skills before taking the renewal exam. The one-day recertification class does not include any instruction or practice time and is limited to the exam only. The one-day recertification class is recommended only if you have recent time on direct plotting radars. Instruction in the three- and five-day classes will include radar operation, characteristics of radar waves, target identification, plotting (three-day "Rivers" does not include plotting), and rules of the road for using radar.

Cost of the classes includes books and classroom materials. You must pay at the time you reserve your class seat. For more information about registering for the radar school, call the Maritime Science Center, (503) 325-7962.

ARPA Training

The U.S. Coast Guard approved Automatic Radar Plotting Aid (ARPA) course meets the requirements for STCW certification and endorsement for master, mate and officer in charge of a navigational watch on ships equipped with ARPA radar. Students must currently hold an unlimited radar endorsement. The 32-hour course covers principles, performance standards and operation of ARPA radar and includes recertification for the unlimited radar endorsement. Additional information about this program can be obtained by contacting the Maritime Science Center, (503) 325-7962.

STCW GMDSS Training

The U.S. Coast Guard approved 70-hour Global Marine Distress Safety System (GMDSS) course meets the minimum required training for certification as GMDSS operator in accordance with USCG and STCW standards. The course includes principles of communications, GMDSS communications system, GMDSS equipment, distress alerting and operational procedures. The student will operate actual GMDSS equipment with state of the art simulation hardware. Additional information about this program can be obtained by contacting the Maritime Science Center, (503) 325-7962.

Basic Safety Training

The U.S. Coast Guard STCW-95 approved 40-hour Basic Safety Training class includes the following modules; Personal Safety & Social Responsibility; Basic Fire Fighting; Personal Survival Techniques and Elementary First Aid. This Class meets the STCW-95 requirements for mariners sailing beyond the boundary line.

Bridge Resource Management

The U.S. Coast Guard STCW-95 approved 24-hour Bridge Resource Management course satisfies the requirements for procedures for bridge team work, as set forth in Title 46 CFR, parts 10.205(3)(0) and Section B-VIII/2 of the STCW code.

Proficiency in Survival Craft (Lifeboatman)

The U.S. Coast Guard approved 32-hour Proficiency in Survival Craft course satisfies the requirements for individuals in charge of survival craft, as set forth in title 46 CFR parts 12.10 and table A-V/1/2-1 of the STCW code.

MEDICAL ASSISTANT

CAREER PATHWAY CERTIFICATE *OR* ONE-YEAR CERTIFICATE PROGRAM

One Year Certificate:

The Medical Assistant program prepares students for entry-level employment in a physician's clinic or a variety of other health care settings. Program graduates will have the academic, administrative and clinical skills necessary for an allied healthcare professional. Courses cover anatomy, physiology, and medical terminology, as well as, computers, office procedures, communication, psychology, and math.

Job Description:

Medical Assistants perform routine administrative and clinical tasks to keep healthcare delivery systems running smoothly. An MA will work in reception, scheduling, medical records, insurance billing, and as a medical office secretary. An MA will also work as a clinical assistant to the physician by preparing patients for examinations, assisting with treatments, collecting and testing specimens and educating patients on health promotion and disease prevention issues.

Employment Opportunities:

The job outlook is excellent, locally, regionally, and nationally, and is projected to grow.

Potential earnings:

The average rate of pay for Medical Assistants in Oregon is \$31,446 annually.

**MEDICAL ASSISTANT: THREE-TERM
CERTIFICATE**

Role Descriptions: The Medical Assistant Program is designed for persons intending to work in a physician's office, performing routine administrative clinical procedures that keep health care delivery settings running smoothly.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Interact in a caring and respectful manner with patients, families, and the healthcare team.
2. Establish and manage office procedures and implement medical documentation systems using appropriate medical terminology.
3. Perform the administrative business tasks required in a medical office.
4. Assist the physician and other members of the health care team in clinical procedures related to the examination and treatment of patients.
5. Comply with quality assurance requirements in performing clinical laboratory procedures.
6. Perform common diagnostic procedures under a licensed healthcare provider to ensure patient comfort and safety.

YEAR ONE Medical Assistant Career Pathway Certificate

FALL	Medical Assistant Clinical Procedures MA112, 3 Cr.	English for Business OA 104, 4 Cr.	Office Skills for the Medical Office OA 126, 4 Cr.	Body Structure and Function I * MA 120, 4 Cr.
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* Minimum grade of "C" or higher.

YEAR ONE Medical Assistant One-Year Certificate

FALL	Medical Assistant Clinical Procedures * MA 112, 3 Cr.	English for Business OA 104, 4 Cr.	Office Skills for the Medical Office OA 126, 4 Cr.	Body Structure and Function I * MA 120, 4 Cr.
	Medical Assistant Practicum I MA 133, 4 Cr.	Math for Applied Sciences ** MTH 65, 4 Cr.	Medical Assistant Clinical Procedures II * MA 113, 4 Cr.	Body Structure and Function II * MA 121, 4 Cr.
WINTER	English Composition -Exposition** WR 121, 3 Cr.	Pharmacology for Medical Assistants MA 115, 3 Cr.	Medical Assistant Practicum II MA 231, 5 Cr.	Psychology of Human Relations PSY 101, 3 Cr.
SPRING				

* Minimum grade of "C" or higher.

** Minimum grade of "C" or higher. May substitute MTH 95 or higher.

Nursing Program Admission Requirements

Nursing program enrollment is limited. Acceptance into the Nursing program is determined by a weighted point system from a pool of qualified applicants. A student must meet the minimum requirements to be considered for admission. If the minimum requirements have been met the student's application will be evaluated and awarded points in a competitive process. The top ranking individuals will be offered admission to the program. Remaining qualified candidates are placed on a ranked alternate list which expires when fall term commences. A program information and application packet can be obtained from the Admissions Office or the College website.

The following minimum requirements must be met by the published deadline for an application to be evaluated. Please see this catalog for course descriptions.

A student must meet the following Minimum Evaluation Requirements:

1. GPA REQUIREMENT: You must meet one of the following criteria.

- A minimum of 24 college credits with a cumulative 3.0 GPA for all college credits earned.
- ***OR*** You may choose to use only those college credits you earned in the last 7 years if you have earned a minimum of 24 credits. All of those credits must have a cumulative GPA of 3.0.

PLEASE NOTE: If you choose to use only those college credits that you have earned in the last 7 years, any nursing degree requirements completed more than 7 years ago will not be applied to your degree requirements. You must meet those requirements to graduate.

2. WRITING REQUIREMENT: You must meet one of the following criteria.

- Completion of WR 121 English Composition-Exposition or higher completed with a grade of C or above.
- ***OR*** Demonstrated readiness for WR 121 by a minimum score of 45 on the ASSET Writing Placement Test or 77 on the COMPASS Writing Placement Test.

3. READING REQUIREMENT: You must meet this requirement.

- Minimum score of 42 on the ASSET Reading Placement Test or 81 on the COMPASS Reading Placement Test.

THE FOLLOWING REQUIREMENTS MUST BE COMPLETED IN THE LAST 7 YEARS.

4. MATH REQUIREMENT: You must meet one of the following criteria.

- MTH 95 Intermediate Algebra or MTH 111 College Algebra or a course for which MTH 111 is a prerequisite completed with a grade of C or above.
- ***OR*** Demonstrated readiness for MTH 111 College Algebra or higher demonstrated by a minimum score of 34 on the ASSET College Algebra Test or 36 on the COMPASS College Algebra Test.

5. ANATOMY AND PHYSIOLOGY REQUIREMENT: You must meet this requirement.

- Completion of BI 231 and BI 232 or the equivalent as determined by the Clatsop Community College Registrar's Office completed with a grade of C or above.

PLEASE NOTE: If selected for the Nursing program, you must complete BI 233 or the equivalent as determined by the Clatsop Community College Registrar's Office with a grade of C or above before the start of the nursing program in the fall term. BI 233 may not be offered at Clatsop summer term.

Once accepted into the program the student will need to pay a non-refundable deposit, pass a Criminal Background Check and meet other requirements for immunization, basic nursing skills and CPR training. These requirements can be found in the nursing application.

Admission Requirements • Special Considerations

Clinical rotations:

A student planning on entering the nursing program must be aware that clinical rotations may take place in Clatsop, Tillamook or Pacific Counties. These rotations may be on weekends, evenings or day shifts. Students are expected to have reliable transportation in order to attend required clinical rotations. Students are assigned to specific clinical sites based on a variety of factors including practice level, course curriculum goals, availability of experiences, faculty supervision and individual student needs. Each student's individual educational and practice needs are carefully considered when placements at the clinical sites are made.

Online instruction:

Students need to be aware that the nursing program uses online instruction for selected courses, communication, assignments, testing and additional content delivery throughout the program. Students may use their own personal computers but support will only be provided by College personnel for issues directly related to the use of college email and BlackBoard (the course management system used by the college.) Use of college computers is highly encouraged and made available in computer labs housed throughout the campus as well as at the South County Campus in Seaside. Students should be aware of hours of operations for the labs provided by the College. This information is published on the College website.

Re-entry or Advanced Placement Admission

Students applying for either re-entry or advanced placement must complete the appropriate application by the due date to be considered. A student may enter the nursing program after NUR 101 under one of two categories:

Re-entry

A student, who withdraws from the CCC Nursing program after NUR 101, has one opportunity to reenter. A student is eligible for re-entry if he/she:

- applies to the nursing program within the one year after the term he/she withdrew.
- has met the terms of his/her re-entry agreement.
- successfully completes any identified standardized tests.
- completes all degree program requirements up to point of re-entry.

Acceptance is contingent on availability of space.

Advanced Placement

A student is eligible for advanced placement if he/she has:

- completed all degree course requirements up to point of entry
- and*
- been out of the CCC nursing program for more than one year *or*
 - been previously enrolled in a nursing program at another college

Students seeking admission into other terms of the nursing program may be required to take a standardized test. Point of entry will be determined by the nursing faculty based on evaluation of scores.

Acceptance is determined by a weighted point scale and contingent on availability of space.

Students will be required to take NUR 111, Nursing Concepts and Clinical Practice at variable credits – 1-3, prior to reentry/entry into the Nursing program.

PRACTICAL NURSING FOUR-TERM CERTIFICATE ASSOCIATE OF APPLIED SCIENCE DEGREE

LEARNING OUTCOMES: PRACTICAL NURSING CERTIFICATE

Role Descriptions: The Practical Nursing program is designed for the person intending to work as a practical nurse in the healthcare industry.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Qualify to take the NCLEX-PN licensure exam.
2. Provide safe and appropriate client care by:
 - a. Contributing to the nursing process under the supervision of an authorized health care provider: assessment • diagnosis • planning • implementation • evaluation
 - b. Acting as a collaborative member of a healthcare team.
 - c. Complying with the professional practice standards for a practical nurse.
3. Qualify to enter the second year of the Associate of Applied Science RN program at Clatsop Community College.

Practical Nursing Job Description:

The licensed practical nurse (LPN) cares for patients under the direction of an RN, physician, or dentist. LPNs collect information about the patient's health, help plan care, and administer medications and other treatments. Practical nurses work primarily in hospitals and long-term care. They may also work in medical or dental offices, clinics, and caring for patients in the home.

Employment Opportunities:

Employment opportunities for LPNs are fairly stable at this time, with some growth expected.

Potential Earnings:

The average wage for LPNs is approximately \$16.50 per hour in Oregon.

LEARNING OUTCOMES - NURSING: AAS DEGREE

Role Descriptions: The Nursing program is designed for the person intending to work as a registered nurse in the health care industry.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Demonstrate the ability to assess, diagnose, plan, implement, and evaluate nursing plans of care which address the holistic needs of diverse individuals, families, and groups.
2. Communicate effectively and collaboratively with clients, families, and members of the health care team.
3. Practice within the legal and ethical standards of nursing (as defined by the American Nurses Association and state boards of nursing) with a sense of personal and professional accountability and responsibility.
4. Demonstrate the ability to acquire and utilize new scientific knowledge and technology in the planning and delivery of nursing care.

Nursing AAS Degree Job Description:

Registered nurses (RNs) are caring and use their knowledge, skills, and problem-solving to help individuals, families, and groups with health needs. RNs plan care and work with people to help them become healthier or to regain health after illness or surgery. Nurses teach health practices to clients and other health care providers, and frequently supervise the work of nursing assistants and practical nurses. RNs also administer medications and perform treatments for patients. Nurses work in a variety of settings, including hospitals and long-term care, schools, industry, clinics, and patients' homes. With advanced education, nurses may work as managers, educators, public health nurses, as a clinical specialist, or independently as a nurse practitioner.

Employment Opportunities:

The need for registered nurses is critical at the present time, and is expected to increase.

Potential Earnings:

The average wage in Oregon is approximately \$27.15 per hour or \$56,455 annually depending where the nurse works.

YEAR ONE **Practical Nursing Four-Term Certificate • Minimum 53 Credits**

FOUR-TERM CERTIFICATE: This is not a stand alone program. Students enrolled in the AAS Degree Nursing may earn this certificate upon successful completion of the identified required courses below. Students are then eligible to take the NCLEX-PN test.

FALL	Introductory Microbiology BI 234, 4 Cr.	Nursing: Foundations of Care + NUR 101, 8 Cr.	Strategies for Success in Nursing Program NUR 115A, 1 Cr.	Foundations of Pharmacology for Nurses NUR 105, 1 Cr.	CS or MIC Elective 1 Cr.	Health or PE Elective* 1-3 Cr.
	WINTER	Nursing: Focus on Individuals + NUR 102, 9 Cr.	Collaborative Practice I NUR 112, 2 Cr.	Physical Assessment I NUR 115B, 1 Cr.	Developmental Psychology PSY 215, 3 Cr.	Math Requirement: Either MTH 95, MTH 111, or a course for which MTH 111 is a prerequisite, must be successfully completed with a grade "C" or higher. Math course to be taken during any term prior to entering the second year
		SPRING	Nursing: Focus on Families + NUR 103, 9 Cr.	Collaborative Practice II NUR 113, 1 Cr.	English Composition -Exposition WR 121, 3 Cr.	
	SUMMER		Nursing: Mental Health + NUR 109, 4 Cr.	Nursing Concepts & Clinical Practice # NUR 111, 1-3 Cr.	Note: All required courses must be completed with a C grade or higher to receive the certificate.	

YEAR TWO **Nursing AAS • Minimum 96 Credits**

FALL	Nursing: Clients in Crisis + NUR 201, 8 Cr.	Collaborative Practice III NUR 231, 2 Cr.	Notes: All first year program requirements must be completed with a C grade or higher to enter the second year of the program. All required courses must be completed with a C grade or higher to receive the degree.			
	WINTER	Nursing: Families in Crisis + NUR 202, 9 Cr.	Collaborative Practice IV NUR 232, 2 Cr.	Human Nutrition NFM 225, 4 Cr.		
		SPRING	Nursing: Transition to Practice + NUR 208, 8 Cr.	English Composition -Argument WR 122, 3 Cr. <i>or</i> English Composition -Research Writing WR 123, 3 Cr. <i>or</i> Technical Report Writing WR 227, 3 Cr.	Health or PE Elective * 1-3 Cr.	Social Science Elective ** 3 Cr.

Legend Notes:

Note: All nursing classes must be completed with a C grade or higher to continue in the program and progress to the next term.

+ Contains human relations components.

* Any of the following classes may be selected to fill the health or physical activity elective: PSY 190 Stress Theory & Management; HPE 295 Health & Fitness for Life; or PE 185 Physical Education.

** Selected from Social Science list on page 25.

NUR 111 required for selected advanced placement students only.

*** Selected from Arts and Letters list on page 25.

SUSTAINABLE ENERGY TECHNICIAN

OREGON GREEN TECHNICIAN ONE-YEAR CERTIFICATE

Job Description: This program prepares individuals for work in the sustainable energy trade with an emphasis on the growing fields of energy conservation and renewable energy production. Students gain the necessary knowledge, skills, and work habits regarding basic power generation principles, instrumentation, care and maintenance, and process controls. The first year of the program prepares individuals for work in the sustainable energy field with a foundation in electrical fundamentals, hydraulics and mechanical power, alternative energy applications and power generation concepts, and basic industrial safety and control systems. Students successfully completing the first year will receive a Certificate as a Sustainable Energy Technician. The second year of the program emphasizes advanced circuitry, digital electronics, hybrid electrical systems, advanced instrumentation and controls, and predictive and preventative maintenance. Students successfully completing the second year will receive an Associate of Applied Science Degree for a Sustainable Energy Technician. To give individuals more career choices, Career Pathway Specialization Certificates offer curriculum options which include energy auditing; seamanship abilities for ocean and river sustainable energy applications; maintenance and repair skills; process operations; co-generation; and micro-systems, as well as other emerging high-tech innovations. Graduates can enter the workforce as energy auditors, biomass energy technicians, small commercial and residential energy technicians, ocean and river wave and wind technicians, instrumentation, environmental control, energy management, or industrial maintenance electricians. Individuals receiving this certificate can also choose to continue their education to prepare as sustainable energy entrepreneurs, energy technician supervisors, or specialize in a focused area within sustainable energy.

Employment Opportunities:

The job outlook for Sustainable Energy Technicians is good locally, regionally and nationally. Job opportunities are available with alternative energy producers, city and county governments, as well as self-employed entrepreneurs. Demand is greatest for employees who have a well-grounded knowledge of electrical systems, instrumentation, process control, customer service, and emerging activities of the business.

Potential Earnings:

Potential starting wage for sustainable energy technicians in Oregon is \$19.03 per hour and the average wage is \$29.04 per hour as the individual's skill level increases.

LEARNING OUTCOMES: ENERGY TECHNICIAN: ONE-YEAR CERTIFICATE

Role Descriptions: The Sustainable Energy Technician Certificate program is designed for persons intending to work in the sustainable energy field with an emphasis on basic power generation principles, instrumentation, care and maintenance, and process controls.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Communicate clearly and effectively through speech, writing, and drawing.
2. Practice safe and healthy work habits; safely use high tech instrumentation and equipment.
3. Work on multiple projects simultaneously, efficiently managing time and resources.
4. Work in a collaborative environment.
5. Demonstrate knowledge of sustainable energy concepts and principles.
6. Work with parameters of codes and regulations for the safe operation of sustainable energy systems.

YEAR ONE One-Year Certificate

FALL	Intro. to Sustainability SET 102, 3 Cr.	Industrial Safety <i>and</i> Tool & Shop Basics IT 140, 1 Cr. IT 141, 1 Cr. <i>or</i> Green Industrial Safety SET 105, 2 Cr.	Mechanical Power I SET 121, 3 Cr.	Electrical Systems Troubleshooting I EET 121, 2 Cr.	Math for the Applied Sciences MTH 65, 4 Cr. <i>or</i> Applied College Algebra MTH 103, 4 Cr.		
	WINTER	Energy & Environment SET 110, 2 Cr.	Electrical Systems Troubleshooting II EET 122, 3 Cr.	Building Energy Analysis SET 158, 2 Cr.	HVACR Systems Operation SET 130, 3 Cr.	Small Group Discussion SP 219, 3 Cr. <i>or</i> Sustainable Energy Workplace Communications SET 115, 2 Cr.	English Composition -Exposition* WR 121, 3 Cr.
		SPRING	Predct/Prevnt Maintenance SET 135, 2 Cr.	Industrial Control Systems EET 155, 3 Cr.	Basic Hydraulics SET 120, 2 Cr.	Appl. of Alt. Energy SET 106, 3 Cr.	Human Relations in Business BA 285, 3 Cr. <i>or</i> Sustainable Energy Customer Service SET 140, 3 Cr.

TRUCK DRIVING

PROFESSIONAL TRUCK DRIVING LESS-THAN-ONE-YEAR CERTIFICATE

Job Description:

Professional truck driving training prepares the student to enter a wide variety of work within the transportation and logistics industry. While interstate truck operation is limited to those 21 or older, younger graduates have opportunities in associated jobs such as warehousing and local delivery.

Employment Opportunities:

Employment in this field is expected to grow. Shortages of trained drivers are projected for the near future. Local opportunities exist in natural resource transportation and local delivery. Plentiful opportunities exist for over-the-road careers and with regional distribution companies based in the Willamette Valley. Experience as a professional truck driver can be a pathway, after further education, to careers as dispatcher, manager of logistics operations, and as an owner of a transportation-based enterprise.

Potential Earnings:

An average entry level wage for Truck Drivers, Heavy and Tractor-Trailer is currently \$12.13 per hour, depending on experience; maximum may go to \$23.34 or more per hour with an average wage of \$16.49 per hour.

LEARNING OUTCOMES: PROFESSIONAL TRUCK DRIVING: LESS-THAN-ONE-YEAR CERTIFICATE

Role Description: Professional truck driving training prepares the student to enter a wide variety of work within the transportation and logistics industry, including associated jobs such as warehousing and local delivery.

Intended Learning Outcomes: Students graduating from the Professional Truck Driving Less-Than-One-Year Certificate will:

1. Know rules and regulations pertaining to operation of commercial trucks.
2. Demonstrate safe and legal operation of commercial trucks and handling of cargo
3. Demonstrate and practice the customer service skills needed for success in the logistics industry
4. Demonstrate and practice maintenance of documentation required of a commercial truck driver
5. Master the skills particular to at least one segment of the truck transportation industry

Course Number	Course Title	Credits	Total Hours	
TTL 101	Introduction to Transportation and Logistics	4	40	Offered as needed
TTL 121	Practical Applications in Transportation and Logistics	6	120	Offered as needed Individual Instruction
TTL 141	Transportation Customer Service Skills	3	30	Offered as needed
TTL 180	Transportation Cooperative Work Experience	6	200	Offered as needed Individual Instruction
Total:		19	390	

Courses in the program are offered as needed on a condensed schedule requiring full-time commitment, 40 hours per week.

AMERICAN WELDING SOCIETY ENTRY LEVEL WELDING ONE-YEAR CERTIFICATE PROGRAM

Job Description:

This competency based program will provide an individual with the prerequisite knowledge, skills, work habits and attitude required to perform routine, predictable, proceduralized tasks as defined by the American Welding Society. These entry-level welding tasks involve motor skills and limited theoretical knowledge and are performed under close supervision. Course curriculum follows the AWS specifications for qualification and certification of QC10-95 entry level welder. This program is one step on the ladder of skills the trainees may achieve in their quest for a rewarding career. People who are creative and enjoy mind-hand challenges will find opportunities for advancement and experience a great sense of pride in workmanship as they ply their trade.

Employment Opportunities:

The job outlook for welding is good regionally, nationally and globally. Entry level welders are employed in a wide range of industries that use welding and welding-related tasks during daily operations.

Potential Earnings:

Presently starting wages in Oregon are about \$11.00/hour, with top wages to about \$20.00/hour as the individual's skill level increases.

Program Requirements:

Program Requirements: The department recommends that students enter the program at the beginning of a scheduled term, based on space availability. Some classes may not be offered every term. Acceptance into the program is based on COMPASS placement test scores that demonstrate proficiency of basic math and high school level reading/writing skills. Because a variety of working conditions exist in the welding field, a person generally should be in good physical condition and be able to stand, stoop, kneel and bend. Good eyesight, especially depth perception, is necessary for a welder.

LEARNING OUTCOMES: WELDING (AMERICAN WELDING SOCIETY ENTRY LEVEL): ONE-YEAR CERTIFICATE

Role Descriptions: The Welding Program is designed for the person intending to work as an entry-level welder in a welding shop.

Intended Learning Outcomes: Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Weld metals proficiently using five different processes:
 - a. Material processing (oxy-fuel welding and cutting, plasma, carbon air arc)
 - b. Oxy-fuel (welding and cutting)
 - c. Shielded metal arc welding
 - d. Gas metal arc welding
 - e. Gas tungsten welding.
2. Follow safe practices in performing all welding tasks.
3. Interpret written, schematic and numerical data to carry out customer specifications of a proposed welding product; write technical work orders for fabrication.
4. Use standard industrial equipment to make quality repairs and fabrication on different types of metals.
5. Generate creative solutions to fabrication challenges.
6. Share in the responsibilities of maintaining a clean and orderly welding shop environment.
7. Use, maintain, and repair fabrication/welding shop tools.
8. Perform the business functions of customer service and materials acquisition.
9. Progressively assume greater shop responsibilities and envision future work opportunities in the trades.
10. Manage a student portfolio to include skills students have learned.

Continued on the next page

YEAR ONE

AWS Entry Level Welding One-Year Certificate

FALL	Industrial Safety *** IT 140, 1 Cr.	Tool & Shop Basics IT 141, 1 Cr.	Technical Print Interpretation DRF 139, 3 Cr.	Math for Applied Science* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 5 Cr.	Materials Processing WLD 100, 3 Cr.	Shielded Metal Arc Welding Process WLD 101, 8 Cr.
	Gas Metal Arc Welding Process WLD 102, 7 Cr.	Flux Core Arc Welding Process WLD 103, 6 Cr.	English Composition -Exposition** WR 121, 3 Cr.			
WINTER						
SPRING	Psychology of Human Relations PSY 101, 3 Cr.	Gas Tungsten Arc Welding Process WLD 104, 6 Cr.	Cooperative Work Experience IT 280, 2 Cr.	Cooperative Work Experience Seminar IT 281, 1 Cr.		

Legend Notes:

- * Minimum Grade C or higher. Math courses numbered higher than MTH 95 may be substituted.
- ** Minimum Grade C or higher.
- ***IT 140 uses CD-ROM training modules. Satisfactory completion of this class is required before taking classes in any of the shop facilities.

Notes: The program addresses the application of technical writing skill as the trainee delivers written quality control reports for each welding process workmanship sampling. Students demonstrate practical math applications throughout the program, especially in the workmanship assessment projects.

Upon completion the trainees will receive a Certificate of Completion from AWS qualifying them as a nationally recognized entry level welder. They will also be registered in the AWS databank for certificate verification purposes.

Courses that meet the Cultural Literacy requirement are noted with a “♦” symbol.

ANTHROPOLOGY

ANT 101
INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students acquire basic knowledge of the processes of human evolution and variation. Primate and hominin evolution are surveyed. Students explore subjects relevant to human evolution such as Mendelian and population genetics, primatology, paleoarchaeology, and biological diversity in modern human populations. Special attention is given to the origins of cultural behavior in primates and culture's increasing flexibility and diversity as the Hominine line evolves. **FALL 2011, 2012; SPRING 2012, 2013**

♦ **ANT 102**
INTRODUCTION TO ARCHAEOLOGY AND PREHISTORY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate knowledge of archaeological methods and theories including techniques used in gathering and interpreting data on past cultures, preservation of archaeological data, and dating techniques. The fundamentals of archaeology are taught within the context of a survey of prehistory from the Upper Paleolithic to the earliest state-level societies in Southwestern Asia, Africa, and Europe. Human culture is analyzed as an adaptive system that varies in relation to ecology and human need. **WINTER 2012, 2013**

♦ **ANT 103**
INTRODUCTION TO CULTURAL ANTHROPOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students develop a basic understanding of the variety of cultures in the world, the sources of information used by cultural anthropologists, and an overview of ecological, functional and symbolic paradigms for understanding culture. Students examine the basic concepts of ethnocentrism, holism and cultural relativism, and learn about culture as a symbolic, dynamic, integrated, adaptive system of complex relationships. **FALL 2011, 2012**

ARCHITECTURE

ARCH 215
HISTORY OF PACIFIC NORTHWEST ARCHITECTURE
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students study Pacific Northwest regional building types, stylistic characteristics and architects. Students will explore the influence of political, social, environmental and economic impacts on architecture. **SPRING 2012**

ART

ART 115
BASIC DESIGN I
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students complete two-dimensional projects exploring the basic elements and principles of design, gain a basic knowledge of the concepts underlying fundamental composition and formal theory in the visual arts, and develop vocabulary for work and criticism. This is a foundation course for most professions in the visual arts, including architecture, interior architecture, graphic design, landscape design, and all commercial applications. **FALL 2011, 2012**

ART 116
BASIC DESIGN II
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students complete studio exercises exploring the basic elements and principles of three-dimensional design and continue to master the concepts underlying fundamental composition and formal theory in the visual arts. Students gain a fundamental understanding of vocabulary, function and applications of three-dimensional design concepts, and learn the processes of visual thinking and creative problem solving. **WINTER 2012, 2013**

ART 117
BASIC DESIGN III
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students complete two- and three-dimensional projects demonstrating an understanding of the creative process within the context of the art movements of the 20th Century. Students learn how to independently make use of creative thought processes and visual problem solving. **SPRING 2012, 2013**

ART 131
INTRODUCTION TO DRAWING I
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students are introduced to the basic techniques and approaches to drawing with an emphasis on the development of perceptual skills and observational study. Assigned creative projects explore a variety of media, subject matter, and conceptual problems inspired by historical and contemporary artistic practice. Intro to Drawing series 131, 132, 133 may be taken in any sequence. **FALL 2011, 2012**

ART 132
INTRODUCTION TO DRAWING II
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students are introduced to the basic techniques and approaches to drawing the human figure with an emphasis on the development of perceptual skills and observational study. Assigned creative projects explore a variety of media with a focus on proportion, foreshortening, anatomy, and the application of techniques inspired by historical and contemporary artistic practice. Intro to Drawing series 131, 132, 133 may be taken in any sequence. **WINTER 2012, 2013**

ART 133

INTRODUCTION TO DRAWING III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students are introduced to the basic techniques and approaches to drawing with an emphasis on the development of meaningful content and personal expression. Assigned creative projects are inspired by historical and contemporary artistic practice, and explore a variety of media, as well as thematic development and organization of the picture plane. Intro to Drawing series 131, 132, 133 may be taken in any sequence. **SPRING 2012, 2013**

ART 161

INTRODUCTION TO PHOTOGRAPHY I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students learn the fundamentals of operating cameras and producing prints, using both traditional photochemical and contemporary digital technologies. They learn the basics of composition, editing, and expressive use of studio and natural lighting. They study the breadth of contemporary and historical photography and its role in our society. Students cultivate creative processes and study critiquing. Students produce a photo essay on a coherent theme. This class begins the foundations for doing fine arts, professional/commercial, and personal photography. **Prerequisite:** ART 115 recommended.

FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013

ART 162

INTRODUCTION TO PHOTOGRAPHY II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Building from the fundamentals of ART 161, students learn to do effective camera work in a wider variety of conditions and to be able to make custom quality prints, working in their choice of digital black-and-white or color, or traditional darkroom prints. They learn standard studio lighting. Students produce a photo essay. They study the breadth of contemporary and historical photography and its role in our society. Students cultivate creative processes and study critiquing. This class builds the foundations for doing fine arts, professional/commercial, and personal photography. **Prerequisite:** ART 161.

FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013

ART 163

INTRODUCTION TO PHOTOGRAPHY III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Building from the skills of ART 162, students complete learning the use of the full range of camera controls and lenses in a variety of situations. They learn more sophisticated techniques of lighting, digital file capture and processing, and, for those interested, fine arts archival printing in the traditional darkroom. Students undertake an assignment for a publication story or an themed exhibit, and complete it as a digital publication. Digital files and prints are prepared for exhibit or publication. They study the breadth of contemporary and historical photography and its role in our society. Students cultivate creative processes and study critiquing. This class strengthens the foundations for doing fine arts, professional/commercial, and personal photography. **Prerequisite:** ART 162.

FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013

ART 194

INTRODUCTION TO WATERCOLOR I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students learn the techniques and use of watercolor with special attention to its characteristics as a painting medium. Recommended basic transfer course for landscape architecture and, in most cases provides transfer credit toward studio art elective requirements.

FALL 2011, 2012

ART 195

INTRODUCTION TO WATERCOLOR II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students improve their technique and use of watercolor with special attention to its characteristics as a painting medium. Recommended basic course for landscape architecture and, in most cases, provides transfer credit toward studio art elective requirements.

WINTER 2012, 2013

ART 196

INTRODUCTION TO WATERCOLOR III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students develop the techniques and use of transparent watercolor for rendering still life, portraiture and landscape. Recommend basic course for landscape architecture and, in most cases, provides transfer credit toward studio art electives requirement.

SPRING 2012, 2013

ART 204

HISTORY OF WESTERN ART I

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn to appreciate and enjoy art, explore Western styles, and relate specific works of art to each other and the ideas that animated the life of their times. This course provides an historical survey of the visual arts in the Western world from the Egyptian through the Romanesque periods.

FALL 2011, 2012

ART 205

HISTORY OF WESTERN ART II

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn to appreciate and enjoy art, explore Western styles, and relate specific works of art to each other and the ideas that animated the life of their times. This course provides a historical survey of the visual arts in the Western world from the Gothic to the Baroque periods.

WINTER 2012, 2013

ART 206

HISTORY OF WESTERN ART III

(3.00 Lecture Hrs./Wk.)

3 Credits

Students have the opportunity to appreciate and enjoy art, explore Western styles, and relate specific works of art to each other and the ideas that animated the life of their times. This course provides a historical survey of the visual arts in the Western world from the Rococo period through the 20th Century.

SPRING 2012, 2013

ART 222**ART PUBLICATION LAYOUT****(1.00 Lecture Hr./Wk.)****1 Credit**

Students learn fundamental skills and techniques to design and layout publications. Students create a multi-page document, use master pages, layout guides and style sheets, format digital images and prepare publications for press. **Co-requisite:** WR 270.

WINTER 2012, 2013**ART 225****COMPUTER GRAPHICS I****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students are introduced to the theory and use of digital media in the design process. Students use a variety of tools and techniques for visual communication including typography, page layout, digital imaging and three-dimensional modeling. Design principles and concepts, creative use of media and critical analysis of work are emphasized. **WINTER 2012, 2013**

ART 226**COMPUTER GRAPHICS II****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop the use of tools and techniques of computer graphics in the design process. Students engage more advanced aspects of composition, digital imaging, three-dimensional modeling, rendering and animation. Creative problem solving, concept development, design applications and communication issues are explored. **Prerequisite:** ART 225. **SPRING 2012, 2013**

ART 228**PORTFOLIO DEVELOPMENT****(2.00 Lecture/Lab Hrs./Wk.)****1 Credit**

Introduction to design and creation of an artist's portfolio. Students will organize, document and describe a body of their work and create and present a high quality portfolio. **SPRING 2012, 2013**

ART 231**DRAWING – INTERMEDIATE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Studio course with an emphasis on the development of concepts and techniques of drawing with increasing sophistication. Students build a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression.

Prerequisite: ART 133 or instructor approval. Intermediate Drawing series 231, 232, 233 may be taken in any sequence. **FALL 2011, 2012**

ART 232**DRAWING – INTERMEDIATE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students further deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Studio course with an emphasis on the development of concepts and techniques of figure drawing with increasing skill and sophistication. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. **Prerequisite:** ART 133. Intermediate Drawing series 231, 232, 233 may be taken in any sequence. **WINTER 2012, 2013**

ART 233**DRAWING – INTERMEDIATE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Studio course with an emphasis on the development of concepts and techniques of drawing with increasing sophistication. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. **Prerequisite:** ART 133 or instructor approval. Intermediate Drawing series 231, 232, 233 may be taken in any sequence. **SPRING 2012, 2013**

ART 250**INTRODUCTION TO CERAMICS I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will develop basic skills in ceramics including clay preparation, throwing on the wheel, hand-building, and glaze application. **FALL 2011, 2012**

ART 251**INTRODUCTION TO CERAMICS II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will develop basic skills in ceramics including clay preparation, throwing, hand building, glaze application, mixing and applying engobes, stains, and slips. **WINTER 2012, 2013**

ART 252**INTRODUCTION TO CERAMICS III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will develop basic skills in ceramics including clay preparation, throwing, hand building, glaze application, mixing and applying engobes, stains, and slips. The student will develop skill in the use of various methods of surface treatments on clay forms, such as stamping, sgraffito, carving, distortion of form, and clay additions. **SPRING 2012, 2013**

ART 253

CERAMICS – INTERMEDIATE I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

The student will have the opportunity to further develop the techniques learned in Introduction to Ceramics and will research clay bodies and glazes. The student will understand kiln building, firing methods and advanced techniques in hand-building, throwing, and surface decoration. **Prerequisite:** ART 250, 251 or 252, or instructor approval. **FALL 2011, 2012**

ART 253A

ATMOSPHERIC FIRING (CERAMICS)

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Experienced ceramics students will explore the results of firing clay using atmospheric firing processes such as Wood, Raku, and Sager firing. **Prerequisite:** ART 251, 252 or 253, or instructor approval. **SPRING 2012, 2013**

ART 254

CERAMICS – INTERMEDIATE II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

The student will apply the techniques learned in Introduction to Ceramics and develop skill in researching clay bodies and glazes. The student will understand kiln building, firing methods and advanced techniques in hand-building, throwing, and surface decoration. **Prerequisite:** ART 250, 251 or 252, or instructor approval. **WINTER 2012, 2013**

ART 255

CERAMICS – INTERMEDIATE III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

The student will further develop the techniques learned in Introduction to Ceramics and will research clay bodies and glazes. The student will understand kiln building, firing methods and advanced techniques in hand-building, throwing, and surface decoration. **Prerequisite:** ART 250, 251 or 252, or instructor approval. **SPRING 2012, 2013**

ART 270

INTRODUCTION TO PRINTMAKING I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students learn techniques for woodcut, monoprint and etching. This is the first course in a year-long sequence recommended for students preparing for architecture, interior architecture, and graphic design programs. Students may work in the media introduced this term or any media they have studied in a previous course. **Prerequisite:** None, but drawing and design classes are recommended. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

ART 271

INTRODUCTION TO PRINTMAKING II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students demonstrate knowledge of the techniques of making original fine art prints acquired through lectures, studio projects, and individual applications. Students may work in the media introduced this term and/or any media they have studied in a previous course. **Prerequisite:** None, but drawing and design classes are recommended. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

ART 272

INTRODUCTION TO PRINTMAKING III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students demonstrate knowledge of the techniques of making original fine art prints acquired through lectures, studio projects, and individual applications. Students may work in the media introduced this term and/or any media they have studied in a previous course. **Prerequisite:** None, but drawing and design classes are recommended. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

ART 273

PRINTMAKING – INTERMEDIATE I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students continue to develop skill in printmaking applying the techniques learned in introductory printmaking classes. Students complete independent work that contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

ART 274

PRINTMAKING – INTERMEDIATE II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students continue to develop skill in printmaking applying the techniques learned in introductory printmaking classes. Students complete independent work that contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

ART 275

PRINTMAKING – INTERMEDIATE III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students continue to develop skill in printmaking applying the techniques learned in introductory printmaking classes. Students complete independent work that contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

ART 276

INTRODUCTION TO SCULPTURE I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students develop skill in basic portrait study emphasizing construction of facial features and form, and finishing sculptural processes. **FALL 2011, 2012**

ART 277

INTRODUCTION TO SCULPTURE II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students develop skill in techniques of sculpture involving basic figure study emphasizing construction of human features. **WINTER 2012, 2013**

ART 278**INTRODUCTION TO SCULPTURE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop skill in techniques of soapstone carving emphasizing form, carving techniques, and finishing sculptural processes. **SPRING 2012, 2013**

ART 279**INTRO TO MIXED MEDIA AND HYBRID FORMS: MULTIDISCIPLINARY****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop skill in theory, methods, and compositional problems of creating art with mixed media. **Prerequisite:** ART 115, or instructor approval. **SPRING 2012, 2013**

ART 281**INTRODUCTION TO PAINTING I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students are introduced to the basic techniques and approaches to oil and/or acrylic painting, with an emphasis on working directly from life/direct observation(still life, landscape, and the human figure). Assigned creative projects explore the interrelationships between painting materials, techniques, formal elements and principles, and cognitive meaning inspired by historical and contemporary artistic practice. **Prerequisite:** None, but drawing and design classes are strongly recommended. **FALL 2011, 2012**

ART 282**INTRODUCTION TO PAINTING II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop techniques and approaches to oil and/or acrylic painting investigating a range of subject matter including still life, landscape, the human figure, and abstraction. Assigned creative projects explore the interrelationships between painting materials, techniques, formal elements and principles, and cognitive meaning inspired by historical and contemporary artistic practice. **Prerequisite:** None, but drawing and design classes are strongly recommended. Intro to Painting series 281, 282, 283 may be taken in any sequence. **WINTER 2012, 2013**

ART 283**INTRODUCTION TO PAINTING III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop techniques and approaches to oil and/or acrylic painting in which students investigate meaning/content and the possibility of developing a personal style. Assigned creative projects explore the interrelationships between painting materials, techniques, formal elements and principles, and cognitive meaning inspired by historical and contemporary artistic practice. **Prerequisite:** None, but drawing and design classes are strongly recommended. Intro to Painting series 281, 282, 283 may be taken in any sequence. **SPRING 2012, 2013**

ART 284**PAINTING – INTERMEDIATE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. Studio course with an emphasis on the development of concepts and techniques of painting with increasing sophistication. **Prerequisite:** ART 283 or instructor approval. Intermediate Painting series 284, 285, 286 may be taken in any sequence. **FALL 2011, 2012**

ART 285**PAINTING – INTERMEDIATE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. Studio course with an emphasis on the development of concepts and techniques of painting with increasing sophistication. **Prerequisite:** ART 283 or instructor approval. Intermediate Painting series 284, 285, 286 may be taken in any sequence. **WINTER 2012, 2013**

ART 286**PAINTING – INTERMEDIATE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. Studio course with an emphasis on the development of concepts and techniques of painting with increasing sophistication. **Prerequisite:** ART 283 or instructor approval. Intermediate Painting series 284, 285, 286 may be taken in any sequence. **SPRING 2012, 2013**

ART 291**SCULPTURE – INTERMEDIATE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Student will develop skill in basic portrait study emphasizing construction of facial features and form, and finishing sculptural processes. **Prerequisite:** ART 276, 277, or 278, or instructor approval. **FALL 2011, 2012**

ART 292**SCULPTURE – INTERMEDIATE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop skill in techniques of sculpture involving basic figure study emphasizing construction of human features. **Prerequisite:** ART 276, 277 or 278, or instructor approval. **WINTER 2012, 2013**

ART 293
SCULPTURE - INTERMEDIATE III
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students continue to develop skill in techniques of soapstone carving emphasizing form, carving techniques, and finishing sculptural processes. Students will apply techniques introduced in introductory sculpture-stone carving. **Prerequisite:** ART 276, 277 or 278, or instructor approval. **SPRING 2012, 2013**

ART 294
WATERCOLOR – INTERMEDIATE I
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students complete projects that apply their knowledge of watercolor painting techniques, concepts, and theories of expression. Students complete independent work that contributes to their personal portfolio. **Prerequisite:** ART 194, 195, 196 or instructor approval. **FALL 2011, 2012**

ART 295
WATERCOLOR – INTERMEDIATE II
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students complete watercolor paintings that demonstrate individual variations of technique. Students complete independent work that contributes to their personal portfolio. **Prerequisite:** ART 194, 195, 196 or instructor approval. **WINTER 2012, 2013**

ART 296
WATERCOLOR – INTERMEDIATE III
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students complete watercolor paintings, which demonstrate skill in composition and incorporate theories of expression. Students complete independent work that contributes to their personal portfolio. **Prerequisite:** ART 194, 195, 196 or instructor approval. **SPRING 2012, 2013**

ASL AMERICAN SIGN LANGUAGE

ASL 101
AMERICAN SIGN LANGUAGE I
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students learn basic ASL vocabulary, grammatical structures and conversational behaviors. Students are introduced to cultural values, beliefs, and behavioral norms shared by those within the deaf community. This course focuses in the language widely used by deaf Americans. **FALL 2011, 2012; WINTER 2012, 2013**

ASL 102
AMERICAN SIGN LANGUAGE II
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students improve their skills in vocabulary, grammatical structures and conversational behavior. Special focus will be given to developing more awareness of the cultural values and beliefs shared by the deaf community. **Prerequisite:** ASL 101 or instructor approval. **WINTER 2012, 2013, SPRING 2012, 2013**

ASL 103
AMERICAN SIGN LANGUAGE III
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students continue to increase their skills in vocabulary, grammatical structures and in-depth cultural awareness. Cultural information centers upon the ways in which hearing people can work with deaf people to establish culturally appropriate relationships. **Prerequisite:** ASL 102 or instructor approval. **SPRING 2012, 2013**

ASL 201
AMERICAN SIGN LANGUAGE-CONVERSATIONAL SKILLS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students improve and maintain their conversational ASL skills. Students will learn additional sign vocabulary, grammar concepts, and further develop conversational skills. In addition, ASL idiomatic signs will be presented. Students may also work on projects such as poems, songs, and choral works. **Prerequisite:** ASL 103 or instructor approval. **OFFERED AS NEEDED**

AUTO AUTOMOTIVE TECHNOLOGY

Other Automotive courses listed under Industrial and Manufacturing Technology (IT)

AUTO 101
INTRODUCTION TO AUTOMOTIVE TECHNOLOGY
 (80.00 Lecture/Lab Hrs. Total) **4 Credits**
 Students learn how to operate general shop equipment and tools; identify and respond to safety hazards; gather automotive service information effectively; and perform basic entry level tasks and repairs. **Prerequisite:** IT 140. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

AUTO 108
ENGINE FUNDAMENTALS AND REPAIR
 (80.00 Lecture/Lab Hrs. Total) **4 Credits**
 Students learn the operational theory, types and designs, and internal details of automotive internal combustion engines. Hands-on disassembly, measurement, evaluation, and proper reassembly will be stressed. **Prerequisite:** AUTO 101. **FALL 2012**

AUTO 120
STEERING AND SUSPENSION I
 (80.00 Lecture/Lab Hrs. Total) **4 Credits**
 Students learn the basic components, design, and operation of steering and suspension systems. Tires, wheels, shocks, struts, springs, steering gears and linkages, frame designs, and other components are covered. Many common shop tasks will be utilized and performed. **Prerequisite:** AUTO 101. **WINTER 2012**

AUTO 125
ELECTRICAL/ELECTRONICS I
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Students learn the foundations of automotive electrical/electronic system operation, components, tools, circuit types and theory. Batteries, starting systems, and vehicle electrical base distribution will be emphasized in hands-on tasks and classroom exercises.
Prerequisite: AUTO 101. **WINTER 2012**

AUTO 130
BRAKE SYSTEMS I
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Students learn the design, components, operation, and service of modern automotive brake systems. Common brake shop tasks and service procedures are utilized throughout the course of instruction.
Prerequisite: AUTO 101. **SPRING 2012**

AUTO 135
ELECTRICAL/ELECTRONICS II
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Building on the concepts from Electrical/Electronics I, the student will move into operation and diagnosis of vehicle charging systems, lighting systems, power windows and locks, heated accessories, and HVAC controls. Proper R&R and care of trim is addressed.
Prerequisite: AUTO 125. **SPRING 2012**

AUTO 210
ADVANCED STEERING, SUSPENSION, AND BRAKES
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Building on the fundamentals of Brake Systems I and Steering and Suspension I, students learn diagnosis of steering, suspension, and brake problems, ABS (anti-lock brake) systems and service, and wheel alignment procedures. **Prerequisite:** AUTO 120 and 130.
WINTER 2013

AUTO 215
ELECTRICAL/ELECTRONICS III
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 In the last of the series on Electrical/Electronics, students will learn by applying their diagnostic skills to instrumentation systems, cruise control, SRS/air bag systems, body electrical systems, and engine ignition systems. **Prerequisite:** AUTO 135. **FALL 2012**

AUTO 224
ENGINE PERFORMANCE I
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Students learn the basic functions and operations of electronic fuel control and emissions components and systems. Initial testing and observation of systems operation using scan tools and other diagnostic equipment will be stressed. **Prerequisites:** AUTO 125 and completion of, or concurrent enrollment in, AUTO 229.
WINTER 2013

AUTO 229
ENGINE DIAGNOSIS AND SERVICE
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Students gain competence and demonstrate knowledge of engine problem diagnosis as it relates to lubrication, cooling and internal mechanical systems. Research(service information), testing and problem solving will be stressed. **Prerequisite:** AUTO 108. **FALL 2012**

AUTO 230
AUTOMOTIVE HVAC
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Students learn the basic components, operation, diagnosis, and repair of vehicle A/C-heater (HVAC) systems. Basic A/C theory, as well as refrigerant handling, component replacement, and system diagnosis will be covered. **Prerequisite:** AUTO 125. **SPRING 2013**

AUTO 234
ENGINE PERFORMANCE II
(80.00 Lecture/Lab Hrs. Total) 4 Credits
 Building on the basics from Engine Performance I, students delve deeper into computer controlled fuel and emission systems diagnosis and testing. Extensive testing using scan tools, exhaust analyzer, engine/ignition analyzer and oscilloscope will be performed.
Prerequisite: AUTO 224. **SPRING 2013**

BA BUSINESS

BA 101
INTRODUCTION TO BUSINESS
(4.0 Lecture Hrs./Wk.) 4 Credits
 Students survey our business system, economics, e-commerce, ethical behavior, regulatory laws, stakeholder responsibility, competing in the global economy, forms of ownership, starting and financing a business, human relations in business, roles of management and leadership, organizing and working in teams, human resources, production, marketing, financial management, investment, accounting, and information systems. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BA 131
ACCOUNTING PROCEDURES I
(3.00 Lecture Hrs./Wk.) 3 Credits
 Students prepare to perform simple accounting in service organizations emphasizing the accounting cycle, banking procedures, and payroll accounting. This is the first course of a sequence in which students learn to organize financial information and prepare financial reports. This course emphasizes bookkeeping basics. **FALL 2011, 2012**

BA 132**ACCOUNTING PROCEDURES II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to perform accounting tasks in merchandising organizations including special journals and ledgers; purchases and sales; inventory and prepaid expenses; tangible long-lived assets; and notes receivables. This course emphasizes bookkeeping basics. **Prerequisite:** BA 131 with a "C" grade or better, or instructor approval. **WINTER 2012, 2013**

BA 141**Technician Customer Svc Skills****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students build the knowledge, attitudes, and skills needed for delivering outstanding customer service, employing public relation skills, applying effective listening skills, resolving conflict, and using communication devices. Students identify external and internal customers, learn to handle potentially unproductive interactions, and create positive outcomes for all customers. **Prerequisite:** Placement test score for placement in RD 90, WR 40, and MTH 25. **OFFERED AS NEEDED.**

BA 177**PAYROLL & BUSINESS TAX ACCOUNTING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop the knowledge and skills needed to complete payroll forms and records and to comply with federal and state requirements. **WINTER 2012, 2013**

BA 206**MANAGEMENT FUNDAMENTALS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to the fundamental principles of management as a framework for managerial thinking and operating. A survey of the management functions of planning, organizing, leading, and controlling. A study of organizational interaction and human behavioral conflicts. **Prerequisite:** BA 101 recommended. **FALL 2011, 2012**

BA 211**PRINCIPLES OF ACCOUNTING I****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn to use basic accounting concepts and procedures including the accounting cycle and dealing with cash, receivables, and merchandise inventories. Students will also become familiar with a commonly used computerized accounting program or spreadsheet. This is first course in a year-long sequence intended for students who are planning to transfer to a four-year college. **FALL 2011, 2012**

BA 212**PRINCIPLES OF ACCOUNTING II****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn to use accounting concepts and procedures required to prepare cash flow statements and manage tangible and intangible assets; payroll; partnerships and corporations; long-term investments and liabilities; stocks; and bonds. Students demonstrate knowledge of professional accounting standards. Students will become familiar with a commonly used computerized accounting program or spreadsheet. **Prerequisite:** BA 211 with a "C" grade or better or instructor approval. **WINTER 2012, 2013**

BA 213**PRINCIPLES OF ACCOUNTING III****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate an understanding of the use of internal accounting data to direct the affairs of businesses, i.e., managerial accounting. Students will also become familiar with a commonly used accounting program or spreadsheet. **Prerequisite:** BA 212 with a "C" grade or better or instructor approval. **SPRING 2012, 2013**

BA 214**BUSINESS COMMUNICATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate the ability to prepare memos, letters, and informal reports; conduct research; and prepare analytical business and/or technical reports. **Prerequisite:** COMPASS writing score of 42+ or OA 104; OA 121; and instructor approval. **SPRING 2012, 2013**

BA 218**PERSONAL FINANCE****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students develop personal financial skills to help them make better personal monetary decisions. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BA 223**PRINCIPLES OF MARKETING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the basic issues and practices in marketing management including marketing strategy planning. Students design a marketing mix. **Prerequisite:** BA 101 recommended. **WINTER 2012, 2013**

BA 224**HUMAN RESOURCE MANAGEMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of principles and techniques related to managing human resources emphasizing hiring practices, training and employee development, and personnel management. **Prerequisite:** BA 101 recommended. **SPRING 2012, 2013**

BA 226
INTRODUCTION TO BUSINESS LAW I
 (4.00 Lecture Hrs./Wk.) **4 Credits**
 Students demonstrate a basic knowledge of law and its origins, court systems, legal rights and duties, formation of contracts, operation and discharge of contracts, law of sales of goods, and bailments. **FALL 2011, 2012**

BA 228
COMPUTER ACCOUNTING APPLICATIONS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate the ability to use an integrated accounting program to perform accounting functions and solve problems including general ledger, accounts receivable, accounts payable, and inventory. **Prerequisite:** BA 131 or 211, or instructor approval. **SPRING 2012, 2013**

BA 230
MANAGEMENT INFORMATION SYSTEMS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate an understanding of the systems that exist for business management's use in making intelligent decisions, including computers and alternative paper-oriented systems. Students use an integrated software applications package (data base, spreadsheet, word-processing, graphics, and communication) to develop solutions to problems or case studies from social, business, or other applications. **Prerequisite:** OA 201, CSD 122, and CSL: 107. **SPRING 2012, 2013**

BA 249
RETAILING
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students will study and develop general sales techniques involving the factors of successful selling of retail goods and service including retail buying motives, sales psychology, customer approach, and retail sales. **SPRING 2012, 2013**

BA 250
SMALL BUSINESS MANAGEMENT
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate knowledge of managing the small business enterprise, emphasizing its general functions, procedures, and problems. **Prerequisite:** BA 101 or business experience with instructor approval. **SPRING 2012, 2013**

BA 256
INCOME TAX
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate an understanding of the theory and practice of preparing of federal and state individual income tax returns. **FALL 2011, 2012**

BA 285
HUMAN RELATIONS IN BUSINESS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate an understanding of the communication aspects of interpersonal behavior including perception, power and influence, group dynamics, conflict, and motivation that are essential for success in the workplace and with friends and family. **SPRING 2012, 2013**

BA 295A
ACCOUNTING DIRECTED PROJECT
 (2 Lecture & 6 Lab Hrs./Wk) **4 Credits**
 Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in accounting. Students complete a comprehensive project and make a professional presentation. **Prerequisite:** Completion of all but the last quarter of program course work. **SPRING 2012, 2013**

BA 295M
BUSINESS MANAGEMENT DIRECTED PROJECT
 (2 Lecture & 6 Lab Hrs./Wk) **4 Credits**
 Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in management. Students complete a comprehensive project and make a professional presentation. **Prerequisite:** Completion of all but the last quarter of program course work. **SPRING 2012, 2013**

BI BIOLOGY

BI 101 and BI 101L
GENERAL BIOLOGY - EMPHASIS ON ECOLOGY
 (3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**
 Students investigate a number of significant regional ecosystems, changes that have occurred in these over the past two hundred years, especially human induced changes, and forces driving further potential changes in these systems over the next half century. Students will complete a number of investigations both in and out of lab, and will write several short papers. Biology 101 involves four or five field trips. **Prerequisite:** College level reading. WR 121 and MTH 60 are recommended as Co- or Prerequisites. **Co-requisite:** BI 101 with BI 101L. **FALL 2011, 2012**

BI 102 and BI 102L
GENERAL BIOLOGY - EMPHASIS ON BIOLOGICAL DIVERSITY
 (3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**
 Students use basic scientific methods to analyze cell diversity; cell division and proliferation; behavior of cell types; introductory genetics; nature of evolution, natural selection, and origin of species. Upon completion, students explore and formulate descriptions, predictions, and explanations based on scientific data. This is a survey course for non-major students seeking to fulfill a lab science general education requirement. The BI 101, 102, 103 sequence need not be taken in order. **Prerequisite:** College level reading and MTH 60 or higher. A previous biology class and WR 121 co- or prerequisite are recommended. **Co-requisite:** BI 102 with BI 102L. **WINTER 2012, 2013**

BI 103 and BI 103L**GENERAL BIOLOGY - EMPHASIS ON BEHAVIOR****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students investigate fundamental science processes and life science concepts with a primary focus on vertebrates and behavioral biology to apply basic scientific methods in an evolutionary approach. Topics include exploration of organism interactions, ecology, diversity, evolutionary relationships, and comparisons of biological systems. Students complete a number of inquiry-based investigations to gather and communicate information. Designed for non-major students seeking to fulfill a general science requirement; sequence need not be taken in order. Includes mandatory early morning laboratory field trips. **Prerequisite:** College level reading. WR 121 and MTH 60 or higher are recommended as co or prerequisites. **Co-requisite:** BI 103 with BI 103L. **SPRING 2012, 2013**

BI 112 and BI 112L**CELL BIOLOGY FOR ALLIED HEALTH OCCUPATIONS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the basic concepts of cell biology, cell anatomy and physiology, metabolism, cell reproduction, and inheritance. Students apply science processes to health related problems. Although this course emphasizes allied health applications, it transfers as a general education(AAOT) lab science. BI 112 acts as a prerequisite to BI 231(Anatomy and Physiology) and BI 234(Microbiology). **Prerequisite:** MTH 60 successfully completed and either WR 115 or WR 121 as Co- or Prerequisite. **Co-requisite:** BI 112 with BI 112L. **SUMMER 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BI 143 and BI 143L**MARINE BIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students investigate physical, chemical and biological features of marine environments. Students will examine major groups of marine protists, plants and animals, and interactions within and between these groups. Students will conduct studies of Pacific Northwest intertidal and estuarine ecosystems and will research and report on human impacts on local and worldwide marine ecosystems. **Prerequisite:** WR 121, MTH 60 with a grade C or better, or instructor approval. **Co-requisite:** BI 143 with BI 143L. **SPRING 2012**

BI 211 and BI 211L**PRINCIPLES OF BIOLOGY I****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students learn fundamental science processes and major concepts of contemporary biology. The course serves largely as a platform for students majoring in life science, natural resources studies or pre-professional programs such as pre-medicine, pre-veterinary, physical therapy, etc. It also meets science general education requirements at most upper level colleges and universities. Students develop skills basic to science investigation, abilities using standard lab equipment, concepts essential for an understanding of modern biology, and an

awareness of roles and relationships between science and the rest of society. BI 211 emphasizes an inquiry into fundamental properties of life, cell structure and function, biological energy transformations, and cell life cycles. Students explore prokaryotic and fungal diversity.

Prerequisite: High school biology and chemistry or instructor approval. MTH 95 or equivalent. **Co-requisite:** BI 211 with BI 211L.

FALL 2011, 2012**BI 212 and BI 212L****PRINCIPLES OF BIOLOGY II****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students continue to learn fundamental science processes and major concepts of contemporary biology. Like other courses in the sequence, the course serves largely as a platform for students majoring in life science, natural resources studies or pre-professional programs such as pre-medicine, pre-veterinary, physical therapy, etc. It also meets science general education requirements at most upper level colleges and universities. Students develop skills basic to science investigation, abilities using standard lab equipment, concepts essential for an understanding of modern biology, and an awareness of roles and relationships between science and the rest of society. Course content focuses on genetics, evolution, and chordate phylogeny and diversity. **Prerequisite:** BI 211 and 211L or instructor approval. **Co-requisite:** BI 212 with BI 212L. **WINTER 2012, 2013**

BI 213 and BI 213L**PRINCIPLES OF BIOLOGY III****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students continue to learn fundamental science processes and major concepts of contemporary biology. The course serves largely as a platform for students majoring in life science, natural resources studies or pre-professional programs such as pre-medicine, pre-veterinary, physical therapy, etc. It also meets science general education requirements at most upper level colleges and universities. This course helps students develop skills basic to science investigation, abilities using standard lab equipment, concepts essential for an understanding of modern biology, and an awareness of roles and relationships between science and the rest of society. BI 213 emphasizes an inquiry into plant and animal form and function, plant diversity and principles of ecology. **Prerequisite:** BI 212 and 212L or instructor approval. **Co-requisite:** BI 213 with BI 213L. **SPRING 2012, 2013**

BI 222**HUMAN GENETICS****(3.00 Lecture, Hrs./Wk.)****3 Credits**

Students will investigate principles and patterns of Mendelian inheritance, population genetics and molecular genetics while focusing on human heredity. Upon completion, students think critically and logically to evaluate and analyze relationships associated with emerging genetic technologies. **Prerequisite:** A previous biology class and MTH 60 or instructor approval. **WINTER 2012**

BI 231 and BI 231L**HUMAN ANATOMY AND PHYSIOLOGY I****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students master knowledge and concepts in the organization of the human body, homeostasis, cells and tissues, the skeletal and muscular systems, and the special senses. Laboratory investigation and discovery are used for both application and problem solving case studies relating organ systems to clinical considerations. The year-long sequence provides students with the knowledge of the form and function of the dynamic human body which is required for health service occupations and further study in the biological sciences. **Prerequisite:** GS 112, BI 112, BI 211, or a year of high school Biology. **Co-requisite:** BI 231 with BI 231L. **FALL 2011, 2012**

BI 232 and BI 232L**HUMAN ANATOMY AND PHYSIOLOGY II****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the form and function of the dynamic human body which is required for health service occupations and further study in the biological sciences. Students master knowledge and concepts of the nervous system, the endocrine system, and the cardiovascular system, including body fluids. Laboratory investigations will use hands on activities, examine scientific reasoning, evaluate models, and develop clinical skills. **Prerequisite:** BI 231 and 231L. **Co-requisite:** BI 232 with BI 232L. **WINTER 2012, 2013**

BI 233 and BI 233L**HUMAN ANATOMY AND PHYSIOLOGY III****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the form and function of the dynamic human body which is required for health service occupations and further study in the biological sciences. Students master knowledge and concepts concerning the immune system, respiratory system, the gastrointestinal system, the renal system, heredity, development, and reproduction. Inquiry based methods are used during laboratory investigations to teach students to use evidence to synthesize concepts related to physiology. **Prerequisite:** BI 232 and 232L. **Co-requisite:** BI 233 with BI 233L. **SPRING 2012, 2013**

BI 234 and BI 234L**INTRODUCTION TO MICROBIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students are introduced to basic microbiology principles. Students investigate microbial morphologic characteristics, growth and inhibition of microbes, distinguish differences between bacteria types, learn general immunology, and investigate common diseases. Students develop practical laboratory skills in aseptic technique, staining, lab safety, scientific processes and maintenance of a lab notebook. **Prerequisite:** GS 112, BI 112, BI 211, or a year of high school Biology. **Co-requisite:** BI 234 with BI 234L. **FALL 2011, 2012; SPRING 2012, 2013**

BLD BUILDING CONSTRUCTION**BLD 101****TOOL SAFETY FOR HISTORIC PRESERVATION****(1.0 Lecture Hr./Wk.)****1 Credit**

Introduction to issues of historic preservation. Students gain an overview of the field including terminology, standards, history, theory, resources and technologies. **FALL 2012**

BLD 103**RESIDENTIAL MATERIALS AND METHODS****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students learn the function and performance characteristics of basic building materials, components, methods, and sequences in the construction process. Emphasizes residential construction. **WINTER 2013**

BLD 104**CONSTRUCTION MATH****(2.0 Lecture Hrs./Wk.)****2 Credits**

Students solve practical problems involving fractions, decimals, percentages, linear measurement, area measurement, volumetric measurement, unit conversions, geometry and trigonometry as used in the building trades. They apply mathematical techniques to estimate building materials and costs. **FALL 2012**

BLD 110**CONSTRUCTION SAFETY FOR HISTORIC PRESERVATION****(10.0 Lecture and 8 Lecture/Lab Hrs. Total)****1 Credit**

Students learn safe work practices for historic preservation and construction. **FALL 2011, 2012**

BLD 111**TOOL SAFETY FOR HISTORIC PRESERVATION****(10.0 Lecture and 8 Lecture/Lab Hrs. Total)****1 Credit**

Students learn to safely use and maintain hand and power tools for historic preservation and construction. **FALL 2011, 2012**

BLD 120**CONSTRUCTION SKILLS: SITEWORK****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of sitework. Specific projects determined by instructor and student interest. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 121**CONSTRUCTION SKILLS: FOUNDATION SYSTEMS****(12 Lecture Hrs. Total.)****1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of construction for foundation systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 122
CONSTRUCTION SKILLS: FLOOR SYSTEMS
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for floor systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 123
CONSTRUCTION SKILLS: WALL SYSTEMS
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for wall systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 124
CONSTRUCTION SKILLS: ROOF SYSTEMS
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for roof systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 125
CONSTRUCTION SKILLS: MOISTURE AND THERMAL PROTECTION
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for moisture and thermal protection. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 126
CONSTRUCTION SKILLS: DOORS AND WINDOWS
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for doors and windows. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 127
CONSTRUCTION SKILLS: STAIRS
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for stairs. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 128
CONSTRUCTION SKILLS: FINISH WORK
 (12 Lecture Hrs. Total.) **1 Credit**
 Students gain knowledge and practical hands-on experience in materials and methods of construction for finish work. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 129
BUILDING ANALYSIS AND DOCUMENTATION
 (12.0 Lecture Hrs. Total) **1 Credit**
 Students gain knowledge and practical hands-on experience in analysis and documentation of existing building conditions. Assessment of materials, components and systems will be done to determine qualities and deterioration and an assessment report will be written. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 131
MATERIALS: CONCRETE
 (12.0 Lecture Hrs. Total) **1 Credit**
 Students gain knowledge and practical hands-on experience in applications and properties of concrete in construction. Students will work on a project using concrete as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 132
MATERIALS: MASONRY
 (12.0 Lecture Hrs. Total) **1 Credit**
 Students gain knowledge and practical hands-on experience in applications and properties of masonry in construction. Students will work on a project using masonry as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 133
MATERIALS: PLASTER
 (12.0 Lecture Hrs. Total) **1 Credit**
 Students gain knowledge and practical hands-on experience in applications and properties of plaster in construction. Students will work on a project using plaster as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 134**MATERIALS: WOOD****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of wood in construction. Students will work on a project using wood as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 135**MATERIALS: METAL****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of metal in construction. Students will work on a project using metal as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 136**MATERIALS: GLASS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of glass in construction. Students will work on a project using glass as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 137**MATERIALS: FINISHES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of finishes in construction. Students will work on a project using finishes as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 138**MATERIALS: ADHESIVES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of adhesives in construction. Students will work on a project using adhesives as a building material. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 139**MATERIALS ANALYSIS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in analysis of construction materials. Students will work on an advanced project involving research, testing and analysis of selected materials. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 140**PRINT READING FOR CONSTRUCTION****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students learn and apply the principles of reading and interpreting construction prints. They learn the purpose of different types of drawings, the types of projections, applications of math, and the use of conventions, scales, symbols, notes, schedules and dimensions in construction drawings. **FALL 2012**

BLD 151**BUILDING CODES I – INTRODUCTION TO RESIDENTIAL CODES****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to the International and Oregon Residential Codes for One and Two-Family Dwellings. They apply the codes to buildings and occupants, and learn the role and influence of codes in design and construction is examined. Topics include: general types of construction; special design for wind forces, flood, seismic events and fire safety; egress and accessibility; energy efficiency; structures and materials. **SPRING 2013**

BLD 206**SUSTAINABLE BUILDING****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to the theory and practice of sustainable building for new construction and remodeling of historic buildings. **FALL 2011**

BLD 207**PROJECT MANAGEMENT****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to construction project management, including overview of the design and construction process, construction planning, coordinating construction projects, cost estimating, labor, material and equipment utilization, negotiating, team work, communication, leadership and ethics. **WINTER 2012**

BLD 210**HISTORIC PRESERVATION I****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students survey the history and theory of historic preservation. Students gain knowledge to apply historic preservation methods to renovation and restoration construction projects. **FALL 2011**

BLD 211**HISTORIC PRESERVATION II****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students study the methodologies for researching and documenting historic buildings. Students complete an historic building analysis and restoration plan for a regional building. **Prerequisite:** BLD 210. **WINTER 2012**

BLD 220

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
SITEWORK****(12.0 Lecture Hrs. Total) 1 Credit**

Students gain knowledge and practical hands-on experience in historic site analysis and work. Specific projects determined by instructor and student interest. **Prerequisites:** BLD 110 and BLD 111.

FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013

BLD 221

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
FOUNDATION SYSTEMS****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for foundation systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 222

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
FLOOR SYSTEMS****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for floor systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 223

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
WALL SYSTEMS****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for wall systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 224

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
ROOF SYSTEMS****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for roof systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111, IT 140, IT 141 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 225

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
MOISTURE & THERMAL PROTECTION****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for moisture and thermal protection. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 226

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
DOORS AND WINDOWS****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for doors and windows. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 227

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
STAIRS****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for stairs. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 228

**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:
FINISH WORK****(12 Lecture Hrs. Total.) 1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for finish work. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 229

BUILDING ANALYSIS AND DOCUMENTATION**(12.0 Lecture Hrs. Total) 1 Credit**

Students gain knowledge and practical hands-on experience in analysis and documentation of existing building conditions. Assessment of materials, components and systems will be done to determine qualities and deterioration and an historic building assessment report will be written. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 231**MATERIALS: CONCRETE****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of concrete in historic buildings. Students will study the historic use and performance of concrete, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 232**MATERIALS: MASONRY****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of masonry in historic buildings. Students will study the historic use and performance of masonry, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 233**MATERIALS: PLASTER****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of plaster in historic buildings. Students will study the historic use and performance of plaster, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 234**MATERIALS: WOOD****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of wood in historic buildings. Students will study the historic use and performance of wood, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 235**MATERIALS: METAL****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of metal in historic buildings. Students will study the historic use and performance of metal, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 236**MATERIALS: GLASS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of glass in historic buildings. Students will study the historic use and performance of glass, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 237**MATERIALS: FINISHES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of finishes in historic buildings. Students will study the historic use and performance of finishes, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 238**MATERIALS: ADHESIVES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of adhesives in historic buildings. Students will study the historic use and performance of adhesives, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 239**MATERIALS ANALYSIS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in analysis of historic construction materials. Students will work on an advanced project involving research, testing and analysis of selected materials. **Prerequisites:** BLD 110 and BLD 111. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

BLD 295**HISTORIC PRESERVATION & RESTORATION DIRECTED PROJECT****(2.0 Lecture, 4.0 Lecture/Lab Hrs./Wk.)****4 Credits**

Students synthesize knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of interest. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Historic Preservation and Restoration program. **Prerequisite:** Completion of all but the last quarter of program course work. **SPRING 2012, 2013**

BOT BOTANY

BOT 101

BOTANY

(3.00 Lecture, 3.00 Lab Hrs./Wk.)

4 Credits

Students will investigate life processes within plants and their relationship to plant form and anatomy. Students will also explore plant/people relations, ecology, genetics, diversity and evolutionary relationships among plants. **Prerequisite:** WR 121 or instructor approval. **SPRING 2012, 2013**

CH CHEMISTRY

CH 104 and CH 104L

INTRODUCTORY CHEMISTRY I

(3.00 Lecture, 2.00 Lecture/Lab, & 1.00 Lab Hrs./Wk.) 4 Credits

Students learn basic chemical and physical principles by exploring introductory chemistry topics such as of elements, compounds, chemical reactions, solutions, acids, and bases in this general education course. Students investigate how chemistry is relevant to societal issues or technological advancements. **Note:** This course is designed for students with no prior chemistry course work and emphasizes applications to nursing and related areas. The two-quarter series is good preparation for CH 221 General Chemistry. **Prerequisite:** Mastery of basic arithmetic, percentages, ratios and proportions, and conversions (equivalent to a "C" grade in MTH 70). **Co-requisite:** CH 104 with CH 104L. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013**

CH 105 and CH 105L

INTRODUCTORY CHEMISTRY II

(3.00 Lecture, 2.00 Lecture/Lab, & 1.00 Lab Hrs./Wk.) 4 Credits

Building upon knowledge mastered in Chemistry 104, students investigate the chemical concepts of atomic theory, nomenclature, bonding, gases, liquids, solids, and radioactivity. Students will apply the methods of science through experiments and learn to communicate scientific and quantitative information. This is the second term of a two-quarter introductory general chemistry series. **Prerequisite:** CH 104 and 104L or equivalent with a "C" grade or better. **Co-requisite:** CH 105 with CH 105L. **WINTER 2012, 2013; SPRING 2012, 2013**

CH 120 and CH 120L

CHEMISTRY IN ART

(3.00 Lecture, 3.00 Lab Hrs./Wk.)

4 Credits

This is a BEGINNING course in chemistry. No previous knowledge of chemistry is necessary to take this course. Topics will include atoms, molecules, elements, compounds, the periodic table, chemical bonding and reactions, acids and bases, oxidation and reduction, and polymers. However, all of these concepts will be described as we explore the chemistry of art media — media such as paints, dyes, metals, alloys, ceramics, glass, plastics, paper, fibers, and photographic materials. **Prerequisite:** Complete MTH 60 with a grade of "C" or better. **Co-requisite:** CH 120 with CH 120L. **SPRING 2012, 2013**

CH 106 and CH 106L

INTRODUCTORY CHEMISTRY - BIOCHEMISTRY

(3.00 Lecture, 2.00 Lecture/Lab, & 1.00 Lab Hrs./Wk.) 4 Credits

Students master basic knowledge of the fundamental principles of biochemistry including organic chemistry and three classes of biomolecules: carbohydrates, lipids (fats and oils), and proteins. This course is designed to introduce students to the molecular design of life. **Prerequisite:** CH 104 and 104L and 105 and 105L or equivalent with a grade of "C" or better. **Co-requisite:** CH 106 with CH 106L. **SPRING 2012, 2013**

CH 221 and CH 221L

GENERAL CHEMISTRY I

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students understand and apply the principles that govern the behavior of matter as a foundation for further college study in the sciences and engineering. Students will learn and demonstrate both qualitative and quantitative understanding of stoichiometry, periodicity, atomic and molecular structure, formulas and equations, chemical bonding, thermodynamics, and chemical reactions. Data acquisition and handling by computers is stressed. Service course covering the principles of chemistry for the student who already has a good knowledge of high school chemistry. Must be taken in sequence. **Prerequisite:** Two years high school algebra or equivalent (MTH 95) and mastery of the principles of high school chemistry or completion of CH 105 and 105L, and instructor approval. **Co-requisite:** CH 221 with CH 221L. **FALL 2011, 2012**

CH 222 and CH 222L

GENERAL CHEMISTRY II

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students further understand and apply the principles that govern the behavior of matter as a foundation for further college study in the sciences and engineering. Students will learn and demonstrate both qualitative and quantitative understanding of gases, acids and bases, kinetic molecular theory, equilibrium, and solubility. Data acquisition and handling by computers is stressed. Service course covering the principles of chemistry for the student who already has a good knowledge of high school chemistry. Must be taken in sequence. **Prerequisite:** CH 221 and 221L with a "C" grade or better and instructor approval. **Co-requisite:** CH 222 with CH 222L. **WINTER 2012, 2013**

CH 223 and CH 223L

GENERAL CHEMISTRY III

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students further understand and apply the principles that govern the behavior of matter as a foundation for further college study in the sciences and engineering. Students will learn and demonstrate both qualitative and quantitative understanding of thermodynamics, nuclear reactions, electrochemistry, organic chemistry (an introduction), environmental chemistry, and chemistry of volcanoes. Data acquisition and handling by computers is stressed. Service course covering the principles of chemistry for the student who already has a good knowledge of high school chemistry. **Prerequisite:** CH 222 and 222L with a "C" grade or better and instructor approval. **Co-requisite:** CH 223 with CH 223L. **SPRING 2012, 2013**

CWE COOPERATIVE WORK EXPERIENCE**COOPERATIVE WORK EXPERIENCE**

The Cooperative Work Experience program allows students to earn college credit for working in the community in an area related to the student's academic goals. Contact the Director of Cooperative Work Experience at (503) 338-2480 for the appropriate CWE class, seminar and registration information. All work experience students are required to take a one(1) credit work experience seminar with their first work experience.

CWE 180**COOPERATIVE WORK EXPERIENCE (CAREER DEVELOPMENT)****1-11 Credits**

Students work in the community in a position that allows them to gain pertinent skills and exposure relevant to their academic goals. Prior to the beginning of the work experience, students create individual learning objectives in cooperation with an identified Worksite Supervisor. Student learning objectives are reviewed and approved by the student's Academic Advisor. The learning objectives guide student learning during the term. Student progress is monitored by Cooperative Work Experience staff. Students participate in regular monitoring meetings. Students submit required paperwork and are evaluated by their Worksite Supervisor. Students demonstrate skill mastery as the work experience progresses. **Prerequisite:** Students must be enrolled in either the AGS degree program or in courses leading to a 4-year degree. **Co-requisites:** Concurrent enrollment in or completion of a Cooperative Work Experience seminar. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

CWE 280**COOPERATIVE WORK EXPERIENCE****1-11 Credits**

Students work in the community in positions which allow them to demonstrate the skills they have gained during their academic training. Prior to beginning the work experience, students create individual learning objectives in cooperation with an identified Worksite Supervisor. Student learning objectives are reviewed and approved by the student's Faculty Advisor and/or Program Supervisor. Student learning objectives are consistent with program outcomes and guide student learning during the term. Student learning is monitored by Cooperative Work Experience staff. Students participate in regular monitoring meetings. Students submit required paperwork, and are evaluated by their Worksite Supervisor. Students assume greater responsibility on the job as the work experience progresses. **Prerequisite:** None, however, students must have adequate academic training to be successful in an entry-level position. Registration requires the signature of a Cooperative Work Experience staff member. **Co-requisite:** concurrent enrollment in or completion of a cooperative work experience seminar. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

CWE 281**COOPERATIVE WORK EXPERIENCE SEMINAR****(1.00 Lecture Hr./Wk.)****1 Credit**

Students enrolling in Cooperative Work Experience will participate in this seminar to discuss and develop an understanding of appropriate and effective work practices. **Co-requisite:** placement in an appropriate cooperative work experience job and instructor approval. **OFFERED AS NEEDED**

CJ CRIMINAL JUSTICE

Note: All Criminal Justice courses must be completed with a C grade or higher.

CJ 107**CRIMINAL JUSTICE WORKSHOP****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students look critically at various controversial ideas, issues and recent events pertaining to the criminal justice system. Students will also examine issues rooted in gender, race, ethnicity, sexual preference and other protected classes. **WINTER 2012, 2013**

CJ 110**INTRODUCTION TO LAW ENFORCEMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study law enforcement in the United States, including: its historical development; police practices, policies and procedures; the roles and responsibilities of the American law enforcement officer; issues pertaining to recruitment, training and retention of officers; physical, emotional and psychological demands of the profession on its employees; ethics; and the influence of diverse populations on police personnel practices and on policies and procedures governing day to day police operations. **WINTER 2012, 2013**

CJ 111**INTRO TO CRIMINAL JUSTICE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop a fundamental understanding of the criminal justice system, the problem of crime, the theories of crime causation, society's response to criminals, and the key legal principles that form the foundation of the criminal justice system. **FALL 2011, 2012**

CJ 114**GENDER, RACE, CLASS AND CRIME****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the impact of cultural diversity on the American criminal justice system, including the historical treatment of minorities; cross-cultural communication between criminal justice personnel and diverse populations; criminal patterns and trends; and cultural diversification of the criminal justice personnel, including recruitment and hiring of minority populations. **FALL 2012**

CJ 120
INTRODUCTION TO THE JUDICIAL PROCESS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students study the American judicial system, including the processing of cases from arrest or filing to appeal stages; the similarities and differences between the federal and various state systems; the duties, functions and interaction of the system's personnel; issues related to taking the case from investigation to conviction; and the impact and influence of diverse populations on the policies, procedures and operations of American courts. **SPRING 2012, 2013**

CJ 121
CONCEPTS OF CRIMINAL LAW
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students study substantive criminal law for criminal justice professionals, including the basic elements of a crime; the legal definitions of various crimes; criminal liability and culpability; and, recognized legal defenses to a crime. **SPRING 2012, 2013**

CJ 130
INTRODUCTION TO CORRECTIONS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students study the American correctional system, including its historical development; correctional ideologies; state and federal custodial and community-based programs; the impact of confinement; inmate rights; and, the impact of the correctional profession on correctional personnel. **FALL 2011, 2012**

CJ 138
UNDERSTANDING TERRORISM
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students examine major international and domestic terrorist groups from an historical and modern day perspective to acquire fundamental knowledge concerning each group's ideology, motivational factors, targets and operations and the response of the criminal justice community. **WINTER 2013**

CJ 203
CRISIS INTERVENTION
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students identify crisis intervention techniques for criminal justice personnel focusing on an understanding of the immediate needs of a person in crisis and on crisis intervention techniques in various situations, including domestic violence, suicide, sexual assault; and on the impact of intervention on the criminal justice intervenor. **FALL 2011, 2012**

CJ 205
FEMALE OFFENDERS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students develop an understanding of the nature and extent of female criminal activity, the major criminal theories pertaining to causation issues, the special issues faced by the criminal justice system in dealing with female offenders, and current trends in the intervention, treatment, rehabilitation and punishment of female offenders. **SPRING 2012**

CJ 210
CRIMINAL INVESTIGATION
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students study the history, theory and principles of criminal investigation, including strategies and procedures; the use of forensic techniques in evidence collection, preservation and analysis; crime lab operations, techniques, capabilities and limitations. **Prerequisite:** CJ 111. **WINTER 2012, 2013**

CJ 212
REPORT WRITING IN CRIMINAL JUSTICE
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students develop skills essential to being able to write factual reports based on observation and/or hearsay in a clear, concise, accurate and grammatically correct manner. **Prerequisite:** WR 121. **FALL 2011, 2012**

CJ 215
ISSUES IN CRIMINAL JUSTICE SUPERVISION AND ADMINISTRATION
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students demonstrate knowledge of the history, structure, and current issues in criminal justice that deal with supervision and management. **FALL 2011, WINTER 2012**

CJ 218
INTERVIEW AND INTERROGATION TECHNIQUES
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students gain an understanding of the differences between interviewing and interrogation and their applicability in criminal justice settings; will learn basic techniques used when gathering information from victims, witnesses, suspects or other interested parties; and will be familiar with the role deception plays in the information gathering process. **Prerequisite:** CJ 210. **SPRING 2012, 2013**

CJ 219
INTRODUCTION TO COMMUNITY POLICING
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students explore how the police and citizens can work together to solve community problems. Topics include the history, current programs and future trends in community policing. **OFFERED AS NEEDED**

CJ 225
CORRECTIONS LAW
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students study how law affects the corrections environment through an examination of the legal rights and responsibilities of inmates, officers and prison administration and how law impacts the operations of correctional facilities. **WINTER 2012**

CJ 230**INTRO TO JUVENILE CORRECTIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the juvenile correctional system in the United States, including the philosophy behind the juvenile court and various custodial and community-based correctional and treatment programs. **FALL 2011**

CJ 231**JUVENILE LAW****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will study the historical development of juvenile criminal rights, including key U.S. Supreme Court decisions, and their impact on the interaction between Criminal Justice personnel and juveniles in America. **SPRING 2012**

CJ 232**INTRODUCTION TO CORRECTIONS CASEWORK****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study criminal justice counseling and interviewing techniques, including the role of the counselor; the counseling process; criminal personalities and behaviors; various treatment modalities; and ethical and legal issues that criminal justice counselors face. **OFFERED AS NEEDED**

CJ 243**ALCOHOL AND OTHER DANGEROUS DRUGS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study drug and alcohol use and abuse, including an historical look at drug and alcohol use and abuse; the attempts to regulate and control the substances; symptoms of use and abuse; the prejudicial and discriminatory intent and underpinnings of drug regulation in America; and the impact of alcohol and dangerous drugs on the American criminal justice system. **FALL 2011, 2012**

CPL**CREDIT FOR PRIOR LEARNING****CPL 120****CREDIT FOR PRIOR LEARNING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to request college credit for learning acquired through work experience, volunteer work, industry training, etc. Each student develops a portfolio correlating non-academic learning experiences with related courses at Clatsop Community College. Typically, students gain new insights into past achievement and future goals. **Note:** A maximum of 22 portfolio credits and 6 credits of CPL 120 may be applied to an associate degree. **OFFERED AS NEEDED**

CS**COMPUTER SCIENCE****CS 101****FUNDAMENTALS OF COMPUTING****(1.00 Lecture Hr./Wk.)****1 Credit**

Students study contemporary computer terminology; learn about the Internet; are introduced to operating system software; learn about application software; learn file management; learn how to log into a network and use the college email system. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

CS 125H**BEGINNING WEBSITE DESIGN AND DEVELOPMENT****(2.00 Lecture and 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students create World Wide Web sites using Hypertext Markup Language(HTML) and website design tools. Students examine the principles and elements of effective web design. **FALL 2011, 2012**

CS 131**INTRODUCTION TO COMPUTER INFORMATION SYSTEMS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn and apply theory, elements, and structures of microcomputer systems(including hardware and software) to develop computer literacy. This class also provides hands-on experience using computer applications in preparation for more advanced classes. **Prerequisite:** CS 101 or OA 120 recommended for students with little or no computer experience. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

CS 135H**ADVANCED WEBSITE DESIGN AND DEVELOPMENT****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students create interactive World Wide Web sites using scripting and Dynamic XHTML. Students examine the principles and elements of effective web design. This is the second course in Web design and development. **Prerequisite:** CS 125H or instructor approval. **OFFERED AS NEEDED**

CS 135W**WEBSITE MANAGEMENT****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students explore the issues and techniques of managing websites. Topics include setting up websites, file maintenance and management, controlling access, security, testing, server side technologies, managing dynamic web applications, task management, and interacting with clients. **Prerequisite:** CS 125H or instructor approval. **OFFERED AS NEEDED**

CS 160**INTRODUCTION TO COMPUTER PROGRAMMING****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the discipline of computer programming for both computer science and non-computer science majors. Topics include problem solving, computer logic, data representation, algorithms, features of structured programming and issues in software development. Students study how computers use software to perform useful tasks, how such software is constructed and how to build Graphic User Interfaces(GUIs) for data input and display. **FALL 2011, 2012**

CSD 122**BEGINNING DATABASE PROGRAM DEVELOPMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students become familiar with the capabilities of standard database management systems including concepts, design elements, and structure. They learn how to store, access, sort, query, create reports and forms, and make additions, deletions, and changes to that database. **Prerequisite:** None. Basic keyboarding skills and computer literacy recommended. **WINTER 2012, 2013**

CSD 275**ADVANCED DATABASE PROGRAM DEVELOPMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students build on techniques learned in CSD 122 to create a database system and utilize its special features to create interfaces and enhancements. **Prerequisite:** CSD 122. **SPRING 2012, 2013**

CSL 107**SPREADSHEETS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain an understanding of worksheet design, formulas, charting, what-if analysis, linking and consolidating worksheets through hands-on exercises. **Prerequisite:** None. Basic keyboarding skills and computer literacy recommended. **WINTER 2012, 2013**

DCO DEVELOPMENTAL COMMUNICATIONS**DCO 10****ABE-READING/WRITING****(20.00 Lecture/Lab Hrs./Cr.)****1-6 Credits**

Through individualized course work and group activities, students develop the reading and writing skills necessary in college preparation courses and the workforce. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

DESL DEVELOPMENTAL ENGLISH**DESL 01****ENGLISH FOR SPEAKERS OF OTHER LANGUAGES****(20.00 Lecture/Lab Hrs./Cr.)****1-10 Credits**

Students improve their skills in speaking, reading, and writing English necessary for success in daily life and the workforce. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

DESL 03**ENGLISH FOR SPEAKERS OF OTHER LANGUAGES-INTENSIVE****(20.00 Lecture/Lab Hrs./Cr.)****4-7 Credits**

Students improve their skills in speaking, reading, and writing English necessary for success in daily life and the workforce.

OFFERED AS NEEDED**DESL 07****ENGLISH FOR SPEAKERS OF OTHER LANGUAGES - ADVANCED****(3.00 Lecture Hrs./Wk.)****3 Credits**

Through advanced studies, students will develop their skills in speaking, reading and writing English in preparation for college courses or vocational training. **OFFERED AS NEEDED**

DGED DEVELOPMENTAL GED PREPARATION**DGED 48****PRE-GED PREPARATION****(20.00 Lecture/Lab Hrs./Cr.)****1-6 Credits**

Students improve their skills in reading writing and math in preparation for taking the GED test. **Prerequisite:** DMTH 07 and/or DCO 10 or CASAS score of 215-235 or instructor approval.

SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**DGED 49****GED PREPARATION****(20.00 Lecture/Lab Hrs./Cr.)****1-6 Credits**

Students improve their knowledge of social studies, writing, literature, science, and mathematics. **Prerequisite:** DGED48 or CASAS score of 236-242(Math/Reading) or score of 4 or 5 on writing test or instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

DMTH DEVELOPMENTAL MATH**DMTH 07****ABE - MATHEMATICS****(20.00 Lecture/Lab Hrs./Cr.)****1-6 Credits**

Students develop skills in whole number mathematics, including adding, subtracting, multiplying, dividing, rounding, estimating and problem solving. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

DRF DRAFTING**DRF 139
TECHNICAL PRINT INTERPRETATION**
(3.00 Lecture Hrs./Wk.)**3 Credits**

Students learn and apply the principles of reading and interpreting technical prints. They learn the purpose of different types of drawings in a variety of disciplines, the types of projections, and the use of conventions, scale, symbols, notes and dimensions in planning, construction and assembly. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

**DRF 150
CONSTRUCTION DRAWING**
(3.00 Lecture Hrs./Wk.)**3 Credits**

Students are introduced to tools and techniques of sketching and drafting for architecture. Students develop skills to communicate designs for construction and renovation projects including scaling, projection types, plans, elevations, sections, pictorial drawings and drawing conventions. Traditional and computer aided drafting techniques are introduced. **WINTER 2013**

**DRF 213
COMPUTER AIDED DESIGN I**
(3.00 Lecture, 3.00 Lab Hrs./Wk.)**4 Credits**

Students are introduced to computer aided design/drafting(CAD) as an integrated system to represent and communicate designs. Students gain and apply fundamental knowledge of CAD concepts and techniques. They use CAD systems to create, modify and display drawings and create design documents. Students work individually and collaboratively to analyze and solve design problems. **FALL 2011, 2012**

**DRF 214
COMPUTER AIDED DESIGN II**
(3.00 Lecture, 3.00 Lab Hrs./Wk.)**4 Credits**

Students gain and apply knowledge of advanced CAD concepts and techniques. They use CAD systems to develop multi-view, sectional, detail and isometric drawings and demonstrate the use of drawing conventions including dimensioning, hatching, symbols and layouts. Students work individually and collaboratively to analyze and solve design problems. **Prerequisite:** DRF 213 or instructor approval. **WINTER 2012, 2013**

**DRF 215
COMPUTER AIDED DESIGN III**
(3.00 Lecture, 3.00 Lab Hrs./Wk.)**4 Credits**

Students gain and apply knowledge of three dimensional CAD concepts and techniques. They use CAD systems to create, manipulate and view surface and solid models, renderings and presentation documents. Students work individually and collaboratively to analyze and solve design problems. **Prerequisite:** DRF 214 or instructor approval. **SPRING 2012, 2013**

**DRF 217
AUTOCAD - UPGRADE**
(16 Lecture Hours Total)**1 Credit**

Students develop skills in using new and modified tools and features to get the most out of recent system enhancements. This course is for individuals who are skilled in using AutoCAD and need to upgrade to the latest release. **Prerequisite:** Experienced AutoCAD user. **OFFERED AS NEEDED**

**DRF 295
CADD DIRECTED PROJECT**
(2.00 Lecture, 6.00 Lab Hrs/Wk.)**4 Credits**

Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of specialization. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Computer Aided Design and Drafting program. **Prerequisite:** Completion of all but the last quarter of program course work. **SPRING 2012, 2013**

DWR DEVELOPMENTAL WRITING**DWR 31
PARAGRAPH WRITING**
(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)**3 Credits**

Students develop skill in writing short, well-developed and well-edited paragraphs. **Prerequisite:** DCO 22, COMPASS score 24-41, and writing sample. Concurrent enrollment in HD 50 recommended. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

EC ECONOMICS**EC 201
PRINCIPLES OF MICRO ECONOMICS**
(4.00 Lecture Hrs./Wk.)**4 Credits**

Students study the behavior of individuals and individual firms within different market structures using micro-economic theory. Students apply the concepts of competition, consumer decisions, the use price of economic resources, and international trade in their social context. Students understand the diversity of economic systems. **WINTER 2012, 2013**

**EC 202
PRINCIPLES OF MACRO ECONOMICS**
(4.00 Lecture Hrs./Wk.)**4 Credits**

Students survey economic theory, policy, and institutions. They focus on macro-economic theory, scarcity, production, money, unemployment, inflation, and international finance. Students apply analytical skills to social phenomena in order to understand economic behavior **SPRING 2012, 2013**

ECE EARLY CHILDHOOD EDUCATION**ECE 110****PLANNING THE ECE ENVIRONMENT****(3.00 Lecture Hrs./Week)****3 Credits**

Students learn developmentally appropriate equipment, materials, and practices for the indoor and outdoor learning environments. Methods and procedures for implementing curriculum, guidance and discipline, and evaluation are taught. **WINTER 2012, 2103**

ECE 111**FUNDAMENTALS OF EARLY CHILDHOOD EDUCATION****(3.00 Lecture Hrs./Week)****3 Credits**

Students are introduced to the history of and the role of state and federal government in education. Students learn about the importance of professionalism and ethics for ECE instructors. Students will create a professional portfolio. The course includes one credit of practicum experience. **FALL 2011, 2012**

ECE 120**ECE CORE CURRICULUM PLANNING****(3.00 Lecture Hrs./Week)****3 Credits**

Students develop an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of language arts ; geography math and science activities, utilizing problem solving strategies and art activities for young children. Students will be able to identify and support learning for English Language learners. **SPRING 2012, 2013**

ECE 130**NUTRITION, HEALTH AND SAFETY OF YOUNG CHILDREN****(3.00 Lecture Hrs./Week)****3 Credits**

Students develop knowledge of children's nutritional needs, health and safety routines, and how to prevent the spread of communicable diseases, and develop appropriate activities for the preschool environment. Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of activities that promote physical development in young children. Students will demonstrate knowledge of the identification, the prevention and control, the follow-up, and the state immunization law concerning communicable diseases commonly found in early childhood settings. **FALL 2011, 2012**

ECE 140**NUTRITION, HEALTH AND SAFETY OF YOUNG CHILDREN****(3.00 Lecture Hrs./Week)****3 Credits**

Students develop knowledge of the fundamentals of infant and toddler development, both in theory and practical application, with an emphasis on meeting physical, social, emotional, and cognitive needs of young children. Students will learn scheduling and preparation of age-appropriate activities and how to form strong partnerships between child care providers and parents. Course will require some observation of young children in a child care setting. **FALL 2011, 2012**

ECE 150**LEGAL ISSUES IN EARLY CHILDHOOD EDUCATION****(3.00 Lecture Hrs./Week)****3 Credits**

Students are prepared to develop a facility and program complying with state and federal laws and regulations. Students demonstrate knowledge of the types of child abuse identified by state and federal law, and the procedures that must be followed when abuse is suspected. Students demonstrate knowledge of the types of child abuse identified by state and federal law and the procedures that must be followed when abuse is suspected. Students demonstrate an understanding of a variety of disabilities in young children, current special education law, and resources available for teachers and parents. **WINTER 2012, 2013**

ECE 160**DISEASE CONTROL IN ECE SETTINGS****(30 Lecture Hrs. Total)****3 Credits**

Students will explore ways to encourage family and community collaboration to promote the success and development of young children(birth – eight years old). Awareness of various types of family stress, understanding of the dynamics of family systems, and community relationships will all be discussed. **OFFER AS NEEDED**

ECE 161**OBSERVATION AND ASSESSMENT****(2.00 Lecture and 2.00 Lecture/Lab Hrs./Week)****3 Credits**

Students learn to correctly observe and assess children in an ECE setting. Students learn that strong observation and assessment skills lead to well planned curriculum and move young children forward on the development continuum. Students learn how to provide feedback to children that encourages confidence and high self-esteem in them. **SPRING 2012, 2013**

♦ ECE 262**TEACHING IN AN ANTI-BIAS CLASSROOM****(3.00 Lecture Hrs./Week)****3 Credits**

This course will introduce students to the professional life of teachers. The students will gain a practical perspective on what goes into meeting the complex challenges of teaching. Students will write a reflective journal and develop a professional portfolio. The course includes practicum experience. **FALL 2011, 2012**

ECE 263**TEACHING IN AN ANTI-BIAS CLASSROOM****(3.00 Lecture Hrs./Week)****3 Credits**

Prospective ECE instructors learn to help children develop the understanding to monitor themselves and their own behavior thoughtfully and with increasing skill. Teachers will build their guidance skills to aid children in develop internal controls, rather than relying on external factors to help them control their behavior. ECE teachers will understand how to connect behavioral objectives to their student's learning style. **WINTER 2012, 2103**

ECE 264**CURRICULUM DEVELOPMENT AND IMPLEMENTATION****(3.00 Lecture Hrs./Week)****3 Credits**

Students learn to develop, implement, and evaluate early childhood education curriculum(birth-eight years old). Topics will include settings, methods, materials, scheduling, planning, and classroom management. Lessons plans and projects will be developed for the content fields(such as reading/writing, math, social studies, science) using art, music, drama, play, exploration, games, and various strategies. **FALL 2011, 2012**

ECE 266**LANGUAGE ARTS FOR YOUNG CHILDREN****(3.00 Lecture Hrs./Week)****3 Credits**

Students gain in depth knowledge of how to effectively develop pre-literacy skills. Students will be able to encourage all aspects of literacy, pre-reading, emergent writing and language skills in young children. Students will be able to choose quality literacy teaching resources. **WINTER 2012, 2013**

EET ELECTRICAL ENGINEERING TECHNOLOGY**EET 121****ELECTRICAL SYSTEMS TROUBLESHOOTING I****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn to troubleshoot common electrical problems in industry, such as low voltage, high voltage, open circuits, high resistance, shorts to ground and current/voltage unbalance. Emphasis is on prevention of electrical waste. *In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card. **FALL 2011, 2012, WINTER 2012**

EET 122**ELECTRICAL SYSTEMS TROUBLESHOOTING II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students build on basic techniques and learn systematic troubleshooting methods and procedures to solve process problems. Analyzing motor control schematics and using advanced digital multi-meters are stressed. Emphasis is on prevention and correction of energy wasting problems. *In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card. **Prerequisite:** EET 121. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012**

EET 155**INDUSTRIAL CONTROL SYSTEMS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the control of systems with programmable circuits, applying digital logic to control industrial processes. Students develop skills in assembling, testing and troubleshooting transducer, control, and power electronic circuits through experiments and projects. **SUMMER 2011; WINTER 2012; SPRING 2012, 2013; FALL 2012**

EET 201**ADVANCED CIRCUITRY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the use and analysis of active and passive devices in electronic circuits. Semiconductor diodes, bipolar junction transistors and field effect transistors are applied to circuits which include power supplies, amplifiers and switching circuits. **Prerequisite:** EET 102. **FALL 2011, 2012**

EET 202**DIGITAL ELECTRONICS I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn a wide range of skills and techniques required by the electronic technician. Topics include AND, OR, NAND, NOR, NOT logic functions and integrated circuits, Boolean Algebra, number systems, flip-flops and simple applications. **Prerequisite:** EET 201. **WINTER 2012, 2013**

EET 203**DIGITAL ELECTRONICS II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students continue to construct, test and troubleshoot digital circuits. The focus is on sequential logic. **Prerequisite:** EET 202. **SPRING 2012, 2013**

EET 213**ELECTRICAL SYSTEMS TROUBLESHOOTING III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students build on use of systematic troubleshooting methods through the application of troubleshooting tools to aid in solving process problems. The student will apply troubleshooting techniques to actual process problems on the process training modules. **Prerequisite:** EET 212. **SPRING 2012, 2013**

EET 253**INSTRUMENTATION AND CONTROL****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn industrial process control instrumentation concepts, devices, and systems, including process control devices and process control applications associated with industrial instrumentation. **SPRING 2012, 2013**

EGR ENGINEERING**EGR 101****ENGINEERING ORIENTATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate familiarity with the engineering disciplines, curricula at four-year colleges, professional ethics, and licensing requirements for professional engineers. Students gain experience in data collection and engineering problem analysis using tools such as graphing calculators, spreadsheets and word-processing programs. Course includes a team-engineering project. **Prerequisite:** MTH 111 or High School Trigonometry. **OFFERED AS NEEDED**

EM EMERGENCY SERVICES**EM 101
INTRODUCTION TO EMERGENCY SERVICES
(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn about fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. **FALL 2011, 2012**

EMT EMERGENCY MEDICAL TECHNICIAN**EMT 151
EMERGENCY MEDICAL TECHNICIAN BASIC, PART 1
(44 Lecture, 30 Lecture/Lab Hrs.; 74 Hrs. Total)****5 Credits**

Students will be prepared to take the National Registry of Emergency Medical Technicians certification examination for EMT-Basic. This two-part course meets Oregon State Health Division and Fed. Dept. of Transportation requirements for EMT- Basic and prepares the student to provide basic pre-hospital emergency medical care and transportation of the sick and injured. **Prerequisite:** Health Care Provider CPR Certification, Current measles and Hepatitis B immunizations, negative TB test; valid driver's license. **FALL 2011, 2012**

**EMT 152
EMERGENCY MEDICAL TECHNICIAN BASIC, PART 2
(44 Lecture, 22 Lecture/Lab Hrs.; 66 Hrs. Total)****5 Credits**

Continuation of EMT 151. Students demonstrate the knowledge and skills required to provide basic pre-hospital emergency medical care and transportation of the sick and injured. On successful completion of this course, the student will be prepared to pass the Oregon State Health Division certification examination for EMT-Basic. **Prerequisite:** EMT 151 with a "C" grade or better. **WINTER 2012, 2013**

**EMT 165
EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE, PART 1
(38 Lecture, 22 Lecture/Lab Hrs.; 60 Hrs. Total)****4 Credits**

Students prepare to provide EMT-Intermediate level care for the pre-hospital emergency medical care and transportation of the sick and injured. It incorporates discussion, demonstration, and practical application of the following: roles and responsibilities, patient assessment, airway management, intravenous and intraosseous therapy, shock management, EKG monitoring, defibrillation, emergency pharmacology, and EMT-Intermediate protocols. This two-part course meets the Oregon State Health and Human Services Oregon EMT- Intermediate Curriculum 2006. On successful completion of EMT 165 and EMT 166, the student will be prepared to take the State of Oregon Emergency Medical Technician certification examination for EMT-Intermediate. **Prerequisite:** Oregon EMT-Basic certification, Signed Agency Referral. **OFFERED AS NEEDED.**

**EMT 166
EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE, PART 2
(38 Lecture, 22 Lecture/Lab Hrs.; 60 Hrs. Total)****4 Credits**

Students prepare to provide EMT-Intermediate level care for the pre-hospital emergency medical care and transportation of the sick and injured. It incorporates discussion, demonstration, and practical application of the following: roles and responsibilities, patient assessment, airway management, intravenous and intraosseous therapy, shock management, EKG monitoring, defibrillation, emergency pharmacology, and EMT-Intermediate protocols. This two-part course meets the Oregon State Health and Human Services Oregon EMT- Intermediate Curriculum 2006. On successful completion of EMT 165 and EMT 166, the student will be prepared to take the State of Oregon Emergency Medical Technician certification examination for EMT-Intermediate. **Prerequisite:** Oregon EMT-Basic certification, Signed Agency Referral. **OFFERED AS NEEDED.**

**EMT 169
EMERGENCY MEDICAL TECHNICIAN RESCUE
(22 Lecture, 30 Lab Hrs.; 52 Hrs. Total)****3 Credits**

Students demonstrate the knowledge and skills needed to rescue and extricate patients while maintaining personal safety; control and management of the accident scene; and considering needs of the accident trauma patient and the use and maintenance of rescue tools and equipment. **OFFERED AS NEEDED.**

**EMT 176
EMERGENCY RESPONSE: PATIENT TRANSPORTATION
(11 Lecture, 22 Lecture/Lab Hrs.; 33 Hrs. Total)****2 Credits**

Students study ambulance operations, laws, maintenance, safety procedures, emergency driving, and route planning. Student will become familiar with hands-on vehicle inspections and emergency vehicle operations. **OFFERED AS NEEDED.**

**EMT 177
EMERGENCY RESPONSE: COMMUNICATION AND
DOCUMENTATION
(22 Lecture Hrs. Total)****2 Credits**

Students study principles of therapeutic communication, via verbal, written, and electronic modes in the provision of EMS; documentation of the elements of patient assessment, care, and transport; communication systems; radio types; reports; codes; and correct techniques. **OFFERED AS NEEDED.**

ENG ENGLISH LITERATURE**ENG 104
INTRODUCTION TO LITERATURE – FICTION
(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze a variety of short stories and novels, exploring the techniques of fiction and learning the language and process of literary criticism for use in oral and written responses. Through exposure to a wide range of human expression, students will learn to compare/contrast the attitudes and values of specific historical periods and diverse cultures. **WINTER 2012, 2013**

ENG 105**INTRODUCTION TO LITERATURE – DRAMA****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze a variety of plays. They will learn about the conventions of literary drama and dramatic literature's implications both on the page and on the stage. Through exposure to a wide range of human expression, students will learn to compare/contrast the attitudes and values of specific historical periods and diverse cultures. **WINTER 2012, 2013**

ENG 106**INTRODUCTION TO LITERATURE – POETRY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze a variety of poems, both historical and contemporary, formal and free verse. Emphasis will be on finding personal meaning in poetry as well as mastering the techniques of literary criticism. Through exposure to a diversity of texts, students will be able to compare/contrast approaches of poets from specific historical periods or differing world cultures.

FALL 2011♦ **ENG 107****WORLD LITERATURE: THE ANCIENT WORLD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of texts by authors from the ancient world(Sumerian, Jewish, Greek, Roman, Christian, and Moslem) including poetry, drama, and religious texts. We will study the cultural, literary, political, religious, and social contexts for each work, and will examine the shift from oral to written storytelling traditions. **FALL 2011, 2012**

♦ **ENG 108****WORLD LITERATURE: MEDIEVAL/RENAISSANCE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of texts by authors from the Medieval and Renaissance eras(Italian, French, English, Spanish) including poetry, drama, and prose. We will study the cultural, literary, political, religious, and social contexts for each work, and will examine the shift from manuscripts to printed texts. **WINTER 2012, 2013**

♦ **ENG 109****WORLD LITERATURE: AFRICA, ASIA & LATIN AMERICA****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read a sampling of the literature written in the developing world, including texts from Africa, Asia, and South America. We will read folk tales, poetry, short stories, and novels. We will examine primary texts from each region, but will also look at how colonialism has imparted a cross-pollination of cultures. **SPRING 2012, 2013**

ENG 110**INTRODUCTION TO FILM STUDIES****(3.00 Lecture, 1.00 Lab Hrs./Wk.)****3 Credits**

Students enhance their visual literacy by viewing, discussing, and analyzing contemporary film with emphasis on cinematic techniques and critical approaches to this media. Students will understand film in a historic and cultural context, comparing and contrasting attitudes and values of specific periods in film history. Students will also practice critical evaluation of films orally and in writing. **SPRING 2012**

♦ **ENG 180****GOTHIC LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a sampling of literature written in the Gothic tradition, including British and American literature from 1800 to the present. Emphasis will be on reading the works; discussing them, and analyzing style, content, and theme. We will also examine how the themes of Gothic literature have been "resurrected" in popular culture today(film, fashion, music). **WINTER 2012, 2013**

ENG 201**SHAKESPEARE I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study works by Shakespeare with a particular emphasis on Shakespeare's early period and the history plays and early comedies and sonnets. We will study the literary and cultural contexts for each play, as well as theatrical traditions. **FALL 2012**

ENG 202**SHAKESPEARE II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study plays written during Shakespeare's Middle period; the problem plays, tragedies, comedies. We will study the literary and cultural contexts for each play, as well as theatrical traditions.

WINTER 2013**ENG 203****SHAKESPEARE III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study plays from Shakespeare's later period, including the Romance genre. We will study the literary and cultural contexts for each play, as well as theatrical traditions. **SPRING 2012, 2013**

♦ **ENG 204****ENGLISH LITERATURE – MEDIEVAL****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of works by Medieval English authors including fairy tales, poetry, legends, and longer works such as Beowulf and Canterbury Tales. We will study the cultural, literary, political, religious, and social contexts for each work, as well as the early history of the English language. **FALL 2011, 2012**

♦ ENG 205

ENGLISH LITERATURE – RENAISSANCE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of works by Renaissance English authors including Shakespearian(Macbeth) and non-Shakespearian(Faust) drama, lyric poetry, epic poetry, and an early novel. We will study the cultural, literary, political, religious, and social contexts for each work, as well as how the printing press revolutionized literature.

WINTER 2012, 2013

♦ ENG 206

ENGLISH LITERATURE – VICTORIAN & MODERN**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of texts by Victorian and Modern British authors including novels, poems, and short stories. We will study the rise of the female author in England and will examine works by post-colonial authors. We will also discuss how changes in the British Empire altered the voice of British literature. **SPRING 2012, 2013**

ENG 214

LITERATURE/PACIFIC NORTHWEST**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn appreciation and understanding of the interplay of literature and place, with an emphasis upon the northern coast of Oregon. Through study, discussion, and writing about selected literature of the Pacific Northwest and through the direct observation of our natural environment, students will learn about the cultural and environmental factors that have shaped this region's landscape and literature. Examples and literary models will be drawn primarily from the coastal Northwest. Students also learn the perceptions and practices of Native Americans and other populations who have lived in this region through their stories.

SPRING 2013

♦ ENG 220

MULTI-CULTURAL AMERICAN LITERATURE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze the literature of one or more American minority groups, thereby examining the historical bases and evolutions of diverse cultural ideas. Assigned texts will explore social constructs in terms of power relationships, and guided discussion will help students recognize how culturally-based assumptions influence perceptions and behaviors described in literature. **SPRING 2012**

♦ ENG 221

INTRODUCTION TO CHILDREN'S LITERATURE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine a variety of texts from the children's literary tradition, including folk tales, fairy tales, classic stories, nursery rhymes, poems, pictures books, and longer works. Emphasis will be on reading and discussing the works, as well as analyzing style, content, and themes. **SUMMER 2011, 2012**

ENG 253

SURVEY OF AMERICAN LITERATURE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, respond to, and analyze works of major authors of American poetry and prose during the period from 1630 to 1860 in the context of the literary movements including Puritanism, Classicism, and Romanticism. **FALL 2012**

ENG 254

SURVEY OF AMERICAN LITERATURE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, respond to, and analyze 19th Century American prose and poetry in light of the development of American civilization.

WINTER 2013

ENG 255

SURVEY OF AMERICAN LITERATURE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, respond to, and analyze 20th century American prose and poetry in light of the development of American civilization.

SPRING 2013

♦ ENG 263

AUTISM IN LITERATURE**(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read a variety of genres, including non-fiction, fiction, poetry, biography, and autobiography, in which either the author or a central character is known to be autistic. Emphasis will be on discussing the works,analyzing meanings, researching related topics, making connections between literature and life, understanding autistic culture, and learning about how autism has influenced the literary tradition. Autism in Literature is an introductory level literature course. **SUMMER 2011**

ES**ENVIRONMENTAL SCIENCE**

ES 150

INTRODUCTION TO ENVIRONMENTAL SCIENCE**(2.00 Lecture/Lab Hrs./Wk.)****1 Credit**

Students will conduct one or more field studies and will investigate academic and professional opportunities in environmental science. Students will present their findings and develop a portfolio. **FALL 2012; WINTER 2013**

ES 160

TECHNIQUES IN ENVIRONMENTAL INFORMATION ANALYSIS**(3.00 Lecture, 3.00 Lab. Hrs./Wk.)****4 Credits**

Students learn principles of and application of environmental measurement, instrumentation, and data analysis. Students develop mapping, modeling, and group problem-solving skills, and work in groups to complete several field investigations.

Prerequisite: ES 150, MTH 70, and WR 121. **WINTER 2013**

ES 202**APPLIED ENVIRONMENTAL STUDIES: PREP FOR PROBLEM SOLVING****(3.00 Lecture, 3.00 Lab. Hrs./Wk.)****4 Credits**

Students study the sources and handling of water and wastewater in our community, nation, and world. Students will learn to collect samples, test water and wastewater for biological and chemical parameters, and use that data to address issues, concerns and problems with water and wastewater. **Prerequisite:** ES 160.

OFFERED AS NEEDED.**FRP****FIRE PROTECTION****FRP 101****PRINCIPLES OF EMERGENCY SERVICES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn an overview of fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. **Prerequisite:** Instructor approval. **FALL 2011**

FRP 121**FIRE BEHAVIOR AND COMBUSTION****(3.00 Lecture and 3.00 Lab Hrs./Wk.)****4 Credits**

Students explore the theories and fundamentals of how and why fires start, spread and how they are controlled. **Prerequisite:** Instructor approval. **FALL 2012**

FRP 151**FIREFIGHTER SKILLS I****(2.00 Lecture and 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn knowledge and skills to meet the minimum requirements of competence required of a person to serve as a paid or volunteer firefighter. Students will become familiar with the various types of equipment and procedures needed to function safely as a member of a firefighting team under direct supervision. This course fulfills the requirements of OR-OSHA and the Department of Public Safety Standards and training for entry level firefighters. **Prerequisite:** Instructor approval and must be a firefighter with an agency. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

FRP 155**INSTRUCTIONAL METHODOLOGY****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students develop proficiency in the methodologies and skills needed to conduct fire science instruction using prepared course outlines and materials. **Prerequisite:** Instructor approval. **SPRING 2013**

FRP 156**FIREFIGHTER LAW****(1.00 Lecture Hr./Wk.)****1 Credit**

Students learn the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. **Prerequisite:** Instructor approval. **FALL 2012**

FRP 157**PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY AND SURVIVAL****(1.00 Lecture Hr./Wk.)****1 Credit**

Students are introduced to the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization. **Prerequisite:** Instructor approval. **FALL 2012**

FRP 158**FIRE PROTECTION HYDRAULICS AND WATER SUPPLY****(22 Lecture, 22 Lecture/Lab Hrs.; 44 Hrs. Total)****3 Credits**

Students develop the knowledge and skills required to operate various fire pumps and accessories. They will demonstrate competency in drafting, hydrant and tanker operations, and rule of thumb fire ground hydraulic calculations. **Prerequisite:** FRP 151 or instructor approval. **WINTER 2013**

FRP 164**HAZARDOUS MATERIALS****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total)****3 Credits**

Students gain the knowledge and skills needed to safely respond to and manage a chemical emergency. This includes proper application of foam for vapor suppression and basic plugging and patching of minor hazardous material releases. **Prerequisite:** Instructor approval. **SPRING 2013**

FRP 166**BUILDING CONSTRUCTION FOR FIRE PROTECTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. **Prerequisite:** Instructor approval. **SPRING 2013**

FRP 168**EMERGENCY SERVICE RESCUE****(22 Lecture, 30 Lab Hrs.; 52 Hrs. Total)****3 Credits**

Students demonstrate the knowledge and skills needed to rescue and extricate patients while maintaining personal safety; control and management of the accident scene; and considering needs of the accident trauma patient and the use and maintenance of rescue tools and equipment. **Prerequisite:** Instructor approval. **SPRING 2012**

FRP 169

INTRODUCTION TO FIRE AND EMERGENCY SERVICE ADMINISTRATION

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis is on fire service leadership from the perspective of the company officer. **Prerequisite:** Instructor approval. **WINTER 2012**

FRP 170

FIREFIGHTING STRATEGY AND TACTICS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students analyze the principles of fire control through the use of personnel, equipment, and extinguishing agents on the fire ground. **Prerequisite:** Instructor approval. **SPRING 2012**

FRP 171

FIRE PROTECTION SYSTEMS

(33.00 Lecture Hrs. Total)

3 Credits

Students learn the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. **Prerequisite:** Instructor approval. **WINTER 2012**

FRP 172

FIRE CODES AND ORDINANCES

(33.00 Lecture Hrs. Total)

3 Credits

Students study the Uniform Fire Code, State Fire Marshal Fire Safety Regulations and related Oregon revised statutes, National Fire Prevention Association, and other codes relating to fire prevention and life safety. **Prerequisite:** Instructor approval. **FALL 2012**

FRP 174

FIRE INVESTIGATION I

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes. **Prerequisite:** Instructor approval. **WINTER 2013**

FRP 181

FIRE PREVENTION

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education. **Prerequisite:** Instructor approval. **SPRING 2012**

FRP 190

INTRODUCTION TO WILDLAND FIREFIGHTING

(42.00 Lecture, 8.0 Lab Hrs.; 50 Hrs. Total)

4 Credits

Students will develop the skills needed to be safe and effective firefighters in wildland fire situations. These skills will include situational awareness, basic communication responsibilities, teamwork principles, attitude and stress barriers, the decision-making process, wildland safety, wildland firefighter preparedness, tools and equipment, firing devices, the use of water, suppression techniques, use of maps, securing the control line, scouting, standards for survival, hazmat, wildland tactics, fireline reference materials, documenting activities, fireline communications, environmental effects on the start and spread of wildland fires, and how to recognize potentially hazardous situations in wildland situations. Students who successfully complete this course will have met the standards for the National Wildfire Coordinating Groups classes of L-180, S-130, S-131, and S-190. **WINTER 2012, 2013**

GEO GEOGRAPHY

GEO 100

INTRODUCTION TO PHYSICAL GEOGRAPHY

(3.00 Lecture, 3.00 Lab Hrs./Wk.)

3 Credits

Students gain an introductory knowledge of the physical elements of geography and the environment in which people live, with an emphasis on themes pertaining to economic development. Student's learning focuses on natural processes that create physical diversity on the natural landscape, including weather and climate, vegetation, soils, and landform development and change. **FALL 2012**

♦ GEO 110

INTRODUCTION TO CULTURAL AND HUMAN GEOGRAPHY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop an understanding of the evaluation, use, and modification of landscapes and the environment of the earth by the cultural groups occupying them in the past, present, and future. Geographical distribution of important cultural markers such as language, religion, and ethnicity are explored. Population distributions are examined with respect to economic activities as well as rural and urban demographics. **SPRING 2012, 2013**

GEO 120

WORLD AND REGIONAL GEOGRAPHY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students survey the regions of the modern world. Students gain knowledge of world environments and how nation-states and regions have evolved within the modern world system. **SPRING 2012, 2013**

GEO 130**ECONOMIC AND RESOURCE GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study structures, patterns, and locational principles of economic activities, examine regional economic development, agricultural land use, industrial location, and distribution of service activity. Comparison of real-world examples with theory. **WINTER 2012, 2013**

GS**GENERAL SCIENCE****GS 104****PHYSICAL SCIENCE - PHYSICS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain a solid understanding of the scientific endeavor to make intelligent and informed decisions. This course uses guided inquiry and student projects to study topics on; motion, force, rainbows, and light. For non-science major and pre-service teachers. **Prerequisite:** MTH 70. **FALL 2011, 2012**

GS 106**PHYSICAL SCIENCE - GEOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain a solid understanding of the scientific endeavor to make intelligent and informed decisions. This course uses guided inquiry and student projects to study topics on; volcanoes, tsunamis, minerals and energy resources. For non-science majors and pre-service teachers. **Prerequisite:** MTH 70. **SPRING 2012, 2013**

GS 109**PHYSICAL SCIENCE - METEOROLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain a solid understanding of the scientific endeavor to make intelligent and informed decisions. This course uses guided inquiry and student projects to study topics on heat, cloud formation, climate and the greenhouse effect. For non-science majors and pre-service teachers. **Prerequisite:** MTH 70. **SUMMER 2011, 2012; WINTER 2012, 2013**

GS 111 and GS 111L**INTRODUCTION TO FORENSIC SCIENCE****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn basic forensic science principles and techniques, including identifying, locating, collecting, preserving and testing trace samples. Students learn and apply the scientific method in interpreting data. **Prerequisite:** MTH 065; **Co-requisites:** GS 111 with GS 111L. **SPRING 2012, 2013**

GS 112 and GS 112L**INTEGRATED CHEMISTRY & CELL BIOLOGY FOR HEALTH****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students learn basic concepts of matter, atoms and radioactivity, compounds, organic compounds, intermolecular forces, solutions, acids and bases, enzymes, carbohydrates, lipids, proteins, cell

chemistry, cell anatomy and physiology, and cell reproduction. Students apply science processes to health-related problems. Although this course emphasizes allied health applications, it transfers as a general education(AAOT) lab science. GS 112 serves as a prerequisite to BI 231(Anatomy and Physiology) and BI 234(Microbiology). Dental Hygiene and Dental Assistant students should take the CH 104-106 series. **Prerequisite:** MTH 070 or higher, with a C grade or better. **Co-requisites:** GS 112 with GS 112L. **WINTER 2012, 2013; SPRING 2012, 2013, SUMMER 2012, 2013**

GS 161**FIELD BIOLOGY OF OREGON****(20.00 Lecture, 20.00 Lecture/Lab Hrs. Total)****3 Credits**

Students will conduct field-oriented surveys of several Oregon ecosystems. Students will study coastal dunes, several forest systems, coastal riparian zones, wetlands, estuaries, and the rocky intertidal. **OFFERED AS NEEDED.**

HD**HUMAN DEVELOPMENT****HD 050****COLLEGE SKILLS****(1.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****2 Credits**

Students become familiar with college offices, services, and programs; establish skills in taking notes, reading efficiently, and taking tests; use self-assessment to explore learning and thinking styles, values, and skills; and set educational and career goals. Concurrent enrollment in DCO 22 and RD 080, or WR 40 and RD 090 recommended. **OFFERED AS NEEDED.**

HD 100**COLLEGE SURVIVAL & SUCCESS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop attitudes, skills, and strategies known to promote college success, including goal setting, time management and other personal skills; critical/creative thinking, personal learning style; note taking, study techniques, test taking; and use of college resources. **Prerequisite:** Reading and writing levels at RD 90 and WR 40 or above. Work is set at university level. **OFFERED AS NEEDED.**

HD 110**CAREER PLANNING****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students prepare to make informed career choices by clarifying their personality, values, and general abilities; exploring present and future career opportunities; setting career and educational goals; and developing a career action plan. **OFFERED AS NEEDED.**

HD 145

COPING SKILLS FOR STRESS AND DEPRESSION
(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students will study basic theory, overview and practice of managing stress and depression. Topics include recognizing, managing, and modifying causes of stress, altering individual perception of stressful events, and modifying the stress response. The symptoms, causes, and forms of depression will be described, including an overview of methods used in treating depression. The topic of stress will be covered in more detail than depression. This course provides a supportive classroom environment and an educational approach to managing stress and depression. **Prerequisite:** Approval of Lives in Transition Coordinator. **OFFERED AS NEEDED.**

HD 202

LIFE TRANSITIONS
(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students focus on self-exploration and development of life-planning skills. By analyzing predictable life transitions, students develop and learn how to integrate skills in goal setting, decision making, and plan implementation for personal growth and career planning. Introduces non-traditional careers and careers in the professional and technical trades. **Prerequisite:** Approval of Lives in Transition Coordinator. **OFFERED AS NEEDED.**

HD 209

GET THE JOB YOU WANT
(33.00 Lecture Hrs. Total.) **3 Credits**

Students will develop techniques for résumé writing, completing job search letters and applications. Participate in interviewing which may include videos, role-playing and one-on-one/panel interviews. Complete career exploration through CIS, job shadows and informational interviews as well as an assessment of current skills. How to locate the hidden job market, network and use other techniques for a successful job search. Learn about employer expectations, how to accept and keep a job and dressing for success. Attention to soft skills such as communication, time management and other factors that assist in finding and keeping a job. **OFFERED AS NEEDED.**

HFS HEALTH & FAMILY STUDIES

HFS 226

GROWING YEARS: CHILDHOOD DEVELOPMENT
(3.00 Lecture Hrs./Wk.) **3 Credits**

Students develop an understanding of normal human development, mental, social, emotional and physical changes in abilities, needs and interests, of children from the prenatal period through age eight, emphasizing major theorists and research findings. **SPRING 2012, 2013**

HPE HEALTH & PHYSICAL EDUCATION

HPE 295

HEALTH AND FITNESS FOR LIFE
(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students develop an understanding of the relationship between optimal health, wellness, and physical fitness by gaining knowledge of the interacting roles of physical fitness nutritional status, and the ability to cope with stress. **Prerequisite:** MTH 60 recommended. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

HS HUMAN SERVICES

HS 101

ALCOHOL USE, ABUSE AND ADDICTION
(3.00 Lecture Hrs./Wk.) **3 Credits**

Students learn concepts and perspectives about alcohol abuse and dependence based on a bio-psycho-social approach to alcohol problems. Pharmacology of the drug, models of addiction progression, personal impact on the user and family, and treatment approaches are stressed. **FALL 2011, 2012**

HS 102

DRUG USE, ABUSE AND ADDICTION
(3.00 Lecture Hrs./Wk.) **3 Credits**

Students gain knowledge about mind and mood altering aspects of drugs. Pharmacological, biological, social and psychological factors that affect body, brain and behavior are addressed, along with various models of the progression of addiction and treatment. **Prerequisite:** HS 101 highly recommended. **WINTER 2012, 2013**

HS 154

COMMUNITY SOCIAL SERVICES
(3.00 Lecture Hrs./Wk.) **3 Credits**

Students learn about the history, purpose, philosophy, and values of community services developed for people with various disadvantages or disabilities. Students also become knowledgeable about local social service agencies and organizations, and how to refer clients to them. **SPRING 2012, 2013**

HS 155

INTERVIEWING SKILLS FOR SOCIAL SERVICES
(3.00 Lecture Hrs./Wk.) **3 Credits**

Students learn the theoretical background and practice related techniques for establishing and maintaining an effective professional helping relationship. Skills are learned via instruction, modeling and simulated role play in the classroom. **FALL 2011, 2012**

HS 201**FAMILY DYNAMICS OF ADDICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to use models of family process to understand the effects of chemical dependency on the whole family: addictive behavior in the family system, family dynamics, roles, therapeutic interventions, and considerations for recovery. HS 201 is best taken after HS 101 or 102. **Prerequisite:** HS 101 or HS 102 are highly recommended. **SPRING 2012, 2013**

HST HISTORY♦ **HST 101****HISTORY OF WESTERN CIVILIZATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge of the origins and development of civilization from ancient times to the beginnings of Medieval Europe, circa 600 A.D., against the background of Eurasia. **FALL 2011, 2012**

♦ **HST 102****HISTORY OF WESTERN CIVILIZATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the cultural, social, economic, and political development of Western civilization from 500 A.D. to 1750 A.D. against the background of Eurasia and the world. **WINTER 2012, 2013**

♦ **HST 103****HISTORY OF WESTERN CIVILIZATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the cultural, social, economic, and political development of Western civilization from 1750 to the present against the background of Eurasia and the world. **SPRING 2012, 2013**

♦ **HST 104****WORLD HISTORY I: ANCIENT AND EARLY MIDDLE AGES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students survey the historical development of world civilizations from antiquity to 1000 C.E. Students explore religious, cultural, social, political, and economic institutions of various societies. Students develop a diverse historical analysis of both ancient Western and non-Western civilizations. **FALL 2011, 2012**

♦ **HST 105****WORLD HISTORY II: LATE MIDDLE AND EARLY MODERN AGES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students survey the historical development of several world civilizations from 1000 to 1750 C.E. Students also explore religious, cultural, social, political, and economic institutions of various societies. Students develop a diverse historical analysis of the late middle and early modern ages of both Western and non-Western civilizations. **WINTER 2012, 2013**

♦ **HST 106****WORLD HISTORY III: THE MODERN AND CONTEMPORARY WORLD****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students survey the historical development of several world civilizations from 1750 to the contemporary period. Students also explore religious, cultural, social, political, and economic institutions of various societies. Students develop a diverse historical analysis of modern periods of both Western and non-Western civilizations. **SPRING 2012, 2013**

♦ **HST 201****HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the political, economic, intellectual, and cultural history of the United States from prehistory to 1820. **FALL 2011, 2012**

♦ **HST 202****HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students survey the political, social, and cultural history of the United States between 1820 and 1898. Emphasis will be placed on the debate and crisis of slavery and abolitionism, expansionism, the Civil War, Reconstruction, the rise of industry and the resort to empire in 1898. **WINTER 2012, 2013**

♦ **HST 203****HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students survey the political, economic, intellectual, and foreign relations history of the United States during the twentieth century. **SPRING 2012, 2013**

HST 218**NATIVE AMERICAN HISTORY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students explore the history of Native Americans as they come into contact with European-Americans. Students learn the response to the contact, and the differences between the cultures and the struggles against reservation, assimilation, and termination. Students also address current Native American issues. **SPRING 2012, 2013**

HST 245**LEWIS & CLARK COURSE OF DISCOVERY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will begin by following the vision of Thomas Jefferson acquiring the Louisiana Territory. As the expedition proceeds on, Lewis and Clark make preparation by putting together their tools and team. Students follow the expedition across unmapped territory experiencing challenges with weather, geography, natives, and each other. In conclusion, students review the accomplishments and impacts of the Lewis and Clark expedition. **FALL 2011, 2012**

HST 277

HISTORY OF THE OREGON TRAIL

(3.00 Lecture Hrs./Wk.)

3 Credits

Students study the explosion of emigration which spread from the United States to the West Coast in the 1800's. More importantly, students look at the motivations of those who emigrated, the various trails, life along the trail, and the impact of emigration. **WINTER 2012, 2013**

HUM HUMANITIES

♦ **HUM 101**

INTRODUCTION TO HUMANITIES I

(3.00 Lecture Hrs./Wk.)

3 Credits

Students will gain an understanding of the ideas and modes of vision that Western culture has inherited from the classical, medieval, and Renaissance periods. Readings and discussions focus on literature, philosophy, history, art, music, and religion. **FALL 2011, 2012**

♦ **HUM 102**

INTRODUCTION TO HUMANITIES II

(3.00 Lecture Hrs./Wk.)

3 Credits

Students will use a topical and interdisciplinary approach to an understanding of Western culture. Students will examine the art, literature, drama, history, and music regarding some aspect of human behavior such as war, crime, evil, marriage, disease, etc. **WINTER 2012, 2013**

♦ **HUM 103**

INTRODUCTION TO HUMANITIES III

(3.00 Lecture Hrs./Wk.)

3 Credits

Students will learn about literature, history, language, geography, music and art of a particular human culture. **SPRING 2012, 2013**

IT INDUSTRIAL & MANUFACTURING TECHNOLOGIES

Automotive classes listed under Auto. Technology (AUTO).

IT 110

APPLIED TECHNOLOGY PROJECTS

(20.00 Lecture/Lab Hrs./Cr.)

1-3 Credits

Students advance the laboratory skills and apply theories they have learned from other professional technical classes. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013, SPRING 2012, 2013**

IT 140

INDUSTRIAL SAFETY

(20 Lecture/Lab Hrs. Total)

1 Credit

Students use a competency-based program to develop and maintain safe work habits while engaged in various industrial job settings following OSHA guidelines. An overview is provided for the safe use of tools/equipment commonly found in the fabrication/construction industry. Students must demonstrate competency before entering the shop. **FALL 2011, 2012; WINTER 2012, 2013, SPRING 2012, 2013**

IT 141

TOOL AND SHOP BASICS

(20 Lecture/Lab Hrs. Total)

1 Credit

Students use a competency-based program with associated lab activities to provide the **Prerequisite:** amount of knowledge and skills necessary to use hand tools and perform basic shop practices in layout, measuring, fastener identification and information retrieval. **FALL 2011, 2012; WINTER 2012, 2013, SPRING 2012, 2013**

J JOURNALISM

J 215

JOURNALISM LABORATORY

(4.00 Lecture/Lab Hrs./Wk.)

2 Credits

Students practice newspaper writing, editing, advertising and production while producing the college newspaper. May be repeated up to three times for credit. **Prerequisite:** Successful completion of, or concurrently enrolled in WR 40 or higher. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

LA LANGUAGE ARTS

LA 090

FOUNDATIONAL LANGUAGE SKILLS

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students learn to use language skills to read effectively, think clearly, and write properly in preparation for college-level study. Students incorporate skill building in reading comprehension, vocabulary development, grammatical accuracy, and composition. This is the beginning language arts course for students with a Compass reading score less than 79 and/or a Compass writing score less than 42. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013; SUMMER 2012, 2013**

LIB LIBRARY

LIB 127

LIBRARY RESEARCH SKILLS

(1.00 Lecture Hr./Wk.)

1 Credit

In this introduction to finding information, students will build skills in searching the library catalog, periodical indexes, and reference and Internet resources. Students will learn how to construct an effective search strategy, evaluate sources of information, and use and cite information correctly. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MA MEDICAL ASSISTANT

MA 112

MEDICAL ASSISTANT: CLINICAL PROCEDURES I

(2.00 Lecture, 3.00 Lab Hrs./Wk.)

3 Credits

Students demonstrate knowledge and skills necessary to provide basic care to clients and work in medical office or clinic settings. **Prerequisite:** Completion of / or concurrently enrolled in OA 126; and completion of (with a "C" grade or higher) or concurrently enrolled in MA 120. **FALL 2011, 2012**

MA 113**MEDICAL ASSISTANT: CLINICAL PROCEDURES II****(2.00 Lecture, 6.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate increasing knowledge and skills necessary to provide care to clients and work in medical office or clinic settings, including: preparing clients for examinations and procedures; performing diagnostic tests; recognizing and responding appropriately to emergencies; client teaching; and office management. **Prerequisite:** MA 112, OA 126 and MA 120 with a "C" grade or better; completion of (with a "C" grade or better) or concurrently enrolled in MA 121. **Co-requisite:** Concurrently enrolled in MA 133. **WINTER 2012, 2013**

MA 115**PHARMACOLOGY FOR MEDICAL ASSISTANTS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students acquire and demonstrate knowledge of basic principles and practice of pharmacology and administering drugs. They identify roles and responsibilities of the medical assistant in safely administering selected medications by various routes. In addition, students will study medications related to each of the following classifications: vitamins, minerals and herbs, skin, nervous system, urinary system, gastrointestinal system, anti-infective, analgesics, sedatives and hypnotics, psychotropic meds, musculoskeletal, anticonvulsants, reproductive system, cardiovascular, and respiratory. **Prerequisite:** MA 113 and MA 121 with a C grade or higher; completion of (with a grade C or higher) or concurrently enrolled in MA 231. **SPRING 2012, 2013**

MA 120**BODY STRUCTURE AND FUNCTION I****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn terminology in its proper context, including structure and function of the human body in health and disease. Students will learn basic word structure to guide them in the study of medical language. In addition, a review of each body system will be conducted to include medical words, their components and basic structure and function. **FALL 2011, 2012**

MA 121**BODY STRUCTURE AND FUNCTION II****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn terminology in its proper context, including structure and function of the human body in health and disease. An examination of the following systems to include word forms, prefixes, suffixes, basic structure in health and disease will be completed: nervous system, cardiovascular system, respiratory system, blood system, lymphatic system, musculoskeletal system, sensory system, and endocrine system. **Prerequisite:** MA 120 with a "C" grade or higher. **WINTER 2012, 2013**

MA 133**MEDICAL ASSISTANT CLINICAL PRACTICUM I****(12.00 Lab Hrs./Wk.)****4 Credits**

Students apply knowledge and skills in a medical office setting to provide direct care for patients and to support office functions. **Prerequisite:** MA 112, OA 126 and MA 120 with a C grade or higher; completion with a C grade or higher of, or concurrently enrolled in MA 121 and MA 113. **WINTER 2012, 2013**

MA 231**MEDICAL ASSISTANT CLINICAL PRACTICUM II****(15.00 Lab Hrs./Wk.)****5 Credits**

Students apply increasing knowledge and skills in a medical office setting. Students demonstrate increasing independence in providing direct care for patients and supporting office functions. **Prerequisite:** MA 113 and MA 121 with a C grade or higher; completion (with a grade C or higher) of or concurrently enrolled in MA 115. **SPRING 2012, 2013**

MAS MARITIME SCIENCE**MAS 3.451****CHARTER BOAT DECKHAND****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students develop an understanding of terminology and back deck practices including most aspects of commercial angling. Participants will also learn how to deal successfully with the public; help promote and preserve the resource and the industry by actions both on and off the job; help maintain the vessel and equipment in good working order; create a safe and pleasurable experience for the client encouraging repeat business; as well as basic seamanship skills and work ethic. **Prerequisite:** Instructor approval and student must pass drug screen prior to receiving certificate. **OFFERED AS NEEDED**

MAS 100**MARITIME OCCUPATIONS****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students demonstrate and apply skills in safe seamanship onboard the training vessel Forerunner while learning about the Columbia River Estuary and its user groups. Students will learn how to apply to the US Coast Guard for an Ordinary Seaman Merchant Mariner's Document. For students who are interested in maritime occupations such as towing, commercial fishing, passenger vessels, or research. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 101**EXPLORING MARINE TECHNOLOGY****(20 Lecture/Lab Hrs. Total)****1 Credit**

Students learn to operate scientific data collection equipment while collecting real scientific data that will be used in an ongoing study of the Lower Columbia River. **Prerequisite:** Instructor approval. **OFFERED AS NEEDED**

MAS 120**U.S. COAST GUARD MARINE LICENSE TRAINING****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total)****3 Credits**

Students demonstrate knowledge of the information contained on U.S. Coast Guard examinations, Master or Mate (limited tonnage) near coastal and/or inland waters. **Note:** This course is U.S. Coast Guard approved to be taken in lieu of testing for licenses not to exceed 200 gross tons. A total of nine(9) credits of any MAS licensing course may be applied toward the AGS degree, Associate degree, and the One-Year Maritime Science certificate. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 121**ABLE SEAMAN TRAINING****(80 Lecture/Lab Hrs. Total)****4 Credits**

Students learn and practice the skills required to pass the US Coast Guard(USCG) Merchant Marine exam for Able Bodied Seaman. Upon successful completion of this training, the student will receive a certificate of completion that satisfies the USCG testing requirements for Able Bodied Seaman any rating. It is highly recommended that students have their Merchant Mariner's application approved by the USCG before enrolling in this course.

Prerequisite: Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 122**OUPV TRAINING****(80 Lecture/Lab Hrs. Total)****4 Credits**

Students learn and practice the skills required to pass the US Coast Guard(USCG) Merchant Mariner Exam for Operator of Uninspected Passenger Vessel(OUPV). Upon successful completion of this training course, the student will receive a certificate of completion that satisfies the USCG testing requirements for OUPV. To insure that the student meets the USCG licensing requirements it is strongly recommended that students have received their USCG approval for OUPV prior to enrolling in the class. **Prerequisite:**

Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 123**100 TON MASTER TRAINING****(100 Lecture/Lab Hrs. Total)****5 Credits**

Students learn and practice the skills required to pass the US Coast Guard(USCG) Merchant Mariner exam for Master of Inspected Vessels of not more than 100-gross ton(100-ton Master). Upon successful completion of this training course, the student will receive a certificate of completion that satisfies the USCG testing requirements for licenses within the scope of the course. To insure that the student meets the USCG licensing requirements it is strongly recommended that students have received their USCG approval prior to enrolling in the class. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 124**200 TON MASTER TRAINING****(120 Lecture/Lab Hrs. Total)****6 Credits**

Students learn and practice the skills required to pass the US Coast Guard(USCG) Merchant Mariner Exam for Master of Inspected Vessel not to exceed 200-gross ton. Upon successful completion of this training course, the student will receive a certificate of completion that satisfies the USCG testing requirements for licenses within the scope of the course. To insure that the student meets the USCG licensing requirements it is strongly recommended that students have received their USCG approval prior to enrolling in the class. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 125**500/1600/UNLIMITED LICENSE PREP****(40 Lecture/Lab Hrs. Total)****2 Credits**

This course is for professional mariners who wish to review examination subjects prior to testing at the US Coast Guard Marine Safety Office for an upgrade increase in scope of an existing license. Students purchase time in forty-hour blocks to meet training objects determined through sample exams and evaluations. This course may be purchased up to four times depending on the extent of the training needs of the student. Testing is completed at a USCG Marine Safety Office. It is highly recommended that students have their USCG approval for the license prior to training. Additional classes may be required to satisfy the STCW requirements. Course may be taken up to four(4) times for a total of eight(8) credits.

Prerequisite: Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 126**OCEANS ENDORSEMENT PROGRAM****(80 Lecture/Lab Hrs. Total)****4 Credits**

Students learn and practice the skills required to pass the US Coast Guard(USCG) Merchant Mariner Exam for an Ocean's Endorsement. Upon successful completion of this course the student will receive a certificate of completion that is accepted, in lieu of testing, at the USCG Marine Safety Office, for an ocean endorsement on a license up to and including 1600 ton master of inspected vessels. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 128**APPRENTICE MATE(STEERSMAN)****(120 Lecture/Lab Hrs. Total)****6 Credits**

This U.S. Coast Guard approved Apprentice Mate(Steersman) course meets or exceeds the requirements to attain certification under the standards set forth by the U.S. Coast Guard. Students demonstrate skills and knowledge needed to operate effectively as an Apprentice Mate (Steersman). **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 130**RADAR OBSERVER: ORIGINAL ENDORSEMENT, UNLIMITED****(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total)****2 Credits**

Students acquire knowledge, understanding proficiency in radar operations, collision avoidance second navigation by radar through lecture, demonstration and transfer plotting, using radar simulators. Students engage in the simulator use of Automatic Radar Plotting Aids(ARPA). The U.S. Coast Guard approved courses meets or exceeds the minimum level of knowledge specified in the U.S. Coast Guard STCW and IMO requirements for ARPA. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 131**RADAR OBSERVER: RECERTIFICATION****(24 Lecture/Lab Hrs. Total) 1 Credit**

Students renew proficiency in plotting problems for collision avoidance, navigation, second radar operation and operation of radar. **Note:** For individuals who would like to refresh their skills before taking the radar endorsement final exam. **Prerequisite:** Radar Observer Certification. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 132**RADAR OBSERVER: RIVERS****(24 Lecture/Lab Hrs. Total) 1 Credit**

Students gain knowledge, understanding second proficiency required to safely navigate a vessel, with the aid of radar, upon rivers covered by the Inland Navigation Rules of the Road. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 133**ARPA TRAINING(AUTOMATIC RADAR PLOTTING AIDS)****(32 Lecture/Lab Hrs. Total) 1 Credit**

Students demonstrate the knowledge of the principles and application of ARPA(Automatic Radar Plotting Aids). The U.S. Coast Guard approved course meets or exceeds the minimum level of knowledge specified in the US Coast Guard, STCW and IMO requirements for ARPA. **Prerequisite:** Unlimited radar observer endorsement. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 134**STCW GMDSS TRAINING(GLOBAL MARINE DISTRESS SAFETY SYSTEM)****(70 Lecture/Lab Hrs. Total) 3 Credits**

Students demonstrate knowledge and skill in the proper use of GMDSS communications systems and other GMDSS equipment such as Emergency Position Indicating Radio Beacons(EPIRB's), and Search and Rescue Transponder(SART). This U.S. Coast Guard approved course meets or exceeds the minimum level of knowledge specified in the US Coast Guard, STCW and IMO requirements for training in Global Marine Distress Safety System(GMDSS). **Prerequisite:** Instructor approval. **FALL 2011, 2012; SPRING 2012, 2013**

MAS 135**STCW BASIC SAFETY TRAINING****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) 3 Credits**

Students demonstrate knowledge and practical application of the skills required by the U.S. coast Guard for all persons employed on offshore vessels. Skill areas include safe work habits, proper use of safety and survival equipment, basic firefighting and first aid. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 136**STCW BRIDGE RESOURCE MANAGEMENT****(12 Lecture, 12 Lecture/Lab Hrs.; 24 Hrs. Total) 1 Credit**

This Coast Guard approved, STCW Bridge Resource Management course meets or exceeds the requirements to attain certification under the standards set forth by the U.S. Coast Guard, and STCW95 IMO regulations. Students demonstrate skills and knowledge needed to operate effectively in an operational shipboard bridge environment. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 137**RADAR NAVIGATION****(10 Lecture, 22 Lecture/Lab Hrs.; 32 Hrs. Total) 2 Credits**

Students demonstrate an understanding of radar theory and operation. Students will use radar/ARPA simulators for navigation and collision avoidance exercises. Students will demonstrate knowledge of previously learned navigation and plotting skills.

OFFERED AS NEEDED**MAS 138****STCW PROFICIENCY IN SURVIVAL CRAFT****(10 Lecture, 22 Lecture/Lab Hrs.; 32 Hrs. Total) 2 Credits**

Course satisfies the requirements of 46 CFR 12.10-5 and section A-VI/2 and table A-VI/2-1 of the STCW-95 code provided the student has completed the personal survival techniques and elementary first aid modules of Basic Safety Training(BST). Students must bring proof of completion of these BST modules to be issued a "Proficiency in Survival Craft"(Lifeboatman) certificate. Students will be required to handle the launch of a lifeboat and perform all tasks required of a lifeboat crew. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 139**STCW BASIC FIREFIGHTING****(16 Lecture/Lab Hrs. Total) 1 Credit**

A trainee successfully completing this course will be able to minimize the risk of fire, maintain a state of readiness to respond to emergency situations involving fire and fight & extinguish shipboard fires. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 144**STCW ADVANCED FIREFIGHTING****(1 Lecture, 23 Lecture/Lab Hrs.: 24 Hrs. Total) 2 Credits**

Students demonstrate knowledge and practical application of the basic fire fighting skills required by the U.S. Coast Guard for all persons employed on offshore vessels. Skill areas include theory of fire, prevention techniques and response/suppression. **Prerequisite:** MAS 139. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 146

VESSEL OPERATIONS

(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) **2 Credits**
 Students gain practical experience by participating in the operation of the college's fifty-foot training vessel. Activities include preparing for the trip; securing the vessel after the trip; and operations while underway. Many activities are conducted at sea, weather permitting. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 147

VESSEL REGULATIONS

(60 Lecture/Lab Hrs. Total) **3 Credits**
 Students learn to use the Code of Federal Regulations for Marine Transportation(46 CFR) for owner/operator drills and inspection and the preparation of a vessel for US Coast Guard inspection. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 148

VESSEL STABILITY

(60 Lecture/Lab Hrs. Total) **3 Credits**
 Students demonstrate and apply the principles of stability, including free surface effect, center of gravity, effects of loading, and the rolling period. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 150

CREWMEMBER MARINE SAFETY TRAINING

(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) **2 Credits**
 Students demonstrate mastery of the skills and techniques needed for prevention and treatment of cold water near drowning and hypothermia; cold-water survival skills; sea survival; fire fighting and emergency drills; orientation; and emergency instructions. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 155

INTRODUCTION TO WATCHKEEPING

(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) **2 Credits**
 Students demonstrate and apply watchkeeping skills including application of compass error; rules of the road; aids to navigation; marine radios; and position fixing and distance measuring on the nautical chart. Class includes practical experience during boat labs. Concurrently enrolled in MAS 175 is encouraged. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 164

INTRODUCTION TO NAVIGATION

(60 Lecture/Lab Hrs. Total) **3 Credits**
 Students demonstrate the knowledge and skills required to conduct a vessel safely from one position to another including position, direction, and distance on the water. Celestial navigation is not included in this course. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 165

PRACTICAL NAVIGATION

(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) **2 Credits**
 Students demonstrate mastery of navigation skills used on Mercator charts, including dead reckoning, fixing a position, and maintaining nautical charts. Students demonstrate proper use of major navigation publications. Concurrent enrollment in MAS 164 is encouraged. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 167

CELESTIAL NAVIGATION

(80 Lecture/Lab Hrs. Total) **4 Credits**
 Students demonstrate knowledge and skill in the practical application of plotting lines of position using the sun, moon, planets and stars by sight reduction tables. Students solve the types of celestial navigation problems incorporated in USCG examinations. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 168

CHARTS, AIDS TO NAVIGATION, AND MARINE COMPASSES

(60 Lecture/Lab Hrs. Total) **3 Credits**
 Students demonstrate in-depth knowledge of the Lateral and International Association of Lighthouse Authorities aids to navigation systems; the charts used in marine navigation; the magnetic compass, its deviation and compensation; and the basics of gyrocompasses. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 170

MARINE WEATHER, TIDES, CURRENTS AND WAVES

(60 Lecture/Lab Hrs. Total) **3 Credits**
 Students demonstrate in-depth knowledge of the effects of tides and currents, use of tables for calculating tides and currents, weather patterns found in the Pacific Northwest, and the use and interpretation of various weather instruments found onboard vessels. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 171

COASTAL NAVIGATION AND VOYAGE PLANNING

(60 Lecture/Lab Hrs. Total) **3 Credits**
 Introduction to principles of coastal navigation including tides and currents, set and drift, coastal radar navigation, dead reckoning, estimated positions, and bathymetric navigation. Students will be introduced to proper and effective voyage planning oriented to the Pacific coast and Pacific Northwest including selection of appropriate charts, research of publications, pre-plotting intended course, planning for set and drift, waypoint selection, ETA's, weather, and hazards that may be encountered. **Prerequisite:** MAS 164 or instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 172**OCEAN NAVIGATION AND VOYAGE PLANNING****(80 Lecture/Lab Hrs. Total)****4 Credits**

Students will be introduced to the tools and techniques of ocean navigation including great circle routes, electronic position fixing, use of sextant in ocean navigating, latitude by Polaris, latitude by meridian passage, ETA's, universal time, Nautical Almanac, and other publications used for ocean passages. Students will become familiar with ocean passage planning and enroute activities.

Prerequisite: MAS 171 or instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 175**RULES OF THE ROAD****(60 Lecture/Lab Hrs. Total)****3 Credits**

Students gain an in-depth knowledge of the Navigation Rules through studying the history of the Navigation rules, reading case studies of collisions, and analyzing the application of the Navigation Rules. It is suggested that this course be taken consecutively with MAS 155 Introduction to Watchkeeping.

Prerequisite: Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 180**MARINE ELECTRONICS****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students demonstrate and apply knowledge and skill in the use and operation of marine electronic equipment including radios, sounders, radar, sonar, loran, and Global Positioning System(GPS).

Prerequisite: Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 181**SEAMANSHIP I****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students learn and apply knowledge of marlinespike seamanship skills which includes the use of synthetic lines, line handling, and knots and splices, while actively participating in vessel operations. Includes five days of vessel time.

Prerequisite: Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 182**SEAMANSHIP II****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students acquire basic skills and knowledge of rigging techniques including the proper use of wire rope and blocks and tackles. Students continue to develop and refine marlinespike seamanship skills. Includes five days of vessel time.

Prerequisite: Completion of MAS 181 and instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 183**SEAMANSHIP III****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students acquire basic skills and knowledge of the safe operation of deck machinery found on workboats. Students continue to develop marlinespike seamanship skills. Successful completion of the US Coast Guard Able Seaman Practical Knot Exam and demonstration of skills mastered in previous Seamanship classes is required. Includes five days of vessel time.

Prerequisite: Completion of MAS 182 and instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 184**GALLEY COOKING****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students learn to select healthy, appetizing foods that can be prepared on a vessel underway. Includes safe storage techniques, meal selection, and budgeting.

Prerequisite: Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 185**BRIDGE TO BRIDGE COMMUNICATION****(60 Lecture/Lab Hrs. Total)****3 Credits**

Students will learn basic radio law and operation practices of marine radios, general information about Global Marine Distress Safety System(GMDSS) as required under Standards for Training and Certification for Watchkeeping(STCW) and International Maritime Organization(IMO) guidelines. Students will be prepared to take a Federal Communications Commission(FCC) exam on Elements 1 and 7.

Prerequisite: Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 186**SMALL VESSEL OPERATIONS I****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students are introduced to the duties and responsibilities of small vessel operations. They demonstrate vessel-handling skills under a variety of conditions while emphasizing standards of safe seamanship.

Includes five days of vessel time. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 187**SMALL VESSEL OPERATIONS II****(40 Lecture/Lab Hrs. Total)****2 Credits**

Focuses on advancing the skills required to safely handle small vessels under adverse conditions, minimizing the hazards of loading, and organizing and managing a navigational watch. Students are required to demonstrate skills learned in the previous small vessel operation class while onboard the training vessel.

Prerequisite: Completion of MAS 186 and instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 188

SMALL VESSEL OPERATIONS III

(40 Lecture/Lab Hrs. Total)

2 Credits

Students develop and demonstrate the skills required for safe operation of a small vessel. Students apply 46 CFR Sub-chapter T regulations for small passenger vessels, including conducting the required drills and inspections. Students also demonstrate advanced vessel handling skills and bridge management strategies. Demonstration of previously learned skills is required while onboard the training vessel. **Prerequisite:** Completion of MAS 187 and instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 189

APPLIED RIGGING TECHNOLOGY

(40 Lecture/Lab Hrs. Total)

2 Credits

In this hands-on rigging class held onboard the training vessel and in the classroom, students will learn about, and be able to demonstrate techniques and knowledge in, wire and synthetic rope, rigging hardware, tackle blocks, chain, slings, crane operation, crane safety, and load lifting. This course compliments the seamanship series. **Prerequisite:** Instructor approval. This course is intended for second year students. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 190

VESSEL PRACTICUM

(40 Lab Hrs. Total)

1 Credit

Students complete predetermined projects onboard the training vessel using skills learned in the classroom. Requires a consultation with an instructor to determine outcome objectives. **Prerequisite:** Instructor consultation and pre-determination of projects. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 191

DECKHAND PRACTICUM

(40 Lab Hrs. Total)

1 Credit

Students demonstrate knowledge and skills in vessel safety by actively performing the duties of a deckhand on the college's training vessel. **Note:** a total of four(4) credits of MAS 191 may be applied toward the AGS degree, Associate of Applied Science degree, and the One-Year Maritime Science certificate. Students are required to enroll in College's drug test program. **Prerequisite:** Completion of MAS 150, completion of vessel orientation course, and instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 192

INTRODUCTION TO DECK MACHINERY AND SAFETY

(40 Lecture/Lab Hrs. Total)

2 Credits

Students demonstrate knowledge of terminology; back deck practices including the safe operation of all deck equipment onboard the training vessel; safe working practices dockside and under way; making repairs and replacing worn or damaged gear; using crane signals; and maintaining a safe working environment. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 193

INTRODUCTION TO ENGINE ROOM MAINTENANCE AND SAFETY

(40 Lecture/Lab Hrs. Total)

2 Credits

Students demonstrate knowledge of terminology; engine room layout and machinery identification; working with limited space and accessibility; repair and maintenance procedures; preventive maintenance; emergency repair; use and care of hand tools; checking fluid levels and grease fittings; good housekeeping; and safe working practices. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 201

TANK SHIP DANGEROUS LIQUIDS

(30 Lecture, 10 Lecture/Lab Hrs. Total)

3 Credits

This U.S. Coast Guard approved STCW Tank Ship Dangerous Liquids course meets or exceeds the requirements to attain certification under the standards set forth by the U.S. Coast Guard and STCW 95 IMO regulations. Students demonstrate skills and knowledge needed to operate effectively as a Tankerman Person-In-Charge. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 205

SHIPBOARD MEDICAL CARE PROVIDER

(30 Lecture, 5 Lab Hrs.; 35 Hrs. Total)

3 Credits

Students develop the medical knowledge and skills necessary to provide medical first aid to ship's personnel and to assist the Shipboard Medical Person in Charge (Med Pic) with providing definitive medical care. **Prerequisite:** MAS 135 STCW Basic Safety. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 208

RATINGS FORMING PART OF A NAVIGATIONAL WATCH(RFPNW)

(16 Lecture, 16 Lecture/Lab Hrs.; 32 Hrs. Total)

2 Credits

This Coast Guard Approved 32 hour course provides students with the knowledge and skills, as well as assessments of those skills, necessary to stand lookout and helmsman watches on board vessels that operate under the International Maritime Organization standards. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MAS 209

RATINGS FORMING PART OF A NAVIGATIONAL WATCH(RFPNW)

(16 Lecture Hrs. Total)

1 Credit

This Coast Guard Approved 16 hour course provides students with the knowledge and skills, as well as assessments of those skills, necessary to stand lookout watches on board vessels that operate under the International Maritime Organization standards.

HM 120**HAZWOPER TRAINING****(12 Lecture, 12 Lab Hrs.; 24 Hrs. Total)****1 Credit**

Students learn and practice terminology, toxicology, hazard evaluation, chemical identification systems, personal protective equipment and hazardous waste site operations. Meets Federal requirement for HAZWOPER training as outlined in the Code of Federal Regulations, Part 29. **OFFERED AS NEEDED**

MIC MICROCOMPUTER APPLICATIONS**MIC 145****INTRODUCTION TO INTEGRATED SOFTWARE****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn to use an integrated software package that includes word-processing, database, spreadsheet, graphics, and communications operations. **Prerequisite:** Touch keyboarding skill recommended. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MIC 178**USING THE INTERNET FOR COMMUNICATION AND RESEARCH****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students get overview information and hands-on experience in accessing and using the resources of the INTERNET. Students learn the basics of networked communications and have the opportunity to use their knowledge of a networked environment. **Prerequisite:** CS 131. **OFFERED AS NEEDED.**

MIC 207**PRESENTATION SOFTWARE****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students use software packages and creative design principles to create professional quality presentations that may include on-screen, multi-media, slide show, and hard copy applications. **Prerequisite:** CS 131 or MIC 145. **WINTER 2012, 2013**

MIC 295**MICROCOMPUTER DIRECTED PROJECT****(.00 Lecture, 6.0 Lab Hrs./Wk.)****4 Credits**

This is the capstone course for the Microcomputer Business Applications program. Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of specialization. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Microcomputer Business Applications program. **Prerequisite:** Completion of all but the last quarter of program course work. **SPRING 2012, 2013**

MTH MATHEMATICS**MTH 10****MATH IMPROVEMENT****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students will recognize, and develop skills to cope with, test and math anxiety. Students develop skills in functional math concepts including place value identification, estimating, rounding, whole number operations, fractions, and decimals. Instruction emphasizes vocabulary and math life skills including patterning, grouping, and logical thinking sequences. **Prerequisite:** Math placement as recommended by COMPASS, or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 60**PRE-ALGEBRA III****(8.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students master the fundamentals of applied algebra with some geometry. They compute simple algebraic expressions, first degree equations, dimensional analysis, ratio and proportions, and do some numerical evaluations. **Prerequisite:** Completion of MTH 010, Pre-Algebra Compass Test score 28-100, or COMPASS Algebra below 47. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 65**MATHEMATICS FOR THE APPLIED SCIENCES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students solve problems from a variety of occupations using fractions, decimals, percents, proportions, right angle trigonometry, graphs, and statistics. This course satisfies the general education mathematics requirement for most of the Professional and Technical degrees. **Prerequisite:** Passing score on COMPASS Math Competency exam or MTH 60 with a "B" grade or better. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 70**ALGEBRA - BEGINNING****(8.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students employ communication and problem solving skills that involve mathematical reasoning. Topics include solving linear equation in two variables, graphing linear equations, integer exponents, polynomial arithmetic, and factoring polynomials. Students will begin to use graphing calculators as a mathematical tool. **Prerequisite:** MTH 60 with a "C" grade or better, or COMPASS placement at MTH 70 level or instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 95**ALGEBRA - INTERMEDIATE****(8.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students demonstrate an understanding of polynomials, exponents, radical, first and second-degree equations and inequalities, functions and graphs, systems of equations, rational expressions and absolute value functions. For students who have had only one year of high school algebra and/or need a review of concepts typically covered in second year of high school algebra in preparation for college algebra. **Prerequisite:** MTH 70 with a "C" grade or better, or appropriate score on the COMPASS mathematics placements test. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 103**APPLIED COLLEGE ALGEBRA****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students examine algebraic techniques and concepts related to linear, quadratic, rational, piecewise, exponential and logarithmic functions. Problem solving skills, mathematical modeling and applications will be emphasized. Graphing calculator required. **Prerequisite:** MTH 70 with a "C" grade or better or appropriate score on the COMPASS mathematics placement tests. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 105**INTRODUCTION TO CONTEMPORARY MATHEMATICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students use systematic reasoning to solve a variety of problems. Study topics may include history of mathematics, financial mathematics, mathematics of voting, number systems, Euler circuits, geometry, symmetry, Fibonacci numbers, golden ratio, probability and statistics. This course is a survey of mathematical concepts and techniques for non-science majors. **Prerequisite:** MTH 95 or appropriate score on the COMPASS mathematics placement tests. **SPRING 2012, 2013**

MTH 111**COLLEGE ALGEBRA****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate their knowledge of polynomial, exponential and logarithmic functions through the solution of equations and inequalities using a combination of current technology and algebraic methods. For students who have had two years of algebra and one year of geometry in high school. **Prerequisite:** MTH 95 with a "C" grade or better or appropriate score on the COMPASS mathematics placement tests. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MTH 112**ELEMENTARY FUNCTIONS - TRIGONOMETRY****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students are introduced to concepts and applications of trigonometric functions and their inverses by exploring topics such as triangle ratios, periodic functions, and trigonometric identities. For students planning to take MTH 251 Calculus I who have little or no background in trigonometry. **Prerequisite:** MTH 111. **SPRING 2012, 2013**

MTH 116**PRE-CALCULUS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students prepare for calculus and higher mathematics courses. Students will work competently with elementary principles of functions to prepare for the study of higher mathematics and analyze the behavior of different mathematical models. Students will also examine the various conic sections and their applications as well as the elementary ideas of sequences and series and discrete mathematics. **Prerequisite:** MTH 111. **WINTER 2012, 2013**

MTH 211**FUNDAMENTALS OF ELEMENTARY MATHEMATICS I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and teaching techniques used in elementary school mathematics. Concepts covered include patterning and problem solving, set theory, number systems, basic operations and number theory. **Prerequisite:** Completion of / or concurrently enrolled in MTH 95. Courses do not have to be taken in sequence. **FALL 2012**

MTH 212**FUNDAMENTALS OF ELEMENTARY MATHEMATICS II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and teaching techniques used in elementary school mathematics. Concepts covered include number theory, integers, fractions, rational numbers, irrational numbers, probability and statistics. **Prerequisite:** MTH 95 with a "C" grade or better, or instructor approval. Courses do not have to be taken in sequence. **WINTER 2013**

MTH 213**FUNDAMENTS OF ELEMENTARY MATHEMATICS III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and teaching techniques used in elementary school mathematics. Concept covered Euclidean geometry, translations, tessellations, and symmetry groups. **Prerequisite:** MTH 95 with a "C" grade or better, or instructor approval. Courses do not have to be taken in sequence. **SPRING 2013**

MTH 243**INTRODUCTION TO PROBABILITY AND STATISTICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate their knowledge of descriptive statistics by the collection, summarization, and analysis of data and the use of current technology. For students majoring in the arts, sciences and business programs. **Prerequisite:** MTH 111 with a "C" grade or better, or instructor approval. **WINTER 2012, 2013**

MTH 244**INTRODUCTION TO PROBABILITY AND STATISTICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate their knowledge of descriptive and inferential statistics through the use of basic one- and two-sample inferential techniques and current technology. For students majoring in the arts, sciences and business programs that require two terms of statistics. **Prerequisite:** MTH 243 with a "C" grade or better. **SPRING 2012, 2013**

MTH 251**CALCULUS I****(5.00 Lecture Hrs./Wk.)****5 Credits**

Students learn differentiation using graphical, numerical, and analytical approaches. Students will read, understand and discuss applied differential calculus concepts. Students will utilize graphing programmable calculators and computer technology. **Prerequisite:** MTH 112 with of "C" grade or better. **FALL 2011, 2012**

MTH 252**CALCULUS II****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students read, understand, and discuss applied integral calculus concepts. Students will deepen their understanding of Riemann sums and apply that knowledge in the development of definite integrals and the Fundamental Theorem of Calculus. Students will learn additional integration techniques. Students will utilize graphing programmable calculators. **Prerequisite:** MTH 251 with "C" grade or better. **WINTER 2012, 2013**

MTH 253**CALCULUS III****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to learn new integration techniques using graphical, numerical, and analytical approaches. Students will apply their knowledge of differentiation and integration in mathematical modeling and other applications. Students will investigate series and sequences. Graphing technology will be used. **Prerequisite:** MTH 252 with "C" grade or better. **SPRING 2012, 2013**

MUP MUS MUSIC**MUP 180****INDIVIDUAL LESSONS - GUITAR****(.50 Lecture, 6.00 Lab Hrs./Wk.)****2 Credits**

Students take individual instruction in beginning guitar. **Note:** No more than 12 credits on a major instrument and six credits on a secondary instrument of individual lessons numbered MUP 171-192 and 271-292 may be applied to an associate degree. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MUP 280**INDIVIDUAL LESSONS - GUITAR****(.50 Lecture, 6.00 Lab Hrs./Wk.)****2 Credits**

Individual instruction in advanced guitar. **Note:** No more than 12 credits on a major instrument and six credits on a secondary instrument of individual lessons numbered MUP 171-192 and 271-292 may be applied to an associate degree. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

MUS 105**MUSIC APPRECIATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students briefly study the elements of music, then examine the major historical music eras including contemporary musical theatre, popular music, and non-western music. Includes significant art music composers and compositions from those eras. **OFFERED AS NEEDED**

MUS 134**GROUP VOICE - BEGINNING****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn techniques of chorale singing through participation in the North Coast Chorale. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

MUS 142**GROUP WOODWIND - BEGINNING****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn techniques of ensemble woodwind performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

MUS 143**GROUP WOODWIND - INTERMEDIATE****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn techniques of ensemble woodwind performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

MUS 144

GROUP BRASS - BEGINNING

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn techniques of ensemble brass performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

MUS 145

GROUP BRASS - INTERMEDIATE

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn techniques of ensemble brass performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

MUS 147

GROUP PERCUSSION - BEGINNING

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn techniques of ensemble percussion performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

MUS 148

GROUP PERCUSSION - INTERMEDIATE

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn techniques of ensemble percussion performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required. **OFFERED AS NEEDED**

NFM NUTRITION & FOOD MANAGEMENT

NFM 225

HUMAN NUTRITION

(4.00 Lecture Hrs./Wk.)

4 Credits

Students develop an understanding of nutrients, their functions, food sources, effects of deficiency, recommended dietary allowances, assessment of nutritional status, practical human nutrition, and nutritional controversies including food fads and fallacies. **Prerequisite:** None, general understanding of chemistry and human anatomy and physiology strongly recommended. **SUMMER 2011, 2012; WINTER 2012, 2013**

NUR NURSING

NUR 050 and 050L

BASIC NURSING SKILLS

(11 Lecture and 33 Lab Hrs. Total)

2 Credits

Students learn specific nursing procedures that meet the common daily needs of the individual in a hospital or extended care setting. Students will develop an understanding of and use core concepts including caring, holistic health, and professional behaviors. Major concepts including asepsis, safety, confidentiality and appropriate communication are learned. Students will practice in the nursing skills laboratory and in selected clinical experiences. **Prerequisite:** Admission into Nursing Program. **Co-requisite:** NUR 050 with NUR 050L. **SUMMER 2011, 2012**

NUR 060

NURSING SEMINAR

(1.00 Lecture Hr./Wk.)

1 Credit

Nursing students improve their study skills and enhance learning by recognizing alternative learning styles and methods, organizing for effective study, and preparing for testing. **Prerequisite:** Admission into Nursing Program. **OFFERED AS NEEDED**

NUR 080A

CERTIFIED NURSING ASSISTANT-PART A

(20.00 Lecture and 30.00 Lab Hrs Total)

3 Credits

Students acquire, demonstrate and deliver routine patient care to residents of long term care and other facilities. This course includes instruction in basic bedside nursing skills, restorative services, mental health and social needs as well as personal care skills and patient rights. Students will be given an introduction to anatomy and physiology. This is the first of three classes that prepares students to be certified as a nursing assistant in the state of Oregon. This course meets the requirements of the Oregon State Board of Nursing for certification as a nursing assistant. **FALL 2011, 2012**

NUR 080B

CERTIFIED NURSING ASSISTANT-PART B

(20.00 Lecture and 30.00 Lab Hrs Total)

3 Credits

Students acquire, demonstrate and deliver routine patient care to residents of long term care and other facilities. This course includes instruction in basic bedside nursing skills, restorative services, mental health and social needs as well as personal care skills and patient rights. Students will be given an introduction to anatomy and physiology. This is the second of three classes that prepares students to be certified as a nursing assistant in the state of Oregon. This course meets the requirements of the Oregon State Board of Nursing for certification as a nursing assistant. **Prerequisite:** Successful completion of NUR 080A. **WINTER 2012, 2013**

NUR 080C

CERTIFIED NURSING ASSISTANT-PART C

(90.00 Lab Hrs Total)

3 Credits

Students will complete a minimum of 75 hours of clinical experience in a long term care facility. Students will deliver routine patient care to residents within the scope of practice of a nursing assistant. Included in this care is basic bedside nursing skills, restorative services, mental health, social needs, personal care, and patient rights. Students will participate in pre and post conferences to share experiences, problem solve, and answer questions. Third of a three-part series. **Prerequisite:** Successful completion of NUR 080 Parts A and B within the previous 12 months. Before starting clinicals, students must: 1) complete of theory portion of course with passing grade of C or higher(must pass final exam with a 75% or higher); 2) satisfactorily complete lab/clinical skills; 3) submit to a criminal background check; 4) provide documentation of current immunization status as per health occupations department policy; and 5) provide documentation of current CPR certification. **SPRING 2012, 2013**

NUR 101 and NUR 101L
NURSING: FOUNDATIONS OF CARE
(5.00 Lecture, 9.00 Lab Hrs./Wk.)

8 Credits

Students are introduced to nursing concepts and foundations of professional nursing practice. Explores health promotion across the lifespan. The student learns and delivers basic nursing care in a variety of settings. This course includes classroom and clinical learning experiences. **Prerequisite:** Admission to the nursing program; satisfactory completion of a certified nursing assistant(CNA) course or NUR 50; current CPR certification; evidence of hepatitis B and measles immunizations(or signed waiver) and a TB test within the past 3 months. Concurrent registration in or satisfactory completion of MTH 95 Intermediate Algebra or higher. **Co-requisite:** NUR 101 with NUR 101L. **FALL 2011, 2012**

NUR 102 and NUR 102L
NURSING: FOCUS ON INDIVIDUALS
(5.00 Lecture, 12.00 Lab Hrs./Wk.)

9 Credits

Building on concepts and skills learned in NUR 101, students learn the knowledge and skills needed to care for individuals with select acute and chronic health care problems. Focuses on the care of individuals requiring surgical intervention and individuals with disorders of the respiratory, cardiovascular, gastrointestinal, urinary, and endocrine systems. This course includes classroom and clinical learning experiences. **Prerequisite:** NUR 101 with a "C" grade or better. **Co-requisite:** NUR 102 with NUR 102L. **WINTER 2012, 2013**

NUR 103 and NUR 103L
NURSING: FOCUS ON FAMILIES
(5.00 Lecture, 12.00 Lab Hrs./Wk.)

9 Credits

Building on concepts and skills learned in NUR 102, students learn the knowledge and skills needed to care for individuals with select acute and chronic health care problems. Focuses on the care of individuals with disorders of fluids, electrolytes, hematologic, immune, musculoskeletal, neurologic, and reproductive disorders. This class also provides students with knowledge and skills needed to care for clients across the continuum of life to include birth and death. Provides the student with the essential components of transition to practice as an LPN. This course includes classroom and clinical learning experiences. **Prerequisite:** NUR 102, NUR 112 with "C" grade or better. **Co-requisite:** NUR 103 with NUR 103L. **SPRING 2012, 2013**

NUR 105
FOUNDATIONS OF PHARMACOLOGY FOR NURSES
(1.00 Lecture Hr./Wk.)

1 Credit

Nursing students are introduced to the basic principles of pharmacology as they apply to the safe administration of pharmacologic agents to clients in the health care setting. Students acquire knowledge of principles of drug therapy, pharmacodynamics and pharmacokinetics, variables affecting client response to drug

therapy, and application of the nursing process in administration of medications to clients. **Prerequisite:** Admission to the Nursing Program; Co-requisite NUR 101. **FALL 2011, 2012**

NUR 109 and NUR 109L
NURSING: FOCUS ON MENTAL HEALTH
(24 Lecture and 64 Lab Hrs. Total)

4 Credits

Students prepare to provide nursing care for clients with mental health or psychiatric disorders in an inpatient setting. Students incorporate the following functional health patterns in providing care: health perception/health management; cognitive/perceptual; self perception/self concept; role/relationship; and coping/stress tolerance. Students use the concepts of caring, holistic health, critical thinking, and professional behaviors in the mental health setting. **Prerequisite:** NUR 103 with a "C" grade or better. **Co-requisite:** NUR 109 with NUR 109L. **FALL 2011, 2012**

NUR 111
NURSING CONCEPTS AND CLINICAL PRACTICE
(12 Lec/6 Lab Hrs/1Cr; 12 Lec/20 Lab Hrs/2Cr; 20 Lec/30 Lab Hrs/3Cr)

1-3 Credits

Students are introduced to fundamental concepts of the Clatsop Community College nursing curriculum and reviews previously learned information and skills for students who have previous nursing education(i.e., advanced placement students into the Nursing Program). **Prerequisite:** Advanced placement admission to the nursing program(admission at any point beyond NUR 101). **OFFERED AS NEEDED**

NUR 112
COLLABORATIVE PRACTICE I: PHARMACOLOGY
(2.00 Lecture Hrs./Wk.)

2 Credits

Students acquire and demonstrate knowledge of pharmacology and the role of the nurse in administering and monitoring use of medications and natural products to clients. Learners identify nursing roles and responsibilities in caring for clients receiving pain medications, hypoglycemic agents, drugs affecting the endocrine, respiratory, cardiovascular systems, and medications used to treat GI disorders. **Prerequisite:** Admission to the nursing program and completion of NUR 101 with a C grade or higher; completion of MTH 65 or MTH 95 or higher with a C grade or higher. **Co-requisite:** NUR 102. **WINTER 2012, 2013**

NUR 113
COLLABORATIVE PRACTICE II: PATHOPHYSIOLOGY & PHARMACOLOGY
(1.00 Lecture Hr./Wk.)

1 Credit

Students acquire knowledge of pathophysiology and pharmacology that they can apply to the nursing role. Students identify nursing roles and responsibilities in administering medications to treat selected conditions. **Prerequisite:** Completion of NUR 102 and NUR 112 with a C grade or higher or instructor permission. **Co-requisite:** NUR 103 or instructor permission. **SPRING 2012, 2013**

NUR 115A**RESEARCH AND WRITING FOR NURSING STUDENTS****(1 Lecture Hr./Wk) 1 Credit**

Students will develop the skills needed to research a health promotion topic and prepare a professional research paper consistent with the expectations of the nursing program. **Prerequisite:** Acceptance into the Nursing Program. **FALL 2011, 2012**

NUR 115B**PHYSICAL ASSESSMENT, PART I****(20 Lecture/Lab Hrs. Total) 1 Credit**

Students review principles and techniques of physical assessment for the practicing nurse or nursing student. Part one of a two-part course. Each section will include a review of related anatomy and physiology; principles, techniques, and practice of physical examination; and common changes from the norm. Students should be able to perform a completed history and physical examination in an organized, systematic manner by the end of the course. **Prerequisite:** Enrollment in the Nursing Program.

WINTER 2012, 2013**NUR 115C****PHYSICAL ASSESSMENT, PART II****(20 Lecture/Lab Hrs. Total) 1 Credit**

Students learn the knowledge and skills needed to perform a comprehensive physical assessment. Part 2 of a two-part course. Reviews principles and techniques of physical assessment for the nursing student. Each section will include a review of related anatomy and physiology, principles, techniques, and practice of physical examination; and common changes from the norm. Students should be able to perform a complete history and physical examination in an organized, systematic manner by the end of the course. **Prerequisite:** Enrollment in the Nursing Program.

SPRING 2012, 2013**NUR 201 and NUR 201L****NURSING: CLIENTS IN CRISIS****(4.00 Lecture, 12.00 Lab Hrs./Wk.) 8 Credits**

The developing professional nurse applies functional health patterns in caring for clients with acute and/or critical problems in the hospital setting, including critical care settings. Students learn and use complex psychomotor skills and incorporate core concepts into practice. This course continues to build on previously learned concepts and skills. **Prerequisite:** Satisfactory completion of NUR 109 and all first year nursing program course requirements with a "C" grade or better. Current health provider CPR certification. Completion of hepatitis B series or signed waiver; TB test within the past 12 months. **Co-requisite:** NUR 201 with NUR 201L.

FALL 2011, 2012**NUR 202 and NUR 202L****NURSING: FAMILIES IN CRISIS****(5.00 Lecture, 12.00 Lab Hrs./Wk.) 9 Credits**

Students learn and apply the knowledge and skills necessary to provide holistic care to clients and families experiencing a health

related crisis such as a critical illness, an exacerbation of a chronic illness or an end-stage disease. This course continues to build on previously learned concepts and skills. Students utilize the nursing process and functional health patterns to provide care for clients with complex health issues. **Prerequisite:** Completion of NUR 201 and NUR 231 with a C grade or higher. **Co-requisite:** NUR 202 with NUR 202L. **WINTER 2012, 2013**

NUR 208 and NUR 208L**NURSING: TRANSITION INTO PRACTICE****(4.00 Lecture/ 12.00 Lab Hrs./Wk.) 8 Credits**

Students prepare for the transition from nursing student to registered nurse. This class continues to build on concepts and skills learned in the previous terms. Students apply learned skills and concepts, providing client care in a community or institutional setting under the guidance of a nurse preceptor. Students have opportunities to learn and apply the knowledge and skills needed to address health issues that have an impact on the community. Students plan and participate in a community health project and explore community resources. Students also explore integrative therapies. **Prerequisite:** Completion of NUR 202 and NUR 232 with a grade of C or higher. **Co-requisite:** NUR 208 with NUR 208L. **SPRING 2012, 2013**

NUR 231**COLLABORATIVE PRACTICE III: PATHOPHYSIOLOGY & PHARMACOLOGY****(2.00 Lecture Hrs./Wk.) 2 Credits**

Students acquire knowledge of pathophysiology and pharmacology that they can apply to the nursing role. Learners demonstrate an increasing understanding of complications of diabetes mellitus, cardiovascular disease, acute and chronic respiratory diseases, and trauma on clients. Students identify nursing roles and responsibilities in administering selected medications to acutely and chronically ill clients. **Prerequisite:** Completion of all first year nursing program course requirements with a grade of C or better.

Co-requisite: NUR 201. **FALL 2011, 2012****NUR 232****COLLABORATIVE PRACTICE IV: PATHOPHYSIOLOGY & PHARMACOLOGY****(2.00 Lecture Hrs./Wk.) 2 Credits**

Students acquire knowledge of pathophysiology and pharmacologic treatment of selected conditions that they can apply to the nursing role. Learners demonstrate an understanding of the effects of HIV infection and its complications on the client and current drug therapies for treatment of HIV infection. Students identify the basic pathophysiology of cancer and demonstrate an understanding of chemotherapeutic drugs. Students identify pathophysiological changes that occur with tuberculosis, and nursing responsibilities when caring for this client and administering antimycobacterials. **Prerequisite:** Completion of NUR 201 and NUR 231 with a grade of C or better; **Co-requisite:** concurrent registration in NUR 202.

WINTER 2012, 2013

OA OFFICE ADMINISTRATION

OA 104
ENGLISH FOR BUSINESS
 (4.00 Lecture Hrs./Wk.) **4 Credits**
 Students improve their skill in grammar, spelling, vocabulary, punctuation, and the use of reference sources and electronic aids. **Prerequisite:** Score of 42+ on the COMPASS Writing placement test, or instructor approval. **WINTER 2012, 2013**

OA 116
OFFICE PROCEDURES
 (4.00 Lecture Hrs./Wk.) **4 Credits**
 Students become proficient in procedures of office work including business communication skills, office management and support duties, and human relations skills. **Prerequisite:** COMPASS Reading placement test score of 44+ or instructor approval. Recommended 30 words a minute or more keying. **FALL 2011, 2012**

OA 120
COMPUTER KEYBOARDING
 (2.00 Lecture/Lab Hrs./Wk.) **1 Credit**
 Students develop basic keyboarding techniques using a computer terminal. Applicable to all disciplines. **Prerequisite:** COMPASS Reading placement test score of 44+ or instructor approval. English language and reading skills. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

OA 121
KEYBOARDING I
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students develop skill in keyboarding techniques, proofreading, and machine composition. They acquire skill in producing simple letters, reports, and memorandums. **Note:** Students are placed in keyboarding classes according to their demonstrated proficiency. **Prerequisite:** COMPASS Reading placement test score of 44+ or instructor approval. English language and reading skills. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

OA 124
KEYBOARDING SKILL BUILDING
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students identify and correct keyboarding problems, develop overall keyboarding skill, and evaluate skill development progress. **Prerequisite:** Recommended OA 120, OA 121, or keying of at least 20 words a minute. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

OA 126
OFFICE SKILLS FOR THE MEDICAL SETTING
 (4.00 Lecture Hrs./Wk.) **4 Credits**
 Students will become experienced in the areas of entry level office procedures such as telephone techniques including etiquette, patient scheduling, office organization, office communication, the use of office machinery such as faxes and multi-line phones while providing for patient privacy and confidentiality. In addition an introduction to computer systems, software and billing, coding and insurance procedures will be explored. **FALL 2011, 2012**

OA 131
10-KEY SKILL BUILDING
 (2.00 Lecture/Lab Hrs./Wk.) **1 Credit**
 Students develop speed and accuracy using the 10-key numerical keypad. **Prerequisite:** English language and reading skills. **FALL 2011, 2012**

OA 142
MEDICAL TRANSCRIPTION
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students review and apply their knowledge of medical terminology through simulated transcription of medical correspondence and reports. **Prerequisite:** OA 121, OA 201, and OA 225 or instructor approval. **SPRING 2012, 2013**

OA 201
WORD-PROCESSING PROCEDURES I
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students develop word-processing knowledge and skills necessary for using microcomputers and Windows software to prepare and edit documents. **Prerequisite:** Touch keyboarding skills are recommended. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

OA 202
WORD-PROCESSING PROCEDURES II
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students increase their proficiency in using word-processing; develop skill in using advanced-level functions, practice desktop publishing operations and detailed office-style formatting. **Prerequisite:** OA 201. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

OA 205
DESKTOP PUBLISHING
 (2.00 Lecture Hrs./Wk.) **2 Credits**
 Students develop skill in using desktop publishing software to create newsletters, brochures, business cards, etc. for course work, professional purposes, and personal use. **Prerequisite:** OA 201 or MIC 145. **WINTER 2012, 2013**

OA 225
MACHINE TRANSCRIPTION
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students demonstrate skill in using transcribing equipment in rough-draft, memorandum, and letter formats. They become proficient in proofreading and editing copy. **Prerequisite:** OA 121 and OA 201 or instructor approval. **WINTER 2012, 2013**

OA 240
FILING AND RECORDS MANAGEMENT
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**
 Students develop competence in basic filing rules, proficiency in setting up manual filing systems, and an understanding of the overall records management function in both small and large businesses. **Prerequisite:** CSD 122 or instructor approval. **FALL 2011, 2012**

OA 295
OFFICE SYSTEMS DIRECTED PROJECT
 (2.00 Lecture & 6.00 Lab Hrs./Wk.) **4 Credits**
 Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of specialization. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Office Systems program. **Prerequisite:** Completion of all but the last quarter of program course work. **SPRING 2012, 2013**

PE PHYSICAL EDUCATION

No more than six credits of PE 185 earned in different activities at different levels may be applied to an associate degree.

PE 185AA
AEROBIC EXERCISE - BEGINNING
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students learn and participate in a variety of aerobic exercises designed to increase the strength and capacity of the cardiovascular system. Students will be instructed in and execute heart rate monitoring, proper warm-up and cool down techniques, and participate in other exercises that compliment aerobic exercise. **FALL 2011, 2012; WINTER 2012, 2013**

PE 185AB
AEROBIC EXERCISE - INTERMEDIATE
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students continue to participate in activities and develop benefits acquired in the PE 185 Aerobic Exercise-Beginning. Students will continue to participate in different aerobic activities that increase cardiovascular strength and develop a clear understanding in the importance of including aerobic exercise into a healthy lifestyle. **Prerequisite:** PE 185AA Aerobic Exercise-Beginning. **FALL 2011, 2012; WINTER 2012, 2013**

PE 185BA
BASKETBALL - BEGINNING
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students learn and practice skills related to the game of basketball. Provides sufficient skills and knowledge to serve the student's recreational interest as a player or spectator. **WINTER 2012, 2013**

PE 185BB
BASKETBALL - INTERMEDIATE
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students develop and practice beginning and more advanced basketball skills. Advanced offensive and defensive concepts and patterns of the game will be introduced and practiced. **Prerequisite:** PE 185BA Basketball-Beginning. **WINTER 2012, 2013**

PE 185CA
CROSS TRAINING FOR FITNESS - BEGINNING
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students combine different components of sports and recreational activities along with fitness components producing a workout that will enhance one's cardiovascular fitness as well as agility, speed, strength, balance, and flexibility. This class includes components of kickboxing, plyometrics, martial arts, aerobic conditioning, yoga, strength training and other activities related to fitness, recreation, and sports. **Prerequisite:** Good physical condition which may require doctor's approval when necessary. **SPRING 2012, 2013**

PE 185CB
CROSS TRAINING FOR FITNESS - INTERMEDIATE
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students combine different components of sports and recreational activities along with fitness components will be combined to produce a workout that will continue to enhance one's cardiovascular fitness as well as agility, speed, strength, balance, coordination, and flexibility. This class includes components of kickboxing, plyometrics, martial arts, strength training, aerobic conditioning, yoga, and other activities related to fitness, recreation, and sports. **Prerequisite:** PE 185CA Cross Training for Fitness – Beginning. **SPRING 2012, 2013**

PE 185HA
HATHA YOGA - BEGINNING
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students practice the yoga of physical well being, emphasizing breathing techniques and the development of a strong, flexible, relaxed and well-toned body. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185HB
HATHA YOGA - INTERMEDIATE
 (3.00 Lab Hrs./Wk.) **1 Credit**
 Students practice the basic techniques of Hatha Yoga and understand its philosophy as related to western culture. **Prerequisite:** PE 185HA Hatha Yoga-Beginning or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185PA**PERSONAL FITNESS BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students develop and actively participate in an individualized fitness program emphasizing cardiovascular fitness, muscular strength, endurance, and flexibility. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185PB**PERSONAL FITNESS INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students develop and actively participate in an individualized conditioning program emphasizing cardiovascular fitness, muscular strength, endurance, and flexibility. They receive information on weight control and nutrition. **Prerequisite:** PE 185PA Personal Fitness-Beginning or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185PC**PILATES BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students participate in a specific series of exercises, known as Pilates, done in a certain sequence while lying on a mat. The exercises are designed to promote a balanced musculoskeletal system, resulting in core strength, flexibility, good posture and improved body awareness. **FALL 2011, 2012; SPRING 2012, 2013**

PE 185PD**PILATES INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students participate in a specific series of exercises, known as Pilates, done in a certain sequence while lying on a mat. The exercises are designed to promote a balanced musculoskeletal system, resulting in core strength, flexibility, good posture and improved body awareness. Students will further their Pilates practice by practicing more advanced and difficult exercises. **Prerequisite:** PE 185PC Pilates-Beginning or instructor approval. **FALL 2011, 2012; SPRING 2012, 2013**

PE 185TA**TENNIS - BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students learn the basic skills, strategy, and rules needed to play the game of tennis at a satisfactory recreational level. **SPRING 2012, 2013**

PE 185TB**TENNIS INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students develop and apply more advanced skills and strategies needed to play the game of tennis at an advanced recreational level. **Prerequisite:** PE 185TA Tennis-Beginning. **SPRING 2012, 2013**

PE 185VA**VOLLEYBALL BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students develop and apply the fundamental skills, strategies, rules, and etiquette of volleyball. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185VB**VOLLEYBALL INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students improve volleyball skills, develop team play and strategies and acquire advanced individual and team skills and techniques. **Prerequisite:** PE 185 VA Volleyball Beginning or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185WA**WEIGHT TRAINING BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students engage in various methods of weight training which emphasize progressive strength training and lifetime fitness. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PE 185WB**WEIGHT TRAINING INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students engage in various methods of weight training which emphasize lifetime fitness. Students will continue to execute plans and training methods toward personal workout goals. **Prerequisite:** PE 185WA Weight Training-Beginning or instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PH PHYSICS**PH 201****GENERAL PHYSICS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students develop a general knowledge of physics from mechanics to nuclear physics, particularly the law of conservation of energy and how it relates to humans in every day life. **Prerequisite:** MTH 95. **FALL 2011, 2012**

PH 202**GENERAL PHYSICS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students utilize direct inquiry, discussion with peers, and a microcomputer to take the role of a physicist. Students develop mathematical descriptions of mechanical motion. **Prerequisite:** Completion of or concurrent enrollment in MTH 111. **WINTER 2012, 2013**

PH 203

GENERAL PHYSICS

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students utilize direct inquiry, discussion with peers, and a microcomputer, to take the role of the physicist. Students develop mathematical descriptions of rotational motion, thermodynamics, and electric current. **Prerequisite:** PH 202. **SPRING 2012, 2013**

PH 211

GENERAL PHYSICS WITH CALCULUS

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students utilize direct inquiry, discussion with peers, and a computer to take the role of a physicist: observing, acquiring data, and analyzing results rapidly and accurately. Students develop mathematical descriptions of mechanical motion. This sequence is for students planning further study in science or engineering. **Prerequisite:** Completion of, or concurrent enrollment in MTH 251. **FALL 2011, 2012**

PH 212

GENERAL PHYSICS WITH CALCULUS

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students utilize direct inquiry, discussion with peers, and a computer to develop mathematical descriptions for mechanical energy, rotational motion and electricity. **Prerequisite:** PH 211. **WINTER 2012, 2013**

PH 213

GENERAL PHYSICS WITH CALCULUS

(4.00 Lecture, 3.00 Lab Hrs./Wk.)

5 Credits

Students utilize direct inquiry, discussion with peers, and a computer to develop mathematical descriptions for electricity, magnetism and thermodynamics. **Prerequisite:** PH 212. **SPRING 2012, 2013**

PHL PHILOSOPHY

PHL 101

PHILOSOPHICAL PROBLEMS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn to use philosophy as a discipline to apply to all human experience and knowledge, and understand the philosophical questions that have focused human speculation about reality, humanity, the mind and the self throughout human history. **FALL 2011, 2012**

PHL 102

ETHICS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop an understanding of key ethical problems that have confronted mankind across cultures and times, ethical codes used to resolve them, and how these can be applied to current social issues. **WINTER 2012, 2013**

PHL 103

CRITICAL REASONING

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop concepts and tools for rational analysis and creative thinking, and learn to assess habits of mind that lead to shallow and fallacious thinking. **SPRING 2012, 2013**

♦ PHL 208

POLITICAL PHILOSOPHY

(3.00 Lecture Hrs./Wk.)

3 Credits

This introductory course in modern political philosophy is a survey of the major modern political theorists, from Hobbes and Locke to Marx and Rawls, and explores such ideas as liberalism, libertarianism, Marxism, communitarianism, citizenship, multiculturalism and feminism. **WINTER 2012, 2013; SUMMER 2012, 2013**

PS POLITICAL SCIENCE

PS 201

AMERICAN GOVERNMENT

(3.00 Lecture Hrs./Wk.)

3 Credits

Students examine the basic background of American traditions of Government and the American Constitution. Topics of special interest include: the Constitution, the Bill of Rights, political culture, interest groups, political parties, public opinion, politics, campaigns, and elections. **FALL 2011, 2012**

PS 202

AMERICAN GOVERNMENT

(3.00 Lecture Hrs./Wk.)

3 Credits

Students examine the basic policy-making institutions of government, the rights and liberties of individuals, and politics of national policy. **WINTER 2012, 2013**

PS 203

STATE AND LOCAL GOVERNMENT

(3.00 Lecture Hrs./Wk.)

3 Credits

Students examine the basic policy-making institutions of local and state government. Students will participate with visitation by state/local political leaders and also attend and evaluate public meetings. **SPRING 2012, 2013**

PS 205

INTERNATIONAL POLITICS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students study ten major issues of the global community, including American foreign policy, and the nature of relations between nations—specifically contemporary international issues; nationalism, economic rivalries, and quest for security; and the problem of international cooperation, changing threats to security in the post-Cold War era, and the increasing importance of economic competition. **SPRING 2013**

PSY PSYCHOLOGY

PSY 101
PSYCHOLOGY OF HUMAN RELATIONS
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students learn to apply scientific knowledge from psychology to improve relationships with self and others. This course includes self-exploration and practice of interpersonal skills. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

PSY 190
STRESS THEORY AND MANAGEMENT
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students develop a basic theoretical understanding of the bio-psychology of stress, psycho-social factors contributing to stress, and strategies that reduce stress responses. **SPRING 2012, 2013**

PSY 201
GENERAL PSYCHOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students learn the historical and contemporary schools of psychology and foundational psychologists, research methods used in psychology, the biological bases of behavior, human development, sensation and perception, with application to human problems. Strong reading and writing skills are recommended. **FALL 2011, 2012**

PSY 202
GENERAL PSYCHOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students learn about states of consciousness, learning, memory, cognition, motivation and emotion. Strong reading and writing skills are recommended. **Prerequisite:** WR 121 level writing skills. **WINTER 2012, 2013**

PSY 203
GENERAL PSYCHOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students develop an understanding of personality, stress disorders, psychological disorders, approaches to treatment, and social/organizational psychology. Strong reading and writing skills are recommended. **Prerequisite:** WR 121 level writing skills. **SPRING 2012, 2013**

PSY 215
INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students gain knowledge of human development from conception to old age, with emphasis on the personality and social issues, brain and cognitive changes over the life span. **Prerequisite:** PSY 201, 202 or 203 strongly recommended. **FALL 2011, 2012; WINTER 2012, 2013**

PSY 216
SOCIAL PSYCHOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students review classic and contemporary research studies on the impact of social structures on individual behaviors and mental processes. Major topics include conformity, obedience, cognitive dissonance, attribution theory, the bystander effect, and social exchange theory. **WINTER 2012, 2013**

PSY 219
INTRODUCTION TO ABNORMAL PSYCHOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students develop a basic understanding of the etiology, diagnosis and treatment of emotional, mental, and behavioral disorders, based on current scientific and professional definitions and standards. **Prerequisite:** PSY 201 strongly recommended. **SPRING 2012, 2013**

PSY 231
INTRODUCTION TO HUMAN SEXUALITY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students acquire knowledge of the psychological, social, and biological aspects of human sexual functioning. Emphasis is on sex research, sexual responses and behaviors, and the cultural, gender and sex orientation differences in behaviors, communication styles and attitudes. **Prerequisite:** PSY 201 strongly recommended. **FALL 2011, 2012**

PULP PULP & PAPER TECHNOLOGY

PULP 101
INTRODUCTION TO PULP & PAPER TECHNOLOGY
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students learn current pulping and bleaching processes used during the production of various types of paper products, including basic forestry practices, wood properties and pre-pulping operations. Overview of the pulp and paper business will be covered. Variations in the preparation of pulp needed for different paper products are identified. **FALL 2011, 2012**

PULP 102
PAPER PROCESSING
 (3.00 Lecture Hrs./Wk.) **3 Credits**
 Students learn current papermaking techniques and equipment used in the production of various types of paper and paperboard products. Basic principles of paper machine operation and the relationship of papermaking to the pulping and bleaching and paper conversion stages of the manufacturing process are also studied. **Prerequisite:** PULP 101. **WINTER 2012, 2013**

R RELIGION

R 201

GREAT RELIGIONS OF THE WORLD

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop an understanding of Joseph Campbell's perspective on myths and world religions, as well as the philosophy of religion, and of early religion, American Native religion, Egyptian religion, the goddess in religion, and Hinduism. **FALL 2011, 2012**

R 202

GREAT RELIGIONS OF THE WORLD

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop knowledge of Joseph Campbell's perspective on myths and world religions, as well as knowledge of philosophy of religion, and of Buddhism, Yoga, Tibetan Buddhism, Taoism, and Confucianism. **WINTER 2012, 2013**

R 203

GREAT RELIGIONS OF THE WORLD

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop knowledge of Joseph Campbell's perspective on myths and world religions, the philosophy of religion, and of Zoroastrianism, Judaism, Greek mystery religions, Christianity, the spiritual dimension of Arthurian romances, and Islam. **SPRING 2012, 2013**

SET SUSTAINABLE ENERGY TECHNOLOGY

SET 102

INTRODUCTION TO SUSTAINABILITY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn the principles, concepts, and technology associated with efficient production of usable energy based on alternative resources including power production by wave energy, wind energy, solar energy, hydrogen-fuel devices, and other emerging alternative fuel systems. **WINTER 2012, 2013**

SET 105

GREEN INDUSTRIAL SAFETY

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn the essential skills needed to develop and maintain safe work habits in various industrial workplaces following OR-OSHA guidelines, including general accident prevention. Students demonstrate safe use of tools/equipment commonly found in a variety of manufacturing and construction industries. Emphasis will be put on safety procedures leading to sustainable practices and results. **FALL 2011, 2012**

SET 106

APPLICATIONS OF ALTERNATIVE ENERGY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students gain understanding of hydrogen production, pyrolysis (producing oil and gas from garbage and heat), bio-diesel production, wind turbines, geothermal power, solar power, conventional and fixed-plate methane digesters, bio-mass fuel, Sterling engines, "rocket stoves," ethanol distillation, and several other emerging and experimental types of energy production. A philosophical overview and discussion of Javon's Paradox will be given as well. **FALL 2011, 2012**

SET 110

ENERGY AND THE ENVIRONMENT

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn the background of mankind's use of energy. Various forms of energy are analyzed for availability and long term environmental impact. Students learn environmental sustainability, with an emphasis on energy efficiency and renewable energy practices. Current news and developments pertaining to energy will be monitored. **WINTER 2012, 2013**

SET 115

SUSTAINABLE ENERGY WORKPLACE COMMUNICATIONS

(2.00 Lecture Hrs./Wk.)

2 Credits

Students will practice small group communication by participation in group discussions, readings, and written exercises. Attention to organization and conduct of problem-solving groups and learning. Emphasis is on, (1) learning how to enhance group communication, to deal effectively with conflict and to apply problem-solving techniques and (2) developing attitudes and skills applicable to leadership and successful participation in the workplace. **WINTER 2012, 2013**

SET 119

PROGRAMMABLE CONTROLS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn industrial programmable controls and program writing applicable to sustainable energy production including basic relay logic programming, program control instructions, sequence instructions, data manipulation, math instructions, program editing and troubleshooting. **WINTER 2012, 2013**

SET 120

BASIC HYDRAULICS

(2.00 Lecture Hrs./Wk.)

2 Credits

Students learn basic principles of pneumatic and hydraulic systems applicable to sustainable energy production. Students learn to read, interpret, and construct fluid systems schematic diagrams containing pneumatic and hydraulic component symbols. **FALL 2011, 2012**

SET 121**MECHANICAL POWER I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students perform common mechanical tasks, and learn to fine tune drive systems involving belts, chains, etc. Emphasis is on operations to reduce friction and wasted motion, which are major contributors to energy inefficiency. The focus of this course is current directions and trends in mechanical design and engineering. *In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card. **FALL 2011, 2012; WINTER 2012**

SET 122**MECHANICAL POWER II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students build upon the theory and use in Mechanical Power I and participate in lab activities covering mechanical power transmission elements, such as belt and chain drives, gear drives, bearings, and couplings and seals, motion control mechanisms, both continuous and intermittent, and parts handling mechanisms. **Prerequisite:** SET 121. **SPRING 2012, 2013**

SET 130**HVACR SYSTEMS OPERATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course is part of a program to meet the requirements of the Oregon Green Tech Certificate. Students will learn the concepts of the basic operations of various heating and cooling systems for commercial and residential applications. This course focuses on maintenance and service procedure for initial tuning of HVACR systems for energy efficiency. Practical application of skills include: taking pressures, identifying refrigerants, recovering and recycling refrigerant, evacuating and charging refrigeration systems. Also included are all applicable safety precautions and EPA governed environmental regulations. Energy efficiency will be emphasized. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012**

SET 135**PREDICTIVE AND PREVENTATIVE MAINTENANCE****(2.00 Lecture Hrs./Wk.)****2 Credits**

This course will involve skill development in advanced mechanical maintenance procedures. The student will design, construct, and maintain industrial energy transfer systems. Techniques in preventative and predictive maintenance operations, utilizing the applications of laser alignment, thermography, vibration analysis, and other functions will also be covered. **WINTER 2012, 2013**

SET 140**SUSTAINABLE ENERGY CUSTOMER SERVICE****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course is designed to enable students look at many factors that influence human behavior. The intent of this course is to help students increase their ability to handle interpersonal conflicts effectively at work and in your personal lives. **SPRING 2012, 2013**

SET 141**ELECTRIC MOTOR CONTROLS****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course offers an introduction to motors and motor controls used by the sustainable energy industry. Various kinds of AC/DC machines will be investigated including AC motors and alternators, DC motors and generators, and stepper servo-motors. The principles of operation, motor control, installation and testing are also included. **SPRING 2012, 2013**

SET 150**ENERGY WASTE REDUCTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain hands-on experience with energy auditing techniques, building design and update methods, laser & infra red systems for detecting energy loss, superinsulation, thermal bridges, heat exchangers, passive solar theory, earth tubes, certifications, and other topics. **OFFERED AS NEEDED**

SET 158**BUILDING ENERGY ANALYSIS****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn how to use diagnostic equipment to analyze the effectiveness of the building systems to maximize energy performance, comfort, efficiency, safety and durability. Students will learn about using the HVAC ducting and digital control (DDC) system as an aid in troubleshooting and promoting energy efficiency, and indoor air quality. *In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card. **FALL 2011; WINTER 2012, 2013; SPRING 2012**

SET 170**MECHANICAL PROCESSES AND REPAIR SKILLS****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course provides basic operational knowledge, care, and maintenance inspection of mechanical processes in sustainable energy electrical systems. **OFFERED AS NEEDED**

SET 180**BEARINGS AND LUBRICATION SYSTEMS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn foundational machinery lubrication and oil analysis basics, including examination of a bearing lubrication system for use in an electric power generation turbine which utilizes emitters on the drive shaft to pump a lubricant into a lubricant transfer housing. Students gain understanding of a basis for establishing lubrication and oil analysis protocols. Student progress during the course to more advanced machinery lubrication topics including lubricant selection, troubleshooting lubrication problems, metrics, PMs and more. **OFFERED AS NEEDED**

SET 201

HYBRID ELECTRICAL SYSTEMS

(4.00 Lecture Hrs./Wk.)

4 Credits

The Hybrid Electrical systems course will provide students with the opportunity to analyze residential or commercial sized hybrid systems. Students will gain understanding of working with electrical energy systems consisting of wind generators, hydrogen fuel cells, photo-voltaic arrays, battery storage systems, back-up generators, inverters and system controllers. **FALL 2011, 2012**

SET 205

ELECTRICAL GENERATION/CO-GENERATION

(3.00 Lecture Hrs./Wk.)

3 Credits

The Co-generation of Energy course will provide students with the opportunity to study ways that industry will improve their energy utilization. Students will gain understanding of working with steam turbine generators and boilers using the energy system's waste heat. **OFFERED AS NEEDED**

SOC

SOCIOLOGY

♦ **SOC 204**

INTRODUCTION TO SOCIOLOGY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students become familiar with the terms, concepts, methods, and theories employed by sociologists. The fundamentals of sociological inquiry are explored through investigations of group formation and dynamics, culture and enculturation, social norms and deviance, class and social stratification, and identity as expressed through race, ethnicity, gender, and age. **FALL 2011, 2012**

♦ **SOC 205**

SOCIAL ISSUES

(3.00 Lecture Hrs./Wk.)

3 Credits

Students examine sociological principles while discussing current issues relevant to sociology. The course will focus on topics such as bias and discrimination based on race, ethnicity, and gender; the role of religion in society, the effects of globalization, and the question of individual agency in relation to social forces. **WINTER 2012, 2013**

SOC 210

MARRIAGE, FAMILY & INTIMATE RELATIONS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students examine intimate relationships, courtship, marriage, and family patterns; address how relationships are built, maintained, changed, and terminated; and consider the influence of intimacy, marriage and family on human development. **OFFERED AS NEEDED**

SOC 221

JUVENILE DELINQUENCY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students study the nature and extent of delinquency; the major criminological theories regarding delinquency; the role of society in delinquency; the role of gender, race/ethnicity and social institutions on delinquency; and, the impact of delinquency on society. **SPRING 2012, 2013**

♦ **SOC 225**

GLOBAL ISSUES

(3.00 Lecture Hrs./Wk.)

3 Credits

Students investigate problems associated with increased globalization and transnational processes. Topics vary and may include: gaps between wealthy and poor nations; economic realignments associated with neoliberal economic policies and transnational supply chains; violence in the forms of warfare, terrorism, and transnational crime; drug and human trafficking; the causes and effects of transnational migration; the future of indigenous cultures around the world; environmental issues, consumption, and resource scarcity; drug and human trafficking; and failed states, ethno-nationalism, and genocide. **SPRING 2012, 2013**

SP

SPEECH

♦ **SP 111**

FUNDAMENTALS OF PUBLIC SPEAKING

(3.00 Lecture Hrs./Wk.)

3 Credits

Students practice public communication skills both as presenters and as involved audience members. Students learn to research, organize, and deliver the major types of speeches. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

♦ **SP 112**

PERSUASIVE SPEECH

(3.00 Lecture Hrs./Wk.)

3 Credits

Students study and apply persuasion for a variety of purposes including ethos assessment, irony, stumping and the jeremiad. Students become aware of prevalence of persuasion. **Prerequisite:** SP 111. **SPRING 2012, 2013**

♦ **SP 115**

INTRODUCTION TO INTERCULTURAL COMMUNICATIONS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students explore stereotypes, general attitudes, values, life styles, cultural and gender patterns of communication in an effort to understand different cultures and gender, how individuals react to change and differences, and how language shapes our perspective. **WINTER 2012, 2013; SPRING 2012, 2013**

♦ **SP 130**

BUSINESS AND PROFESSIONAL SPEAKING

(3.00 Lecture Hrs./Wk.)

3 Credits

Students continue to practice public communication skills in a more specific business and professional context by both presenting and active involvement as audience members. Students research, organize and deliver business and professional presentations. **Prerequisite:** SP 111. **FALL 2011, 2012**

♦ SP 219

SMALL GROUP DISCUSSION

(3.00 Lecture Hrs./Wk.)

3 Credits

Students demonstrate knowledge and skill in the social and task functions of small groups. Social functions include leadership, participation, verbal and non-verbal communication and small group interaction. Task functions include problem solving, conflict management, agenda setting and group presentations. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

SPAN SPANISH

♦ SPAN 101

FIRST YEAR SPANISH

(4.00 Lecture, 1.00 Lecture/Lab Hrs./Wk.)

4 Credits

Students learn basic communication skills with emphasis on oral communication and elementary grammar. Students are exposed to the culture and traditions of the Spanish-Speaking countries. This is an introduction to the Spanish language. **FALL 2011, 2012**

♦ SPAN 102

FIRST YEAR SPANISH

(4.00 Lecture, 1.00 Lecture/Lab Hrs./Wk.)

4 Credits

Students expand their basic communication skills with continued emphasis on oral communication and elementary grammar. Students continue to explore Spanish and Latin American culture through appropriate themes and audio-visual material. This is a continuation of SPAN 101. **Prerequisite:** SPAN 101 or instructor approval. **WINTER 2012, 2013**

♦ SPAN 103

FIRST YEAR SPANISH

(4.00 Lecture, 1.00 Lecture/Lab Hrs./Wk.)

4 Credits

Students further expand their basic communication skills with emphasis on oral communication and elementary grammar. Hispanic culture is approached through appropriate themes and audio-visual material. This is a continuation of SPAN 102. **Prerequisite:** SPAN 102 or instructor approval. **SPRING 2012, 2013**

SPAN 111

CONVERSATIONAL SPANISH

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop basic communication skills with emphasis on oral communication and pronunciation. Grammar is taught only as it will facilitate conversation. **FALL 2011, 2012**

SPAN 112

CONVERSATIONAL SPANISH

(3.00 Lecture Hrs./Wk.)

3 Credits

Students improve their basic communication skills with emphasis on oral communication and pronunciation. Grammar is taught only as it will facilitate conversation. **Prerequisite:** SPAN 111 or instructor approval. This is a continuation of SPAN 111. **WINTER 2012, 2013**

SPAN 113

CONVERSATIONAL SPANISH

(3.00 Lecture Hrs./Wk.)

3 Credits

Students become more proficient in basic communication skills with emphasis on oral communication. Grammar is taught only as it will facilitate conversation. **Prerequisite:** SPAN 112 or instructor approval. This is a continuation of SPAN 112. **SPRING 2012, 2013**

♦ SPAN 201

SECOND YEAR SPANISH

(4.00 Lecture Hrs./Wk.)

4 Credits

Students continue to develop oral communication skills. Listening and reading comprehension, with writing exercises, are integrated to develop and reinforce intermediate speaking skills. Cultural awareness is achieved through reading material, class discussions and audio-visual material. This is a continuation of SPAN 103. **Prerequisite:** SPAN 103 or instructor approval. **FALL 2011, 2012**

♦ SPAN 202

SECOND YEAR SPANISH

(4.00 Lecture Hrs./Wk.)

4 Credits

Students enhance their writing, reading, and speaking ability through conversational skills and extensive writing in order to reinforce intermediate proficiency. Cultural awareness is achieved through reading material, class discussions and audio-visual material. This is a continuation of SPAN 201. **Prerequisite:** SPAN 201 or instructor approval. **WINTER 2012, 2013**

♦ SPAN 203

SECOND YEAR SPANISH

(4.00 Lecture Hrs./Wk.)

4 Credits

Students practice Spanish in a communicative context through reading and writing about Spanish and Spanish-American customs and traditions. Cultural awareness is achieved through reading material, class discussions and audio-visual material. This is a continuation of SPAN 202. **Prerequisite:** SPAN 202 or instructor approval. **SPRING 2012, 2013**

TTL TRANSPORTATION & LOGISTICS

TTL 101

INTRODUCTION TO PROFESSIONAL TRUCK DRIVING AND LOGISTICS

(40 Lecture Hrs. Total)

4 Credits

This course is part of the statewide Professional Truck Driver Certificate program. Students are introduced to the safe operation of a commercial motor vehicle and to the field of logistics. Includes understanding of basic and secondary control systems, coupling and uncoupling, cargo handling, pretrip inspections, managing speed, responding to weather and road conditions, and accident scene management. Covers applicable federal regulations (including hours of service) and Commercial Driver's License (CDL) requirements. **Prerequisite:** CDL Learners Permit; CDL medical certificate, Placement test score for placement in RD 90, WR 40, and MTH 25.

OFFERED AS NEEDED.

TTL 121
PRACTICAL APPLICATIONS IN PROFESSIONAL TRUCK DRIVING AND LOGISTICS
 (120 Lecture/Lab Hrs. Total) **6 Credits**
 This course is part of the statewide Professional Truck Driving Certificate program. Students learn basic maneuvers while safely operating commercial motor vehicles, including practice in methods of visual search, shifting, turning, managing space and speed. Provides practical use of logistics business practices and communication skills. **Prerequisite:** TTL 101. **OFFERED AS NEEDED.**

TTL 141
TRANSPORTATION CUSTOMER SERVICE SKILLS
 (30 Lecture Hrs. Total) **3 Credits**
 Students build the knowledge, attitudes, and skills needed for delivering outstanding customer service, employing public relation skills, applying effective listening skills, resolving conflict, and using on-board communication devices. Students identify external and internal customers, learn to handle potentially unproductive interactions, and create positive outcomes for all customers. **Prerequisite:** Placement test score for placement in RD 90, WR 40, and MTH 25. **OFFERED AS NEEDED**

TTL 180
COOPERATIVE WORK EXPERIENCE: TRANSPORTATION AND LOGISTICS
 (33.00 Lab Hrs./Cr.) **1-6 Credits**
 The student learns from driving experience related to a particular segment of the truck transportation industry. Frequent seminars will focus on individualized projects, small and/or large group projects and presentations, problem solving sessions, and discussion, all related to on-the-job problems and procedures. Supervision and evaluation of the student's job performance will be provided by qualified staff of the College and employing institution. **Prerequisite:** TTL 121. Individual instruction. **OFFERED AS NEEDED.**

WLD WELDING

WLD 100
MATERIALS PROCESSING
 (20.00 Lecture/Lab Hrs./Cr.) **1-4 Credits**
 Students gain knowledge of the principles, equipment and skills necessary to identify and process varied materials utilized in the metal fabrication industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Completion of / or concurrently enrolled in IT 140 and IT 141. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 101
SHIELDED METAL ARC WELDING
 (20.00 Lecture/Lab Hrs./Cr.) **1-10 Credits**
 Students gain knowledge of the principles, equipment and skills used in the Shielded Metal Arc Welding Process, involving base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 102
GAS METAL ARC WELDING
 (20.00 Lecture/Lab Hrs./Cr.) **1-9 Credits**
 Students gain knowledge of the principles, equipment and skills used in the gas metal arc welding process, involving various base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 103
FLUX CORE ARC WELDING
 (20.00 Lecture/Lab Hrs./Cr.) **1-9 Credits**
 Students gain knowledge of the principles, equipment and skills used in the flux core arc welding process, involving various base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 104
GAS TUNGSTEN ARC WELDING
 (20.00 Lecture/Lab Hrs./Cr.) **1-8 Credits**
 Students gain knowledge of the principles, equipment and skills used in the gas tungsten arc welding process, involving various base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 150
BEGINNING WELDING
 (20.00 Lecture/Lab Hrs./Cr.) **1-9 Credits**
 The student is introduced to welding in this flexible, variable credit course designed to meet a wide variety of student goals. The point of entry into the curriculum depends on the student's previous experience with the discipline. The course is divided into small segments, called performance objectives, which allow the student to complete as many credits as they may have time to complete. **Prerequisite:** Instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 160**INTERMEDIATE WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-12 Credits**

Students develop welding skills to industrial standards in any or all of the following processes: shielded metal arc welding, gas metal arc welding, and flux core arc welding in all positions; and tungsten inert gas welding on carbon steel, stainless steel and aluminum. Students learn basic welding metallurgy and weld testing methods.

Prerequisite: Entry level dependent on completion of WLD 150 or previous experience and instructor approval. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WLD 170**ADVANCED WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-15 Credits**

Students develop welding skills to job entry level including welding design and fabrication methods, joint design, and fundamental welding metallurgy. **Prerequisite:** WLD 160 or instructor approval.

FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013

WLD 190**WELDING CERTIFICATION PREPARATION****(20.00 Lecture/Lab Hrs./Cr.)****1-9 Credits**

Students develop skill in the forms of welding tested in various welding certification examinations including pipe and plate welding skills. **Prerequisite:** WLD 160 or instructor approval.

SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013

WR WRITING**WR 40****ENGLISH FUNDAMENTALS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students write descriptive, narrative, and expository paragraphs and essays to improve organization, coherence, sentence control, mechanics, and usage. Students review issues of grammar and mechanics through workbook and oral practice. This class is for students who have a COMPASS writing score below 42 or need practice before enrolling in WR 121. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WR 115**INTRODUCTION TO COLLEGE WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of rhetorical situations, the contextual appropriateness of language, the individual and collaborative nature of the writing process, and the beginning of critical inquiry.

Prerequisite: WR 40 or COMPASS score of 70-78. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WR 121**ENGLISH COMPOSITION – EXPOSITION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read and write essays to explore the writing process, investigate the essay form, and improve thinking, reading and writing skills. **Prerequisite:** Writing COMPASS placement of 79 or above or equivalent. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WR 122**ENGLISH COMPOSITION – ARGUMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will write essays that logically argue a thesis and effectively respond to outside texts. Throughout the course, writing will be approached as a process that includes guided discussion to generate ideas, prewriting, drafting, revision and finally careful proofreading. Assigned readings will require students to analyze, summarize, and synthesize secondary sources addressing a variety of complex issues. **Prerequisite:** WR 121. **SUMMER 2011, 2012; FALL 2011, 2012; WINTER 2011, 2011; SPRING 2012, 2013**

WR 123**ENGLISH COMPOSITION - RESEARCH WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students write extended essays developed with ample and thoughtful research. After formulating a formal research question, students learn to use efficient research tools and effective search strategies to locate and evaluate print and electronic sources. Approaching writing as a process, students learn to use summary, paraphrase, analysis and synthesis to integrate secondary research into original arguments and exposition, making certain to effectively document sources to avoid plagiarism. Primary research techniques (interview, observation, survey) may also be reviewed.

Prerequisite: WR 121. **FALL 2011, 2012; WINTER 2012, 2013; SPRING 2012, 2013**

WR 227**TECHNICAL REPORT WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students experience the types of technical writing required in the professional environment, gain proficiency in writing applicable to their employment goals, learn to ethically incorporate research into a technical document, and become familiar with the protocols of technical documentation. **Prerequisite:** WR 121. **SPRING 2012, 2013**

WR 240

CREATIVE WRITING – NONFICTION

(3.00 Lecture Hrs./Wk.)

3 Credits

Students will explore the conventions and techniques of creative nonfiction writing: personal essay, memoir, reportage and more through a variety of formal and informal writing assignments. Beginning with Montaigne, and moving to the contemporary plethora of excellent popular nonfiction, guided discussion of assigned readings will place the genre in a historical and cultural context and illuminate elements of craft. Approaching writing as a recursive process that includes invention, drafting, revision, and finally careful proofreading, students will engage in workshop-style critique sessions of their own and other students' work. **Prerequisite:** WR 121 or instructor approval. **FALL 2012**

WR 241

CREATIVE WRITING - FICTION

(3.00 Lecture Hrs./Wk.)

3 Credits

Students write short stories or novel chapters and read and critique short stories written by members of the class and published authors.

OFFERED AS NEEDED

WR 242

CREATIVE WRITING - POETRY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students explore the techniques and conventions of poetry by reading and writing poetry with or without meter, rhyme, or stanzas and critique poems written by members of the class and major historic and contemporary poets. Oral presentation of published poets will encourage students to examine the origins of aesthetic traditions, placing the craft of poetry in a historical and cultural context. **FALL 2012**

WR 249

WRITING CHILDREN'S BOOKS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn the techniques of writing for children: choosing an appropriate topic, creating vivid characters, using visual imagery, editing for young readers, and determining age appropriateness. Students will write fiction, non-fiction, and poems, and will design a picture book. Publishing will also be discussed. **SPRING 2012, 2013**

WR 270

LITERARY PUBLICATIONS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn the fundamentals of editing a professional literary magazine. Students develop a philosophy of editing and, through active participation in publishing a college literary magazine, develop an understanding of the principles and procedures of editing and publishing using discipline appropriate technology. Through manuscript selection process, students will be required to read and critically respond to written texts and artwork, exploring the conventions and techniques of various creative expressions. **Prerequisite:** WR 121 or instructor approval. **WINTER 2012, 2013**

WS WOMEN'S STUDIES

♦ WS 201

INTRODUCTION TO WOMEN'S STUDIES

(3.00 Lecture Hrs./Wk.)

3 Credits

Students are introduced to the interdisciplinary field of Women's Studies. Students explore ways in which sex and gender are used in social, cultural, and political contexts. Students dissect the social construction of gender and will analyze and critique gendered experiences. In addition, students study interlocking systems of oppression such as homophobia/heterosexism, racism, classism, sexism, -bleism and ethnocentrism. **Prerequisite:** SOC 204 or SOC 205. **SPRING 2012, 2013**

♦ WS 210

CULTURAL PERSPECTIVE OF WOMEN OF COLOR

(2.00 Lecture Hrs./Wk.)

2 Credits

Students will examine Women of Color writers' contributions to feminist theory. Topics such as feminism, womanism, patriarchy, racism, classism, immigration, sexuality and dominant culture will be explored. **SPRING 2012, 2013**

♦ WS 221

WOMEN, DIFFERENCE AND DISCRIMINATION

(3.00 Lecture Hrs./Wk.)

3 Credits

Students explore ways in which gender is socially constructed and how that construction affects women's lives materially, culturally and spiritually. Students analyze and critique concepts of difference, discrimination and power and privilege. **FALL 2011, 2012**

♦ WS 230

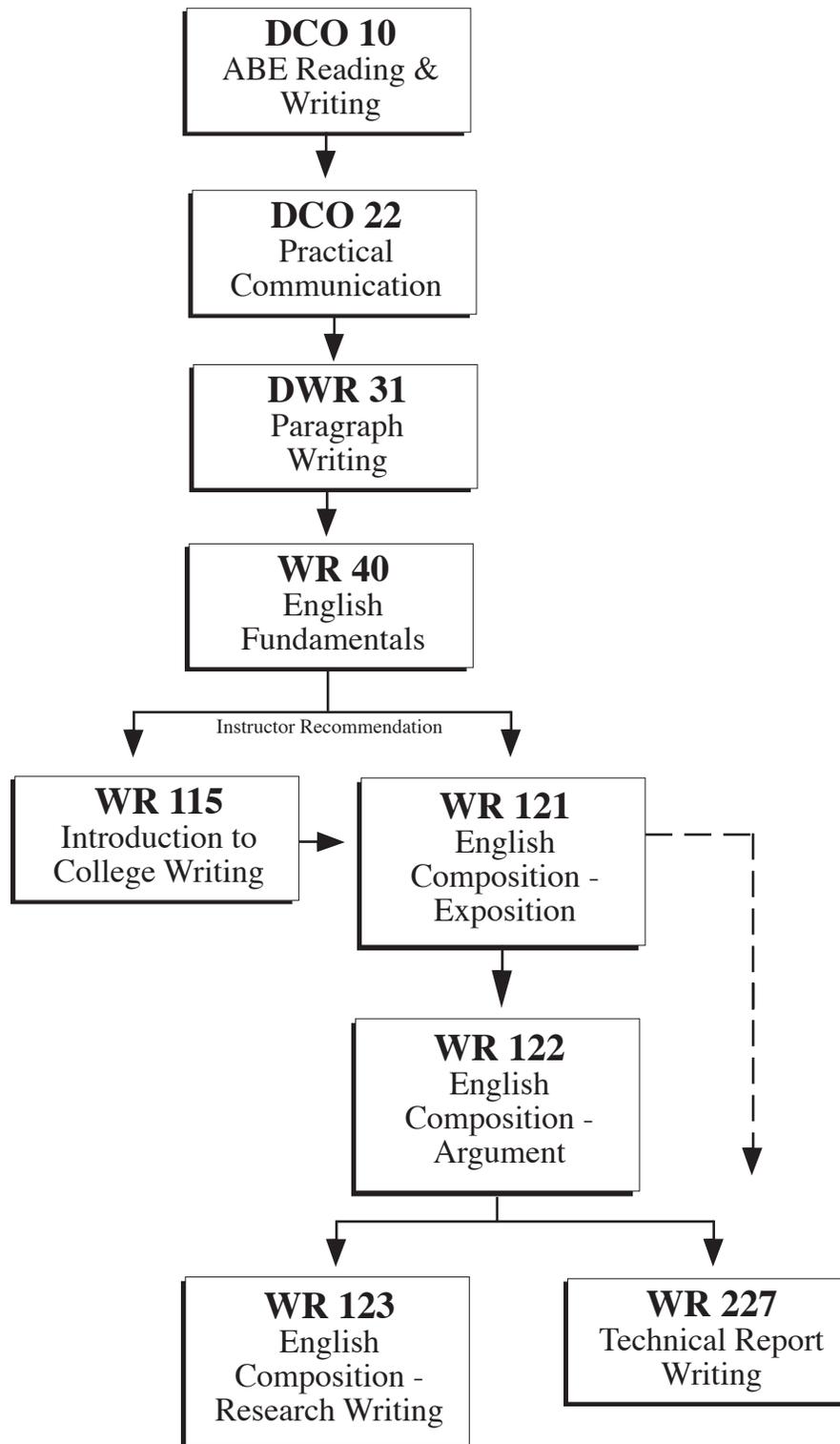
WOMEN AND SOCIAL ACTION

(3.00 Lecture Hrs./Wk.)

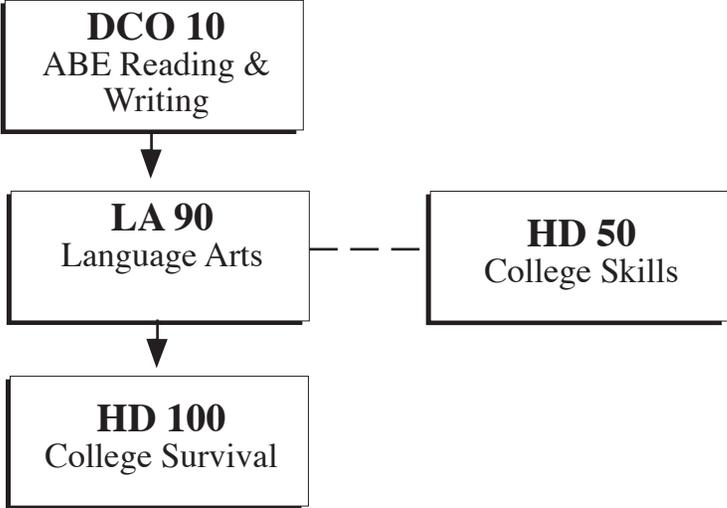
3 Credits

Students will examine women's roles in social action/activism throughout the 19th, 20th and 21st centuries. Systems of oppression such as sexism, classism, racism and heterosexism will be analyzed. Social movements such as the suffragist, civil rights, women's rights, gay and lesbian rights and eco-feminism will be critically analyzed and critiqued. **WINTER 2012, 2013**

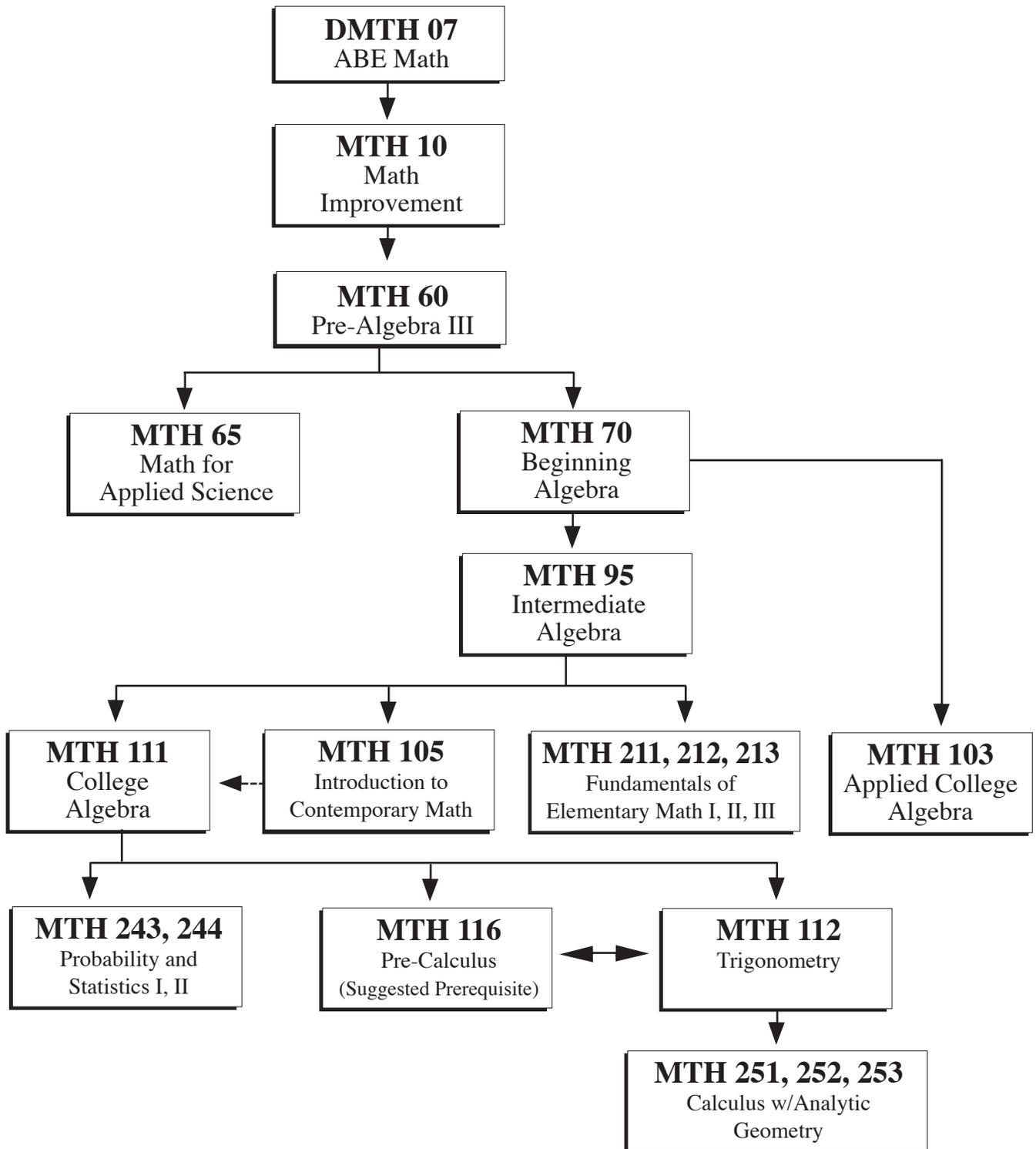
SEQUENCE OF WRITING COURSES



SEQUENCE OF READING COURSES



SEQUENCE OF MATHEMATICS COURSES



FACULTY

Clatsop Community College

ANTILLA, WILLIAM
INSTRUCTOR, MARITIME SCIENCE

Experience in commercial fishing; licensing through US Coast Guard; at Clatsop Community College since 1995.

BARNES, CORIN
INSTRUCTOR, NURSING

B.S. Nursing, University of Portland, 1995; at Clatsop Community College since 2004.

BEVERIDGE, RICHARD
INSTRUCTOR, MATHEMATICS

B.S. Mathematics, University of Maine; B.A. French, University of Virginia; M.A. Mathematics, University of Maine; M.Ed. Oklahoma City University; at Clatsop Community College since 2004.

BLACK, JO ANN
INSTRUCTOR, NURSING

B.S. Nursing, Arizona State, 1971; M.S. in Community Health Nursing, University of Portland, 1997. Experience as Infection Control Nurse and Staff Nurse; at Clatsop Community College since 1992.

BROWN, JULIE
INSTRUCTOR, WRITING

B.S. English, Oregon State University, 1979; M.F.A. Creative Writing, University of Montana, 1985; Ph.D. English, University of Wisconsin, Milwaukee, 1990; at Clatsop Community College since 1995.

BUNCH, MICHAEL
INSTRUCTOR, BIOLOGY

B.A. Zoology, M.A. Biology, Humboldt State University, 1970; M.Ed. Educational Technology, Arizona State University, 1985; Doctor of Arts, Biology, Idaho State University, 1975; at Clatsop Community College since 1993.

CALLAS, PERRY
INSTRUCTOR, OFFICE SKILLS

B.A. English Literature, Portland State University, 1977; M.A.T., Lewis and Clark College 1991; at Clatsop Community College since 2008.

CAZEE, CAROLYN
INSTRUCTOR, NURSING

B.S. Nursing, St. Joseph's College, 2001; M.S. Nursing, Walden University, 2006; at Clatsop Community College since 2005.

COOK, NANCY
INSTRUCTOR, WRITING

B.S. Interdisciplinary Studies emphasizing creative writing and environmental science, Evergreen State College; M.F.A. Writing, University of Alaska; at Clatsop Community College since 2004.

DERLET, MARIAN
INSTRUCTOR, COLLEGE PREP/BASIC SKILLS/ESL/GED

B.A. Spanish, George Fox College, 1973; M.A. TESOL, Portland State University, 1989; at Clatsop Community College since 1998.

DONALDSON, KURT
INSTRUCTOR, FIRE SCIENCE

B.S. Education Western Oregon University, 1998; M.Ed. Western Oregon University, 2004; at CCC since 2009.

DYBACH, JOANIE
INSTRUCTOR, CRIMINAL JUSTICE

B.A. Criminal Justice, Mansfield University, 1979; M.S. Criminal Justice, California State University, Sacramento, 2002; J.D. Law, Golden Gate University; at Clatsop Community College since 2005.

ENTLER, JIM
INSTRUCTOR, SMALL BUSINESS MANAGEMENT

B.A. Ambassador College; M.M. Adkison Graduate School of Management Willamette University, 1991. Consulting for EMC2 Consulting/ Business and Management; at Clatsop Community College since 1992.

FULTON, JESSE
INSTRUCTOR, WELDING

24 years of experience in metal trades and industry; AWS certified; at Clatsop Community College since 2010.

GIGLIO, JESSICA
INSTRUCTOR, MATHEMATICS

B.S. Mathematics, Lake Forest College, 2003; M.S. Mathematics, Oregon State University, 2005; at Clatsop Community College since 2008.

GUIDI, DALE (DEAC)
INSTRUCTOR, SPEECH

B.A. Speech Communication, Montana State University; M.A. Speech Communication, Idaho State University; at Clatsop Community College since 2000.

HAM, BILL
INSTRUCTOR, MARITIME SCIENCE

Thirty years service in the U.S. Coast Guard and licensing through U.S. Coast Guard; at Clatsop Community College since 1998.

HYLTON, ELIZABETH
INSTRUCTOR, MATHEMATICS

B.S., Mathematics, Portland State University, 1994; M.Ed. Mathematics, Portland State University, 1998; M.S.T. Mathematics, Portland State University, 2003; at Clatsop Community College since 2001.

FACULTY

Clatsop Community College

JENSEN, ERIK**INSTRUCTOR, NURSING**

B.S. Nursing, Oregon Health & Science University, 1993; B.S. Health Sciences, George Washington University, 1995; M.S. Nursing, Community Health Care Systems, Oregon Health & Science University, 1999; at Clatsop Community College since 2010.

KANE, PATRICK**INSTRUCTOR, HISTORY/POLITICAL SCIENCE**

B.A. in Middle Eastern Studies, University of Texas at Austin, 1978; M.A. in History, Temple University, 1982; Ph.D. in Philosophy, Interpretation, and Culture from the State University of New York at Binghamton, 2007; at Clatsop Community College since 2008.

KEEFE, PAT**INSTRUCTOR, PHYSICS/PHYSICAL SCIENCE**

B.S. Physics, Baker University, 1986; M.S. Physics, Portland State University, 1990. Experience in training staff of volunteers at OMSI for public hands-on experiments; at Clatsop Community College since 1991.

KNUTSON-HAWES, CAROL**INSTRUCTOR, WRITING & LITERATURE**

B.A. English and Language Arts Degree in secondary Ed., 1977; M.A. English, University of Oregon, 1985; at Clatsop Community College since 1998.

LACKNER, TIMOTHY (TJ)**INSTRUCTOR, MATHEMATICS**

B.A. Speech Communication, Moorhead State University; B.S. Mathematics, Dickinson State University, 2004; M.S. Mathematics, Washington State University, 2007; at Clatsop Community College since 2007.

LITTLE, BERT**INSTRUCTOR, MARITIME SCIENCE**

Experience in Maritime industry; Licensing through U.S. Coast Guard; at CCC since 2009.

MARTINEZ, MARTHA**INSTRUCTOR, SPANISH/MODERN LANGUAGE**

B.A. Spanish, Eastern Washington University, 1998; M.A. Spanish, Latin American Literature, Arizona State University, 2002; at Clatsop Community College since 2009.

REDWINE, JEFFREY MARK**INSTRUCTOR, ACCOUNTING/BUSINESS APPLICATIONS**

B.A. Linfield College, 1997; M.B.A. Marylhurst University, 2009; Certified Public Accountant, Oregon and Washington; at Clatsop Community College since 2007.

REDWINE, TOMMIE**INSTRUCTOR, BUSINESS ADMINISTRATION**

M.A.T. (Teaching), Pacific University, 1996; M.B.A. Pepperdine University, 1994; B.A., University of Kansas, Psychology, Speech and Drama, 1969; marketing executive in the entertainment industry; experience in advertising and graphic design; at Clatsop Community College since 2002.

ROWLAND, RICHARD**INSTRUCTOR, ART (Ceramics Emphasis)**

B.A. Ceramics/Sculpture, Pacific University, 1974; M.F.A. University of Tasmania, 2005; at Clatsop Community College since 2001.

SANDERS, STEPHEN**INSTRUCTOR, AUTOMOTIVE TECHNOLOGY**

A.A. Merced College, 1980, Merced, CA; ASE Master certified, 19 years experience in automotive; at Clatsop Community College since 2003.

SHAUCK, KRISTIN**INSTRUCTOR, ART (2-D)**

B.F.A. Baylor University, 1989; M.F.A. Texas A&M-Commerce, 1993; at Clatsop Community College since 2004.

SWERDLOFF, LUCIEN**INSTRUCTOR, HISTORIC PRESERVATION & COMPUTER AIDED DESIGN**

B.A. Mathematics, State University of New York, 1981; Masters of Architecture, SUNY, Buffalo, 1986; M.S. Computer Science SUNY, Buffalo, 1988; at Clatsop Community College since 2000.

TOYAS, TEENA**INSTRUCTOR, PHYSICAL EDUCATION/HEALTH**

B.S. Health and Physical Education; Austin Peay State University, 1978; M.A., Health, PE, and Recreation, Murray State University, 1979; at Clatsop Community College full-time since 2001.

TUMBARELLO, HOLLY**INSTRUCTOR, MEDICAL ASSISTING**

B.S. Nursing, Southern Illinois University, 1990; at Clatsop Community College since 2007.

WALSH, HEATHER**INSTRUCTOR, CHEMISTRY**

B.A. Chemistry, University of Minnesota; M.S. Physical Chemistry, University of Minnesota; at Clatsop Community College since 2000.

WARWICK, NICHOLE**INSTRUCTOR, BIOLOGY, A & P**

B.S. Biology, Idaho State University, 2002; M.S. Biology, Idaho State University, 2007; at Clatsop Community College since 2007.

WATKINS, CANDICE**REFERENCE AND INSTRUCTION LIBRARIAN**

B.A. History, University of Texas, 1997; M.S. Library Science, University of North Texas, 2004; at Clatsop Community College since 2006.

WILLIAMS, TOM**INSTRUCTOR, MARITIME SCIENCE**

A.A. Medical Lab Technology, Shoreline Community College, 1977; 1600 Ton Master Oceans; 100 Ton Master Ocean Auxiliary Sail; at Clatsop Community College since 2000.

ADMINISTRATIVE & SUPERVISORY STAFF

Clatsop Community College

PIERIE, TERRI **STUDENT SERVICES SPECIALIST**
 Student services and financial aid experience; at Clatsop Community College since 1989.

POWELL, DICK **BUSINESS COUNSELOR**
 B.A. Philosophy/Business, California State University, Chico, 1996; M.A. International Management, Whitworth University, 1999; at Clatsop Community College since 2010.

PURCELL, EILEEN **OUTREACH LITERACY TUTOR COORDINATOR**
 B.A. and M.A., History; M.L.S. State University of New York; at Clatsop Community College since 2004.

RIEHL, CHRISTINE **GUIDANCE COORDINATOR**
 B.S. Biochemistry/Biophysics, Oregon State University, 1987; M.S. Human Development, Counseling, and Family Studies, University of Rhode Island, 1991; at Clatsop Community College since 2004.

RIEHL, GREG **DIRECTOR, COMPUTER SERVICES**
 B.A. Foreign Languages and Literatures, minor in Naval Science, Oregon State University; at Clatsop Community College since 2004.

ROBERTSON, DEBBY **COORDINATOR, PATHWAYS/PERKINS**
 B.E. Oregon State University, 1974; M.M. Willamette University 1983; at Clatsop Community College since 2008.

RUSSELL, DENISE **COLLEGE STORE MANAGER**
 B.S. Psychology, East Tennessee St. Univ, 1990; M.A. Psychology, East Tennessee St. Univ, 1992; at Clatsop Community College since 2011.

SCHOONMAKER, STEPHEN **VICE PRESIDENT OF INSTRUCTION**
 B.A. Sociology, University of Vermont, 1980; M.A. College Student Personnel Administration, 1982; Ed.D. Educational Administration, New Mexico State University, 2004; at Clatsop Community College since 2007.

SCHOONMAKER, TONYA **GUIDANCE COORDINATOR EDUCATIONAL TALENT SEARCH**
 B.A. Psychology, Southeastern Louisiana University, 1993; M.Ed. Counselor Education, Southeastern Louisiana University, 1996; at Clatsop Community College since 2008.

TOKARSKI, STEPHEN **GUIDANCE COORDINATOR, UPWARD BOUND**
 B.A. History/Political Science, University of Montana, 2008; at CCC since 2010.

WARREN, PATRICIA **DIRECTOR, COLLEGE ADVANCEMENT**
 B.A. Anthropology: Archaeology, University of Washington, 1972; B. S. General Studies Topics in Paleo-Ecology, University of Washington, 1975; Juris Doctor, Law, University of Washington, 1978; M.A. Anthropology: Museum Studies, University of Washington, 1990; at Clatsop Community College since 2011.

WEATHERLY, REBECCA J. **DIRECTOR, PLUS PROGRAM**
 B.A. Speech Communication, University of Utah, 1993; M.S. Counseling, Portland State University, 1999; at Clatsop Community College since 1999.

WILKIN, KRISTEN **DEAN, WORKFORCE EDUCATION AND TRAINING**
 B.A. Political Science, Pepperdine University, 1994; M.P.A. Public Administration, Portland State University, 1996; at Clatsop Community College since 1999.

ZAHN, JOANN **VICE PRESIDENT OF FINANCE AND OPERATIONS**
 A.S. General Business, Mt. Hood Community College, 1996; A.S. Accounting Technology Mt. Hood Community College, 1996; B.S. Business Administration/Accounting Eastern Oregon University, 2005; at Clatsop Community College since 2011.

BOARD OF DIRECTORS	Term Expires in June
Paul Gillum, Chair	2015
Rosemary Baker-Monaghan	2013
Dr. Stephen Berk	2013
Dirk Rohne	2015
Dr. Frank Satterwhite	2013
Jim Scheller	2015
Larry Sparks	2015

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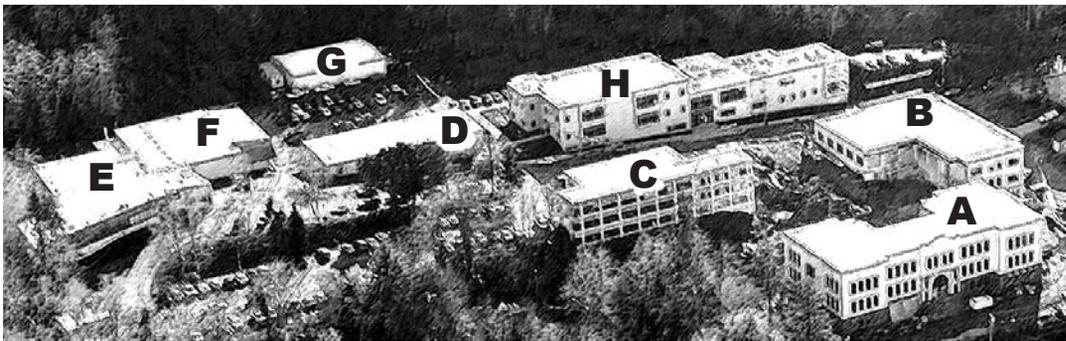
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CAMPUS INFORMATION

Admissions.....	503-338-2411 or 1-855-252-8767, ext. 2411 (toll free)	Instructional Services.....	503-338-2440
Apprenticeship	503-338-2409	Learning Skills Center	503-338-2347
Arts & Ideas	503-338-5735	Literacy Coordinator.....	503-338-2557
A.S.G. Office.....	503-338-2495 or 338-2359 or 338-2517	Lives in Transition	503-338-2377
Cafeteria.....	503-338-2446	Maritime Science Center.....	503-325-7962
Career Planning.....	503-338-2480	Payroll.....	503-338-2439
Carl Perkins Program.....	503-338-7670	Personnel.....	503-338-2406
Community Education	503-338-2408	Phi Theta Kappa.....	503-338-2319
Computer Lab, Library	503-338-2329	Plus Program.....	503-338-2346
Co-op Work Experience.....	503-338-2480	President's Office	503-338-2425
Copy Center	503-338-2304	Publication Services.....	503-338-2350
Counseling	503-338-2474	Records/Registration.....	503-338-2438
Developmental Education.....	503-338-2347	South County Campus	503-338-2402
Disabilities Specialist.....	503-338-2474	Scholarships	503-338-2324
Educational Talent Search.....	503-325-2747	Student Accounts	503-338-2330
Finance & Operations	503-338-2422	Student Services Center.....	503-338-2411 or 503-338-2438
Financial Assistance.....	503-338-2324	Switchboard	503-325-0910
Fire School	503-338-7650	Testing Center	503-338-2426
Foundation	503-338-2306	Tutoring Lab	503-338-2455
G.E.D. Program.....	503-338-2347	Upward Bound.....	503-338-2370
G.E.D. Testing.....	503-338-2426	Veteran's Services.....	503-338-2414
Human Resources	503-338-2406	Work Experience.....	503-338-2480
Industrial Manufacturing Tech. Center (IMTC)	503-338-7670	Workforce Training.....	503-338-2408



Main Campus:

- A: Towler Hall
- B: Patriot Hall
- C: Dora Badollet Library
- D: Student Services Center
- E: Art Building
- F: Alder Hall
- G: Physical Plant
- H: Columbia Hall

CAMPUS LOCATIONS

Main Campus:
 Clatsop Community College
 1651 Lexington Avenue
 Astoria, OR 97103
 503-338-2400
 Toll Free: 1-855-252-8767
 Fax: 503-325-5738
 www.clatsopcc.edu
 Admissions: 503-338-2411
 admissions@clatsopcc.edu

Performing Arts Center
 16th & Franklin (588 16th St.)
 Astoria, OR 97103

South County Campus:
 Clatsop Community College
 1455 N. Roosevelt (Hwy. 101)
 Seaside, OR 97138

MERTS Campus:

Maritime Science Department
 6550 Liberty Lane
 Astoria, OR 97103

Fire School
 6562 Liberty Lane
 Astoria, OR 97103

Industrial & Manufacturing Technology Center
 6540 Liberty Lane
 Astoria, OR 97103

Living Machine®
 6540 Liberty Lane
 Astoria, OR 97103

ACADEMIC CALENDAR 2011 - 2012

	SUMMER 2011	FALL 2011	WINTER 2012	SPRING 2012
REGISTRATION BEGINS	May 24	May 31	November 29	March 13
CLASSES BEGIN	June 20	September 26	January 9	April 2
LATE REGISTRATION	June 27 - June 30	October 3 - 7	January 16 - 20	April 9 - 13
NO SCHEDULED CLASSES - COLLEGE OPEN	August 15 - September 16	December 12-22	January 3 - 6, Spring Break - March 26 - 30	
HOLIDAYS & COLLEGE CLOSURES	July 4, Sept. 2, 5 All Fridays in July & Aug.	November 11, 24 & 25, Dec. 23 - 31	January 2, 16 February 20	May 28
FINALS BEGIN	After last class	December 5	March 19	June 11
END OF TERM	August 11	December 9	March 23	June 15
GRADUATION				June 15