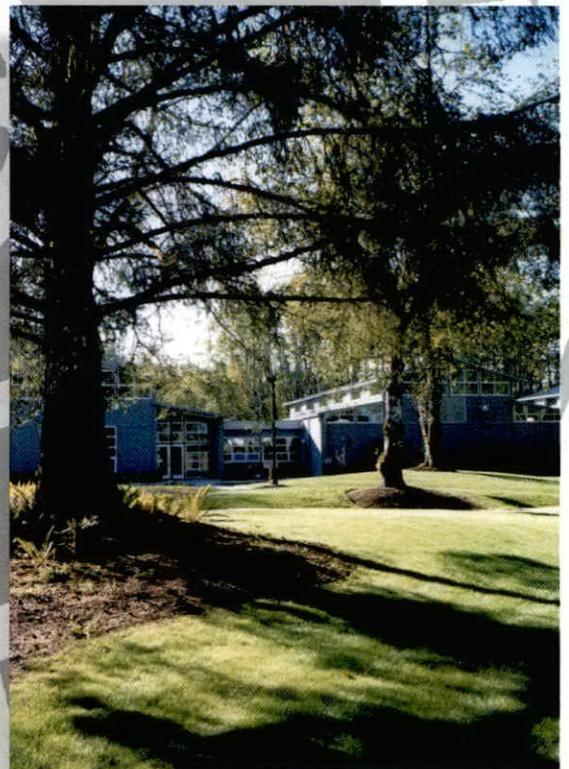


# CLATSOP COMMUNITY COLLEGE



1999 ~ 2000

C • A • T • A • L • O • G

# Statement of Mission and Objectives

*The mission of Clatsop Community College is to provide high quality learning opportunities for individuals in Clatsop County and beyond, and to lead in meeting the changing needs of our community.*

In order to fulfill this mission, the Board and College staff are committed to the following objectives:

**Students:** To provide a student-centered learning environment with faculty and staff who are accessible and supportive. To help students develop a sense of responsibility to self and society by providing guidance, counseling, and career planning that inspires student success and a commitment to lifelong learning. To maintain our open admission policy with equal educational access and opportunity, and to continue our support of the reciprocal tuition program as long as it serves community and student needs.

**Educational Offerings:** To provide lower division transfer courses that will enable students to transfer to Oregon State System of Higher Education institutions. To provide a variety of professional technical courses and programs that prepare individuals for entry level employment or occupational advancement, and meet the needs of business and industry. To provide developmental and remedial assistance for those who need to develop competencies in basic skills or who are pursuing a GED. To provide an extended learning program that responds to the cultural, social, recreational, and general self-improvement needs of district patrons.

**Staff:** To attract and retain the best qualified faculty and staff who are dedicated to our mission and goals. To provide a congenial, cooperative atmosphere, and a variety of employee development and wellness programs which promote employee job satisfaction, performance, and advancement. To maintain a firm commitment to affirmative action and equal opportunity.

**The Community:** To foster positive and productive relationships with community residents, local businesses, and public agencies in order to develop and improve College programs. To participate in the activities of community-based organizations. To encourage public input through advisory committees, follow-up studies, community surveys, and other appropriate means. To promote and maintain a commitment to the concept of the College as both cultural and educational center for the community.

**Planning:** To continuously review the educational and facilities needs of the College district through ongoing strategic planning. To continue student recruitment and long range planning processes that will enable us to achieve our goals and improve our services. To ensure the public's trust by effectively managing the human, financial, and physical resources of the College. To adapt our programs to educational and technological advancements.

## Affirmative Action Policy

It is the policy of Clatsop Community College not to discriminate on the basis of race, color, religion, national origin, age, gender, sexual orientation, marital status, or disability in admission and access to, or treatment or employment in its programs or activities as required by Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990 and their implementing regulations. Questions, complaints or requests for a copy of the College's Discrimination or Harassment Grievance Procedure may be directed to Affirmative Action/EEO Officer or Human Resources Director.

The College reserves the right to change any provision or requirement at any time within the student's term of registration. The College further reserves the right to withdraw a student from a class, deny enrollment in a class, or demand full withdrawal of a student from all classes for cause, using due process.

To receive general information about the College, write or call:

**Clatsop Community College**  
**Admissions Office**  
**1653 Jerome, Astoria, OR 97103**  
**(503) 338-2411**  
**FAX (503) 325-5738**  
**admissions@clatsop.cc.or.us**  
**www.clatsopcollege.com**

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

Affirmative Action/EEO Officer or Human Resources Director

# TABLE OF CONTENTS

	Page
<b>INFORMATION</b>	
ADMISSION TO THE COLLEGE .....	2
MONEY MATTERS .....	4
REGISTRATION .....	11
ACADEMIC INFORMATION .....	13
STUDENT SERVICES .....	19
<b>ACADEMIC PROGRAMS</b>	
TRANSFER PROGRAMS, ASSOCIATE IN ARTS .....	23
ACADEMIC PROGRAMS, ASSOCIATE IN GENERAL STUDIES .....	27
APPLIED SCIENCE PROGRAMS, ASSOCIATE IN APPLIED SCIENCE .....	28
APPLIED SCIENCE PROGRAMS INDEX .....	29
<b>SPECIAL PROGRAMS</b>	
COMMUNITY EDUCATION .....	54
SPECIAL PROGRAMS .....	56
GRANT FUNDED PROGRAMS .....	59
DEVELOPMENTAL EDUCATION .....	61
<b>REFERENCE</b>	
COURSE DESCRIPTIONS .....	62
SEQUENCE OF MATHEMATICS, READING AND WRITING COURSES .....	102
APPENDIX A: AA, AGS, AAS COURSE LIST .....	105
APPENDIX B: AGS & AAS COURSE LIST .....	107
FACULTY/STAFF .....	109
INDEX .....	113
ACADEMIC CALENDAR.....	INSIDE BACK COVER

# Welcome to Clatsop Community College



Welcome to one of the most people-centered colleges in the nation! At Clatsop Community College we are constantly striving to make you—our valued students and customers—feel at home. Our faculty demonstrate a truly caring approach toward their students. You will enjoy getting to know them as fascinating individuals as well as knowledgeable professionals in their fields.

Some of our outstanding students can tell you better than I about Clatsop Community College:

"Clatsop Community College has a wonderful staff of incredibly supportive people who have given me the encouragement I have needed to pursue my career goals."

*Claudette Hale*

"It seems whenever you turn around, there's a staff member to assist you in anything you want. The faculty is outstanding!"

*Will Bridgeman*

At Clatsop we provide many special services to students to help them be as successful as possible. Here are just a few:

- √ Financial aid resources and scholarships
- √ TRIO Programs (guidance and support services)
- √ Assessment and academic advising
- √ Counseling
- √ Tutoring
- √ Assistance with basic learning and study skills
- √ Cooperative work experience (earning while learning)
- √ Disabled student services

Since 1958 Clatsop Community College has demonstrated its commitment to active participation in the lives of its communities, providing a variety of educational opportunities and leadership in the business, social, and cultural life of the North Coast.

Clatsop Community College is accredited. Our graduates transfer successfully to colleges and universities or enter the job market with excellent preparation for the demands of a changing workforce. We provide over 350 different educational offerings to nearly 3000 students each term.

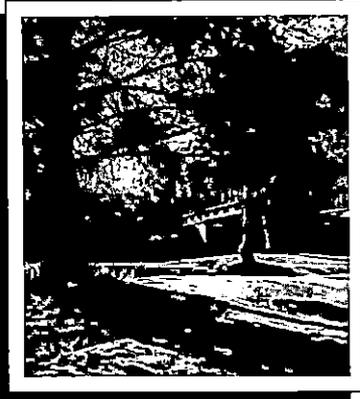
Our commitment is to continuing improvement in everything we do so that you—our students and community members—ultimately benefit."



*John Wubben, President*

# Clatsop Community College

Clatsop Community College is a public, two-year coeducational institution serving northwest Oregon and southwest Washington since 1958. It has grown to an enrollment of nearly 8000 students.



Instruction and training in liberal arts and sciences, professional technical fields, extended learning, developmental education, and general education are offered.

Located at the mouth of the Columbia River in historic Astoria, the College enjoys the mild, if wet, climate that has helped make the Oregon coast famous for its lush,

green beauty and rugged, undeveloped shoreline. Its high-quality, low-cost education serves a district that covers all of Clatsop County in Oregon and Pacific and Wahkiakum Counties in Washington.

At Clatsop you may:

- Earn a two-year degree.
- Take up to two full academic years of lower division instruction which can be transferred to a four-year college or university.
- Take courses that lead to occupational, social, and personal competence.
- Enroll in classes, workshops, and seminars which offer avocational as well as occupational benefits.

## Accreditation

Clatsop Community College is accredited by the Northwest Association of Schools and Colleges. This accreditation assures Clatsop Community College 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 For Students

The Astoria campus is convenient. It is an easy walk to most classes. The student center, library, classrooms and laboratories, and administrative offices are nestled comfortably together on the city's northern hillside just below the historic Astoria Column. From this vantage point at the edge of Oregon's coastal mountain range there is a bird's eye view of the beautiful Columbia River estuary.

In addition to the main campus facilities, the College has a performing arts center and a waterfront marine and IMT training facility. The South County Center in Seaside serves south Clatsop County including the cities of Seaside, Gearhart, and Cannon Beach. Other communities which the College serves include Warrenton, Knappa, Clatskanie, and Westport, as well as Long Beach, Ilwaco, Seaview, and Naselle in Washington.

## The Area

The College district covers all of Clatsop County which records a population of about 35,000. Astoria, the county seat of government with a population of 10,000, boasts industries in forestry and fishing with a growing tourism trade and maritime shipping rounding out the local economy. Steeped in Northwest history, Astoria is said to be the oldest settlement west of the Rocky Mountains. Its beautiful, Victorian-era homes and commercial buildings, many constructed before the turn of the century, speak to the craftsmanship of a bygone age. Many of these have been placed on our nation's official register of historic places. They attest to the importance of this area to Oregon and Northwest history.

Northwest Oregon claims a century and a half of colorful history in which explorers, fur traders, fishermen, and lumbermen played active roles. Seagoing traders visited the Columbia River soon



after the United States became a nation. The city of Astoria sprang from John Jacob Astor's fur trading post in 1811, five years after Lewis and Clark explored the area. Coastal streams, lakes, and waterfalls bear the names of early explorers. Within the district are numerous Oregon state parks. Nearby, across the renowned Astoria-Megler bridge, can be found some of Washington's parks, as well as the beautiful Long Beach Peninsula with its miles of continuous, sandy beach. The

area offers many clear streams and lakes teeming with trout and steelhead, and of course the mighty Columbia River with its important commercial and sports fisheries.

# ADMISSION

## ADMISSION TO A DEGREE OR CERTIFICATE PROGRAM

If you are planning to earn a Clatsop degree or certificate or you plan to transfer coursework to another institution, 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 aid, 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.

**Application Dates:** As a prospective student, you are encouraged to apply early to be eligible for early registration dates. The first day of class of any given term is the last day to begin the admissions process. You may visit, call, or write the Admissions Office, located in Room 200 of Towler Hall, for specific application dates and for assistance beginning the admissions process. You may call at 503-338-2411, write to Office of Admissions, Clatsop Community College, 1653 Jerome, Astoria, OR, 97103, or reach us by e-mail at [admissions@clatsop.cc.or.us](mailto:admissions@clatsop.cc.or.us). The following steps have been established to insure that you begin your experience at Clatsop with ease and confidence.

**Step 1: Admissions/Financial Aid Workshop** If you are planning or thinking about attending college but have questions about how to get started, careers, degrees, majors, certificates, financial aid, and more, this workshop is designed for you. While not required, it is highly recommended. You will complete an application and receive transcript request forms. 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 (1994), you should request that your high school transcripts be mailed to the CCC Admissions Office. You may request your GED transcripts from the Department of Education in the state where you took your GED test. If you are not able to attend the workshop, you may request an application and transcript request forms from the Admissions Office. The application should be returned to the Admissions Office as soon as possible. You must then contact the Admissions Office to schedule an appointment for the next step, the ASSET assessment.

**Step 2: ASSET Assessment** A placement evaluation called ASSET helps identify your readiness levels in writing, reading, and math. This is required for admitted students. If you have been successful in previous college classes, you may ask about an exemption from the ASSET. The data from ASSET will not be used to deny admission to Clatsop.

The assessment 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 and basic word problems involving arithmetic. If you have additional mathematics experience, an algebra assessment may also be recommended to determine your appropriate class placement.

During the ASSET session, you will be asked to schedule and sign up for the next step, New Student Orientation.

**Step 3: New Student Orientation** All new students attend New Student Orientation. At the orientation, you will receive information about the results of your ASSET assessment, degree requirements, the role of academic advisors, registration, and college resources, and be assigned an academic advisor.

After attending the orientation, you will meet with your academic advisor. Your advisor will provide you with assistance in selecting your courses, interpreting degree requirements, understanding institutional policies and procedures, and monitoring your progress through the use of the degree checklist.

**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 Records and Registration Office after you schedule a New Student Orientation session. 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 in nonaccredited collegiate institutions will not be granted at the time of admission. However, such transfer credit may be considered based upon review by faculty. If you have attended a nonaccredited institution, contact the Admissions Office for more information.

**Readmission:** If you have been admitted and attended Clatsop before, but have been absent for one or more terms (excluding Summer term), contact the Admissions Office to update your status as an admitted student.

The College reserves the right to deny admission to applicants whose admission is judged to be potentially detrimental to the institution.

## NURSING PROGRAM

Enrollment in the nursing program is limited. Acceptance into the program is determined by a weighted point system from a pool of qualified applicants. After evaluation and determination of total points, the top ranking individuals will be offered admission to the program. Remaining qualified candidates are placed on a ranked alternate list which expires after Fall term commences. Fall term admission applications must be submitted the preceding Spring term. If you are interested in applying for the nursing program, you should read about the program requirements listed in the Applied Science section of this catalog, and contact the Admissions Office at 338-2411 or stop by Towler Hall, Room 200 for an application, program information packet, and specific application dates.

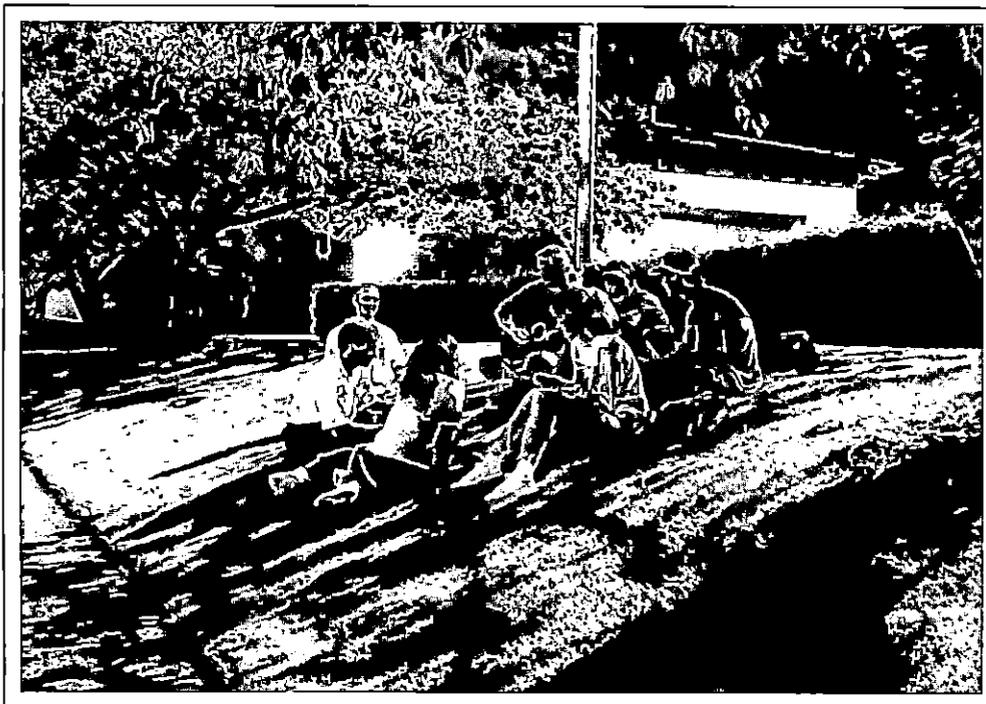
For complete information on nursing program admission requirements, refer to page 51.

## INTERNATIONAL STUDENTS

To be admitted, you must meet the following requirements: 1) A score of 520 or above 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, and 3) a financial statement verifying that you have at least \$11,100 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.

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 Admissions Office. The packet outlines the application procedures and application deadlines. A \$50.00 non-refundable international student application fee must be submitted with your application.

## Special Admissions



# MONEY MATTERS

## Tuition

## Fees

Tuition		1999-2000	
		In-state*	Out-of-State
1	credit hour	\$38	\$100
2	credit hours	\$76	\$200
3	credit hours	\$114	\$300
4	credit hours	\$152	\$400
5	credit hours	\$190	\$500
6	credit hours	\$228	\$600
7	credit hours	\$266	\$700
8	credit hours	\$304	\$800
9	credit hours	\$342	\$900
10	credit hours	\$380	\$1,000
11	credit hours	\$418	\$1,100
12	credit hours	\$456	\$1,200
13	credit hours	\$494	\$1,300
14	credit hours	\$532	\$1,400
15	credit hours	\$570	\$1,500
15+	credit hours	\$570	\$1,500

Rates are subject to change without notice. All monies owed to the college for previous terms must be paid before you can register for the current term.

\*OR, WA, ID, NV, CA

### Late Registration Fee

A late registration fee of \$10 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. You should check the current class schedule to determine which classes have fees and the amounts. Depending upon circumstances, these fees may be refundable.

### Non-refundable Fees

The following fees are non-refundable:

	1999-2000
Academic transcripts .....	\$3 each
Faxed transcripts .....	\$6 each
Schedule change form (after the 2nd week of term) ...	\$5 each
Late registration fee .....	\$10
Late payment fee .....	\$25
GED testing fee .....	\$60
GED retake fee .....	\$8 per test
ASSET testing fee (per battery) .....	\$10
(per individual test) .....	\$5
Installment Payment Plan processing fee .....	\$15
Returned check fee .....	\$25
International student application fee .....	\$50
Graduation petition fee .....	\$20
Technology Fee .....	\$2 per credit**

\*\*CCC is providing leadership in access to the latest in technology. For example, all students have access at CCC to:

1. the internet
2. up to date software
3. state of the art computer hardware
4. current instructional equipment
5. MERTS facilities described as the "Best in the West"

The College is able to provide and update this technology through the use of technology fees. Technology fees for non-credit classes are pro-rated.

## Residency (out of state tuition)

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, exception is made for the following students:

- 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 out-of-state tuition rate.

## Gold Card Status

Each term, Clatsop Community College students 62 or older are entitled to a 50% tuition discount (discount is not applicable to fees). Free admission is also granted to all College-sponsored performances and activities (unless advertised otherwise). Examples of such activities are cultural events, lectures, dramatic presentations, films, etc.

The first time Gold Card Status is requested, proof of age must be presented. Thereafter, proof of age is not required.

Gold Card Status, which is valid for one term, must be renewed through enrollment in at least one class per term.

## Payment Obligations

By registering for a class(es) 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 class schedule.

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:** VISA, Mastercard, and CollegeCard, are accepted. CollegeCard is a credit card that can be used to pay for tuition and fees and related charges at Clatsop or any other participating college or university. Contact the Business Office for more information on how to apply for a CollegeCard.

**Financial Aid/Scholarship:** A signed Clatsop Community College financial aid or scholarship award letter reflects your acceptance of this funding source. A copy must be presented to the Business Office as proof of funding.

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

## Residency

## Gold Card Status

## Payment Obligations

## Payment Options

# MONEY MATTERS

## Payment Plan

## Refunds

## Financial Aid

### 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 \$15 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 aid, 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 at 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 aid 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 aid, scholarships, or alternate source, 2) students owing less than \$100, or 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 from the date and time the Student Records and Registration Office receives a completed schedule change or withdrawal form. Refunds will be processed by the Business Office, as soon as possible, beginning the third week of each term.

**Regular Courses:** If you withdraw from a course or courses more than two days in length, and comply with all regulations concerning withdrawals, you may receive a 100% refund of tuition and refundable fees. Withdrawal must be made prior to the expiration of 20% of instruction time.

**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 preregis-

tration 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 to financial aid students in the first term of their first year at the College will be pro-rated in accordance with federal regulations. Details are available at the Financial Aid 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.

### FINANCIAL AID

Clatsop Community College has a comprehensive financial assistance program that includes grants, loans, and part-time employment for students who qualify. The primary purpose of financial aid is to provide financial assistance to students who would be unable to attend Clatsop Community College without such help. Financial aid 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

Eligibility to receive financial aid, 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 aid must also submit official copies of all previous post-secondary grade transcripts to the Admissions Office for evaluation. Financial aid (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. At Clatsop, campus-based funding is distributed first based on need and then on a first-come, first-served basis.

A student who is in default on any federal student loan is not eligible to receive additional financial aid until the default has been cleared (See the Financial Aid Office if you need assistance 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 aid until full repayment (or satisfactory arrangements for repayment) have been made.

### Applying for Financial Aid

Financial aid forms are available in January for the following academic year (fall through summer 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. Forms are available through high schools and colleges.

**Renewal Application**-If you were in college last year and meet certain conditions, you will receive a Renewal Application in the mail in early January. The Renewal application will allow you to update the information you submitted last year.

**Internet filing**-If you have Internet access, you can file a FAFSA (or a Renewal Application, if you are eligible and still live at the address you last listed) at <http://www.fafsa.ed.gov>

**FAFSA Express**-You may also use FAFSA Express software that allows you to fill out your application on a computer with a modem. Check at your high school, college, public library, or Educational Opportunity Center for FAFSA Express, or download the FAFSA express software from this Web page: <http://www.ed.gov/offices/OPE/express.html> **Do not submit more than one application!**

### Financial Need

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).

$$\begin{array}{l} \text{Cost of education} \\ - \text{Expected Family Contribution} \\ = \text{Financial need} \end{array}$$

The EFC is determined by the federal processor using the information on your financial aid 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 aid 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 and then on a first-come, first-served basis. Oregon State Need Grants are offered as long as state funds are available. Federal Pell Grants, Federal Direct Stafford Student Loans, and Parent Loans for Undergraduate Students (PLUS) 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).

### Tuition Refunds for Financial Aid Recipients

Tuition refunds are returned to the federal financial aid programs and not to students. Tuition refunds are calculated and applied to student accounts based upon the student's status as a new or returning student and the timing of the student's withdrawal from classes. In the case where a student does not formally withdraw, then refunds are based on the last date of attendance as determined by the Financial Aid Office. Refunds are made to a student's account in the following order: First to unsubsidized loans, then to subsidized loans, Pell grants, SEOG, Need Grant, and last to scholarships.

Please note that students must submit written notification of complete withdrawal from classes by submitting a *schedule change* form to the Records & Registration office. The table on the following page shows the percentage of tuition that will be returned to the Financial Aid programs depending upon whether the student is a new or returning student and the last date of attendance as stated on the *schedule change* form.

# MONEY MATTERS

## Financial Aid (cont.)

Complete Withdrawal by End of:**	New Students*	Returning Students
1st week of classes	100%	100%
2nd week of classes	100%	100%
3rd week of classes	90%	0%
4th week of classes	80%	0%
5th week of classes	70%	0%
6th week of classes	60%	0%

7th week-At the beginning of the seventh week, the tuition refund to the student's account for new students is 0%.

\*New students only during their first term of attendance at CCC.

Standard academic year terms are 11-12 weeks in length. Appropriate adjustments to the refund schedules are made for terms of shorter duration.

### Student-Owed Repayments

Students receiving cash payments from the financial aid programs (funds disbursed to the student after payment of tuition and fees, not including the Federal Work Study or the Direct Loan Program) who completely withdraw from all classes may be required to repay a portion of the cash payment according to the following schedule:

<u>If the last Date of Attendance is during:**</u>	<u>The percent of cash payment owed back is:</u>
1st week of classes	90%
2nd week of classes	80%
3rd week of classes	70%
4th week of classes	60%
5th week of classes	50%
6th week of classes	40%

No repayment of financial aid is required for students whose last date of attendance is during or beyond the seventh week of the term. Students must submit written notification of complete withdrawal from classes by submitting a schedule change form to the Records & Registration office. No additional financial aid will be paid to a student who owes a repayment for early withdrawal until full repayment is made.

\*\*The date indicated by the student as the last date of attendance on the schedule change form is the date used to determine the amount of refund to the Financial Aid program of repayment a student owes. If a student fails to withdraw, the last date of attendance is the date the Financial Aid office determines the student last attended a class.

### 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 aid. SAP is determined annually at the end of Spring term based on your cumulative GPA and the total credits you have earned at Clatsop. Refer to the chart below:

<u>Credit Hours Funded</u>	<u>Cumulative GPA</u>	<u>Percent of Credits</u>
1-40	1.80	Complete 85% of your funded credits
41 or more credits	2.00	Complete 85% of your funded credits

Students who do not meet the minimum cumulative GPA and/or complete the required number of credits listed above will be disqualified from financial aid.

**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 70 credits (Maritime Science certificate is 77 credits) or a two year degree within 120 credits. All credits at Clatsop and any credits a student transfers from other institutions that apply toward his/her current program 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 Spring 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 Academic Issues Committee for a review of your situation. Petitions are available at the Financial Aid office.

## Scholarships

### Scholarships for High School Students

If you are a high school student considering study at Clatsop, you should meet with your school counselor to discuss eligibility and application for the following scholarships: Board Scholarships, Rochester Scholarships, Arthur Fertig Memorial Scholarships, and Talent Grants.

**Board Scholarships.** The Clatsop Community College Board of Directors gives two kinds of scholarships to students graduating from high school programs in Clatsop County. Merit scholarships are awarded annually to students chosen by the high schools. At least one per high school is awarded. Applications are available from high school counselors. These scholarships are renewable for a second year at Clatsop, based on academic achievement. (3.0 GPA at end of the first year and full-time attendance.)

In addition, all graduating seniors in Clatsop County are given a one-term, half-tuition scholarship to be used at the College for any one term during the year after high school graduation. These are mailed to students in their final term of high school. If you do not receive a certificate in the mail, you should contact the Scholarship Director in Student Services.

**Rochester Trust Scholarship:** This merit based scholarship is awarded to full-time students majoring in math/science related areas.

**Arthur Fertig Memorial Scholarship.** Established by friends and relatives of Arthur Fertig, a member of the first Clatsop Board of Directors, this scholarship varies in amount and is available most years to seniors graduating from high schools within the College district. Applications are available from high school counselors.

**Talent Grants** A limited number of tuition Talent grants are available for area (Astoria, Seaside, Warrenton, Knappa, Jewell, Ilwaco, Naselle, and Clatskanie) high school seniors who show talent or special promise in a specific area.

You must be registered as a full-time student to be eligible (12 credits). Grants are renewable term by term for up to two years if satisfactory progress is maintained. (2.0 GPA and full-time enrollment.)

### Scholarships for Clatsop Students

If you are in a degree program at Clatsop, you may apply for a number of scholarships, and it is possible to be awarded more than one. Most are awarded on the basis of your college academic record, your activities, need, and/or the merit of your goals and plans as shown by the application. Available scholarships and application deadlines are announced in the school newsletter. For complete information about scholarships, including application forms, contact the Student Services office, or call 338-2468. The scholarship office publishes the scholarship handbook each year and scholarships are listed on the college electronic mail service (email) available through your academic advisor. Examples of some of the scholarships are:

**AAUW American Association of University Women:** Astoria and Seaside branches offer scholarships each year.

**Adelaine Sather Memorial Scholarship:** This one-year, tuition scholarship is awarded to a student with a declared major in art or music.

**Alpha Iota Sorority Scholarship:** This sorority provides one \$420 scholarship each year to a student majoring in a business program.

**Amelia H. Kuitert Memorial Scholarship:** This is limited to full-time students majoring in the sciences and the amount varies.

**ASH Housing Fund:** This is available to help eligible students with housing costs. Awards range from \$100-\$300 per month depending on student need and availability of funds.

**Chet and Edie Hogan Scholarship:** A \$500 award to a full-time student.

**Coast Guard Officers Wives Scholarship:** This organization recognizes a full-time student who is a Coast Guard dependent. Amount varies.

**Foundation Scholarships:** The Clatsop Community College Foundation raises money through projects and donations to award several scholarships available each term to full-time students.

**Fort James Foundation:** Amount varies.

**Jan and Dr. John Swanson Scholarship** This is given to second-year students who are not necessarily at the top of their class nor in particular financial need. One \$1,000 or two \$500 scholarships are awarded each spring.

# MONEY MATTERS

## Scholarships (cont.)

**Judy Hogan Memorial Scholarship:** This one-year scholarship is awarded to a student with a declared major in visual arts. \$1,575

**Sally Leino Memorial Scholarship:** This is a \$500 scholarship in honor of Sally Leino, founding member of the College Foundation Board.

**Lower Columbia Chapter TROA Scholarship:** This provides one year tuition and is limited to students with a direct uniformed services relationship.

**Oregon Chiefs of Police Scholarship:** One \$1,000 scholarship is offered each year to students majoring in criminal justice.

**Oregon State Sheriffs' Association Scholarships:** One \$500 scholarship is offered each year to students majoring in criminal justice.

**Oregon School Employees Association:** This is a scholarship for Clatsop College OSEA members and their dependents.

**PEO Scholarships:** Clatsop County chapters of this organization award special support in varying amounts to women furthering their education.

**Merriam Joan Shawa Memorial Scholarship:** Awarded to a nursing student.

**Sou'wester Garden Club Horticulture, Landscape Scholarship.**

**Rochester Trust Scholarship:** One or two year awards to full-time students majoring in math/science related areas.

**WATEC (Waited Awhile to Enter College) Scholarship:** This one-year scholarship is awarded annually to a female student over 21 years of age. The private scholarship is awarded by Clatsop Community College graduate, Mickey Bambrick.

**Other Scholarships:** Additional scholarships are awarded in amounts from \$150 to \$500. These scholarships are created through generous donations from our community. All scholarships are subject to availability of funds.

## Memorial Scholarship Fund

Clatsop Community College receives numerous scholarship donations, some of which may be named in honor of individuals when the contribution in their name exceeds \$5,000. The following one term tuition scholarships are awarded as available; at least one will be offered each term.

**Carlyle "Butch" Mahnke Scholarship:** Limited to full-time nursing students.

**Dorothy Mickelson Scholarship:** Available to all full-time students.

**Eben H. Carruthers Memorial Scholarship:** Awarded to a student with a declared major in Integrated Technology.

**Ellen Shannon Scholarship:** Limited to English majors.

**Lisette Haglund Scholarship:** Awarded to students majoring in art.

**M. Chenevert Scholarship:** Available to all full-time students.

**O.J. McGunigal Scholarship:** Available to all full-time students.

**Alberta McKenna Scholarship:** Available to all full-time students.

**Phillip Lynch Scholarship:** Available to all students



*"The Foundation scholarship has been my lifesaver. Not only has it served as greatly needed financial support, but emotional and moral support as well. It means so much to me that there are people . . . willing to help me achieve my educational goals"*

Karen Lamb

## Information

The calendar in the back of this catalog and in term class schedules contains registration dates. These dates are subject to change if necessary.

The college publishes a schedule of classes prior to the beginning of each term. The schedule contains current course offerings, location of classes, and fees charged for each class. 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, you need to complete the registration form and pay for tuition and fees.

## Degree Seeking Students

If you plan to earn a Clatsop certificate or degree and/or are receiving financial aid, you must complete the admissions process. Admitted students are provided information about college degrees and services, are ensured 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.

Admitted students must have their advisor's signature for registration, and should plan to register on campus as early as possible. Returning students are encouraged to register during the announced early registration periods.

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.

## Non-Degree Seeking Students

If you do not intend to complete a degree or certificate, you are 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 Office or Assessment Center 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 Records and Registration Office.

## Late Registration

If you wish to register for regular term length courses during the second week of the term, you must obtain instructor approval and pay a late registration fee. You may not register for regular term length classes after the second week of the term.

## Changes After Registration

You may make course changes at the Records and Registration Office. All changes should be approved by your academic advisor. If you are adding a course the second week of the term, you must also obtain the approval of the instructor. A special form, the *Schedule Change Form*, available at the Records and Registration Office is provided for adding or dropping classes and for changing from credit to audit or from audit to credit. A fee is charged for schedule changes made after the second week of the term.

For information regarding timelines for dropping courses in order to avoid a notation of "W" on your academic transcript, see the "Withdrawal" section of this catalog.

If you are funded by financial aid, scholarships, or an outside agency such as Vocational Rehabilitation or Veterans, please contact the Financial Aid Office prior to making any schedule changes as your aid eligibility may be affected.

## Information

### Degree Seeking Students

### Non-Degree Seeking Students

### Under Age Students

### Late Registration

### Changes After Registration

# REGISTRATION

## Withdrawal

## Auditing

## Student Records

## Transcripts

### 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 aid eligibility. It may also affect funding for students receiving scholarship funds or funds from outside agencies. Contact the Financial Aid Office for more information.

You are expected to withdraw from classes in person at the Records and Registration Office, using a *Schedule Change Form*. Under exceptional circumstances, you may withdraw by writing a letter of explanation to the College's Director of Enrollment Services.

No record of the course will appear on your transcript if the withdrawal is done before 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 from "credit" to "audit" status.

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 Records and Registration Office for more information.

### Auditing

If you do not wish college credit you may register for audit. A request to audit a course is indicated by circling the course reference number (CRN) and checking the audit column on the registration form. Auditing students are not required to meet specific academic requirements but are expected to participate in their classes. Classes taken for audit require payment of tuition and fees. You may change from audit to credit or credit to audit through the seventh week of a term. Financial aid-funded, scholarship recipients, and students receiving reimbursement from outside agency sources generally cannot use audited classes to meet funding eligibility requirements.

### Student Records

You have access to most of your records maintained by the College. Examples of student records are admissions files, transcripts, and financial aid data.

The College may publish and will release directory information. Directory information is defined as your name, address, date and place of birth, major field of study, dates of attendance, degrees and awards received, and the most recent previous educational institution attended. You may request, in a letter to the Director of Enrollment Services, that this information not be released.

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

You may obtain an official transcript by submitting a written request with the \$3 per transcript fee. Transcripts may be faxed to other Oregon Colleges for a \$6 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 bracketed on your transcript and 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 Records and Registration Office 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 aid; however, retakes of courses for which you previously received a passing or required grade cannot be funded.

# ACADEMIC INFORMATION

## DEGREES & CERTIFICATES

### Degrees

The College offers three degrees: the Associate in Arts, the Associate in Applied Science, and the Associate in General Studies. Specific information may be found on the following pages: Associate in Arts, page 23, Associate in Applied Science, page 28; and Associate in General Studies, page 27. You may earn more than one degree at Clatsop Community College except that you may not receive simultaneously the Associate in General Studies degree and other degrees at Clatsop Community College unless you complete 24 additional and distinct credits from the previous degree. You must also meet all requirements for each degree. Degrees will be awarded once you have completed the graduation petition process and have participated in graduation ceremonies, unless excused.

### Warranty

Clatsop Community College warrants the competencies you develop while obtaining an Associate in 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 vocational 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 Instructional Programs/Student Services may approve appropriate Professional-Technical supplementary courses on an individual basis.

### One-Year Certificates

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

Recognizing that the established degree and certificate programs cannot meet every individual's educational needs, the College will develop short-term certificates in specific areas of concentration. You must arrange through the Vice-President Instructional Programs/Student Services and be pre-approved by the Instructional Council for these individualized certificates which are usually completed in less than two years.

All certificate programs require a minimum of 45 credits. At least 12 of these credits must be earned at Clatsop, and your last term of attendance prior to completion must be at Clatsop. Additionally, there are mathematics, writing, and human relations requirements for all certificate programs. See your advisor and the Vice-President Instructional Programs/Student Services for details.

### 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.

### Transfer Credit

Coursework for which you earned a "C" or better grade from an 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 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 aid funds and CEUs do not count toward financial aid satisfactory progress eligibility or toward degree completion.

## Degrees and Certificates

## Credit

## Continuing Education Units (CEUs)

# ACADEMIC INFORMATION

## Course Numbering

## Grading Policies

### Course Numbering/Grading

1. Courses that are fully transferable to Oregon four-year colleges and universities are listed on pages 105 & 106. Most of these courses 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 107 & 108. 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 Cooperative Field 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 State System of Higher Education. 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 should receive a course syllabus for each credit class in which you are enrolled. The syllabi should provide criteria on how grades are awarded including the approximate percentage of the term grade to be awarded for completed homework, weekly quizzes, term projects, mid-terms, finals, class participation, etc. Grades should reflect how well you meet course objectives. 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.

#### 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 Records and Registration Office.

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 Instructional Programs/Student Services, 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.

# ACADEMIC INFORMATION

## **W - Withdrawal**

A student-initiated withdrawal.

## **P - Pass**

You may earn credit for a course which is graded on a pass/no credit basis. You may apply a maximum of 24 credits of "pass" grades toward a degree.

## **NC - No Credit**

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

## **Aud - Audit**

You may register for audit if you do not wish credit for a course. As an auditing student, you are not required to meet specific academic requirements but you are expected to participate in your classes. You must initiate an audit. Changing from audit to credit will be treated in the same manner as adding a class. If you are receiving scholarships or money from outside agency sources, your funding may be adversely affected by changes from credit to audit.

## **Academic Standards**

In order 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 aid, scholarships or Veterans benefits you will be required to maintain satisfactory academic progress in order to continue to receive benefits. (Review the Financial Aid, Scholarships, and Veterans sections of this catalog for details on satisfactory progress requirements.)

## **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 Instructional Services/Student Services.

2. You must submit a formal application approved by the Administrative Assistant to the Vice President Instructional Services/Student Services, 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, and credits earned through examination cannot be counted as credit needed for the 24 credit on campus graduation requirement. 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 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.

**Grading  
Policies  
(cont.)**

**Academic  
Standards**

**Credit by  
Examination**

# ACADEMIC INFORMATION

## Credit by Examination

## Independent Study

## Cooperative Education

10. 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.

You may also earn credit by successfully completing the College Level Examination Program (CLEP) General Examinations or Subject Examinations. You may take CLEP examinations at any CLEP testing center. CLEP general exams are administered at Clatsop Community College by appointment through the Assessment Center. Call 338-2426.

Additional information about College policies concerning credit by examination may be obtained by contacting the Instructional Services Office. These procedures are subject to modification by college action.

### 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, Instructional Programs/Student Services on your behalf, detailing the proposed course. Independent study forms are available in the Instructional Services Office.

### Cooperative Education (Work Experience)

**Cooperative Education (Work Experience) is a nationally recognized program granting academic credit for various supervised work experiences.**

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 and to secure future work stations. In addition, staff meet with you and your employer at the job site at least twice during the academic quarter to discuss your progress toward completing the learning objectives.

There are two different kinds of work experience credits at Clatsop Community College. The basic course, CWE 80 Introduction to Work Experience, grants you credit for learning basic work skills and emphasizes dependability and good work habits. A joint program with local high schools uses this class extensively.

Professional-technical and academic students enroll in a work experience class designated by the alpha code of their program and the course number 280.

### Companion Classes

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

### Job Placement

The cooperative education office receives job opportunities from employers and will contact instructors and students directly or through the student newsletter. The Employment Department has placed a touch screen computer with all job listings for local, state, and national employment opportunities at Fertig Hall and the South County Center in Seaside.

College jobs and local positions are posted on the campus electronic mail system available through your advisor and the Student Government office.

### Credit for Prior Learning

You can also earn Clatsop Community College credits for learning acquired through job experiences, travel, hobbies, and family and civic responsibilities.

You learn to develop portfolios that document your prior learning by enrolling in a course entitled CPL 120 Credit for Prior Learning (Portfolio Development).

You may earn up to 22 credits toward the College's associate degrees. Credit may be earned for learning equivalent to any approved professional-technical or transfer course with the exception of cooperative education. Fees depend on the number of credits you attempt to receive. To initiate your request, contact the Vice President Instructional Programs/Student Services.

# ACADEMIC INFORMATION

## Dora Badollet Learning Resource Center

Located in the center of campus, the College Learning Resource Center (LRC) offers a striking view of the Columbia River from every study carrel. The services of the LRC include Distant Education, Media Services, Interlibrary Loan and the collections of the Library. Librarians and technical staff are available to instruct students in research methods, use of information technology and in the location of materials.

The collections of the library are in a variety of formats and cover topics in the liberal arts, technical and vocational fields. Formats include books, periodical, microfilm and non-print (videotape, compact disks, and audiotapes) collections. Access to materials beyond the LRC collections is extended through Internet based services and other computer based search services.

The LRC is continually adding new resources and services. The automated library system is accessible from our website (<http://library.clatsop.cc.or.us>) which makes research of the LRC collections possible around the clock.

## Graduation Requirements

In order to graduate from Clatsop Community College you must file a graduation petition with the Records and Registration Office. Petitions must be submitted to the Records Office one term prior to the term you plan to graduate. Due dates for petitions are printed in the Student Handbook, which is available in Student Services.

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 Admissions Office in Towler Hall, Room 200). You must attend the College at least two terms, including the last term, and complete at least twenty-four credits at Clatsop.

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, except that you may not receive an AGS (Associate in General Studies) degree simultaneously with or after receiving any other degree at Clatsop unless you complete 24 additional and distinct credits from the previous degree. You must also meet all requirements for each degree.

### Student Responsibility

It is the responsibility of you, the student, to know and to observe the requirements of your curriculum 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 \$20 graduation petition fee is payable to the business office, and payment is required prior to submitting your graduation petition to the Records and Registration office.

**Learning  
Resource  
Center**

**Graduation  
Requirements**



# ACADEMIC INFORMATION

## Graduation Requirements (cont.)

## Honors and Awards

### Honors and Awards

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

#### *Transcribing term honors and recognition:*

- Honor Roll (12 or more graded credits; 3.75 to 4.00 grade point average {GPA})
- Dean's List (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 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:*

- ASBG recognition cords (ASBG Officers at graduation)
- ASBG President's Cup
- Student Body Plaque
- Helen Wheeler Extra Mile Award
- Unsung Student Hero Award
- Instructional Council trophy (highest Clatsop GPA for graduating associate degree recipient)
- Outstanding Club Award
- Certificates of Appreciation
- ASBG and other scholarships
- College President's Cup
- Department awards
- Commencement Marshals (two degree seeking students with 45 or fewer credits with highest cumulative Clatsop GPA as of end of winter term)
- Phi Theta Kappa cords at graduation

Many of the above awards are conferred in a special Awards Convocation held each May to recognize student achievements.



*"One of the greatest parts about Clatsop was its instructors. Most of my core classes had about 5-10 students which helped us develop personal relationships with our instructors. Still to this day, I think that Dave Kruger and Pat Keefe are two of the best instructors that I have had in college. These instructors were always willing to help if we had questions on our work. They were excited about learning and wanted us to excel. Also, the projects and assignments were very applicable to "real-life" situations, which always helps the learning process. If I had the chance to go back and go through school in a different manner, I wouldn't. I believe that attending Clatsop first was the best way for me to get the education that I needed to become an engineer."*

Kyle Ayers  
Manzanita, OR



## Academic Advising

When you are admitted to a certificate or degree program, the college provides you an academic advisor to assist with your exploration of career and educational goals; selection of a major and degree; 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.

## Career Services

Career assessment, exploration and planning is available if you are interested in discovering how your personal interests, values, and abilities relate to career choice. Your readiness for the workplace or ability to successfully transfer to a four-year college or university may depend on your early identification of career choice and an appropriate educational major. Services available include individualized counseling with a qualified career counselor, a course in career planning, assistance in working with the Oregon Career Information System software, and personality and interest assessments. Career Services is located in the Student Educational Assistance Center (SEA), Fertig 24.

## Counseling

Student Services staff or advisors are available to help and support you. Staff can set up orientations and admission testing; discuss scholarships, financial aid, and personal financial matters; help you with unresolved miscommunications with faculty or college staff; answer general questions about college requirements, academic programs, advising, and various campus services and offices; as well as help you use career planning materials.

In addition, professional counseling is available to help you sort out personal difficulties affecting your college work. For example, family or relationship dilemmas, difficulty making or following through on decisions, or dealing with addiction, abuse, or emotional problems may be addressed. You may also ask counseling staff about campus support groups, self-help courses, and community special services.

## Plus Program

This is a federally funded program to help disadvantaged students succeed at Clatsop. If appropriate we also help program participants transfer to four year colleges and universities. Services may include: Academic planning, career assessment, personal counseling, transfer assistance, tutoring for mathematics, and various classes/workshops from college orientation to four-year transfer planning. Applications and information are available from the Plus Program office in 212 Towler Hall.

## Students with Disabilities

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 Services for Students with Disabilities in Patriot Hall 330 or call the office at 338-2474.** 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.

Services may include:

- Campus orientation
- Registration assistance
- Academic advising and counseling
- Reasonable and appropriate classroom accommodations
- Test taking facilitation
- Learning style assessment
- Tutorial support
- Student advocacy
- Resource and referral services
- Special adaptive equipment

Academic  
Advising

Career  
Services

Counseling

Plus  
Program

Students  
With  
Disabilities

# STUDENT SERVICES

## SEA Services Tutoring

## Volunteer Literacy Tutor Program

## Veterans Services

## Maxines

## Student Government

### SEA Services Tutoring

Tutoring in almost all subject areas is provided for enrolled students in SEA (Student Educational Assistance) Services located in Fertig, room 24. 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. The SEA offers special services for ESOL students and students with learning disabilities.

Students at all levels of study are welcome at the SEA. Appointments are not necessary and all tutoring is free. For more information, contact the College tutor coordinator.

### Volunteer Literacy Tutor Program

The College offers training to students and community members interested in participating in the volunteer literacy program. Trainings are offered twice a year and focus on both adult literacy and ESOL (English for Speakers of Other Languages). Participants in the trainings are qualified to tutor community members through the college program. For more information, call the Director of Developmental Education.

### Veterans Services

The Veterans Coordinator in the Student Services Office assists veterans in applying for veterans educational benefits and provides information on Veterans Administration policies, procedures, and approved programs of instruction.

If you are receiving Veterans' Administration (VA) benefits, you are responsible for demonstrating satisfactory progress toward a degree or certificate in a VA-approved program of study. You must maintain a cumulative grade point average of 2.0. The VA will only pay for classes that advance you toward your established program goal.

As a Veteran, you must become an admitted student which requires:

1. Formal application for admission to the College.
2. Completion of the ASSET placement evaluation (unless waived by adequate transfer credit).

3. Having official transcripts of all your college credit earned at other schools sent to the admissions office so that an official credit evaluation can be done.

4. Attending a New Student Orientation and meeting with an academic advisor.

You are responsible for notifying the Veterans Coordinator of any change in courses attempted or credit load (for example adds or drops). Your failure to do so immediately may result in unnecessary overpayments that you must repay or deduct from future benefits.

While your application for Veterans Benefits is being processed by the Regional Veterans Office, you should be prepared to meet the costs of books and supplies, and living expenses. Financial Aid is another form of tuition assistance on campus.

### "Maxine's"

#### The Student Center

The cafeteria, bookstore, and ASBG (Associated Student Body Government) are located in the Student Center on the first floor of Patriot Hall. "Maxine's" is the heart of activity for students gathering for coffee breaks, meals, or visits with ASBG officers. The center features student art exhibits and special events each term.

### Student Government Leadership Opportunities

The Associated Student Body Government (ASBG) is a nonprofit student organization that coordinates student activities on campus and provides assistance and service to the student population. Student Government consists of a three-member Executive Committee, a six-member Senate, and Representatives who serve as volunteers to Student Government.

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, hold elections, and participate in many community service events. They also serve as members of many of the campus committees to provide advocacy for students in campus decision-making.

For more information on how you can participate in student government, stop by the ASBG office on the first floor of Patriot Hall next to the cafeteria or call them at 338-2495.

## Organizations and Activities

Out-of-class activities are as important for education as traditional course work. At Clatsop, there are a variety of recreation and social activities and cultural events throughout the year: films, speakers, concerts, plays, dances, barbecues, and more. If you have a special interest, you are invited to form a club and seek ASBG approval as a recognized student organization.

Such clubs and organizations formed for specific interests include:

- Phi Theta Kappa (national honors society)
- Associated Ceramic Artists (ACACC)
- Clatsop Nursing Students Assn. (CNSA)
- Kung Fu Club
- Foreign Language Club
- Jazz Club
- Student Liberated Art Movement (SLAM)
- Ski Club (Winter Sports)
- Lambada Club

## Recreational Opportunities

The intramural sports program offers a variety of activities that will allow you to interact with other students outside the classroom and learn about local recreational opportunities. The program varies year to year depending on student interest. Activities could include city league sports, swim parties, bowling tournaments, and golfing days.

ASBG has equipment for you to use free of charge. A sample of equipment available for you to check-out includes a canoe, cross country skis, snowboards, tennis rackets, croquet sets and golf clubs. Contact ASBG for more information.

## Students' Rights & Responsibilities

In accordance with federal, state, and local laws and Clatsop Community College's policies and procedures, certain rights and responsibilities apply to all registered students. The College publishes a student handbook to provide detailed information to you regarding your rights and responsibilities, policies governing privacy and disclosure of student records, and services for students. For information and a copy of the handbook, inquire at the Student Services Office, Towler Hall 200.

## Student Code of Conduct

You are expected to conduct yourself in a manner compatible with the College's function as an educational institution. Any action or behavior that disrupts the orderly functioning of the College is prohibited. Actions such as disorderly conduct, verbal or physical harassment of another student or staff member, use, possession, or distribution of alcoholic beverages or other "controlled substances" are examples of violations of the College's Student Code of Conduct and are cause for disciplinary action. Examples of behaviors that disrupt the functioning of the instructional process include, but are not limited to, academic dishonesty, plagiarism, furnishing false information, unauthorized copying of printed material or computer software, and failing to comply with directions of college staff acting in performance of their duties.

For more detailed information regarding the Student Code of Conduct and disciplinary procedures and for information regarding Student Grievance Procedures, see the Student Handbook.

## Organizations and Activities

## Recreational Opportunities

## Students Rights

## Student Code of Conduct

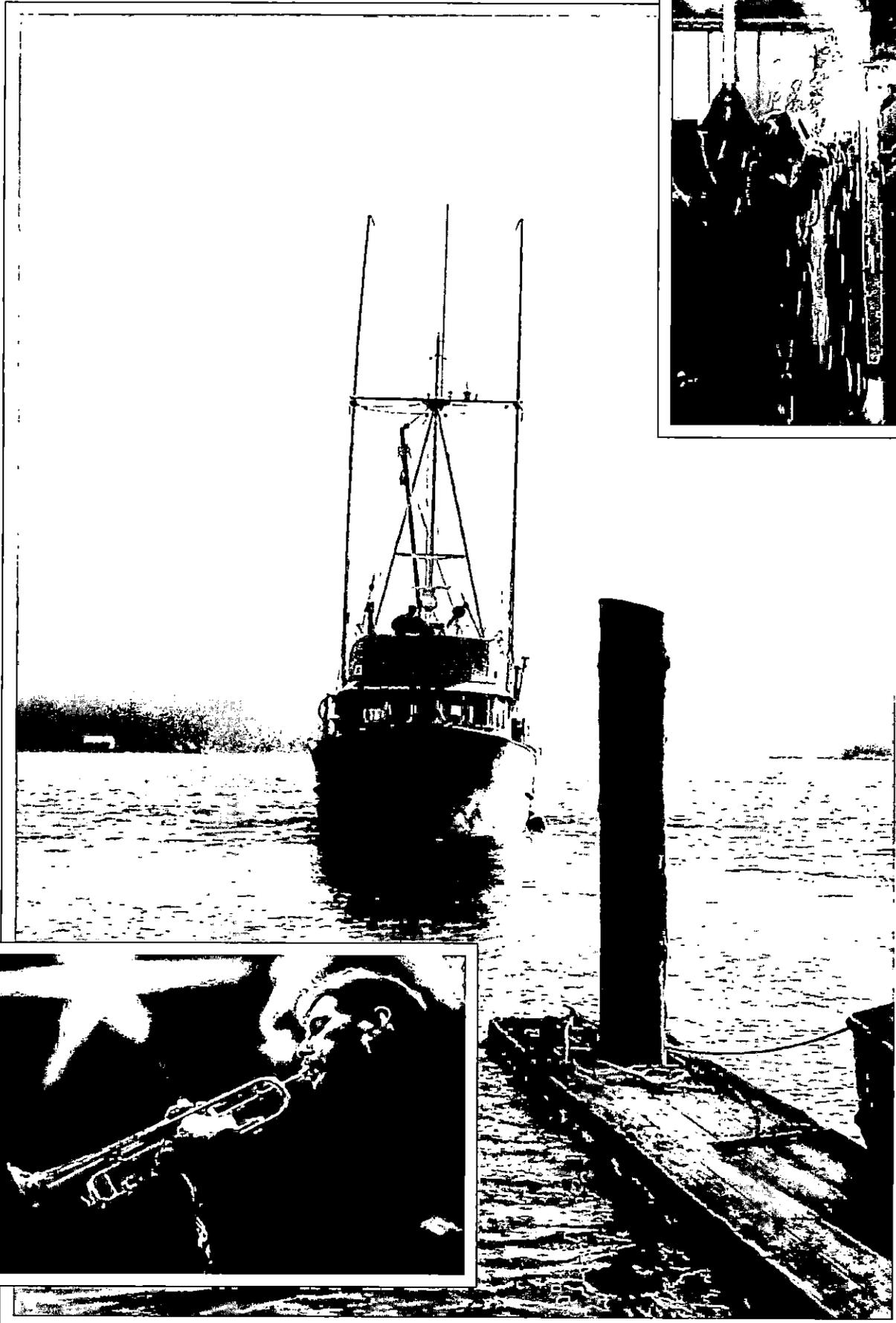


*"Living at a large state university for awhile was a lot of fun, but I suffered greatly academically. Often, my classes had 300 students in them. Instructors had only one office hour which was usually at a time when I had another class or I had to work.*

*Clatsop Community College is a different story. At Clatsop, help is more readily available. Now, I am planning to take all of my general education courses at Clatsop before transferring to a university."*

*Cathy Wood  
Astoria, OR*





# Academic Programs

## Associate In Arts, Oregon Transfer Degree

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 in 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**                      **Nine credits** (three classes) with a "C" or better in each class from the following courses: WR 121 English Composition and WR 122 English Composition and *either* WR 123 English Composition *or* WR 227 Technical Report Writing.

**Mathematics**                **Four credits** or more with a "C" or better in MTH 105 Introduction to Contemporary Mathematics or a higher numbered math course. This course cannot be used to meet the Math/Science requirement.

### **Oral Communication**

**Three credits** (one class) with a "C" or better from the following courses: SP 111 Fundamentals of Public Speaking, SP 112 Persuasive Speech, or SP 219 Small Group Discussion. This course cannot be used to meet the Arts & Letters requirement.

### **Distribution Requirements**

#### Arts & Letters

**A minimum of twelve credits, chosen from at least two disciplines, with no more than nine credits from one discipline. (CHOOSE FROM THE FOLLOWING LIST)**

ART 115,116,117	Basic Design	3 ea	ENG 201,202,203	Shakespeare	3 ea
ART 204,205,206	History of Western Art	3 ea	ENG 204,205,206	Survey of English Literature	3 ea
ART 211,212,213	Survey Visual Art of 20 <sup>th</sup> Century	3 ea	ENG 220	Non-European Minority Literature	3
ENG 104,105,106	Introduction to Literature	3 ea	ENG 253,254,255	Survey of American Literature	3 ea
ENG 107,108,109	World Literature	3 ea			
ENG 110	Introduction to Film Studies	3			

(continued on the next page)

ENG 260	Introduction to Women's Literature	3	SP 112	Persuasive Speech	3
FR 201,202,203	Second Year French	4 ea	SP 115	Intro. to Intercultural Communication	3
GER 201,202,203	Second Year German	4 ea	SP 219	Small Group Discussion	3
PHL 101	Philosophical Problems	3	SPAN 201,202,203	Second Year Spanish	4 ea
PHL 102	Ethics	3	TA 101	Introduction to Theatre	3
PHL 103	Critical Reasoning	3	TA 121,122,123	Fundamentals of Acting	4 ea
R 201,202,203	Great Religions of the World	3 ea	WR 241,242,243	Introduction to Imaginative Writing	3 ea
SP 111	Fundamentals of Public Speaking	3	WR 270	Literary Publications	3

## Social Science

**A minimum of fifteen credits, chosen from at least two disciplines, with no more than nine credits from one discipline. (CHOOSE FROM THE FOLLOWING LIST)**

ANT 110	General Anthropology: Cultural	3	HS 205	Youth Addiction	3
ANT 150	General Anthropology: Archeological	3	HST 101,102,103	History of Western Civilization	3 ea
ANT 170	General Anthropology: Physical	3	HST 201,202,203	History of the United States	3 ea
ANT 232	Native North Americans	3	PS 201, 202	American Government	3 ea
CJ 100	Survey of Criminal Justice	3	PS 203	State and Local Government	3
CJ 101	Introduction to Criminology	3	PS 205	International Politics	3
CJ 110	Introduction to Law Enforcement	3	PSY 101	Psychology of Human Relations	3
CJ 114	Gender, Race, Class & Crime	3	PSY 201,202,203	General Psychology	3 ea
CJ 120	Introduction to the Judicial Process	3	PSY 215	Intro. to Developmental Psychology	3
CJ 130	Introduction to Corrections	3	PSY 216	Social Psychology	3
EC 115	Introduction to Economics	3	PSY 219	Introduction to Abnormal Psychology	3
EC 201,202	Principles of Economics	4 ea	PSY 231	Introduction to Human Sexuality	3
GEO 100	Introduction to Physical Geography	3	PSY 235	Introduction to Human Development	3
GEO 110	Intro to Cultural & Human Geography	3	SOC 204	General Sociology: Introduction	3
GEO 120	World/Regional Geography	3	SOC 205	General Sociology: Social Issues	3
GEO 130	Economic/Resource Geography	3	SOC 225	General Sociology: Social Problems	3
HS 101	Alcohol Use, Misuse and Addiction	3	SOC 210	Marriage, Family & Intimate Relations	3
HS 102	Drug Use, Misuse and Addiction	3	SOC 213	Minorities: Dealing with Diversity	3
HS 154	Community Resources	3	SOC 221	Juvenile Delinquency	3
HS 201	Family Alcoholism/Addiction	3	SOC 223	Sociology of Aging	3

## Science/Mathematics

**A minimum of fifteen credits (including at least twelve credits in sciences with laboratories) chosen from at least two disciplines. (CHOOSE FROM THE FOLLOWING LIST)**

*BI 101,102,103	General Biology	4 ea	*G 201,202,203	Geology	4 ea
*BI 201,202,203	General/Principles of Biology		*GS 104,105,106	Physical Science	4 ea
* 211, 212, 213		4 ea	GS 161	Field Biology of Oregon	3
BI 222	Human Genetics	3	MTH 105	Intro. to Contemporary Mathematics	4
*BI 231,232,233	Human Anatomy and Physiology	4 ea	MTH 111	College Algebra	4
*BI 234	Introductory Microbiology	4	MTH 112	Elementary Functions (Trigonometry)	4
*CH 104,105,106	Introductory Chemistry	4 ea	MTH 211,212,213	Fundamentals of Elementary Mathematics I,II,III	3 ea
*CH 221,222,223	General Chemistry	4 ea	MTH 241	Calculus for Management and the Social Sciences	4
CS 161	Computer Science I	4	MTH 243,244	Intro. to Probability and Statistics	4 ea
CS 162	Computer Science II	4	MTH 251,252,253	Calculus I,II,III	4 ea
CS 171	Principles of Computer Organization	4	MTH 254	Vector Calculus I	4
CS 260	Data Structures	4	MTH 255	Vector Calculus II	4
CS 271	Computer Architecture	4	MTH 256	Differential Equations	4
CS 279M	Network Management-LAN NT	3	*PH 201,202,203	General Physics	5 ea
CS 279N	Network Management-LAN Novell	3	*PH 211,212,213	General Physics with Calculus	5 ea
CSU 133	C Language Programming	4			
CSU 233	Advanced C Language Programming	4			
*ES 160	Techniques in Environmental Information Analysis	4			
G 145	Field Geology of Oregon	3			

\*courses which meet the lab science requirements of the AA-OT

## **Associate In Arts, Oregon Transfer Degree Requirements (continued)**

### **Electives    Limitations on electives:**

Electives must be from the approved list.

Professional/Technical courses - A total of 12 credits of courses numbered 100 or higher from the list on pages 107 and 108.

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 on pages 105 and 106.

Earn a cumulative grade point average of 2.00 or above for all college work which includes applicable credits earned at other accredited colleges and universities.

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

Attend at least two terms, including the last term, and 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).

# Associate of Arts, Oregon Transfer Degree Worksheet

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 (113)

## Distribution Requirements

### 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 from the list on pages 107 & 108 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 (MUP), a maximum of 12 credits on a major instrument and 6 credits on a secondary instrument.

\_\_\_\_\_ Credit \_\_\_\_ Term \_\_\_\_\_

# Academic Programs

## Associate in General Studies

The General Studies degree provides students with the opportunity to design a program in broad interdisciplinary areas. Students may select one of two options. One option provides an emphasis in an Applied Science program. The second option is to create a liberal arts cluster which may facilitate transfer to a baccalaureate degree program at a four-year institution. Neither of these options are available for the Nursing program. The general studies degree normally requires two years of study.

### **Option A General Studies with an emphasis in an Applied Science program.**

**Complete two-thirds or 67 percent of the technical course credits** including those course credits required for the AGS degree in a specific Applied Science program. Technical option credits may be applied to the 67 percent minimum, but they cannot exceed the number specified in the program.

**Complete the General Education Requirements as specified in the Applied Science program.**

<b>Writing</b>	<b>Six credits</b> (two classes) with a "C" or better in each class from the following: a. Either WR 40 English Fundamentals or WR 121 English Composition <b>and</b> b. Either WR 121, 122, 123 English Composition; WR 227 Technical Report Writing; BA 214 Business Communications; or a course designated by the specific Applied Science program.
<b>Mathematics</b>	<b>Four credits</b> , with a "C" or better, in MTH 65 Mathematics for the Applied Sciences or MTH 95 Intermediate Algebra or a higher numbered math course.
<b>Humanities and/ or Social Sciences</b>	<b>Six credits</b> of Humanities and/or Social Science courses from the Arts and Letters and Social Science lists on page 27.
<b>Computer</b>	<b>One credit</b> or more of computer-related courses as designated in the specific Applied Science program.
<b>Human Relations</b>	As designated by the specific Applied Science program.

### **Option B General Studies with an area of concentration.**

**Complete 36 credits** or more from a cluster of related courses you and your advisor identify. You should identify the cluster courses as soon as possible after enrollment, but no later than the term prior to the term in which you plan to graduate.

**Complete the following General Education Requirements:**

<b>Writing</b>	<b>Six credits</b> (two classes) with a "C" or better in each class from the following: a. Either WR 40 English Fundamentals or WR 121 English Composition <b>and</b> b. Three credits from the following: WR 121, 122, 123 English Composition; WR 227 Technical Report Writing; BA 214 Business Communications.
<b>Mathematics</b>	<b>Four credits</b> , with a "C" or better, in MTH 65 Mathematics for the Applied Sciences or MTH 95 Intermediate Algebra or a higher numbered math course.
<b>Humanities and/ or Social Sciences</b>	<b>Six credits</b> of Humanities and/or Social Science courses from the Arts and Letters and Social Science lists on page 27.

### **Institutional Requirements**

- Complete a minimum of 90 credits. Consult an academic advisor for approved courses.
- Earn a cumulative grade point average of 2.00 or above for all college work which includes applicable credits earned at other accredited colleges and universities.
- Earn a grade point average of 2.00 or above for all Clatsop Community College coursework.
- Apply no more than a maximum of 24 credits of pass grades toward an Associate Degree.
- Attend at least two terms, including the last term, and complete at least 24 credits at Clatsop Community College.

# Academic Programs

## Associate in Applied Science

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. Either WR 40 English Fundamentals or WR 121 English Composition

**and**

b. Either WR 121, 122, 123 English Composition; WR 227 Technical Report Writing; BA 214 Business Communications; 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 27.

#### 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 Options

Technical options 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. Consult an academic advisor for approved courses.
- Earn a cumulative grade point average of 2.00 or above for all college work which includes applicable credits earned at other accredited colleges and universities.
- Earn a grade point average of 2.00 or above for all Clatsop Community College coursework.
- Apply no more than a maximum of 24 credits of pass grades toward an Associate Degree.
- Attend at least two terms, including the last term, at Clatsop Community College.

# APPLIED SCIENCES PROGRAM INDEX

	PAGE
<b>BUSINESS PROGRAMS</b>	
ACCOUNTING .....	30
BUSINESS MANAGEMENT .....	31
MICROCOMPUTER APPLICATIONS (ONE-YEAR CERTIFICATE) .....	32
MICROCOMPUTER BUSINESS APPLICATIONS (ASSOCIATE DEGREE) .....	33
MICROCOMPUTER PROGRAMMING & NETWORKING (ASSOCIATE DEGREE) .....	34
GENERAL OFFICE (ONE-YEAR CERTIFICATE PROGRAM) .....	35
OFFICE SYSTEMS .....	36
LEGAL WORD PROCESSING OPTION .....	36
MEDICAL WORD PROCESSING OPTION .....	37
OFFICE MANAGEMENT OPTION .....	37
BUSINESS TECHNICAL OPTIONS .....	38
<b>CRIMINAL JUSTICE</b>	
CRIMINAL JUSTICE .....	39
EARLY CHILDHOOD EDUCATION (CERTIFICATE PROGRAM) .....	40
FIRE SCIENCE .....	41
<b>HEALTH OCCUPATIONS</b>	
EMERGENCY MEDICAL TECHNICIAN (ONE-YEAR CERTIFICATE PROGRAM) .....	42
MEDICAL ASSISTANT .....	43
<b>INDUSTRIAL MANUFACTURING TECHNOLOGIES</b>	
INTEGRATED TECHNOLOGIES (ASSOCIATE DEGREE) .....	44
AUTOMOTIVE TECHNICIAN (ONE-YEAR CERTIFICATE) .....	45
COMPUTER-AIDED DESIGN & DRAFTING (ONE-YEAR CERTIFICATE) .....	46
MACHINIST (ONE-YEAR CERTIFICATE) .....	47
AMERICAN WELDING SOCIETY ENTRY LEVEL (ONE-YEAR CERTIFICATE) .....	48
MARITIME SCIENCES (ONE-YEAR CERTIFICATE) .....	49
MARITIME SCIENCES SPECIALIZED TRAINING PROGRAMS .....	50
<b>NURSING</b>	
NURSING ADMISSION, ENTRY REQUIREMENTS .....	51
ASSOCIATE DEGREE NURSING .....	52
PRACTICAL NURSING CERTIFICATE PROGRAM .....	53

# Business Programs

## Accounting

### 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 upon 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 \$1,500 per month and the average maximum wage is about \$2,831 per month.

First Year				Second Year					
Course Number	Course Title	Credits			Course Number	Course Title	Credits		
		F	W	S			F	W	S
BA 101	Introduction to Business	3			BA 177	Payroll and Business Tax Accounting ***3			
BA 104	Business Math/Electronic Calculators	4			BA 226	Introduction to Business Law I	4		
BA 214	Business Communications***	3			BA 228	Computer Acct. Applications ***	3		
BA 285	Human Relations in Business	3			BA 211, 212, 213	Principles of Accounting I,II,III +	4	4	4
CSL 107	Spreadsheets	3			BA 250	Small Business Management	3		
CS 101	Fundamentals of Computing	1			BA 256	Income Tax ***	3		
MTH 65	Math for Applied Sciences * or	4			BA 222	Financial Management ***	3		
MTH 95	Intermediate Algebra*	(5)			EC 115	Introduction to Economics	3		
OA 121	Keyboarding I**	3			BA 280	Coop Work Experience - Accounting	2		
OA 201	Word Processing I	3			BA 281	Coop Work Experience Seminar	1		
SP 111	Fundamentals of Public Speaking	3				Technical Options****	3		
WR 40	English Fundamentals*** or	3				Electives	3 1		
WR 121	English Composition***	(3)							
OA 104	English for Business	4							
BA 131, 132, 133	Accounting Procedures I,II,III +	3	3	3					

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

\*\* Students must attain a typing proficiency equivalent to OA 121 Keyboarding. Those who meet this requirement may substitute three credits of general electives.

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

\*\*\*\* Students must complete 3 credits of technical options to be selected from the list on page 38.

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

# Business Programs

## Business Management

### 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 that sell goods and services or manufacture products. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and sales, to name a few.

### 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 \$14,000 per year and, depending on experience, maximum may go to \$40,000 or more per year.

First Year				Second Year					
Course Number	Course Title	Credits			Course Number	Course Title	Credits		
		F	W	S			F	W	S
BA 101	Introduction to Business		3		CSD 122	Beginning Database Program Development		3	
BA 104	Business Math/Electronic Calculators		4		BA 206	Management Fundamentals		3	
BA 211, 212	Principles of Acct. I,II <i>or</i> ***	4	4		BA 226	Introduction to Business Law I		4	
BA 131, 132, 133	Accounting Procedures I,II,III *** (see "Note")	(3)	(3)	(3)	BA 223	Marketing			3
BA 214	Business Communications**			3	BA 224	Human Resource Management			3
CS 131	Introduction to Computer Information Systems		4		BA 227	Introduction to Business Law II			3
MTH 65	Math for Applied Sciences * <i>or</i>		4		BA 250	Small Business Management			3
MTH 95	Intermediate Algebra*		(5)		BA 230	Management Info. Systems			3
WR 121	English Composition**			3	EC 115	Introduction to Economics			3
OA 104	English for Business		4		BA 285	Human Relations in Business			3
SP 111	Fundamentals of Public Speaking			3	BA 280	Coop Work Experience - Business Administration			2
OA 201	Word Processing I			3	BA 281	Coop Work Experience Seminar: Business Administration			1
CSL 107	Spreadsheets			3		Technical Options ****		3	3
MIC 207	Presentation Software			3		Electives		2	3

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

\*\* Minimum grade C or higher.

\*\*\* Grade C or better required in preceding courses to take next level.

\*\*\*\*Students must complete 6 credits of technical options to be selected from the list on page 38.

Note: Students who select Principles of Accounting sequence must complete two terms (BA 211, 212) and will need to complete an additional elective credit.  
Students who select Accounting Procedures sequence must complete three terms (BA 131, 132, 133).

# Business Programs

## Microcomputer Applications 1 Year Certificate Program

### Job Description:

The Microcomputer Applications program prepares students for careers which involve technology in roles of customer /user support, network or applications operations, and data entry. The program offers a One-Year Certificate could lead to jobs such as data entry, customer service, word processing, and beginning network and applications operations.

### Employment Opportunities:

Microcomputers are used in a variety of business, industrial, educational, and agency settings. This program prepares students to use both packaged and specially designed systems.

### Potential Earnings:

Salary ranges for individuals with the One-Year Certificate may range from \$18,000 to \$122,000 per year depending upon location, size of company, and the specific job descriptions.

Course Number	Course Title	Credits		
		F	W	S
OA 104	English for Business	4		
CS 131	Introduction to Computer Information Systems	4		
MTH 65	Math for Applied Sciences * <i>or</i>	4		
MTH 95	Intermediate Algebra *	(5)		
OA 201	Word Processing I	3		
OA 202	Word Processing II		3	
CSL 107	Spreadsheets		3	
CSD 122	Beginning Database Program Development		3	
MIC 178	Using the Internet for Communication and Research		3	
MIC 207	Presentation Software		3	
CSD 275	Advanced Database Program Development			3
CS 278	Data Communications and Networking			3
BA 285	Human Relations in Business			3
WR 40	English Fundamentals ** <i>or</i>			3
WR 121	English Composition **			(3)
	Technical Options ***			3

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

\*\* Minimum grade C or higher.

\*\*\* Students must complete technical options chosen from either the Science/Mathematics List on page 24, or the Business Technical Options List on page 38.

# Business Programs

## Microcomputer Business Applications Associate Degree

### Job Description:

The Microcomputer Applications program prepares students for careers which involve technology in roles of customer/user support, network or applications operations, and data entry. The Two-Year AAS Degree in Microcomputer Business applications could lead to employment opportunities in automated bookkeeping, database administration, network project teams and junior analyst positions in network systems, customer/user support and microcomputer applications.

### Employment Opportunities:

Microcomputers are used in a variety of business, industrial, educational, and agency settings. This program prepares students to use both packaged and specially designed systems.

### Potential Earnings:

Salary ranges for individuals completing the Two-Year AAS Degree may range from \$18,000 to \$29,000 per year. Salary potential and job availability in this field have expanded in the last five years. This expansion is projected to continue over the next five years, especially for employees holding degrees.

First Year				Second Year					
Course Number	Course Title	Credits			Course Number	Course Title	Credits		
		F	W	S			F	W	S
OA 104	English for Business	4			MIC 250	Computer Graphics	3		
CS 131	Introduction to Computer Information Systems	4			OA 205	Desktop Publishing	3		
MTH 65	Math for Applied Sciences * <i>or</i>	4			BA 131, 132	Accounting Procedures <i>or</i> +	3	3	
MTH 95	Intermediate Algebra *	(5)			BA 211, 212	Principles of Accounting + (see "Note")	(4)	(4)	
OA 201	Word Processing I	3			BA 228	Computer Accounting Applications			3
MIC 178	Using the Internet for Communication and Research		3		MIC 207	Presentation Software		3	
OA 202	Word Processing II		3		MIC 210	Microcomputer Integrated Applications **		4	
WR 40	English Fundamentals ** <i>or</i>		3		BA 214	Business Communications			3
WR 121	English Composition **		(3)		CS 280	Coop. Work Experience - Microcomputer Applications			2
CSD 122	Beginning Database Program Development		3		CS 281	Coop. Work Experience Seminar- Microcomputer Applications			1
CSL 107	Spreadsheets		3		MIC 295	Microcomputer Directed Project Social Science/Humanities ****	3	3	4
CSD 275	Advanced Database Program Development			3		Technical Options *** (see "Note")	3	3	
MIC 171	Intermediate Spreadsheets			3		Electives (see "Note")			1
CS 278	Data Communications and Networking			3					
BA 285	Human Relations in Business			3					
SP 111	Fundamentals of Public Speaking <i>or</i>			3					
SP 219	Small Group Discussion			(3)					

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

\*\* Minimum grade C or higher.

\*\*\* Students must complete technical options chosen from either the Science/Mathematics List on page 24, or the Business Technical Options List on page 38.

\*\*\*\* Selected from Arts and Letters, and Social Science Lists on page 23-24.

+ C grade or better in preceding courses to take next level.

Note: Students who complete the Principles of Accounting sequence (BA 211, 212) will not have to complete the two (2) credits of Electives.

# Business Programs

## Microcomputer Programming & Networking Associate Degree

### Job Description:

The Microcomputer Applications program prepares students for careers which involve technology in roles of customer/user support, network or applications operations, and data entry. The Two-Year AAS Degree in Microcomputer Programming and Networking could lead to employment opportunities in network project teams and junior analyst positions in network systems, as well as customer/user support and microcomputer applications.

### Employment Opportunities:

Microcomputers are used in a variety of business, industrial, educational, and agency settings. This program prepares students to use both packaged and specially designed systems.

### Potential Earnings:

Salary ranges for individuals completing the Two-Year AAS Degree may range from \$20,000 to \$34,000 per year. Salary potential and job availability in this field have expanded in the last five years. This expansion is projected to continue over the next five years, especially for employees holding degrees.

#### First Year

Course Number	Course Title	Credits		
		F	W	S
CS 131	Introduction to Computer Information Systems	4		
CS 161	Computer Science I	4		
CS 162	Computer Science II		4	
CS 260	Data Structures			4
BA 285	Human Relations in Business <i>or</i>		3	
PSY 101	Psychology of Human Relations		(3)	
CSD 122	Beginning Database Program Development		3	
MIC 178	Using the Internet for Communication and Research		3	
CSD 275	Advanced Database Program Development			3
CS 278	Data Communications and Networking			3
MTH 65	Math for Applied Sciences * <i>or</i>	4		
MTH 95	Intermediate Algebra *	(5)		
WR 121	English Composition **	3		
WR 227	Technical Writing			3
SP 111	Fundamentals of Public Speaking <i>or</i>		3	
SP 219	Small Group Discussion		(3)	
	Social Science/Humanities ****			3

#### Second Year

Course Number	Course Title	Credits		
		F	W	S
CSB 133	Beg. Visual BASIC Prog. and	4		
CSB 233	Adv. Visual BASIC Prog. <i>or</i>			4
CSU 133	Beg. C++ Programming and	(4)		
CSU 233	Adv. C++ Programming			(4)
	(see "Note")			
CS 171	Principles of Computer Organization	4		
CS 271	Computer Architecture			4
CS 279M	Network Management - LAN NT	3		
CS 279N	Network Management - LAN Novell			3
CS 280	Coop. Work Experience - Microcomputer Applications			2
CS 281	Coop. Work Experience Seminar - Microcomputer Applications			1
MIC 295	Microcomputer Directed Project			4
	Social Science/Humanities ****			3
	Technical Options ***	4	4	3

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

\*\* Minimum grade C or higher.

\*\*\* Students must complete technical options chosen from either the Science/Mathematics List on page 24, or the Business Technical Options List on page 38.

\*\*\*\* Selected from Arts and Letters, and Social Science Lists on pages 23-24.

Note: Students may take either of the programming sequences: CSB 133 and CSB 233 or CSU 133 and CSU 233.

# Business Programs

## 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 \$1,700 - \$1,800 per month.

Course Number	Course Title	Credits		
		F	W	S
BA 104	Business Math/Electronic Calculators		4	
BA 131	Accounting Procedures I	3		
BA 214	Business Communications**			3
MTH 65	Math for Applied Sciences * or	4		
MTH 95	Intermediate Algebra*	(5)		
OA 116	Office Procedures +	4		
OA 201	Word Processing Procedures I		3	
OA 240	Filing and Records Management		3	
WR 40	English Fundamentals** or		3	
WR 121	English Composition**		(3)	
OA 104	English for Business	4		
MIC 145	Intro to Integrated Software		3	
CS 101	Computer Fundamentals	1		
OA 280	Cooperative Work Experience- Office Administration			2
OA 281	Coop Work Experience Seminar+			1
	Technical Options***			7

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

\*\* Minimum grade C or higher.

\*\*\* Students must complete 4 credits of technical options to be selected from the list on page 38. Another 3 credits of technical options must be chosen from the following courses:  
 CSL 107 Spreadsheets, 3 credits  
 BA 132 Accounting Procedures II, 3 credits  
 CSD 122 Beginning Database, 3 credits

+ Contains human relations components



*"I got my start in computer technology at Clatsop. It gave me the basis for developing a successful career in the computer industry"*

**Sharon Holstein**

*Sharon is a CCC graduate living in Chicago. She is President of a computer-related consulting firm specializing in object-oriented technology.*

# Business Programs ~ Office Systems

Following a common first year, students may elect one or more of the options listed on these two pages to complete their associate degree program.

## First Year

Course Number	Course Title	Credits		
		F	W	S
BA 104	Business Math/Electronic Calculators	4		
BA 214	Business Communications**			3
MTH 65	Math for Applied Sciences * <i>or</i>	4		
MTH 95	Intermediate Algebra*	(5)		
WR 40	English Fundamentals** <i>or</i>		3	
WR 121	English Composition**		(3)	
OA 104	English for Business	4		
OA 116	Office Procedures +	4		
OA 122	Keyboarding II	3		
CS 101	Fundamentals of Computing	1		
OA 201,202	Word Processing Procedures I,II	3	3	
OA 240	Filing and Records Management	3		
BA 285	Human Relations in Business	3		
SP 111	Fundamentals of Public Speaking <i>or</i>		3	
SP 219	Small Group Discussion		(3)	
	Social Science/Humanities ++		3	
	Electives		1	

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

\*\* Minimum grade C or higher.

+ Contains human relations component

++ Selected from Arts and Letters and Social Science lists, pages 23-24. Successful completion of program requires following competencies be demonstrated:

50 WAM/4 errors 3-min straight-copy timing

35 PWAM correctly format/key/edit a 175-word (avg.-size letter) no errors/5 min

20 PWAM correctly format/key/edit 1-page, rough-draft document, no errors/10 min

## Second Year Option

### Legal Word Processing Option - Office Systems

#### Job Description:

Legal word processing secretaries perform various duties in the preparation of legal papers and correspondence including typing, taking shorthand or using transcribing machines, maintaining files, and performing other clerical duties such as making initial drafts of legal documents, recording trial dates, scheduling the appearance of witnesses, having evidence at trials, delivering subpoenas, and helping with legal research.

#### Employment Opportunities:

Employment is expected to grow rapidly due to the need to replace experienced secretaries who leave the field.

#### Potential Earnings:

The average wage is \$2,225 per month.

#### Second Year

Course Number	Course Title	Credits		
		F	W	S
BA 226,227	Intro to Business Law I,II	4	3	
BA 131, 132	Accounting Procedures I,II ***	3	3	
CSD 122	Beginning Database Program Development	3		
CSL 107	Spreadsheets	3		
OA 135	Legal Terminology		3	
OA 139	Legal Transcription			3
OA 225	Machine Transcription		3	
MIC 210	Microcomputer Integrated Applications		4	
OA 295	Office systems Directed Project			4
OA 280	Coop. Work Experience- Office Administration			2
OA 281	Coop. Work Experience Seminar - Office Administration			1
	Social Science/Humanities *			3
	Electives	3		

\* Selected from Arts and Letters and Social Science lists, pages 23-24.

\*\* Strongly recommend WR 227, Technical Report Writing; SPN9752, Spanish Conversation: Business

\*\*\* C grade or better in preceding course to take next level.

# Business Programs ~ Office Systems

## Second Year Option

### Medical Word Processing Option - Office Systems

**Job Description:**

Medical word processing secretaries perform clerical duties and assist administrators in a medical office. They may do routine typing, prepare and maintain medical records and charts, and schedule appointments. In some offices they may be responsible for bookkeeping, billing patients, handling credits and collections, and preparing financial reports.

**Employment Opportunities:**

Employment is expected to grow rapidly due to the need to replace experienced secretaries who leave the field.

**Potential Earnings:**

The average wage is about \$1,875 per month.

**Second Year**

Course Number	Course Title	Credits		
		F	W	S
BA 131, 132	Accounting Procedures I, II ***	3	3	
CSD 122	Beginning Database Program Development	3		
CSL 107	Spreadsheets	3		
OA 140, 141	Medical Terminology I, II	3	3	
OA 142	Medical Transcription			3
OA 225	Machine Transcription		3	
MIC 210	Microcomputer Integrated Applications		4	
OA 295	Office Systems Directed Project			4
OA 280	Coop. Work Experience - Office Administration			2
OA 281	Coop. Work Experience Seminar - Office Administration			1
	Social Science/Humanities *	3		
	Technical Options			3
	Electives **	3	1	

\* Selected from Arts and Letters and Social Science lists, pages 23-24.

\*\* Strongly recommend WR 227, Technical Report Writing; SPN9752, Spanish Conversation: Business

\*\*\* C grade or better in preceding course to take next level

## Second Year Option

### Office Management Option - Office Systems

**Job Description:**

Office managers organize and supervise office operations and procedures necessary for conducting business. They typically supervise such office operations as typing, bookkeeping, and filing. They coordinate clerical work schedules and maintain personnel, financial, and other office records. They may devise filing systems or office layouts to improve clerical work flow. Office managers may purchase office supplies and equipment and control the office budget.

**Employment Opportunities:**

In the long run, average employment growth is expected. Job openings are often filled by promotion of secretaries within the firm. Therefore, there are few openings available to entry level applicants.

**Potential Earnings:**

The average wage is \$2,400 per month

**Second Year**

Course Number	Course Title	Credits		
		F	W	S
CSL 107	Spreadsheets	3		
BA 131, 132	Accounting Procedures I,II ***	3	3	
BA 177	Payroll	3		
CSD 122	Beginning Database Program Development	3		
OA 225	Machine Transcription		3	
BA 250	Small Business Management		3	
MIC 210	Microcomputer Integrated Applications		4	
OA 295	Office Systems Directed Project			4
OA 280	Coop. Work Experience - Office Administration			2
OA 281	Coop. Work Experience Seminar - Office Administration			1
	Social Science/Humanities *			3
	Technical Options	3		3
	Electives **		3	1

\* Selected from Arts and Letters and Social Science lists, pages 23-24.

\*\* Strongly recommend WR 227, Technical Report Writing; SPN9752, Spanish Conversation: Business

\*\*\* C grade or better in preceding course to take next level

# Business Programs

## Business Technical Options

Courses which are used to satisfy program requirements may not be used as technical options.

Course Number	Course Title	Credits
BA 101	Introduction to Business	3
BA 104	Business Math with Electronic Calculators	4
BA 131,132,133	Accounting Procedures I, II, III	3 each
BA 177	Payroll and Business Tax Accounting	3
BA 206	Management Fundamentals	3
BA 208	Management Principles and Strategies	3
BA 211,212, 213	Principles of Accounting I,II,III	4 each
BA 214	Business Communications	3
BA 222	Financial Management	3
BA 223	Principles of Marketing	3
BA 224	Human Resource Management	3
BA 226	Introduction to Business Law I	4
BA 227	Introduction to Business Law II	3
BA 228	Computer Accounting Applications	3
BA 230	Management Information Systems	3
BA 250	Small Business Management	3
BA 256	Income Tax	3
BA 280	Cooperative Work Experience: Accounting	1-18
BA 280	Cooperative Work Experience: Business Administration	1-18
BA 281	CWE Seminar: Bus. Mgmt./Accounting	1
BA 285	Human Relations in Business	3
CS 101	Fundamentals of Computing	1
CS 131	Introduction to Computer Information Systems	4
CS 161	Computer Science I	4
CS 162	Computer Science II	4
CS 171	Principles of Computer Organization	4
CS 260	Data Structures	4
CS 271	Computer Architecture	4
CS 278	Data Communication & Networking	3
CS 279M	Network Management - LAN NT	3
CS 279N	Network Management - LAN Novell	3
CS 280	Cooperative Work Experience: Microcomputer Applications	1-18
CS 281	CWE Seminar: Microcomputer Appl.	1
CSB 133	Beginning Visual BASIC Programming	3
CSB 233	Advanced Visual BASIC Programming	3
CSD 122	Beginning Database Program Development	3
CSD 275	Advanced Database Program Development	3
CSL 107	Spreadsheets	3
CSU 133	Beginning C++ Programming	4
CSU 233	Advanced C++ Programming	4
DRF 139	Technical Print Interpretation	3
DRF 185	Computers in Design	3
DRF 213	AutoCAD - Beginning	4
DRF 214	AutoCAD - Intermediate	4

Course Number	Course Title	Credits
DRF 215	AutoCAD - Advanced	4
DRF 217	AutoCAD Upgrade	1
EC 115	Introduction to Economics	3
EC 201,202	Principles of Economics	4 each
EC 280	Cooperative Work Experience: Economics	1-18
HD 110	Career Planning	2
MIC 145	Microsoft Works	3
MIC 145	Introduction to Integrated Software	3
MIC 171	Intermediate Spreadsheets	3
MIC 178	Using INTERNET for Communications and Research	3
MIC 207	Presentation Software	3
MIC 210	Microcomputer Integrated Applications	4
MIC 250	Computer Graphics	3
MIC 295	Microcomputer Directed Project	4
OA 104	English for Business	4
OA 116	Office Procedures	4
OA 120	Computer Keyboarding	1
OA 121,122	Keyboarding I,II	3 each
OA 124	Keyboarding Skill Building	3
OA 135	Legal Terminology	3
OA 139	Legal Transcription	3
OA 140,141	Medical Terminology I, II	3 each
OA 142	Medical Transcription	3
OA 201,202	Word Processing Procedures I,II	3 each
OA 205	Desktop Publishing	3
OA 225	Machine Transcription	3
OA 240	Filing and Records Management	2-3
OA 280	Cooperative Work Experience: Office Administration	1-18
OA 281	CWE Seminar: Business	1
OA 295	Office Systems Directed Project	4
WR 227	Technical Report Writing	3

*"I can't believe the computer labs . . .  
how up to date and complete they are:  
It's amazing!"*

*Courtney Shepherd  
2nd year CCC student*

# Criminal Justice

## 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 presentence 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 \$2,600 per month and the average maximum wage is \$3,600 per month; the average wage for correctional officers is about \$2,600 per month. The average wage for parole and probation officers and juvenile workers is \$3,300 per month.

Course Number	Course Title	Credits		
		F	W	S
CJ 100	Careers in Criminal Justice	3		
CJ 101	Introduction to Criminology	3		
CJ 110	Introduction to Law Enforcement +	3		
CJ 120	Introduction to the Judicial Process		3	
CJ 121	Concepts of Criminal Law		3	
CJ 130	Introduction to Corrections +			3
CJ 132	Introduction to Parole and Probation			3
SP 111	Fundamentals of Public Speaking	3		
SP 112	Persuasive Speech <i>or</i>		3	
SP 219	Sm Group Discussion		(3)	
CS 131	Introduction to Computer Information Systems <i>or</i>			4
CS 101	Fundamentals of Computing <i>and</i>			(1)
MIC 145	Intro. to Integrated Software			(3)
WR 121	English Composition *		3	
WR 122	English Composition * <i>or</i>			3
WR 227	Technical Report Writing			(3)
	Social Science/Humanities **	3	3	3
	Electives		3	

\* Minimum grade C or higher.

\*\* Selected from Arts and Letters and Social Science lists, pages 23-24; psychology and/or sociology courses strongly recommended.

\*\*\* May be taken during the second year or during the summer between the first and second year.

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

+ Contains human relations components.

Course Number	Course Title	Credits		
		F	W	S
SOC 221	Juvenile Delinquency			3
CJ 107	Criminal Justice Workshop			3
CJ 203	Crisis Intervention +		3	
CJ 210	Criminal Investigation	3		
CJ 215	Issues in Criminal Justice Supervision and Administration			3
CJ 243	Alcohol and Other Dangerous Drugs			3
CJ 280	Cooperative Work Experience - Criminal Justice ***	1	1	1
CJ 281	Coop. Work Experience Seminar - Criminal Justice	1	1	1
MTH 65	Math for Applied Science **** <i>or</i>			4
MTH 95	Intermediate Algebra ****			(5)
	Social Science/Humanities **	3		
	Technical Options	3	3	
	Electives		4	

## TECHNICAL OPTIONS

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

Course Number	Course Title	Credits
CJ 114	Gender, Race, Class & Crime	3
CJ 230	Intro. to Juvenile Corrections	3
CJ 232	Intro. to Corrections Casework	3
CJ 244	Sexual Exploitation of Children	3
CJ 280	Cooperative Work Experience - Criminal Justice	3
HS 101	Alcohol Use, Misuse and Addiction	3
HS 102	Drug Use, Misuse and Addiction	3
HS 201	Family Alcoholism/Addiction	3
HS 205	Youth Addiction	3
PHL 102	Ethics	3
PSY 101	Psychology of Human Relations	3
PSY 219	Introduction to Abnormal Psychology	3
SPAN 101,102,103	First Year Spanish	4 each
SPAN 111,112,113	Conversational Spanish	3 each

# Early Childhood Education

## Certificate Program

The Early Childhood Education program prepares individuals for careers as child care workers, nursery school attendants, and teacher aides. A certificate will be awarded upon completion of thirty-nine credits of early childhood education courses, selected from the list below, and the general education requirements. Contact the Office of Student Services for more information.

### Job Description:

Child care workers help supervise and provide care and learning experiences for children in day care and pre school 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 day care needs.

Teacher aides provide classroom and clerical assistance to elementary and secondary teachers. Job duties vary. 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 day care centers, Head Start Programs, private preschool programs, private and public elementary schools, and in home day care.

### Potential Earnings:

Many beginning child care/aid 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.

#### Required General Education Courses:

Course Number	Course Title	Credits
MTH 65	Math for Applied Sciences* <i>or</i>	4
MTH 95	Intermediate Algebra*	(5)
PSY 101	Psychology of Human Relations	3
WR 40	English Fundamentals** <i>or</i>	3
WR 121	English Composition**	(3)

#### Early Childhood Education Courses:

Course Number	Course Title	Credits
ED 280	CWE: Early Childhood Education	1-15
ECE 281	CWE Seminar: Early Childhood Education	1-5
ECE 101	Language Arts Activities for Young Children	1
ECE 103	Math and Science for Young Children	1
ECE 105	Nutrition for Young Children	1
ECE 107	Health and Safety for Young Children	1
ECE 108	Music and Creative Movement	1
ECE 109	Early Childhood Environment	1
ECE 115	Early Childhood Teaching Aids	1
ECE 116	Social and Emotional Developmental Activities for Young Children	1
ECE 117	Problem Solving Activities for Young Children	1
ECE 118	Literature for Young Children	1
ECE 119	Self-Concept for Young Children	1
ECE 124	Physical Fitness Activities for Young Children	1
ECE 125	Creative Activities: Art	1
ECE 126	First Aid for Young Children	1
ECE 127	Instructional Media and Materials	1
ECE 128	Curriculum Planning for Young Children	1

Course Number	Course Title	Credits
ECE 129	Observing Young Children	1
ECE 131	Child Development for the Day Care Worker	2
ECE 132	Planning and Starting and Early Childhood Center	1
ECE 133	Starting a Family Day Care Home	1
ECE 134	Child Care: Statutes, Liability, and Licensure Considerations	1
ECE 135	Program Evaluation	1
ECE 136	Development Screening in Early Childhood	1
ECE 137	Child Abuse and the Law	1
ECE 138	Guidance and Self-Discipline	1
ECE 139	Infant and Toddler Programs	1
ECE 142	Responding to Infants	1
ECE 144	Non-Competitive Games	1
ECE 145	Toys: Tools for Learning	1
ECE 146	Handicapping Conditions in Young Children	1
ECE 147	Careers Working with Young Children	1
ECE 149	Disease Control in School Settings	1
ECE 150	Games and Toymaking	1
ECE 175	Infant/Toddler Development-Social Growth	1
ECE 176	Infant/Toddler Development-Learning & Development	1
ECE 177	Infant/Toddler Development-Group Care	1
CJ 244	Sexual Exploitation of Children	3
HFS 226	Growing Years (Birth through Age Eight) <i>or</i>	3
PSY 235	Introduction to Human Development (Conception Through Childhood)	(3)
SOC 210	Marriage, Family, and Intimate Relations	3
SOC 221	Juvenile Delinquency	3

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

\*\* Minimum grade C or higher.

# Fire Science

## Job Description:

This program offers training and education for those wanting a fire science career or for those who are currently employed as firefighters. Many 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. Firefighters work as a team with each person assigned to a special job. They operate and maintain fire stations, equipment, and trucks. They may also inspect buildings for fire hazards and investigate fire causes. They also spend time educating the public about fire safety, speaking in schools, and to civic and 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 up and down the full length of a 24' ladder while carrying bundles; wearing self-contained breathing apparatus; entering confined spaces; carrying hoses and specified equipment, as well as demonstrating upper body physical strength and overall flexibility.

## Employment Opportunities:

There is a surplus of qualified applicants, particularly in the metropolitan areas.

## Potential Earnings:

The average salary for a firefighter is \$2,585 per month. However in rural areas many times firefighting is a volunteer position.

### Required General Education Courses:

Course Number	Course Title	Credits
MTH 65	Math for Applied Sciences * <i>or</i>	4
MTH 95	Intermediate Algebra *	(5)
PSY 101	Psychology of Human Relations	3
WR 121	English Composition **	3
WR 227	Technical Report Writing **	3
	Social Science/Humanities ***	3
	Technical Options	9
	Electives	5

### Required Fire Science Courses

Course Number	Course Title	Credits
CS 131	Intro to Computer Information Systems <i>or</i>	4
OA 201	Word Processing Procedures I <i>or</i>	(3)
MIC 145	Intro to Integrated Software	(3)
FRP 150	Introduction to Fire Protection +	3
FRP 151	Firefighter Skills ++	9
FRP 158	Pump Construction and Hydraulics	3
FRP 164	Hazardous Materials	3
FRP 166	Building Construction +	3
FRP 172	Fire Codes & Ordinances +	3
FRP 280	Cooperative Work Experience:	3
GS 104	Physical Science <i>or</i>	4
PH 201	General Physics	(4)
HPE 295	Health and Fitness for Life	3
EMT 151	Emergency Medical Technician Basic-Part I	5
EMT 152	Emergency Medical Technician Basic-Part 2	5
FRP 156	Firefighter Law	1
FRP 157	Firefighter Safety	1
FRP 169	Fire Department Leadership +	3
FRP 170	Firefighting Strategy and Tactics +	3
FRP 171	Fire Protection Systems & Extinguishers +	3
SP 111	Fundamentals of Public Speaking	3

### TECHNICAL OPTIONS

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

Course Number	Course Title	Credits
BI 231,232,233	Human Anatomy and Physiology	4 each
CJ 203	Crisis Intervention	3
CPL 120	Credit for Prior Learning	3
EMT 165, 166	Emergency Medical Technician Intermediate-Part I,II	4 each
EMT 169	Emergency Medical Technician Rescue	3
EMT 170	Emergency Communication and Patient Transportation	3
FRP 155	Instructional Methodology	2
FRP 181	Fire Prevention and Inspection	3
FRP 280	Cooperative Work Experience - Fire Science	3
OA 140	Medical Terminology	3

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

+ Independent study courses

++ FRP 151 requires pre-approval of Fire Science Coordinator and is a variable credit course, 1-9 credits

\* 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 23-24.

# Health Occupations

## Emergency Medical Technician One-Year Certificate Program

You can become an Emergency Medical Technician-Basic (EMT-B) or EMT-Intermediate (EMT-I) and work as an EMT in the community by simply enrolling in those classes. The EMT-B class is two terms in length (EMT 151 and EMT 152). When you finish, you may take the National Registry and Oregon tests to be certified as an EMT-B. If you wish to become an EMT-I, you need to complete two additional quarters of the EMT-I class (EMT 165 and EMT 166).

If you want to become an EMT-Paramedic (EMT-P), you can complete the first year of the EMT-P associate degree program at Clatsop Community College. You can then apply for admission to the second year of the program at a college offering the EMT-Paramedic degree, for example, Chemeketa, Lane, or Central Oregon Community Colleges. Several other colleges in Oregon also offer this degree.

If you plan to enroll in EMT classes, you need to complete an EMT program/class application form and show how you meet the following Oregon Health Division requirements: At least 18 years old; college placement tests; valid drivers license; hepatitis and measles immunizations, and negative tuberculosis screening test. On your application, you will be asked to self-verify that you meet OHD standards for physical and mental fitness, and that you do not use mind-altering substances or have a disease that could affect your ability to respond in an emergency.

### Job Description:

EMTs give immediate care to ill or injured people, and may transport them to the emergency department or between care facilities. EMTs examine patients, take vital signs, and obtain medical histories. They give emergency care to patients, including splinting fractures, controlling bleeding, treating acute allergic reactions, and maintaining breathing and the heart beat.

### Employment Opportunities:

Employment for EMTs is stable at this time, but long-range projections predict growth. EMTs work in volunteer and paid positions with ambulance services and fire departments. They are also moving into positions of providing patient care in hospital emergency rooms and industrial settings.

### Potential Earnings:

Beginning EMTs earn \$6.50 to \$9 per hour. Experienced paramedics earn up to \$15 per hour, with supervisors and managers earning higher salaries.

Course Number	Course Title	Credits		
		F	W	S
BI 231, 232, 233	Human Anatomy and Physiology	4	4	4
CJ 203	Crisis Intervention		3	
EMT 151	Emergency Medical Technician Basic, Pt 1	5		
EMT 152	Emergency Medical Technician Basic, Pt 2		5	
EMT 169	Emergency Medical Technician Rescue			3
EMT 170	Emergency Communication and Patient Transportation			3
EMT 175	Introduction to Emergency Medical Services	3		
MTH 65	Math for Applied Sciences* <i>or</i>			4
MTH 95	Intermediate Algebra*			(5)
PSY 101	Psychology of Human Relations			3
WR 121	English Composition**		3	
OA 140	Medical Terminology I	3		

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

\*\* Minimum grade C or higher.

# Health Occupations

## Medical Assistant

An associate of applied science degree program to prepare medical assistants has been proposed for implementation Fall 1999. This program currently is pending approval by the college and the Oregon Department of Education.

Medical assistants perform various duties under the direction of a physician, physicians' assistant, or nurse practitioner. Medical assistants prepare patients for examinations, assist with treatments, administer medications, and perform selected diagnostic tests and procedures. They also prepare treatment areas, maintain supplies and instruments, schedule appointments, keep medical records, and perform other duties such as managing practice finances.

### **Employment Opportunities:**

The job outlook for medical assistants is good regionally and nationally and is projected to grow.

### **Potential Earnings:**

The average rate of pay for medical assistants in Oregon is approximately \$10 per hour or \$22,000 annually.

### **Curriculum:**

If approved, the medical assistant program will begin Fall term 1999 and include such courses as:

General education requirements, including CS 101 Fundamentals of Computing, MTH 65 Math for Applied Sciences, PSY 101 Psychology of Human Relations, SP 111, 112, or 115 Speech Communication, WR 40 English Fundamentals or WR 121 English Composition, and BA 214 Business Communications.

Business courses such as OA 104 English for Business, OA 140 and OA 141 Medical Terminology, OA 116 Office Procedures, OA 201 Word Processing, and OA 240 Filing and Records Management.

Medical assistant courses such as BI 121 and 122 Basic Human Anatomy and Physiology, MA 112, 113, and 124 Medical Assistant Clinical Procedures, MA 115 and 125 Pharmacology for Medical Assistants, MA 126 Medical Law and Ethics, MA 123 Medical Insurance and Billing, and MA 280 Medical Assistant Work Experience.

# Industrial Manufacturing Technologies

## Integrated Technologies

The Integrated Technologies program prepares students to gain academic and technical knowledge, skills, and attitudes required for entry into mid-level professional/technical careers. It is based on hands-on learning and designed to prepare individuals for specific occupations or a range of occupational categories within the area of technology careers. The technology areas covered in the program include industrial design, communication, computer-aided drafting (CAD), machine tools, computer-aided manufacturing (CAM), mechanical drive systems, industrial controls, electrical and electronic systems, and welding fabrication. Starting wage ranges from \$9 to \$12 an hour. For more information contact an instructor in the program.

### Specific Requirements for entry into the Integrated Technologies Program

1. MTH 60 Basic Mathematics II, three credits, or equivalent with C grade or higher.
2. CS 131 Introduction to Computer Information Systems, four credits, or MIC 145 Introduction to Integrated Software, three credits or equivalent computer experience.
3. DRF 139 Technical Print Interpretation, three credits, or equivalent experience.
4. WLD 150 Beginning Welding Practices, three credits, or equivalent experience.
5. IT 105 Principles of Technology I, four credits, or equivalent experience.
6. IT 108 Engine Principles, four credits, or equivalent experience.
7. WR 40 English Fundamentals, three credits, or equivalent with a C grade or higher.

#### First Year

Course Number	Course Title	Credits		
		F	W	S
ELT 150	Introduction to DC Circuit Analysis		4	
ELT 155	Introduction to AC Circuit Analysis			4
IT 101	Engine Rebuilding-Gasoline <i>or</i>		4	
IT 102	Engine Rebuilding-Diesel			(4)
IT 106,107	Principles of Technology II,III		4	3
IT 121	Principles of Fluid Power			3
IT 140	Industrial Safety ++	1		
IT 141	Tool and Shop Basics	1		
MFG 150	Hazardous Materials & Industrial Safety	3		
MFG 180,181	Machine Tools I, II	3	3	
MTH 65	Math for Applied Sciences * <i>or</i>	4		
MTH 95	Intermediate Algebra *	(5)		
PSY 101	Psychology of Human Relations	3		
WLD 150	Beginning Welding Practices			3
WR 121	English Composition **			3

#### Second Year

Course Number	Course Title	Credits		
		F	W	S
DRF 213	AutoCAD-Beginning	4		
DRF 214	AutoCAD-Intermediate		4	
ELT 208	Programmable Logic Controllers		4	
ELT 206	Semiconductor Devices	4		
IT 208	Mechanical Drives and Transmission of Power		4	
IT 209	Fluid Drives and Hydraulic Transmissions	4		
IT 225	HVAC			3
IT 280	Coop. Work Experience-Integrated Technologies			3
IT 281	Coop. Work Experience Seminar-Integrated Technologies +			1
MFG 250	Manufacturing Processes I		4	
WR 227	Technical Report Writing			3
	Social Sciences/Humanities ***	3		
	Technical Options	3		4

#### TECHNICAL OPTIONS

Students must complete seven (7) credits from the following list of courses. Courses which are used to satisfy program requirements may be used as technical options. Some listed courses may not be offered every year.

Course No.	Course Title	Cr.
DRF 185	Computers in Design	3
DRF 215	Autocad-Advanced	4
DRF 217	AutoCAD - Upgrade	1
DRF 228	AutoCAD Exam Prep.	2
ELT 207	Industrial Process Controls	4
ELT 219	Digital Computer Electronics	4
ELT 220	Introduction to Robotics	4
ELT 231	Digital Circuits	4
IT 101	Engine Rebuilding-Gas	4
IT 102	Engine Rebuilding-Diesel	4
IT 110	Applied Tech Projects	2-4
IT 206	Vehicle Elect. I	4
IT 207	Vehicle Elect. II	5
IT 210	Vehicle Tuneup & Instrmnt.	4
IT 218	Vehicle Steerng & Susp. Sys.	4
IT 226	Industrial Refrigeration	4
IT 280	Coop Work Exp-Int Tech	1-3
MFG 181	Machine Tools II	1-6
MFG 250	Manufacturing Processes I	1-4
MFG 251	Manufacturing Processes II	1-8
MFG 282	Machine Tools III	1-6
WLD 150	Beg. Weld. Practices	1-9
WLD 160	Inter. Weld. Practices	1-12
WLD 190	Welding Certification Prep	1-5
WLD 170	Adv Welding Practices	1-5
WLD 296	Layout Fabrcatn & Repr Prct	4
	Computer Courses	1-3

\* 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 list, pages 23-24.

+ Contains human relations components.

++ IT 140 uses CD-ROM modules. Satisfactory completion of these classes is required before taking classes in any of the shop facilities.

# Industrial Manufacturing Technologies

## Automotive Technician Certificate Program

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 National Institute for Automotive Service Excellence. These entry-level tasks involve motor skills and limited theoretical knowledge and are performed under close supervision. Course curriculum follows specifications for qualification and certification of an entry level ASE Automotive 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 an ASE Automotive Technician is good regionally, nationally and globally. ASE Automotive 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 \$9.00 per hour, with top wages to about \$22.42 per hour as the individual's skill level increases.

### Entrance Requirements:

ASSET test scores of 35 or higher for writing and 38 or higher for math

Course Number	Course Title	Credits		
		F	W	S
IT 140	Industrial Safety ***	1		
IT 141	Tool & Shop Basics	1		
IT 105	Principles Of Technology I	4		
IT 108	Engine Principles	4		
MIC 145	Introduction to Integrated Software <i>or</i>	3		
CS 131	Introduction to Computer Info. Systems	(4)		
IT 218	Vehicle Steering & Suspension Systems		4	
IT 206	Vehicle Electricity I		4	
IT 225	HVAC		3	
IT 219	Vehicle Brake Systems			4
MFG 180	Machine Tools I		1	1
IT 207	Vehicle Electricity II			5
IT 280	Cooperative Work Experience			2
IT 281	Cooperative Work Experience Seminar+			1
WLD 150	Beginning Welding			2
MTH 65	Mathematics For Applied Sciences* <i>or</i>	4		
MTH 95	Intermediate Algebra*	(5)		
WR 40	English Fundamentals** <i>or</i>			3
WR 121	English Composition**			(3)

### 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.

+ Contains human relations components.

**Notes:** The program addresses the application of technical writing skill as the trainee delivers written quality control reports. To assure that the individual possesses the ability to interact well with co-workers, the program will address the human relations component throughout the program and specifically in conjunction with the Cooperative Work Experience class. Students demonstrate practical math applications throughout the program as well.

Upon completion the trainees will receive a Certificate of Completion from CCC qualifying them as an entry level ASE automotive technician. With the addition of two years minimum field experience and upon successfully completing the NIASE exam, trainees will become a certified ASE Automotive Technician in their field of training.

# Industrial Manufacturing Technologies

## CADD Technician

### Computer-Aided Design & Drafting Certificate Program

This competency based program will provide an individual with the prerequisite knowledge, skills, work habits and attitude required to perform routine, predictable, proceduralized tasks. These entry level CADD Technicians tasks involve computer skills and limited theoretical knowledge and are performed under close 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.

#### Employment Opportunities:

The job outlook for CADD Technicians are 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 \$9.00/hour, with top wages to about \$18.00/hour as the individual's skill level increases.

#### Program Requirements:

The department recommends that students enter the program at the beginning of fall term, based upon space availability. Acceptance into the program is based on demonstration of basic math and high school level reading/writing skills by meeting or exceeding the following ASSET test scores: 35 or higher for writing and 38 or higher for math.

Course Number	Course Title	Credits		
		F	W	S
DRF 139	Technical Print Interpretation	3		
DFR 213	AutoCAD - Beginning	4		
ART 115	Basic Design	3		
MIC 145	Introduction To Integrated Software <i>or</i>	3		
CS 131	Intro to Computer Info. Systems	(4)		
	Technical Options	3		
DFR 214	AutoCAD - Intermediate		4	
ART 116	Basic Design		3	
MTH 65	Mathematics For Applied Sciences* <i>or</i>		4	
MTH 95	Intermediate Algebra*		(5)	
WR 40	English Fundamentals** <i>or</i>		3	
WR 121	English Composition**		(3)	
DRF 185	Computers in Design		3	
DFR 215	AutoCAD - Advanced			4
DRF 295	Directed Projects			3
DRF 228	CADD Exam Preparation			2
DRF 280	Cooperative Work Experience-CADD+			2
DRF 281	Cooperative Work Experience Seminar+			1

#### Legend Notes:

\* Minimum Grade C or higher Math courses numbered higher than MTH 95 may be substituted

\*\* Minimum Grade C or higher

+ Contains human relations components

#### Technical Options:

3 Credits chosen from the following list:

MIC 178	Using the Internet for Communications	3
MIC 207	Presentation Software	3
MIC 250	Computer Graphics	3

#### Notes:

To assure that the individual possesses the ability to interact well with co-workers, the program will address the human relations component throughout the program and specifically in conjunction with the Cooperative Work Experience class. Students will be prepared to take a national certification exam (to be administered by College staff) thereby demonstrating their competency and proficiencies in CADD.

# Industrial Manufacturing Technologies

## Manufacturing Technician Machinist Certificate Program

This competency based program will provide an individual with the prerequisite knowledge, skills, work habits and attitude required to perform routine, predictable, proceduralized tasks. Manufacturing Technician's (Entry-Level Machinist) tasks involve motor skills and limited theoretical knowledge and are performed under close supervision. Course curriculum provides industry standards for an Manufacturing Technician's (Entry-Level Machinist) position. 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 Manufacturing Technician's are good regionally, nationally and globally. Manufacturing Technician's (Entry-Level Machinists) are employed in a wide range of industries that use related tasks during daily operations.

### Potential Earnings:

Presently starting wages in Oregon are about \$9.00 per hour, with top wages to about \$21.00 per hour as the individual's skill level increases.

### Program Requirements:

The department recommends that students enter the program at the beginning of a scheduled term, based upon space availability. Some classes may not be offered every term. Acceptance into the program is based on demonstration of basic math and high school level reading/writing skills by meeting or exceeding the following ASSET test scores: 35 or higher for writing and 38 or higher for math.

Course Number	Course Title	Credits		
		F	W	S
IT 140	Industrial Safety ***	1		
IT 141	Tool & Shop Basics	1		
MIC 145	Introduction to Integrated Software <i>or</i>	3		
CS 131	Intro to Computer Information Systems	(4)		
DRF 139	Technical Print Interpretation	3		
WLD 150	Beginning Welding		3	
MFG 180	Machine Tools I (Var. 1-6)	6		
MFG 181	Machine Tools II(Var. 1-6)		6	
MFG 282	Machine Tools III(Var. 1-6)		3	3
MFG 250	Manufacturing Processes(Var. 1-8)			7
IT 280	Cooperative Work Experience+			2
IT 281	Cooperative Work Experience Seminar+			1
MTH 65	Mathematics For Applied Sciences* <i>or</i>	4		
MTH 95	Intermediate Algebra*	(5)		
WR 40	English Fundamentals** <i>or</i>		3	
WR 121	English Composition**		(3)	

### 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.
- + Contains human relations components.

### Notes:

The program addresses the application of technical writing skill as the trainee delivers written quality control reports for each workmanship sampling. To assure that the individual possesses the ability to interact well with co-workers, the program will address the human relations component throughout the program and specifically in conjunction with the Cooperative Work Experience class. Students demonstrate practical math applications throughout the program as well.

# Industrial Manufacturing Technologies

## American Welding Society Entry Level Welding Certificate Program

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 \$9.50/hour, with top wages to about \$16.50/hour as the individual's skill level increases.

**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 demonstration of basic math and high school level reading/writing skills by meeting or exceeding the following ASSET test scores: Math 36-45; Reading 38-41; Writing 37-41. 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.

Course Number	Course Title	Credits		
		F	W	S
IT 140	Industrial Safety ***	1		
IT 141	Tool & Shop Basics	1		
DRF 139	Technical Print Interpretation	3		
WLD 100	Materials Processing	4		
WLD 101	Shielded Metal Arc Welding Process	10		
WLD 102	Gas Metal Arc Welding Process		9	
WLD 103	Flux Core Arc Welding Process		9	
WLD 104	Gas Tungsten Arc Welding Process			8
IT 280	Cooperative Work Experience+			2
IT 281	Cooperative Work Experience Seminar+			1
MTH 65	Mathematics For Applied Sciences* <i>or</i>	4		
MTH 95	Intermediate Algebra*	(5)		
WR 40	English Fundamentals** <i>or</i>		3	
WR 121	English Composition**		(3)	

### 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.
- + Contains human relations components.

**Notes:** The program addresses the application of technical writing skill as the trainee delivers written quality control reports for each welding process workmanship sampling. To assure that the individual possesses the ability to interact well with co-workers, the program will address the human relations component throughout the program and specifically in conjunction with the Cooperative Work Experience class. 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.

# Maritime Sciences

## One-Year Certificate Program

### Job Description:

Persons employed in the maritime industry work as deckhands or operators on commercial fishing vessels and/or other merchant vessels engaged in the transport of freight or passengers. Deckhands are responsible for keeping the vessel and its equipment in working order and, in the commercial fishing industry, may be responsible for standing a watch in the wheelhouse and conducting the vessel from one point to another while adhering to the principles of navigation and the rules of the road. Vessel operators are responsible for the operation and navigation of the vessel, as well as all safety issues aboard. In the merchant or passenger carrying trade, these operators are required to possess a United States Coast Guard (USCG) Merchant Marine Officers license.

### Employment Opportunities:

Recent U.S. Coast Guard rulings dealing with minimum crew size have increased the demand for deckhands in the ocean towing industry. In the commercial fishing industry, the demand for deckhands is greatest in the trawl and longline fisheries. Deckhands who have obtained special skills in navigation, splicing, rigging, net mending, welding, and engine room systems have considerably enhanced employment opportunities. The demand for vessel operators in the charter fishing industry is dependent on geographical location. Towing vessel operators must possess a U.S. Coast Guard license.

### Potential Earnings:

The entry level wage varies from \$12 an hour in the merchant fleet to a share of the profit of the catch in the commercial fishing fleet. The average wage for operators is \$125 to \$250 a day.

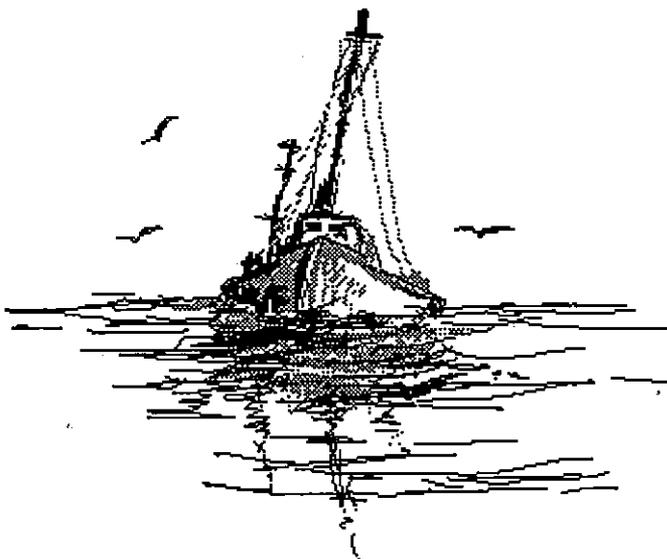
Course Number	Course Title	Credits		
		F	W	S
MAS 150	Marine Safety	2		
MAS 155	Introduction to Watch Keeping	2		
MAS 160	Knots, Splices, Lines and Rigging	2		
MAS 165	Practical Navigation	2		
MTH 65	Math for Applied Science* <i>or</i>		4	
MTH 95	Intermediate Algebra*		(5)	
PSY 101	Psychology of Human Relations			3
WR 40	English Fundamentals** <i>or</i>			3
WR 121	English Composition**			(3)
	Technical Options	7	11	9

### TECHNICAL OPTIONS

Students must complete 27 credits from the following list of courses.

Course Number	Course Title	Credits
MAS 100	Maritime Occupations	2
MAS 110	Limited Operator Uninspected Passenger Vessel Certification	3
MAS 111	Limited Operator Uninspected Passenger Vessel Endorsement	1
MAS 120	US Coast Guard Marine License Preparation***/+	3
MAS 130	Radar Observer: Original Endorsement, Unlimited	2
MAS 131	Radar Observer: Recertification	1
MAS 132	Radar Observer: Rivers	1
MAS 140	Introduction to Seamanship & Maritime Careers	2
MAS 141	Introduction to Trawling & Trawl Safety	2
MAS 142	Introduction to Fishing Gear Types & Safety	2
MAS 143	Net Mending	2
MAS 145	Handling, Repair, & Storage of Fish Gear	2
MAS 146	Vessel Operations	2
MAS 153	Seamanship	2
MAS 164	Introduction to Navigation***	3
MAS 166	Advanced Navigation***	3
MAS 167	Celestial Navigation***	3
MAS 168	Charts, Aids to Navigation, and Magnetic Compasses***	3
MAS 170	Marine Weather, Tides, Currents, and Waves***	3
MAS 175	Rules of the Road***	3
MAS 180	Marine Electronics***	3
MAS 185	GMDSS Training (Global Marine Distress Safety System)	3
MAS 280	Cooperative Work Experience: Maritime Sciences	4
	Welding	3

- \* 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.
- + Nine (9) credits of MAS 120, Marine License Preparation, may be applied toward the AGS degree, Associate degree, and the One-Year Maritime Science certificate.



# Maritime Sciences

## 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 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; (3) or 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. 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)\*

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 Modular Classes for an explanation of required hours.

The Personal Safety Course is approved to satisfy CFR requirements (24-hours) and IMO training requirements (40-hours). Clatsop Community College offers a U.S. Coast Guard approved Crewmember Training Program. Additionally, they approve the MSD to administer Federal Communication Commission (FCC) Radiotelephone and GMDSS (Global Marine Distress Safety System) examinations.

### 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.

### Associate Degree in Marine Transportation

An associate of applied science degree program in marine transportation has been proposed for implementation Fall 1999. This program is currently pending approval by the college and the Oregon Department of Education. 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. Call Toni Middleton at (503) 338-7600 for more information.

# Nursing

## Nursing Admission Requirements

Nurses at all levels need to be caring and relate well to people of different backgrounds and cultures. As a nurse, you need to be able to adapt to change, think critically, and respond during crises. Personal integrity and ethical behavior are essential for nurses. The nursing program is academically and physically rigorous. As a nursing student, you need to be able to grasp scientific concepts, set up and answer basic math and algebra problems, and communicate well verbally and in writing. Physically, you need to be able to remain on your feet for extended periods, lift up to 40 pounds, hear heart and breath sounds and use a telephone, read fine print, and identify skin tones such as pale, ashen, grey, or bluish. If you have a history of substance abuse or mental health problems or a criminal record, you may wish to speak with a nursing advisor prior to pursuing nursing as a career.

Nursing program enrollment is limited. You must apply for admission; if accepted, you will begin nursing classes fall term. Applications are accepted by the Admissions Office between February 1 and the end of March. For specific dates, you can request a nursing program information and application packet. If you meet the minimum requirements for admission, you will be awarded points toward admission for such things as grades, completed college classes, and work experience in health care. Applicants who have the highest number of points are offered program admission. If you don't fall within this group, you will be placed on a ranked list of alternates. Once you are accepted into the program, you will need to pay a non-refundable fee and meet other requirements for immunizations, CNA certification, and CPR training.

If you are a licensed practical nurse (LPN) or have been enrolled in a nursing program at Clatsop or another college, you may qualify for advanced placement into the nursing program. You may enter the program at any point up to the beginning of the second year, depending on your education and experience. If you think you may qualify for advanced placement, contact the Admissions Office for more information about this option.

### Minimum Requirements for Nursing Program Admission:

You need to meet the following requirements to be considered for admission to the nursing program, whether you are applying for initial or advanced placement:

1. A high school diploma with a C average (a GPA of 2.0) or higher, or a GED certificate with an average score of 45, or 24 credits of college level courses with a cumulative GPA of 2.0 or higher.
2.
  - a. One year of high school chemistry with lab within the past 5 years, or CH 104 and CH 105 Introductory Chemistry, or equivalent with a grade of C or above.
  - b. MTH 65 Math for Applied Sciences completed with a grade of C or above, or readiness for MTH 95 Intermediate Algebra or higher demonstrated by placement test scores.
  - c. Readiness for WR 121 English Composition demonstrated by placement test scores indicating readiness; *or* completing WR 40 English Fundamentals or equivalent or higher with a grade of C or above.
3. A completed Clatsop Community College nursing application packet and college placement tests.

If you do not meet the minimum requirements for nursing program admission at this time, you may begin taking college classes as a pre-nursing student. An advisor will help you plan your program and select courses to meet the minimum requirements for admission.

# Nursing

## Associate Degree Nursing

### 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 expected to grow, especially in clinic and community settings.

### Potential Earnings:

The average wage in Oregon is approximately \$20 per hour depending where the nurse works. Nurse practitioners and nurse managers earn salaries at a range of \$45-60,000 per year.

First Year					Second Year					
Course Number	Course Title	Credits				Course Number	Course Title	Credits		
		F	W	S	Su			F	W	S
BI 231,232,233	Human Anatomy & Physiology	4	4	4		NFM 225	Human Nutrition			4
BI 234	Microbiology	4				NUR 201	Nsg: Clients in Crisis+	7		
NUR 101	Nsg: Found. of Care+	8				NUR 202	Nsg: Families in Crisis+		8	
NUR 102	Nsg: Focus on Individ.+		8			NUR 208	Nsg: Transit. to Practice+			7
NUR 103	Nsg: Focus on Fam.+			8		NUR 215	Physical Assessment+	3		
NUR 109	Nsg: Mental Health +				4	NUR 231	Collab. Practice III	2		
NUR 112	Collab. Practice I		2			NUR 232	Collab. Practice IV		1	
NUR 113	Collab. Practice II			1		WR 122, 123	English Composition <i>or</i>			3
PSY 215	Devl. Psychology			3		WR 227	Tech. Report Writing			(3)
WR 121	English Composition		3				Hlth, PE, or Dance elect.*			1-3
NUR 111	Nursing Concepts & Clinical Practice ##				1-3		Social Science elective**/#			3
	CS or MIC elective	1					Arts & Letters elective***/#			3
	Hlth, PE, or Dance elect.*	1-3								

+ Contains human relations components.

\* Any of the following classes may be selected to fill the health or physical activity elective: D 192, D 292, D 294 Dance, Beginning, Intermediate, or Advanced; HE 207 Stress Management; HPE 295 Health and Fitness for Life; or PE 185 Physical Education.

\*\* Selected from Social Science Part A or B lists on page 24.

\*\*\* Selected from Arts and Letters Part A or B lists on pages 23-24.

# At least one of the following courses must be selected to fill a cultural diversity requirement (these courses may also fill the Social Science or Arts and Letters elective requirement):

**Arts & Letters:** ART 213 Survey of Visual Art; ENG 107, 108, 109 World Literature; ENG 220 Non-European Minority Literature; ENG 260 Introduction to Women's Literature; PHL 102 Ethics; R 201, 202, 203 World Religions; SP 115 Introduction to Intercultural Communications; any 1st or 2nd year language course

**Social Science:** ANT 110 Cultural Anthropology; ANT 232 Native North Americans; GEO 110 Cultural & Human Geography; HST 101, 102, 103 History of Western Civilization; SOC 225 General Sociology: Social Problems; SOC 213 Minorities: Dealing with Diversity; SOC 221 Juvenile Delinquency; SOC 223 Sociology of Aging; SOC 227 Social Psychology.

## NUR 111 required for selected advanced placement students only.

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

# Nursing

## Practical Nursing Four-Term Certificate Program

### 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 \$13.50 per hour in Oregon.

Course Number	Course Title	Credits			
		F	W	S	Su
BI 231,232,233	Human Anatomy & Physiology	4	4	4	
BI 234	Microbiology	4			
NUR 101	Nsg: Found. of Care+	8			
NUR 102	Nsg: Focus on Individ.+		8		
NUR 103	Nsg: Focus on Fam.+			8	
NUR 109	Nsg: Mental Health +				4
NUR 112	Collab. Practice I		2		
NUR 113	Collab. Practice II			1	
PSY 215	Devl. Psychology			3	
WR 121	English Composition		3		
	CS or MIC elective	1			
	Hlth, PE, or Dance elect.*	1-3			

\* Any of the following classes may be selected to fill the health or physical activity elective: D 192, D 292, D 294 Dance, Beginning, Intermediate, or Advanced; HE 207 Stress Management; HPE 295 Health and Fitness for Life; or PE 185 Physical Education.

+ Contains human relations components.

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

# COMMUNITY EDUCATION

## Lifelong Learning

## Off Campus Classes

## Courses by Television

## Registration

### Lifelong Learning

The College considers education to be a lifelong process; therefore, courses are taught for all ages and interests. Community Education is an integral part of the total educational program of the college. A broad variety of courses is offered each term for professional, cultural, and special interest groups, as well as business and industry, and persons seeking an associate degree.

The Community Education Division offers simple registration procedures. If you are a part-time student wishing to become a degree candidate, you must complete the normal admission procedures.

Typical community education offerings include art, conversational foreign language, home economics, internet, music, photography, personal fitness, health, securities, investments, and other general interest topics. In addition, management, employee, and small business development courses, seminars and workshops are offered.

General interest courses are designed to be flexible. There are more than 250 such courses offered each term in various locations. These classes start at convenient times and are purposely located to be easily accessible to you. Classes can be of any practical length: a full-term or a partial-term course, a weekend workshop, or an evening seminar. The College will offer a course on nearly any topic if a suitable location, a qualified instructor, and a sufficient number of students can be identified.

Any group of ten or more people who would like to share their common educational or training interest may request a seminar, a course or course series. The College then may seek an appropriate instructor and set up the course. Tuition and/or fees for such courses are established so that they cover the cost of the instruction, materials, and laboratory expenses.

### Off Campus Classes

There are many locations within the College district to take classes. The College maintains a full-time office and classroom complex in Seaside to coordinate classes in Arch Cape, Cannon Beach, Seaside, and Gearhart. Phone 738-3346 for information about south county classes. Other classes throughout the district are coordinated for residents living near Warrenton, Svensen, Knappa, Clatskanie and Westport. Call the Community Education Office, 338-2408, for specific information about classes in your area.

### Courses By Television

College courses and workshops via television utilizing Oregon Public Broadcasting and local cable are offered by the College and may lead to an associate degree.

Courses and workshops are also available through the Oregon Ed-Net system. Interactive, two-way audio/visual communication is provided on campus for classes not offered in the College's regular schedule. The system is also used by business, industry, and government agencies. Contact the Learning Resource Center (Library) for details, 338-2341.

### Registration For Community Education

Registration times and locations for community education courses are provided in the term schedule published prior to each term. Student registrations are processed on a first-come, first-served basis. You may register by mailing in a registration form with a Visa/Mastercard number or personal check, or sign up for classes in person. Phone registration is also available by calling 338-2408 or 738-3346.

# COMMUNITY EDUCATION

## SERVICES FOR BUSINESS AND INDUSTRY

### Customized Training and Workforce Development

Clatsop Community College sponsors many management workshops, seminars, and courses specifically designed for business and industry. Events can be geared for an entire industry, or they can be custom designed for single "in-house" organizations. Instructors are selected for their experience and their emphasis is on applying practical knowledge. Contact the Business and Training Center at 738-3346 for further information.

### Small Business Development Center

The Small Business Development Center provides services and resources to existing, new, and potential small businesses throughout the College district and is part of a state wide network for service to businesses. The Center is located in the College's Business and Training Center. Services consist of consultation, basic management seminars, and an intensive small business management program. Call 738-3347 or (800) 206-7352 for further information.

### Apprenticeship Training

Related classroom training for registered apprentices is also coordinated through the Community Education Office. 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 plumbing, electrician-inside wireman, and Emergency Medical Technician (EMT).

This program is for indentured apprentices only. Call 338-2408 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 731-4072 ext. 270; local telephone number, 338-2408. (Community Education office)

### Summer Term

The College offers a limited selection of course offerings during the summer. Requests for specific classes may be directed to the office of Community Education or to each of the Arts and Sciences or Professional/Technical Deans.

Lower division transfer, vocational-technical, self-improvement and basic skill courses are offered.

Summer term schedules are available the first week of June. You may request the Registrar's Office to mail you a copy.

**An Important Note:** The College is closed on Fridays in July and August through Labor Day.

**Services for  
Business &  
Industry**

**Customized  
Training**

**Small  
Business  
Development  
Center (SBDC)**

**Apprenticeship  
Training**



*"Clatsop Community College's ability to create a pool of highly trained, highly skilled, and well educated workers for both local businesses and businesses looking to relocate to Clatsop County makes the College's presence indispensable to a healthy economy."*

*Margaret Forbes  
Director, Clatsop Economic Development Council*



# SPECIAL PROGRAMS

## Clatsop/ Linfield

## Job Opportunities and Basic Skills (JOBS)

## Lives In Transition (LIT)

### Clatsop/Linfield Bachelor's Degree Program

Clatsop Community College and Linfield College in McMinnville, Oregon, cooperate to offer a joint program making it possible for you to earn a bachelor's degree in Social and Behavioral Sciences, Business Management, Accounting, Arts and Humanities, International Business, and Business Information Systems.

Lower division courses are provided by Clatsop; upper division courses are brought to the Clatsop campus through arrangements with Linfield College's Division of Continuing Education.

The program features weekend and evening on-site classes and credit for prior learning. Contact the Clatsop/Linfield Advisor for further information. Phone: 338-2308.

### Job Opportunities and Basic Skills (JOBS)

If you are receiving cash public assistance or food stamps you may qualify for the Job Opportunities and Basic Skills (JOBS) Program. The JOBS Program serves adult and teenage participants referred by the State of Oregon's Adult and Family Services Division. You are offered a series of education, training, and employment skills enhancements to prepare to leave welfare. The aim is for you to become self-sufficient and provide for your family without public assistance.

Typical activities are ABE/GED classes, regular credit classes in a skill area, specialized short-term training, life skills/personal management, job search classes, and counseling.

Clatsop Community College works in a partnership arrangement with Adult and Family Services, MTC Training and Placement Services, the Employment Department, local school districts, and Clatsop Behavioral Healthcare to provide services. The program is funded through the Family Support Act of 1983 and the State of Oregon.

### Lives In Transition

The Lives in Transition (LIT) program is designed to assist individuals to grow towards economic self-sufficiency through personal development and career exploration.

Lives in Transition provides:

- Classes in life and transition planning
- Classroom activities include: developing self esteem, assertiveness, communication skills, decision making, and goal setting
- Information on non-traditional and vocational technical careers
- Six tuition free, transferable college credits
- Reimbursement for child care and transportation costs, if needed, to attend the LIT classes
- On-going support, information and referral to College and community resources

The program is located in Towler Hall, room 209. For more information call 338-2377.



*"The Clatsop Community College Lives in Transition class has been the most supportive program I have ever encountered"*

*Sandra Long*

# SPECIAL PROGRAMS

## Marine Safety Training

The College offers a marine safety course that is U.S. Coast Guard approved. If you satisfactorily complete the class, you may be credited with 25 days sea service time on vessels of not more than 200 gross tons. Classes are conducted coast-wide with other community colleges and Sea Grant agencies. Marine safety classes cover the following topics: preparation for an emergency; cold water near drowning; hypothermia; cold water survival skills; sea survival; stability; marine fire fighting; and emergency procedures.

Classes can be arranged to meet the needs of specific groups. The course is aimed at certifying commercial fishermen to meet or exceed international maritime organization standards as well as those of the U.S. Marine Safety Advisory Committee. Graduates meet compliance criteria as set forth by the Fishing Vessel Safety Act of 1988.

Other affected groups which can benefit are charter operators and crews; government agencies such as National Oceanic and Atmospheric Administration, United States Coast Guard, and National Marine Fisheries Service; local and state police; fisheries observers; park rangers; lifeguards; and the general public.

Additional information about this program can be obtained by contacting the Maritime Science Center, 325-7962.

## Radar Observer Program

The U.S. Coast Guard approved Radar Observer Program offers you four different courses: five-day original endorsement, three-day "Rivers" original endorsement; three-day recertification, and one-day recertification. The five-day original endorsement class is required if you will be 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 new 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, 325-7962.

**Marine  
Safety  
Training**

**Radar  
Observer**

# SPECIAL PROGRAMS

## Small Business Management

## Oregon Advanced Technology Consortium

### 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 you 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 and Training Center, South County Center, 738-3347 or 338-2405.

### Oregon Advanced Technology Consortium

Manufacturers and businesses may improve their competitive edge by implementing new technologies.

Clatsop Community College is pleased to be the local partner of Oregon Advanced Technology Consortium (OATC), a consortium of 12 Oregon community colleges serving small and medium sized manufacturers seeking access to advanced technology services and training. OATC services include technology demonstrations, prototyping, telecommunications, Internet access, short production runs, engineering support, and advanced technical training.

The Mission of OATC is to improve Oregon's competitiveness by assisting businesses and manufacturers with the adoption and implementation of new technologies. Businesses require new and existing technologies—particularly readily available, off-the-shelf manufacturing technologies- to modernize their industries and enhance their ability to compete in the global market.

### CONSORTIUM MEMBERS:

Blue Mountain CC  
Central Oregon CC  
Chemeketa CC  
Clackamas CC  
Clatsop CC  
Columbia Gorge CC  
Lane CC  
Linn Benton CC  
Mt. Hood CC  
Portland CC  
Rogue CC  
Southwestern Oregon CC

For information and services, contact the Community Information Center, 325-8502.

# GRANT FUNDED PROGRAMS

## TRIO GRANTS

### Secondary Education

In cooperation with the area school districts, Clatsop Community College has competed for and successfully received two federal grants which assist middle school and high school students. The general purposes of the grants are to help you succeed in school, make plans for the future and enter post-secondary education. These grants, Educational Talent Search (ETS) and Upward Bound (UB), are long term grants which are renewable; the services from these grants should continue for many years. The requirements for eligibility are similar for both grants with an emphasis on students who come from families which qualify based on income and educational levels. If you want more information, you should contact the ETS or UB office at 338-2370.

#### **Educational Talent Search**

Educational Talent Search (ETS) is a 100% federally funded grant which helps eligible 6th grade through 12th grade students be successful in school, graduate from high school, and enter an appropriate post-secondary program. ETS provides a wide range of services to participants in the 12 schools in the program. Classroom presentations, small group work, large multi-school activities, individual counseling, and special group tours are a few of the approaches used. Individuals who are eligible and are past high school age can also participate in the program. If you have questions, you should contact the ETS Office.

#### **Upward Bound**

Upward Bound (UB) provides an intense, year-long program for eligible students which includes a tutorial program during the year and a five to six week summer program. You have a variety of cultural and educational experiences as well as opportunities to explore career and school options. The summer program will emphasize hands-on experiences in math and science. Upward Bound is 100% federally funded. If you are interested in more information, you should contact the Upward Bound office.

#### Postsecondary Grant

#### **Student Support Services**

Another strategy of the TRIO Program is Student Support Services (SSS). This program serves the academic and personal needs of first-generation college students, students with disabilities and low-income students. The Plus Program is Student Support Services at Clatsop and is 100% federally funded. Individuals interested in more information should see the description on page 19.

### **Trio Programs**

*Educational  
Talent Search  
(ETS)*

*Upward  
Bound (UB)*

*Plus  
Program  
(SSS)*

# GRANT FUNDED PROGRAMS

## **Carl Perkins Professional Technical Program**

## **Gender Equity in Professional Technical Education**

### **Carl D. Perkins Vocational and Technical Education Act of 1998**

The Carl D. Perkins Vocational and Technical Education Act of 1998 provides federal funds to develop the academic, vocational, 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: Business & Management and Industrial & Manufacturing Technologies.

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.

### **Gender Equity in Professional Technical Education**

One component of the Carl D. Perkins Vocational and Technical Education Act of 1998 is to improve gender equity in career awareness, and/or the recruitment, retention, and placement of men and women in nontraditional livable wage jobs. Contingent upon receipt of the Carl Perkins Grant award, federal funds are available to assist in the development of regional gender equity systems.

In cooperation with the area school districts, Clatsop Community College will fund local equity projects that promote activities that will enable people to examine and overcome equity barriers in the community. The following are allowable uses of these funds:

- Projects directed toward elimination of institutional sex biased and stereotyped practices, which result in improved enrollments and retention in nontraditional professional technical education programs.
- Projects designed to eliminate biased and stereotyped attitudes and behaviors of teachers, administrators, support staff, area employers, and business organizations.
- Projects designed to improve career guidance with the aim of eliminating bias, stereotypes, and limited expectations for students based on gender.

Additional information concerning the Carl D. Perkins Vocational and Technical Education Act of 1998 or Gender Equity services may be directed to the Carl Perkins Program office at Clatsop Community College.

# DEVELOPMENTAL EDUCATION

## General Information

The purpose of Developmental Education is to help you improve your basic reading, writing and mathematical skills. Instruction in basic skills enhances your opportunities for success in continued academic learning and in the workplace. Course offerings include basic skills classes and labs, college preparation, GED, and English for Speakers of Other Languages. Career and workforce skills are integrated into the courses. SEA (Student Educational Assistance) Services is also a part of Developmental Education. The SEA supports students at all levels of study through tutoring, study groups and career counseling opportunities. All services in the SEA are free.

## College Preparation Courses for Transfer and Vocational Students

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

## General Educational Development (GED)

The GED program offers classes for you to complete the GED equivalency certificate. This certificate is accepted as a substitute for a high school diploma by 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 contact the Director of Developmental Education. Day and evening classes are offered in Astoria and Seaside. Classes are free and you may begin on start dates throughout the term.



## English for Speakers of Other Languages

English for Speakers of Other Languages (ESOL) classes are designed to help non-native speakers to 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, Seaside and Cannon Beach. The ESOL classes are free, and you may register at any time.

## Literacy Program

Tutors are available to assist basic skills and ESOL students with reading, writing, math, citizenship and workforce skills. Free trainings are offered biannually for tutors. If you are interested in volunteering for the Volunteer Literacy Tutor program or want to refer someone for tutoring, contact the Director of Developmental Education.

**College  
Preparation  
Courses**

**General  
Educational  
Development  
(GED)**

**English as a  
Second  
Language**

**Literacy  
Program**



*"As an ESL student, CCC is the best place to start college because it is not  
... big and I can have the teachers attention."*

*Zuifa Nuvi*



# COURSE DESCRIPTIONS

## ANT ANTHROPOLOGY

**ANT 110**  
**GENERAL ANTHROPOLOGY: CULTURAL**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students gain a basic understanding of the variety of cultures in the world, an appreciation of the sources of information used by cultural anthropologists, and knowledge of evolutionary, ecological, and functional paradigms.

**ANT 150**  
**GENERAL ANTHROPOLOGY: ARCHEOLOGICAL**  
(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 such data, development of culture and civilization, and description of the prehistory of Oregon and Washington.

**ANT 170**  
**GENERAL ANTHROPOLOGY: PHYSICAL**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students acquire basic knowledge of the processes of human evolution and variation; historical perspective and current controversy in physical anthropology; Mendelian and population genetics; modern human variation and classification; and primates and fossil man.

**ANT 232**  
**NATIVE NORTH AMERICANS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Introduction to the native populations of the "New World", from simple food collecting bands to advanced civilizations. Includes discussion of life and customs prior to white contact, as well as the impact of westernization on native cultures.

## ART ART

**ART 104**  
**ART APPRECIATION: ITALY**  
(2.00 Lecture Hrs./Wk.) **2 Credits**  
Students will study the visual arts of Italy from Etruscan times through the Baroque style of the 17th Century.

**ART 115**  
**BASIC DESIGN**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
This is a foundation course for most professions in the visual arts including architecture, interior architecture, graphic design, landscape design, and all commercial applications. 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 a vocabulary for work and criticism.  
**Note:** This class is a prerequisite to ART 116.

**ART 116**  
**BASIC DESIGN**  
(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. Students learn the processes of visual thinking and creative problem solving. **Prerequisite:** ART 115 or instructor approval.

**ART 117**  
**BASIC DESIGN**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students complete two-and three-dimensional projects demonstrating an understanding of 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. **Prerequisite:** ART 116 or instructor approval.

**ART 118**  
**INTRODUCTION TO CALLIGRAPHY**  
(4.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
Students complete projects which develop their knowledge and skill regarding lettering principles, techniques, and functions; traditions and historical development of letters; the Roman alphabet; and practical and creative uses of calligraphy.

**ART 131**  
**INTRODUCTION TO DRAWING**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
This is a foundation course for most professions in the visual arts including architecture, interior architecture, graphic design, landscape design, and all commercial applications. Students gain drawing experience through exercises which build basic drawing skills, learn to observe and record the form of a variety of objects with communicative accuracy, and develop personal expression and creative innovation. Introduction to drawing media, graphic structure, value rendering, and 1 and 2 point perspective.

**ART 132**  
**INTRODUCTION TO DRAWING**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students complete projects which demonstrate their knowledge of portrait and figure drawing emphasizing the structure of the human form and the expressive and creative use of drawing media. **Prerequisite:** ART 131 or instructor approval.

**ART 133**  
**INTRODUCTION TO DRAWING**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students complete projects which demonstrate understanding of form and explore drawing content. They develop individual interpretation and adapt technique to complete independent work which addresses more personal goals. **Prerequisite:** ART 131 & 132 or instructor approval.

**ART 194**  
**INTRODUCTION TO WATERCOLOR**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students develop basic watercolor techniques including color mixing, paint application, and basic composition. **Prerequisite:** Drawing and design classes recommended.

**ART 195**  
**INTRODUCTION TO WATERCOLOR**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students further develop basic skills in watercolor painting including color mixing, paint application, and basic composition. **Prerequisite:** ART 194 recommended.

**ART 196**  
**INTRODUCTION TO WATERCOLOR**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students continue to develop basic skills in watercolor painting including color mixing, paint application, and basic composition. **Prerequisites:** ART 194 & 195 or instructor approval.

**ART 204**  
**HISTORY OF WESTERN ART**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
In this three-course sequence, 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 class provides an historical survey of the visual arts in the Western world from the Egyptian through the Romanesque periods. **Note:** Need not be taken in sequence.

**ART 205**  
**HISTORY OF WESTERN ART**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
This class provides an historical survey of the visual arts in the Western world from the Gothic through the Baroque periods. **Note:** Need not be taken in sequence.

**ART 206**  
**HISTORY OF WESTERN ART**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
This class provides an historical survey of the visual arts in the Western world from the Rococo period through the 20th Century. **Note:** Need not be taken in sequence.

**ART 211**  
**SURVEY VISUAL ARTS OF THE 20TH CENTURY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Through the study of 20th century art, principally focused on European and American art and culture from approximately 1880 to 1910, students will develop an understanding of the role of art and culture from the turn of the century to the present day. Special emphasis will be placed on examining paintings, sculptures, and some graphic arts through field trips and classroom discussion. **Prerequisite:** minimal background in history or art history helpful, but not required.

**ART 212**  
**SURVEY VISUAL ARTS OF THE 20TH CENTURY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Through the study of 20th century art, principally focused on European and American art and culture in the first half of the century, students will develop an understanding of the role of art and culture from the turn of the century to the present day. Special emphasis will be placed on examining paintings, sculptures, and some graphic arts through field trips and classroom discussion. **Prerequisite:** minimal background in history or art history helpful, but not required.

**ART 213**  
**SURVEY VISUAL ARTS OF THE 20TH CENTURY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Through the study of 20th century art, principally focused on European and American art and culture of the post-war era 1945 to present, students will develop an understanding of the role of art and culture from the turn of the century to the present day. Special emphasis will be placed on examining paintings, sculptures, and some graphic arts through field trips and classroom discussion. **Prerequisite:** minimal background in history or art history helpful, but not required.

**ART 218**  
**CALLIGRAPHY - INTERMEDIATE**  
(4.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
This class is the first of a three-course series which prepares students to produce calligraphic and drawn letters on a commercial basis. Students develop skill in Humanist Bookhand, Simple Roman Capital, and a style of writing based upon basic script which may be used for personal expression. **Prerequisite:** ART 118 or instructor approval.

**ART 219**  
**CALLIGRAPHY - INTERMEDIATE**  
(4.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
Students demonstrate their skill in Italic hand, both lowercase and capitals including work with a pointed lettering brush, edged pens, and a script-written Italic. **Prerequisite:** ART 118 or instructor approval.

**ART 220**  
**CALLIGRAPHY - INTERMEDIATE**  
(4.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
Students demonstrate their skill in the Uncial and Carolingian script, including work with a flat, edged lettering brush as a variation to write the basic scripts. **Prerequisite:** ART 118 or instructor approval.

**ART 231**  
**DRAWING - INTERMEDIATE**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students continue to build a visual vocabulary for formal problem solving. They will increase their technical and expressive drawing skills introduced in previous drawing classes. **Prerequisite:** ART 131, 132 & 133 or instructor approval.

**ART 232**  
**DRAWING - INTERMEDIATE**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students continue to build a visual vocabulary for formal problem solving. They will increase their technical and expressive drawing skills introduced in previous drawing classes. **Prerequisite:** ART 131, 132 & 133 or instructor approval.

**ART 233**  
**DRAWING - INTERMEDIATE**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students continue to build a visual vocabulary for formal problem solving. They will increase their technical and expressive drawing skills introduced in previous drawing classes. **Prerequisite:** ART 131, 132 & 133 or instructor approval.

**ART 250**  
**INTRODUCTION TO CERAMICS**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students develop basic skills in ceramics including clay preparation, throwing, and glaze application.

**ART 251**  
**INTRODUCTION TO CERAMICS**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students develop basic skills in ceramics including the production of functional and expressive forms. **Note:** Need not be taken in sequence.

**ART 252**  
**INTRODUCTION TO CERAMICS**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students learn clay forming processes in beginning ceramics including throwing, decorating, and glazing. **Note:** Need not be taken in sequence.

**ART 253**  
**CERAMICS - INTERMEDIATE**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
Students have the opportunity to apply the techniques learned in introductory ceramics and conduct experimental research with clay bodies, glazes, kiln building, and firing methods. **Prerequisite:** ART 250, 251 and 252; or instructor approval.

**ART 254**  
**CERAMICS - INTERMEDIATE**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
In this class students glaze pottery forms using the glaze research from ART253 Ceramics - Intermediate. **Prerequisites:** ART 250, 251, 252, and 253; or instructor approval.

**ART 255**  
**CERAMICS - INTERMEDIATE**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
This class provides the opportunity for students to focus on expressive methods of producing pottery forms. **Prerequisites:** ART 250, 251, 252, 253 and 254; or instructor approval.

**ART 270**  
**INTRODUCTION TO PRINTMAKING**  
(6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
This is the first course in a year-long sequence recommended for students preparing for architecture, interior architecture, and graphic design programs. During the sequence, students learn techniques for wood cut, monoprint and etching. Students may work in the media introduced this term or any media they have studied in a previous course. **Prerequisites:** None, but drawing and design classes are recommended.

**ART 271**  
**INTRODUCTION TO PRINTMAKING**  
(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. **Prerequisites:** None, but drawing and design classes are recommended.

**ART 272**  
**INTRODUCTION TO PRINTMAKING**  
(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. **Prerequisites:** None, but drawing and design classes are recommended.

**ART 273**  
**PRINTMAKING - INTERMEDIATE**  
(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 which contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instr. approval.

**ART 274****PRINTMAKING - INTERMEDIATE****(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 which contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval.

**ART 275****PRINTMAKING - INTERMEDIATE****(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 which contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval.

**ART 276****INTRODUCTION TO SCULPTURE****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

This class provides the opportunity for students to develop skill in basic portrait study emphasizing construction of facial features and forms.

**ART 277****INTRODUCTION TO SCULPTURE****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

This class provides the opportunity for students to develop skill in techniques of sculpture involving basic figure study emphasizing construction of human features.

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

This class provides the opportunity for students to develop skill in techniques of stone carving emphasizing form, carving techniques, and finishing processes.

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

Students will learn about theory, methods, and compositional problems of creating with mixed media and installation art forms. **Prerequisites:** ART 115, ART 131 and one other studio class, or instructor approval.

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

Students complete projects addressing compositional and technical problems, explore oil and acrylic media, and exhibit individual creativity. **Prerequisites:** None, but drawing and design classes are strongly recommended.

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

Students complete projects which demonstrate skill in portrait and figure composition, emphasize the structure of the human form; use painting media and color expressively and creatively; emphasize space concept; and enrich their visual vocabulary. **Prerequisite:** ART 281 or instructor approval.

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

Students create paintings which demonstrate their knowledge of technique, theory, and philosophy of painting. Students complete independent work which contributes to their personal portfolio. **Prerequisite:** ART 282 or instructor approval.

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

Students complete projects which demonstrate applied knowledge of methods, materials, composition, and technique. Students complete independent work which contributes to their personal portfolio. **Prerequisite:** ART 281, 282 & 283; or instructor approval.

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

Students complete projects which demonstrate applied knowledge of methods, materials, composition, and technique with emphasis on the human figure. Students complete independent work which contributes to their personal portfolio. **Prerequisite:** ART 281, 282 & 283; or instructor approval.

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

Students complete projects which demonstrate applied knowledge of methods, materials, composition, and technique. Students complete independent work which contributes to their personal portfolio. **Prerequisite:** ART 281, 282 & 283; or instructor approval.

**ART291****SCULPTURE - INTERMEDIATE****(6.00 Lecture-lab Hrs./Wk.)****3 Credits**

Application of techniques introduced in introductory sculpture. Emphasizes casting methods. **Prerequisite:** ART 276, 277, 278 Introduction to Sculpture or instructor approval.

**ART292****SCULPTURE - INTERMEDIATE****(6.00 Lecture-lab Hrs./Wk.)****3 Credits**

Application of techniques introduced in introductory sculpture. Emphasizes casting methods. **Prerequisite:** ART 276, 277, 278 Introduction to Sculpture or instructor approval.

**ART 293****SCULPTURE - INTERMEDIATE****(6.00 Lecture-lab Hrs./Wk.)****3 Credits**

Students will apply techniques introduced in introductory sculpture. Emphasizes casting methods. **Prerequisite:** ART 276, 277, 278 Introduction to Sculpture or instructor approval.

**ART 294****WATERCOLOR - INTERMEDIATE****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Students complete projects which apply their knowledge of watercolor painting techniques, concepts, and theories of expression. Students complete independent work which contributes to their personal portfolio. **Prerequisites:** ART 194, 195 & 196; or instructor approval.

**ART 295****WATERCOLOR - INTERMEDIATE****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Students complete watercolor paintings which demonstrate individual variations of technique. Students complete independent work which contributes to their personal portfolio.

**Prerequisites:** ART 194, 195 & 196, or instructor approval.

**ART 296****WATERCOLOR - INTERMEDIATE****(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 which contributes to their personal portfolio. **Prerequisites:** ART 194, 195 & 196; or instructor approval.

**BA****BUSINESS ADMINISTRATION****BA 101****INTRODUCTION TO BUSINESS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate a basic understanding of the concepts, elements, and issues involved in the United States business system.

**BA 104****BUSINESS MATH WITH ELECTRONIC CALCULATORS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate the application of mathematics skills to business and consumer problems and use an electronic calculator keyboard by touch. **Prerequisite:** MTH 65 or instructor approval.

**BA 131****ACCOUNTING PROCEDURES I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Bookkeeping basics. This class prepares students to perform simple accounting in service organizations emphasizing the accounting cycle, banking procedures, and payroll accounting. This is the first course of a year-long sequence in which students learn to organize financial information and prepare financial reports.

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

Bookkeeping basics. This class prepares students 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 and receivables.

**Prerequisite:** BA 131 with a C grade or better, or instructor approval.

**BA 133****ACCOUNTING PROCEDURES III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Bookkeeping basics. This class prepares students to perform accounting tasks in manufacturing organizations, partnerships, and corporations. Students learn to prepare statements of cash flows; analyze financial statements; and complete other accounting procedures involving stock, bonds, corporate earnings, and investments. **Prerequisite:** BA 132 with a C grade or better, or instructor approval.

**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.

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

Students develop an understanding of the fundamental principles for thinking and operating as a manager, including organizational interaction and human relations.

**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 common to a sole proprietorship.

**Note:** This is the first course in a year-long sequence which is intended for students who are planning to transfer to a four-year college.

**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. They demonstrate knowledge of professional accounting standards. **Prerequisite:** BA 211 with a C grade or better, or instructor approval.

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

Managerial accounting. Students demonstrate an understanding of the use of internal accounting data to direct the affairs of businesses. **Prerequisites:** BA 211 & 212 with a C grade or better, or instructor approval.

**BA 214**  
**BUSINESS COMMUNICATIONS**  
(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. **Prerequisites:** ASSET writing score of 45+ or OA 104; OA 121; & instructor approval.

**BA 222**  
**FINANCIAL MANAGEMENT**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop an understanding of the concepts, techniques, decision processes and other factors that are used to manage a firm's sources and uses of funds. **Prerequisites:** BA 211 with a C grade or better, or instructor approval.

**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.

**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.

**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.

**BA 227**  
**INTRODUCTION TO BUSINESS LAW II**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students demonstrate an understanding of the various areas of business law: agency, sales, partnerships, corporations, bankruptcy, real and personal property, and landlord and tenant.

**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 & 132, or BA 211 & BA 212, or instructor approval.

**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, microfiche and alternative paper-oriented systems.

**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.

**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.

**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 which is essential for success in the workplace and with friends and family.

## **BI** BIOLOGY

**BI 101**  
**GENERAL BIOLOGY - EMPHASIS ON ECOLOGY**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
Students demonstrate knowledge of the basic principles of biology including evolution and diversity of organisms, with a strong emphasis on ecology. Includes field work. **Note:** Does not meet requirements for biology majors. Need not be taken in sequence. If you have completed one term of college biology, consult the instructor.

**BI 102**  
**GENERAL BIOLOGY - EMPHASIS ON HUMAN BIOLOGY**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
Students demonstrate knowledge of the basic principles of biology including the chemical and cellular basis of life, cell division, energy transformation, genetics, and human organ systems. **Note:** This course is recommended for pre-nursing students. Does not meet requirements for biology majors. Need not be taken in sequence. If you have completed one term of college biology, consult the instructor.

**BI 103**  
**GENERAL BIOLOGY - EMPHASIS ON THE BIOLOGY OF PLANTS**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
Students will demonstrate knowledge of the basic principles of biology including structure and function of systems of animals and plants. This class involves field work and focuses on plants. **Note:** Does not meet requirements for biology majors. Need not be taken in sequence. If you have completed one term of college biology, consult the instructor.

**BI 211****PRINCIPLES OF BIOLOGY****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

This is the first of a year-long sequence designed for pre-med, pre-vet, and science majors. These are process/investigative oriented courses largely built around lab and field work in which students develop skills in experimental design, data collection and analysis (including basic statistics), and use of scientific instrumentation and field research tools. This term, students conduct investigations in cellular chemistry, structure and function, biological energy transformations, and cell life cycles. Note: Pre-nursing can substitute BI 211 for BI 102. **Prerequisite:** High school chemistry or instructor approval. MTH 95 and concurrent enrollment in CH 221 recommended.

**BI 212****PRINCIPLES OF BIOLOGY****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students conduct laboratory investigations and demonstrate knowledge of genetics, both Mendelian and molecular; biotechnology; animal diversity; and animal anatomy and physiology. **Prerequisite:** BI 211, or instructor approval. MTH 95 and CH 222 recommended.

**BI 213****PRINCIPLES OF BIOLOGY****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students complete laboratory investigations in plant physiology and several field biology investigations. Students demonstrate knowledge of ecology, evolution, plant diversity, and plant anatomy and physiology. **Prerequisite:** BI 212, or instructor approval. MTH 95 and CH 223 recommended.

**BI 222****HUMAN GENETICS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of human genetics and classical principles of heredity and population genetics, including basic genetic principles, sex-linked inheritance, population genetics and evolution, and genetic counseling. Note: Offered alternate years (2000-2001).

**BI 231****HUMAN ANATOMY AND PHYSIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

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. Students master knowledge and concepts of organization and terminology, cells and membranes, and the nervous system. **Prerequisite:** BI 102 or 201 or instructor approval. College level chemistry is recommended.

**BI 232****HUMAN ANATOMY AND PHYSIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students master knowledge and concepts of respiration, the cardiovascular system, the renal system, and the body's fluids. **Prerequisite:** BI 102 or 201 or instructor approval. College level chemistry is recommended.

**BI 233****HUMAN ANATOMY AND PHYSIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students master knowledge and concepts concerning bone and muscle, heredity, development, and reproduction. **Prerequisite:** BI 102 or 201 or instructor approval. College level chemistry is recommended.

**BI 234****INTRODUCTION TO MICROBIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

This course is designed for allied health areas; not for science majors or those in pre-medicine, pre-dental or pre-veterinary science. Students demonstrate knowledge of the basic and applied aspects of microbiology with emphasis on the role of the microorganism in relation to humans. **Prerequisite:** None, but prior courses in biology and chemistry are strongly recommended.

**CH****CHEMISTRY****CH 104****INTRODUCTORY CHEMISTRY****(3.00 Lecture, 1.00 Lect./Lab, & 2.00 Lab Hrs./Wk.) 4 Credit**

Students master basic knowledge of atomic theory, elements, compounds, bonding, naming, and radioactivity. 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 20).

**CH 105****INTRODUCTORY CHEMISTRY****(3.00 Lecture, 1.00 Lect./Lab, & 2.00 Lab Hrs./Wk.) 4 Credits**

This is the second term of a two-quarter introductory general chemistry series. Students master basic knowledge of chemical reactions, gases, liquids, solids, acids, and bases. **Prerequisite:** Completion of CH 104 or equivalent.

**CH 106****INTRODUCTORY CHEMISTRY - BIOCHEMISTRY****(3.00 Lecture, 1.00 Lect./Lab, & 2.00 Lab Hrs./Wk.) 4 Credits**

Students master basic knowledge of the fundamental principles of biochemistry including organic chemistry and the four important classes of biomolecules: carbohydrates, lipids (fats and oils), proteins, and nucleic acids. **Prerequisite:** CH 104 & 105 or equivalent.

**CH 221****GENERAL CHEMISTRY****(3.00 Lecture, 1.00 Lect./Lab, & 2.00 Lab Hrs./Wk.) 4 Credits**

This three-term series is designed for all science and engineering majors. The first term students master knowledge and concepts of stoichiometry, energy in chemical reactions, quantum mechanics, atomic and molecular structure, periodicity, and chemical bonding.

**Prerequisites:** Two years of high school algebra or MTH 95, one year of high school chemistry or CH 105, and instructor approval.

**CH 222****GENERAL CHEMISTRY****(3.00 Lecture, 1.00 Lect./Lab, & 2.00 Lab Hrs./Wk.) 4 Credits**

Second term of the general chemistry series for all science and engineering majors. Students master knowledge and concepts including gas laws, liquids and solids, intermolecular forces, colligative properties, solutions, chemical kinetics, acids and bases, and aqueous equilibria. Involves extensive algebraic problem-solving. **Prerequisites:** CH 221; MTH 111 is highly recommended.

**CH 223****GENERAL CHEMISTRY****(3.00 Lecture, 1.00 Lect./Lab, & 2.00 Lab Hrs./Wk.) 4 Credits**

Third term of the general chemistry series for all science and engineering majors. Students master knowledge and concepts including chemical thermodynamics, electrochemistry, metals and metallurgy, the descriptive chemistry of nonmetals, nuclear chemistry, and an introduction to organic chemistry. Involves extensive algebraic problem-solving. **Prerequisites:** CH 222; MTH 111 is highly recommended.

**COMMUNICATIONS: See ENG or WR**

## **C** CRIMINAL JUSTICE

**CJ 100****CAREERS IN CRIMINAL JUSTICE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of processes, people, components, and problems involved in the American system of criminal justice; and of the various careers and employment opportunities now and in the future.

**CJ 101****INTRODUCTION TO CRIMINOLOGY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of crime as a social problem including theoretical perspectives on the causes, treatment, and prevention of crime.

**CJ 107****CRIMINAL JUSTICE WORKSHOP****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of ideas, issues, and recent events relating to the criminal justice system, for example computerization, women's roles, administration, organization, unionization, deadly force, polygraph, stress, health systems, and new research data.

**CJ 110****INTRODUCTION TO LAW ENFORCEMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate in-depth knowledge of the roles and responsibilities of law enforcement in American society, including historical development, role concept and conflicts, professionalism, use of discretion, and current enforcement practices.

**CJ 114****GENDER, RACE, CLASS AND CRIME****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine the cultural diversity issues which challenge our criminal justice system including the historical treatment of minorities, cross cultural communications, and diversification within the law enforcement system.

**CJ 120****INTRODUCTION TO THE JUDICIAL PROCESS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the judicial and social functions within the criminal justice system from arrest to appeal and comprehend the jurisdictional authority of federal and state court systems.

**CJ 121****CONCEPTS OF CRIMINAL LAW****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate an understanding of the history, basic theories, and philosophical foundations of criminal law.

**CJ 130****INTRODUCTION TO CORRECTIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge of the historical development and current processes in corrections including incarceration, probation, parole, treatment theories, and the human relations aspects of criminal justice careers.

**CJ 132****INTRODUCTION TO PAROLE AND PROBATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge and critical analysis of the principles and techniques used in parole and probation in the administration of criminal justice.

**CJ 203****CRISIS INTERVENTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of crisis intervention techniques used in domestic disputes, in suicide attempts, and in dealing with sexual assault victims and/or persons experiencing the trauma of a crisis.

**CJ 210****CRIMINAL INVESTIGATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the history, theory, and principles of criminal investigation; strategies and procedures; forensic science and the crime lab; and crime lab techniques, capabilities and limitations.

**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 which deal with supervision and management.

**CJ 230**  
**INTRODUCTION TO JUVENILE CORRECTIONS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students demonstrate an introductory knowledge of the juvenile corrections field, including theories regarding the factors which may lead to delinquency, the philosophy behind the juvenile court system, and current treatment programs.

**CJ 232**  
**INTRODUCTION TO CORRECTIONS CASEWORK**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students demonstrate a basic knowledge of the theories and current methods of behavior modification used by corrections personnel. They attain rudimentary skills in counseling and interviewing and gain the knowledge required for further study of advanced methods used by professional counselors.

**CJ 243**  
**ALCOHOL AND OTHER DANGEROUS DRUGS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop an understanding of the history of drug use, pharmacology of drugs, symptoms of abuse and proper referral, and the effects of drug abuse on American society in general and the criminal justice system in particular.

**CJ 244**  
**SEXUAL EXPLOITATION OF CHILDREN**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop an understanding of the issues faced by criminal justice personnel who deal with sexual exploitation of children; strategies for cooperation between service agencies; and characteristics and treatment of victims, offenders, and non-offending family members.

**CJ 281**  
**FIELD EXPERIENCE SEMINAR - CRIMINAL JUSTICE**  
(1.00 Lecture Hr./Wk.) **1 Credit**  
Students develop appropriate and effective work practices through discussing employment related topics and sharing insights developed at the work site. **Note:** Requires concurrent enrollment in two credits of CJ 280. May be repeated twice toward an associate degree.

## **CPL** CREDIT FOR PRIOR LEARNING

**CPL 120 CREDIT FOR PRIOR LEARNING**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
This course guides students through the process of requesting 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 six credits of CPL 120 may be applied to an associate degree.

## **CS** COMPUTER SCIENCE

SEE ALSO: MICROCOMPUTERS

**CS 101**  
**FUNDAMENTALS OF COMPUTING**  
(1.00 Lecture Hr./Wk.) **1 Credit**  
Students master contemporary computer terminology and the use of applications software including familiarization with hardware, disk formatting and management, software, startup, log in/out, Windows, and File Manager.

**CS 131**  
**INTRODUCTION TO COMPUTER INFORMATION SYSTEMS**  
(4.00 Lecture Hrs./Wk.) **4 Credits**  
This class provides hands-on experience in preparation for more advanced classes. Students learn and apply basic concepts, elements, and structures of microcomputer systems to develop a basic understanding of programming, classifying, calculating, and reporting functions.

**CS 161**  
**COMPUTER SCIENCE I**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
Using a high-level computer programming language, students apply algorithm design and structured programming principles to solve problems. They utilize the concepts of sequence, selection, repetition and modularity in program structure and gain an introductory understanding of arrays and pointers. Students examine the ethical and social issues in computer programming.

**CS 162**  
**COMPUTER SCIENCE II**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
Students develop a more advanced understanding of problem solving, algorithm design, and structured programming using a high-level language. Students solve problems using a variety of data structures and algorithms for storing and manipulating data including searching and sorting techniques, implementation of stacks, queues, linked lists and algorithm analysis. **Prerequisite:** CS 161.

**CS 171****PRINCIPLES OF COMPUTER ORGANIZATION****(3.00 Lecture, 3.00 Lab Hrs./Wk.) 4 Credits**

Students gain and apply knowledge of the organization of a digital computer including number systems, encoding of data, Boolean and digital logic fundamentals, processor components and instruction execution. Students gain an introductory understanding of assembly language programming and the Assembler process. **Prerequisite:** CS 161, 162.

**CS 260****DATA STRUCTURES****(3.00 Lecture, 3.00 Lab Hrs./Wk.) 4 Credits**

Students achieve and demonstrate their knowledge of the implementation and analysis of iterative and recursive algorithms to solve complex problems by completing programming exercises using scalar variables, arrays, linked lists, stacks, queues, trees, graphs, and table structures. **Prerequisite:** CS 161, 162.

**CS 271****COMPUTER ARCHITECTURE****(3.00 Lecture, 3.00 Lab Hrs./Wk.) 4 Credits**

Building on the knowledge and skills gained in CS 171, students gain a more sophisticated knowledge of microprogramming, machine language instructions, interrupts, operating system interface, and virtual memory. They gain and apply knowledge of assembly language programming, macros, linking and loading. **Prerequisite:** CS 171.

**CS 278****DATA COMMUNICATIONS AND NETWORKING****(3.00 Lecture Hrs./Wk.) 3 Credits**

Students gain knowledge of the hardware, media and software used in data communications. They gain an understanding of data communication protocols, topologies, data formats and network management techniques. **Prerequisite:** MIC 178.

**CS 279M****NETWORK MANAGEMENT – LAN NT****(2.00 Lecture, 3.00 Lab Hrs./Wk.) 3 Credits**

Students achieve and demonstrate knowledge of the implementation, installation, and management of local area networks. They install and configure hardware and software to support client-server computing and services using Microsoft Network Operating System (NOS) software. **Prerequisite:** CS 278 Data Communication and Networking

**CS 279N****NETWORK MANAGEMENT – LAN NOVELL****(2.00 Lecture, 3.00 Lab Hrs./Wk.) 3 Credits**

Students achieve and demonstrate knowledge of the implementation, installation, and management of local area networks. They install and configure hardware and software to support client-server computing and services using Novell Network Operating System (NOS) software. **Prerequisite:** CS 278 Data Communication and Networking

**CSB 133****BEGINNING VISUAL BASIC PROGRAMMING****(3.00 Lecture Hrs./Wk.) 3 Credits**

This is the first of two courses in programming for applications interface. Students use visual BASIC to write applications interfaces. **Prerequisite:** CS 131 recommended.

**CSB 233****ADVANCED VISUAL BASIC PROGRAMMING****(3.00 Lecture Hrs./Wk.) 3 Credits**

Students build on the skills gained in CSB 133 and learn advanced features of visual programming including customizing applications, interfacing with other applications, and using a visual programming professional edition with its advanced features. **Prerequisite:** CSB 133.

**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, elements, and structure. They learn how to store, access, sort, and make additions, deletions, and changes to that database. **Prerequisite:** MC145 or CS131 or instructor approval.

**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 or instructor approval.

**CSL 107****SPREADSHEETS****(3.00 Lecture Hrs./Wk.) 3 Credits**

Through hands-on exercises, students learn to utilize a spreadsheet program to its fullest possible extent. **Prerequisite:** None; basic keyboarding skills and computer literacy preferred.

**CSU 133****BEGINNING C++ PROGRAMMING****(4.00 Lecture Hrs./Wk.) 4 Credits**

Students use IBM compatible microprocessors to compile and debug elementary C programs. **Prerequisite:** CS 131 and familiarity with DOS. Offered alternate years.(1999-2000)

**CSU 233****ADVANCED C++ PROGRAMMING****(4.00 Lecture Hrs./Wk.) 4 Credits**

Students use advanced programming methods and algorithms to expand their skill in developing interface programs in C. Includes weekly projects. **Prerequisite:** CSU 133 or equivalent. Offered alternate years (1999-2000).

**DA DANCE**

A maximum of ten credits of D 192 Beginning Dance; eight credits of D 292 Intermediate Dance, and six credits of D 294 Advanced Dance may be applied to an associate degree provided that a dance style and level is not repeated.

**D 192**  
**DANCE - BEGINNING JAZZ**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students of professional and recreational dance develop skill in jazz dance techniques.

**D 192**  
**DANCE - BEGINNING MODERN**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students of professional and recreational dance develop skill in modern dance techniques.

**D 192**  
**DANCE - BEGINNING TAP**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students of professional and recreational dance develop skill in the basic vocabulary, body movement, footwork, rhythm, and coordination necessary to execute tap dance steps and routines.

**D 260**  
**DANCE PERFORMANCE**  
 (6.00 Lecture-Lab Hrs./Wk.) **3 Credits**  
 Students develop their skills in dance and gain experience performing dance as a theatre art through dealing with production problems in choreographing, staging, lighting, and costuming for dance. **Prerequisite:** None; some dance experience helpful.

**D 292**  
**DANCE - INTERMEDIATE JAZZ**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students of professional and recreational dance apply movement theory in jazz dance. **Prerequisite:** D 192.

**D 292**  
**DANCE - INTERMEDIATE MODERN**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students of professional and recreational dance apply movement theory in modern dance. **Prerequisite:** D 192.

**D 292**  
**DANCE - INTERMEDIATE TAP**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students expand their skills in the basic vocabulary, body movement, rhythm, and coordination necessary to perform combinations of footwork steps and routines. **Prerequisite:** D 192.

**D 294**  
**DANCE - ADVANCED JAZZ**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students develop skills in advanced movement and theory, and complete an apprenticeship in teaching jazz dance. **Prerequisite:** D 292.

**D 294**  
**DANCE - ADVANCED MODERN**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students develop skills in advanced movement and theory, and complete an apprenticeship in teaching modern dance. **Prerequisite:** D 292.

**D 294**  
**DANCE - ADVANCED TAP**  
 (3.00 Lecture-Lab Hrs./Wk.) **2 Credits**  
 Students develop skill in fast-paced barre with emphasis on increasing complexity of tap rhythms and sounds. They also improve balance, endurance, and style. **Prerequisite:** D 292.

**DCO DEVELOPMENTAL COMMUNICATIONS**

**DCO 10**  
**ABE-READING/WRITING**  
 (2.00 Lab Hrs./Wk./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.

**DCO 22**  
**PRACTICAL COMMUNICATIONS**  
 (3.00 Lecture, 4.00 Lab Hrs./Wk.) **5 Credits**  
 Students improve their vocabulary and comprehension skills in reading, as well as their writing and editing skills. **Prerequisite:** Either ASSET reading score 27-32 or ASSET writing score 27-30 or instructor approval. Concurrent enrollment in HD 50 recommended.

**DESL ENGLISH FOR SPEAKERS OF OTHER LANGUAGES**

**DESL 01**  
**ENGLISH FOR SPEAKERS OF OTHER LANGUAGES**  
 (2.00 Lab Hrs./Wk./Cr.) **1-10 Credits**  
 Students improve their skills in speaking, reading, and writing English necessary for success in daily life and the workforce.

**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.

**DGED****DEVELOPMENTAL GED****DGED 48****PRE-GED PREPARATION****(2.00 Lab Hrs./Wk./Cr.)****1-6 Credits**

Students improve their skills in reading writing and math in preparation for taking the GED test. **Prerequisite:** DMTH 07 ABE Math and/or DCO 10 ABE-Reading/Writing or BASIS score of 215-235 or instructor approval.

**DGED 49****GED PREPARATION****(2.00 Lab Hrs./Wk./Cr.)****1-6 Credits**

Students improve their knowledge of social studies, writing, literature, science and mathematics. **Prerequisites:** DGED 48 or BASIS score of 236-242(Math/Reading) or score of 4 or 5 on writing test or instructor approval.

**DMTH****DEVELOPMENTAL MATH****DMTH 07****ABE - MATHEMATICS****(2.00 Lab Hrs./Wk./Cr.)****1-6 Credits**

Students develop skills in whole number mathematics, including adding, subtracting, multiplying, dividing, rounding, estimating and problem solving.

**DPD****DEVELOPMENTAL PERSONAL DEVELOPMENT****DPD 51****SUCCESS PLUS****(1.25 Lecture Hrs./Wk.)****1 Credit**

Supplemental instruction for students enrolled in HD 100 College Survival and Success. This class helps students develop the attitudes, skills, and strategies necessary for college success. Students receive an orientation to higher education and the community college process, life choices, study techniques and personal development. **Prerequisite:** Concurrent enrollment in HD 100 and admission to the PLUS program.

**DRD****DEVELOPMENTAL READING****DRD 30****READING EFFECTIVENESS II****(2.00 Lecture, 2.00 Lab Hrs./Wk.)****3 Credits**

Students begin to develop the skills needed to read academic material. **Prerequisite:** DCO 22 or ASSET score 33-37; concurrent enrollment in HD 50 recommended.

**DRD 40****READING EFFECTIVENESS III****(2.00 Lecture, 2.00 Lab Hrs./Wk.)****3 Credits**

Students work to increase their reading vocabulary, comprehension and critical thinking skills. **Prerequisite:** DRD 30 or ASSET score 38-41. Concurrent enrollment in HD 50 recommended.

**DWR****DEVELOPMENTAL WRITING****DWR 31****PARAGRAPH WRITING****(2.00 Lecture, 2.00 Lab Hrs./Wk.)****3 Credits**

Students develop skill in writing short, well-developed and well-edited paragraphs. **Prerequisite:** DCO 22, ASSET score 31-34, and writing sample. Concurrent enrollment in HD 50 recommended.

**DRF****DRAFTING****DRF 139****TECHNICAL PRINT INTERPRETATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn and apply the principles of reading and interpreting blueprints. Students master the use, application, and interpretation of symbols, lines, abbreviations, dimensions, and measurements in planning, construction, and assembly.

**DRF 185****COMPUTERS IN DESIGN****(2.00 Lecture, 3.00 Lab Hrs./Wk.)****3 Credits**

Students gain and apply knowledge and skills to use digital systems in the process of design. Students complete exercises exploring digital image processing, two dimensional drawing and three dimensional modeling as means to create and communicate design ideas. **Prerequisite:** CS 131 or MIC 145 or instructor approval.

**DRF 213****AUTOCAD - BEGINNING****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain and apply introductory knowledge and skills of computer aided drafting/design (CAD) including the hardware and operating system. Students complete exercises utilizing fundamental AutoCAD tools to create, modify and display drawings. **Prerequisites:** CS 131 or MIC 145; and DRF 139 or instructor approval..

**DRF 214****AUTOCAD - INTERMEDIATE****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain and apply the knowledge and skills needed to utilize AutoCAD in more advanced applications. Students complete exercises using CAD techniques to draw and sketch three dimensional objects and to create complex drawings using dimensions and symbols. **Prerequisite:** DRF 213 or instructor approval.

**DRF 215****AUTOCAD - ADVANCED****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain and apply the knowledge and skills needed for three dimensional modeling and customizing AutoCAD. Students complete exercises in creating, manipulating and viewing three dimensional CAD models and customizing the AutoCAD environment to suit specific user needs. **Prerequisite:** DRF 214 or instructor approval.

**DRF 217****AUTOCAD - UPGRADE****(16.00 Lab Hours Total)****1 Credit**

This course is for individuals who are skilled in using AutoCAD and need to upgrade to the latest release. Students develop skills in using new and modified tools and features to get the most out of recent system enhancements. **Prerequisite:** DRF 213, 214, and/or 215 or instructor approval.

**DRF 228****AUTOCAD EXAM PREPARATION****(4.00 Lecture/Lab Hrs/Wk.)****2 Credits**

Students prepare to complete AutoCAD Level I and II Certification Exams. Students review the format and requirements of the certification exams, strengthen knowledge and skills necessary for successful completion of the exams and complete a series of preparative exams. **Prerequisite:** DRF 213 and DRF 214

**DRF 295****CADD DIRECTED PROJECT****(6.00 Lecture Hrs/Wk.)****3 Credits**

This is the capstone course for the entry level CADD technician 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 prepare a comprehensive report and make a professional presentation. **Prerequisite:** Completion of all but the last quarter of course work for the certificate program.

**EC ECONOMICS****EC 115****INTRODUCTION TO ECONOMICS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of major economic concepts, utilize models, and identify and analyze economic choices which apply to current economic problems. **Note:** This course is not for business students who are intending to transfer to a four-year program.

**EC 201****PRINCIPLES OF ECONOMICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

This is the first course in a year-long sequence which is intended for students planning to transfer to a four year college. In this course, students gain a basic understanding of microeconomics which examines the allocation of resources and distribution of income in the market system.

**EC 202****PRINCIPLES OF ECONOMICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate a basic understanding of macroeconomics which examines our national economic issues including fiscal and monetary policies and their implementation.

**ECE EARLY CHILDHOOD EDUCATION****ECE 101****LANGUAGE ARTS ACTIVITIES FOR YOUNG CHILDREN****(10 Lecture Hrs.)****1 Credit**

Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of language arts activities. Offered on demand.

**ECE 103****MATH AND SCIENCE FOR YOUNG CHILDREN****(10 Lecture Hrs.)****1 Credit**

Students acquire and demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of math and science activities. Offered on demand.

**ECE 105****NUTRITION FOR YOUNG CHILDREN****(10 Lecture Hrs.)****1 Credit**

Students demonstrate knowledge of nutrition activities for the classroom, children's nutritional needs, and children's food habits as they apply to the day care center. Offered on demand.

**ECE 107****HEALTH AND SAFETY FOR YOUNG CHILDREN****(10 Lecture Hrs.)****1 Credit**

Students demonstrate knowledge of health routines, dental hygiene, communicable diseases, safety issues, and classroom activities within the preschool environment. Offered on demand.

**ECE 108****MUSIC AND CREATIVE MOVEMENT****(10 Lecture Hrs.)****1 Credit**

Students develop an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of music and movement activities for young children. Offered on demand.

**ECE 109****EARLY CHILDHOOD ENVIRONMENTS****(10 Lecture Hrs.)****1 Credit**

Students demonstrate knowledge of the environmental setting of the classroom including learning centers and appropriate toys and materials. Offered on demand.

**ECE 110**  
**SEMINAR - EARLY CHILDHOOD EDUCATION**  
(1.00 Lecture Hr./Wk./Cr.) **1-5 Credits**  
Through discussions of strategies, students coordinate theory and practice and increase their effectiveness in dealing with children and children's issues. **Prerequisite:** Instructor approval. Offered on demand.

**ECE 115**  
**EARLY CHILDHOOD TEACHING AIDS**  
(10 Lecture Hrs.) **1 Credit**  
Students learn to prepare and utilize teaching aids commonly found in the school setting. Offered on demand.

**ECE 116**  
**SOCIAL AND EMOTIONAL DEVELOPMENTAL ACTIVITIES FOR YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of social and emotional developmental activities. Offered on demand.

**ECE 117**  
**PROBLEM SOLVING ACTIVITIES FOR YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
This class prepares students to utilize problem solving strategies and activities that develop creative thinking skills in young children. Offered on demand.

**ECE 118**  
**LITERATURE FOR YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students complete an overview of available children's literature, comprehend the rationale for utilizing such literature, learn to implement its use, and evaluate its appropriateness in a classroom situation. Offered on demand.

**ECE 119**  
**SELF-CONCEPT FOR YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of self-concept activities. Offered on demand.

**ECE 124**  
**PHYSICAL FITNESS ACTIVITIES FOR YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of physical fitness activities for young children. Offered on demand.

**ECE 125**  
**CREATIVE ACTIVITIES: ART**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of art activities for young children. Offered on demand.

**ECE 126**  
**FIRST AID FOR YOUNG CHILDREN**  
(11 Lecture Hrs.) **1 Credit**  
Students complete the American Red Cross basic first aid course and demonstrate emergency and special first aid procedures applicable to young children. Offered on demand.

**ECE 127**  
**INSTRUCTIONAL MEDIA AND MATERIALS**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate skill and knowledge in preparing and utilizing instructional media and materials commonly found in the school setting. Offered on demand.

**ECE 128**  
**CURRICULUM PLANNING FOR YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students learn to use objectives and goals as a basis for developing, planning, implementing, and evaluating student activities. Offered on demand.

**ECE 129**  
**OBSERVING YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate and apply knowledge of objective techniques for recording and interpreting children's behavior. Offered on demand.

**ECE 131**  
**CHILD DEVELOPMENT FOR THE DAY CARE WORKER**  
(20 Lectures Hrs.) **2 Credits**  
Students demonstrate knowledge of child development theories as they relate to young children, prenatal through nine years. Offered on demand.

**ECE 132**  
**PLANNING AND STARTING AN EARLY CHILDHOOD CENTER**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate an understanding of state and federal child care regulations and the procedures and financial considerations needed to start and operate a child care center. Offered on demand.

**ECE 133**  
**STARTING A FAMILY DAY CARE HOME**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate an understanding of state and federal child care regulations and the procedures and financial considerations involved in starting and operating a family day care home. Offered on demand.

**ECE 134**  
**CHILDCARE: STATUTES, LIABILITY AND LICENSING CONSIDERATIONS**  
(10 Lecture Hrs.) **1 Credit**  
This course prepares teachers and directors of child care centers and day care homes to comply with state and federal laws and regulations that affect facilities that house young children. Offered on demand.

**ECE 135**  
**PROGRAM EVALUATION**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate knowledge of methods of evaluating programs in early childhood education, especially comparing program requirements with the developmental needs of young children. Offered on demand.

**ECE 136**  
**DEVELOPMENTAL SCREENING IN EARLY CHILDHOOD**  
(10 Lecture Hrs.) **1 Credit**  
This class enables students to conduct a brief assessment procedure designed to identify children who need a more intensive diagnostic assessment. Offered on demand.

**ECE 137**  
**CHILD ABUSE AND THE LAW**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate knowledge of the types of child abuse identified by state and federal law and the procedures which day care workers must follow when abuse is suspected. Offered on demand.

**ECE 138**  
**GUIDANCE AND SELF-DISCIPLINE**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate knowledge of principles and methods of guiding and encouraging self-discipline in young children emphasizing human relationships and positive social behavior. Offered on demand.

**ECE 139**  
**INFANT AND TODDLER PROGRAMS**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate knowledge of infant-toddler developmental theory, programs, program regulations, and the differences between these and regular child care programs. Offered on demand.

**ECE 142**  
**RESPONDING TO INFANTS**  
(10 Lecture Hrs.) **1 Credit**  
This class prepares students to conduct practical and useful activities to meet the individual developmental needs of infants from six to thirty months old. Offered on demand.

**ECE 144**  
**NON-COMPETITIVE GAMES**  
(10 Lecture Hrs.) **1 Credit**  
This class equips students to utilize non-competitive games and activities to foster children's positive physical and emotional growth. Offered on demand.

**ECE 145**  
**TOYS: TOOLS FOR LEARNING**  
(10 Lecture Hrs.) **1 Credit**  
Students develop wise and economical toys for children in specific age groups ranging from birth to six years. Offered on demand.

**ECE 146**  
**HANDICAPPING CONDITIONS IN YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate knowledge and skill in identifying various handicapping conditions in young children and utilizing resources available for teachers and parents. Offered on demand.

**ECE 147**  
**CAREERS WORKING WITH YOUNG CHILDREN**  
(10 Lecture Hrs.) **1 Credit**  
Students explore the diverse roles and responsibilities available to individuals who are planning a career working with young children. Offered on demand.

**ECE 149**  
**DISEASE CONTROL IN SCHOOL SETTINGS**  
(10 Lecture Hrs.) **1 Credit**  
Students demonstrate knowledge of prevention, identification, follow-up, and state immunization law concerning communicable diseases commonly found in early childhood settings. Offered on demand.

**ECE 150**  
**GAMES AND TOYMAKING**  
(2.00 Lecture-Lab Hrs./Wk.) **1 Credit**  
Students use their personal creativity to develop and make age-appropriate games and toys which employ the flexible use of materials appropriate for young children. For teachers, parents, and child care providers. Offered on demand.

**ECE 175**  
**INFANT/TODDLER DEVELOPMENT - SOCIAL GROWTH**  
(10 Lecture Hrs.) **1 Credit**  
Students will explore the components that need to be present in a caring relationship and how care givers can support an infant's growing sense of self. Students will develop an understanding of how healthy social-emotional development in infancy underlies all other learning.

**ECE 176****INFANT/TODDLER DEVELOPMENT - LEARNING & DEVELOPMENT****(10 Lecture Hrs.)****1 Credit**

Students will be able to understand the effects of cognitive development and how it impacts the child's learning and self-esteem. Sequential patterns and learning schema will be discussed.

**ECE 177****INFANT/TODDLER DEVELOPMENT - GROUP CARE****(10 Lecture Hrs.)****1 Credit**

Students will be introduced to the impact of the group care environment on infants and toddlers and will be able to recall the eight basic concepts related to the environment that protect the child while also supporting and enriching his or her emotional growth and development.

**ELT****ELECTRONICS****ELT 150****INTRODUCTION TO DIRECT CURRENT CIRCUIT ANALYSIS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of the principles of electronics, physics, and unidirectional current to series, parallel, complex, and unidirectional current circuit analysis; and to electrical measuring instruments. **Prerequisite:** MTH 65 or instructor approval.

**ELT 155****INTRODUCTION TO ALTERNATING CURRENT CIRCUIT ANALYSIS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of electrical and electronic technology for alternating current including analysis of the sine wave, series circuits with a sine input voltage, series resonance, parallel resonance, and filter circuits. **Prerequisite:** ELT 150 or instructor approval.

**ELT 206****SEMICONDUCTOR DEVICES****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of solid state devices including diodes, bipolar and field effect transistors, atomic theory of semiconductors, transistor biasing, gain control, and trouble shooting. **Prerequisite:** ELT 155 or instructor approval.

**ELT 207****INDUSTRIAL PROCESS CONTROLS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of industrial process control systems from sensing of temperature, pressure, level and flow, to control of the final process element. **Prerequisite:** ELT 155 or instructor approval.

**ELT 208****PROGRAMMABLE LOGIC CONTROLLERS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of fundamental concepts and programming of programmable logic controllers including gates, flip-flops, timers, counters, contacts, sequences, and registers. **Prerequisite:** ELT 206 & 207 or instructor approval.

**ELT 219****DIGITAL COMPUTER ELECTRONICS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of the elements of microcomputer systems including hardware, interfacing, and memories. They program in machine language and practice troubleshooting. **Prerequisite:** ELT 208 or instructor approval.

**ELT 220****INTRODUCTION TO ROBOTICS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate knowledge of robotics, the history of the industry, and robot classification. Students compare computer architectures and address control and interfacing requirements. **Prerequisite:** ELT 208 or instructor approval.

**ELT 231****DIGITAL CIRCUITS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate and apply knowledge of digital circuits including binary, octal, and hexadecimal numbering systems, binary number codes, Boolean algebra principles, logic circuits, design methods, flip-flops, and arithmetic operations and circuits. **Prerequisite:** ELT 155 or instructor approval.

**EMT****EMERGENCY MEDICAL TECHNICIAN****EMT 151****EMERGENCY MEDICAL TECHNICIAN BASIC, PART 1 (44 Lecture, 22 Lab Hrs.; 66 Hrs. Total)****5 Credits**

This two-part course meets Oregon State Health Division and Federal Department 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. On successful completion of EMT 152, the student will be prepared to pass the certification examination for EMT-Basic. **Prerequisite:** Current CPR certificate, current measles and hepatitis B immunizations, negative TB test; valid driver's license; ASSET Placement Test; self-verification of ability to meet Oregon Health Division requirements for certification.

**EMT 152****EMERGENCY MEDICAL TECHNICIAN BASIC, PART 2 (44 Lecture, 22 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 certification examination for EMT-Basic. **Prerequisite:** Successful completion of EMT 151.

**EMT 165**  
**EMERGENCY MEDICAL TECHNICIAN**  
**INTERMEDIATE, PART 1**  
(38 Lecture, 22 lab Hrs.; 60 Hrs. Total) **4 Credits**  
This class prepares students to perform the procedural responsibilities delegated to the EMT-Intermediate.  
**Prerequisite:** Certified as EMT-Basic; current AHA healthcare provider CPR document; 80% or better on EMT-Intermediate pretest; and demonstrated proficiency in specified skills.

**EMT 166**  
**EMERGENCY MEDICAL TECHNICIAN**  
**INTERMEDIATE, PART 2**  
(38 Lecture, 22 Lab Hrs.; 60 Hrs. Total) **4 Credits**  
Students master the knowledge and skills required of an EMT-Intermediate. **Prerequisite:** Successful completion of EMT 165.

**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.

**EMT 170**  
**EMERGENCY COMMUNICATION AND**  
**TRANSPORTATION**  
(30 Lecture, 12 Lab Hrs.; 42 Hrs. Total) **3 Credits**  
This class prepares emergency medical services personnel to handle telecommunications and transportation of the sick and injured. **Prerequisite:** Current valid driver's license.

**EMT 175**  
**INTRODUCTION TO EMERGENCY MEDICAL**  
**SERVICES**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
This class provides students with an understanding of the emergency medical services(EMS) system; its history, personnel roles, training, and responsibilities; and the organization, funding, and role of ambulance and rescue services.

## **ENG** ENGLISH

**ENG 104**  
**INTRODUCTION TO LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students will read, discuss, and analyze a variety of short stories and novels. They will learn the techniques of literary criticism for use in oral and written responses to the literature.

**ENG 105**  
**INTRODUCTION TO LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students will read, discuss, and analyze a variety of plays. They will learn about the conventions of literary and popular drama and its implications both on the page and on the stage.

**ENG 106**  
**INTRODUCTION TO LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students will read, discuss, and analyze a variety of poems, both historical and contemporary. Emphasis will be on finding personal meaning in poetry as well as mastering the techniques of literary criticism.

**ENG 107**  
**WORLD LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students gain knowledge of the literary styles and historic significance of works from Sumerian, Greek, Roman, Hebrew, and Italian literature from 3000 BC to the Middle Ages with emphasis epic and tragedy. **Note:** Concurrent enrollment in HST 101 recommended.

**ENG 108**  
**WORLD LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students gain knowledge of the literary styles and historical significance of works from Medieval and Renaissance European literature including epic, drama, essay, novel, and the sonnet. **Note:** ENG 107 and concurrent enrollment in HST 102 recommended.

**ENG 109**  
**WORLD LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students gain knowledge of the literary styles and historical significance of works of European, Asian, and African literature from the 18th to the 20th Century including the genres of novel, drama, and poetry. **Note:** ENG 107, 108 and concurrent enrollment in HST 103 recommended.

**ENG 110**  
**INTRODUCTION TO FILM STUDIES**  
(3.00 Lecture, 1.00 Lab Hrs./Wk.) **3 Credits**  
Students will enhance their visual literacy by viewing, discussing, and analyzing contemporary film with emphasis on cinematic technique and critical approaches to this media. Participants will also discuss the relationship of film to cultural values and the various influences on contemporary film practice. Theme will vary by term.

**ENG 201**  
**SHAKESPEARE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read and respond to Shakespeare's early histories, comedies, and tragedies. They become familiar with the Elizabethan world, Shakespeare's life, and his view of history, tragedy, and comedy.

**ENG 202**  
**SHAKESPEARE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read and respond to representative histories, comedies, and tragedies of Shakespeare's middle period including Shakespeare's social criticism comedies, betrayal and heroic histories, and Greek and Roman tragedies.

**ENG 203**  
**SHAKESPEARE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students conduct a detailed examination of Shakespeare's four major tragedies and one late romantic, philosophic comedy and address Shakespearean criticism.

**ENG 204**  
**SURVEY OF ENGLISH LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read, respond to, and analyze works of English literature from its beginning through the 16th Century. Students make use of historical, cultural, and philosophical perspectives in discussion and written responses.

**ENG 205**  
**SURVEY OF ENGLISH LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read, respond to, and analyze works of 17th and 18th Century English literature. Students make use of historical, cultural, and philosophical perspectives in discussion and written responses.

**ENG 206**  
**SURVEY OF ENGLISH LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read, respond to, and analyze works of 19th and 20th Century English literature. Students make use of historical, cultural, and philosophical perspectives in discussion and written responses.

**ENG 220**  
**NON - EUROPEAN MINORITY LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read, discuss, and analyze the literature of one or more American minority groups. **Note:** May meet state institutions cultural diversity requirement.

**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.

**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.

**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.

**ENG 260**  
**INTRODUCTION TO WOMEN'S LITERATURE**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students read, respond to, and analyze works of all genres written by women of many lands and ages, with an emphasis on contemporary American writers. **Note:** May meet state institutions' cultural diversity requirement.  
**Prerequisite:** WR 40.

## **ES ENVIRONMENTAL SCIENCE**

**ES 150**  
**INTRODUCTION TO ENVIRONMENTAL SCIENCE**  
(2.00 Class Hrs./Wk.) **1 Credit**  
This class provides an orientation for students who are interested in the academic and professional opportunities in environmental science. Students conduct field investigations and present their findings, investigate career options, and develop a portfolio.

**ES 160**  
**TECHNIQUES IN ENVIRONMENTAL INFORMATION ANALYSIS**  
(3.00 Lecture, 3.00 Lab. Hrs./Wk.) **4 Credits**  
Students gain an overview of environmental measurement, instrumentation, and data analysis. They develop mapping, modeling, and group problem solving skills. This class involved field work and uses computers. **Prerequisites:** ES 150 and MTH 243 or instructor permission.

**FIRE SCIENCE; See FRP**  
**FOREIGN LANGUAGES: See FR, SPAN, GER**

## **FR FRENCH**

**FR 101**  
**FIRST YEAR FRENCH**  
(4.00 Lecture Hrs./Wk.) **4 Credits**  
Students develop skill in hearing, speaking, reading, and writing the French language through the immersion method - target language spoken in the classroom. **Note:** Must be taken in sequence or with instructor approval.

**FR 102****FIRST YEAR FRENCH****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to develop skill hearing, speaking, reading, and writing through the immersion method target language spoken in the classroom. **Prerequisite:** FR 101 or instructor approval.

**FR 103****FIRST YEAR FRENCH****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to develop skill hearing, speaking, reading, and writing through the immersion method - target language spoken in the classroom. **Prerequisite:** FR 102 or instructor approval.

<b>FRP</b>	<b>FIRE PROTECTION</b>
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**FRP 150****INTRODUCTION TO FIRE PROTECTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

This class provides the firefighter with knowledge of the basic history and philosophy of fire protection; an awareness of professional literature, career opportunities, and requirements; and the experience of developing a professional resume.

**FRP 151****FIREFIGHTER SKILLS****(3 Lab Hrs./Wk./Credit)****1-9 Credits**

This class provides the beginning firefighter with the knowledge and skills required to work under direct supervision.

**Prerequisite:** Current CPR certificate.

**FRP 154****WATER DISTRIBUTION SYSTEMS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students meet the competencies with regard to water supply operations in the fire service as set forth by the Fire Standards and Accreditation Board in Firefighter II, Apparatus Operator I and II. **Prerequisite:** MTH 70 and FRP 151 or equivalent.

**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.

**FRP 156****FIREFIGHTER LAW****(1.00 Lecture Hr./Wk.)****1 Credit**

Students demonstrate knowledge of the basic Oregon laws relating to fire protection.

**FRP 157****FIREFIGHTER SAFETY****(1.00 Lecture Hr./Wk.)****1 Credit**

Firefighters learn the most common causes of injuries and deaths to firefighters and the responsibilities of the company officer for firefighter safety and survival. The class emphasizes the need for an appropriate attitude regarding firefighter safety.

**FRP 158****PUMP CONSTRUCTION & HYDRAULICS****(22 Lecture, 22 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 equivalent.

**FRP 160****FUNDAMENTALS OF FIRE PREVENTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge of the philosophy and history of fire protection with emphasis on issues, programs, regulations, and responsibilities, especially company inspections.

**FRP 164****HAZARDOUS MATERIALS****(20 Lecture, 20 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.

**FRP 166****BUILDING CONSTRUCTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Firefighters acquire the knowledge and skills required to assess building stability and resistance to fire; locate special hazards stemming from construction type, design features, alterations of materials; and determine likely paths of fire extension.

**FRP 169****FIRE DEPARTMENT LEADERSHIP****(3.00 Lecture Hrs./Wk.)****3 Credits**

This class explains the unique aspects of a company officer's job, basic functions of management, organization, and the leadership and interpersonal skills required of a supervisor.

**FRP 170****FIREFIGHTING STRATEGY AND TACTICS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge of the fire command system, rescue, offensive and defensive fire attack, property conservation, staging and apparatus placement, sectoring, company functions, communications, and command procedures.

**FRP 171****FIRE PROTECTION SYSTEMS AND EXTINGUISHERS****(2.75 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge of types and uses of portable fire extinguishers, their care, inspection and recharging procedures. Students become familiar with various detection, reporting, and extinguishing systems including sprinklers and standpipes.

**FRP 172****FIRE CODES AND ORDINANCES****(2.75 Lecture Hrs./Wk.)****3 Credits**

Firefighters 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.

**FRP 181****FIRE PREVENTION AND INSPECTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn methods of contemporary fire prevention inspection including preparation, pre-approach information, written inspection notices, relations with owners and occupants, and compliances. **Prerequisite:** FRP 151 or equivalent.

**G GEOLOGY****G 201****PHYSICAL GEOLOGY****(6.00 Lecture-Lab Hrs./Wk.)****4 Credits**

First of a two-part sequence; students demonstrate knowledge of formation and physical evolution of the Earth and mountain ranges through time; a general understanding of igneous, sedimentary, and metamorphic rocks and minerals; and an appreciation of earthquakes, volcanology, and the development of plate tectonic theory. **Note:** There will be one or two Saturday field trips per term.

**G 202****PHYSICAL GEOLOGY****(6.00 Lecture-Lab Hrs./Wk.)****4 Credits**

Second of a two-part sequence; students demonstrate knowledge of various processes by which mountain ranges are worn down and carried to the sea; the types of landforms and deposits associated with these processes; and a general understanding of natural resources in the Earth's crust. **Note:** There will be one or two Saturday field trips per term. **Prerequisite:** G 201.

**G 203****HISTORICAL GEOLOGY****(6.00 Lecture Hrs./Wk.)****4 Credits**

Students apply principles of physical geology to understand how tectonism and chemical/physical process in Earth, oceans, and atmosphere over enormous spans of time have influenced the evolution of life, caused localized and mass extinctions, and ultimately resulted in the planet as we know it. **Note:** Field trips will include a Saturday field trip to Mt. St. Helens and the G 145 field trip to central Oregon on Memorial Day weekend. **Prerequisite:** G 202 or instructor approval.

**GEO GEOGRAPHY****GEO 100****INTRODUCTION TO PHYSICAL GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain an introductory knowledge of the physical elements of geography and the environment in which people live, with emphasis on themes pertaining to economic development. Student learning focuses on natural processes that create physical diversity on the natural landscape, including weather and climate, vegetation and soils and landform development and change. Offered alternate years(1999-2000).

**GEO 110****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 in the past, present, and future.

**Note:** Need not be taken in sequence. Offered alternate years (2000-2001).

**GEO 120****WORLD / REGIONAL GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

This class provides a survey of the realms and regions of the modern world. Students gain knowledge of world environments and how people have adjusted to, organized, used, and modified them.

**GEO 130****ECONOMIC / RESOURCE GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop knowledge of structures, patterns, and locational principles of economic activities; examine regional economic development, agricultural land use, industrial location, and distribution of service activity; and compare real-world examples with theory. Offered alternate years (2000-2001).

**GER GERMAN****GER 101****FIRST YEAR GERMAN****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students develop skill in hearing, speaking, reading, and writing contemporary German through the immersion method - target language spoken in the classroom.

**GER 102****FIRST YEAR GERMAN****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to develop skill in hearing, speaking, reading, and writing contemporary German through the immersion method - target language spoken in the classroom. **Prerequisite:** GER 101.

**GER 103****FIRST YEAR GERMAN****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to develop skill in hearing, speaking, reading, and writing contemporary German through the immersion method - target language spoken in the classroom. **Prerequisite:** GER 102.

**GER 111****CONVERSATIONAL GERMAN****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop skill in basic German conversation using basic vocabulary, grammatical structures, present tense, and cultural concepts. **Note:** This sequence focuses on oral communication-speaking and hearing, with less emphasis on reading and writing.

**GER 112**  
**CONVERSATIONAL GERMAN**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students improve their skill in German conversation including the use of past tense, more complex grammatical structures, and vocabulary related to traveling, jobs and shopping. **Prerequisite:** GER 111 or instructor approval.

**GER 113**  
**CONVERSATIONAL GERMAN**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students become more proficient in German conversation through using past and future tense and learning vocabulary related to sports, health sciences and everyday situations. **Prerequisite:** GER 112 or instructor approval.

## **GS** GENERAL SCIENCE

**GS 104**  
**PHYSICAL SCIENCE**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
This class is designed for non-science majors who want a basic understanding of the physics of everyday phenomena including curve balls, rainbows, electric motors, and fluorescent light bulbs. **Note:** Does not meet requirements for science majors. Need not be taken in sequence. **Prerequisite:** MTH 70.

**GS 105**  
**PHYSICAL SCIENCE**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
This class is designed for non-science majors who want a basic understanding of the fundamentals of chemistry including the chemistry of current issues such as solid waste disposal, use of fossil fuels, and acid rain. **Note:** Does not meet requirements for science majors. Need not be taken in sequence. **Prerequisite:** MTH 70; strongly recommend GS 104.

**GS 106**  
**PHYSICAL SCIENCE**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
This class is designed for non-science majors who want a basic understanding of the natural processes of the earth including earthquakes, mountain building, volcanoes, and tsunamis. **Note:** Does not meet requirements for science majors. Need not be taken in sequence. **Prerequisite:** MTH 60.

## **HD** HUMAN DEVELOPMENT

**HD 50**  
**COLLEGE SKILLS**  
(1.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.) **2 Credits**  
Students become familiar with college offices, services, and programs; improve their 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. **Note:** Concurrent enrollment in at least DCO 22 and DRD 30 recommended.

**HD 100**  
**COLLEGE SURVIVAL & SUCCESS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
This class helps students develop attitudes, skills, and strategies known to promote college success including goal setting, time management, note taking, study techniques, test taking, and use of college resources. **Note:** Recommended reading and writing levels equivalent to at least DRD 40 and WR 40.

**HD 110**  
**CAREER PLANNING**  
(2.00 Lecture Hrs./Wk.) **2 Credits**  
This class prepares students to make informed career choices through clarifying their personality, values, and general abilities; exploring present and future career opportunities; setting career and educational goals; and developing a career action plan.

**HD 202**  
**LIFE TRANSITIONS**  
(2.00 Lecture, 4.00 Lab Hrs./Wk.) **3 Credits**  
Focuses on self-exploration and development of life-planning skills through a process of analyzing predictable life transitions. Emphasizes developing and integrating skills in goal setting, decision making, and plan implementation. **Prerequisite:** Instructor approval and attendance of orientation prior to class.

**HD 209**  
**THE COMPLETE JOB FINDER**  
(2.00 Lecture Hrs./Wk.) **2 Credits**  
Students will develop strategies for job search inquiry, position exploration, application completion, and job offer evaluation as well as enhance their skills in writing resumes, cover letters, and applications. Includes participation in video role-playing of interviewing techniques.

**HD 215**  
**TRANSITION TO THE UNIVERSITY**  
(2.00 Lecture Hrs./Wk.) **2 Credits**  
Students will be able to make a successful academic and personal transition from the community college to the university by developing a Transfer Action Plan. In addition, they will acquire academic and personal survival skills necessary for success at the university level.

## **HE** HEALTH

**HE 112**  
**STANDARD FIRST AID AND EMERGENCY CARE**  
(1.00 Lecture Hr./Wk.) **1 Credit**  
Students develop the basic knowledge and skills to help adult victims of physical emergencies including calling emergency medical services(EMS) for assistance, keeping victims and assisting parties safe, and caring for a victim until EMS arrives.

**HE 207****STRESS MANAGEMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

This class provides a clear understanding of the meaning of stress in everyday life. Students learn how they react and adjust to stressors. Includes learning and practicing relaxation techniques.

**HFS****HEALTH & FAMILY STUDIES****HFS 226****GROWING YEARS - CHILD DEVELOPMENT, BIRTH THROUGH AGE EIGHT -TELECOURSE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of normal growth and development and an appreciation for the physical changes, abilities, needs, and interests of children from the prenatal period through age eight. **Note:** Students may apply either PSY235 or 226 (but not both) toward an Early Childhood Education certificate or an associate degree.

**HPE****HEALTH & PHYSICAL EDUCATION****HPE 295****HEALTH AND FITNESS FOR LIFE****(2.00 Lecture, 2.00 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.

**HS****HUMAN SERVICES****HS 101****ALCOHOL, USE, MISUSE AND ADDICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and perspectives concerning alcohol use based on a bio-psycho-social approach to alcohol problems.

**HS 102****DRUG USE, MISUSE, AND ADDICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge about mind/mood-altering (psychoactive) drugs; the social and psychological context of their use; their effects on body, brain, behavior, and quality of life; considerations in prevention and treatment of drug problems. Pharmacology of drugs is stressed.

**HS 154****COMMUNITY RESOURCES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students acquire and demonstrate knowledge of history, purpose, philosophy, and values of community resources developed for people with specific disadvantages or disabilities. Students become acquainted with local social service agencies and organizations, and how to refer clients to them.

**HS 155****INTERVIEWING FOR SOCIAL SERVICES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students acquire and demonstrate knowledge of the theoretical background and specific basic interviewing and counseling techniques and ethics for establishing an effective professional helping relationship. Students interview peers for peer and professional observation and feedback. **Note:** HS 154 strongly recommended.

**HS 201****FAMILY ALCOHOLISM / ADDICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will demonstrate knowledge of the effects of chemical dependency on the whole family: addictive behavior in the family system, dynamics, roles, therapeutic interventions, and considerations for recovery. **Note:** HS 101 or HS 102 strongly recommended.

**HS 205****YOUTH ADDICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop theoretical framework and skills to work with chemically-dependent youth. Students learn current theories about causes of drug use among youth, and professional strategies for drug-use prevention, intervention, assessment, treatment and recovery. **Note:** Prior or concurrent enrollment in HS 101 or HS 102 strongly recommended.

**HST****HISTORY****HST 101****HISTORY OF WESTERN CIVILIZATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Against the background of Eurasia, students gain knowledge of the origins and development of Western civilization from ancient times to AD500.

**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 AD500 to AD1700 against the background of Eurasia and the world. **Note:** Need not be taken in sequence.

**HST 103****HISTORY OF WESTERN CIVILIZATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students survey the cultural, social, economic and political the development of Western civilization from AD1650 to the present against a global background. **Note:** Need not be taken in sequence.

**HST 201****HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students increase their understanding of the political, economic, social, intellectual, and cultural history of the United States from the arrival of Native Americans until the 1830's.

**HST 202****HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain knowledge of the political, economic, intellectual, and foreign relation patterns of the United States between the 1840's and 1918 with emphasis on the impact of the Civil War on culture, expansion, and technology.

**HST 203****HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the political, economic, intellectual, cultural, and foreign relation patterns of the United States from World War I to the present; recent global involvement; and the technological revolution from automobiles through computers.

**IMT****INDUSTRIAL & MANUFACTURING TECHNOLOGIES****IT 101****ENGINE REBUILDING - GASOLINE****(1.00 Lecture, 6.00 Lab Hrs./Wk.)****4 Credits**

Each student evaluates, removes, rebuilds and restores an engine.(They may bring their own.) Work includes valve train reconditioning, engine crank bearings and oil pump removal/replacement, and cylinder and piston reconditioning.

**Prerequisite:** IT 108.**IT 102****ENGINE REBUILDING - DIESEL****(1.00 Lecture, 6.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate an understanding of diesel engine construction and the principles of operation, servicing, and adjustment. Students participate in evaluating, disassembling, assembling, and reconditioning and/or replacing engine components. **Prerequisite:** IT 108.

**IT 105****PRINCIPLES OF TECHNOLOGY I****(2.00 Lecture, 4.00 Lab Hrs./Wk.)****4 Credits**

In this sequence, students analyze and apply technical concepts of physics to equipment and devices in mechanical, fluid, and electrical systems, and transformers. This term, students demonstrate an understanding of and apply the concepts of force, work, rate, resistance, and energy. **Prerequisite:** MTH 65 or higher.

**IT 106****PRINCIPLES OF TECHNOLOGY II****(2.00 Lecture, 4.00 Lab Hrs./Wk.)****4 Credits**

Students develop an understanding of and apply the technical concepts of power, force transformers, momentum, waves and vibrations, and energy converters. **Prerequisite:** IT 105.

**IT 107****PRINCIPLES OF TECHNOLOGY III****(1.00 Lecture, 4.00 Lab Hrs./Wk.)****3 Credits**

Students gain an understanding of and apply the technical concepts of transducers, radiation, optical systems, and time constants. **Prerequisite:** IT 106.

**IT 108****ENGINE PRINCIPLES****(3.00 Lecture, 2.00 Lab Hrs./Wk.)****4 Credits**

In this class students gain knowledge of the theory and operational principles of the internal combustion engine. Students follow a diagnostic procedure to disassemble, evaluate condition, reassemble, and operate a four stroke gasoline engine.

**IT 110****APPLIED TECHNOLOGY PROJECTS****(1.00 Lecture, 3.00 Lab Hrs./Wk.)****2 Credits**

Students complete individual projects which apply and advance the laboratory skills and theories they have learned in other professional technical classes. **Note:** May be repeated one time toward the Integrated Technologies degree. **Prerequisite:** Instructor approval.

**IT 121****PRINCIPLES OF FLUID POWER****(2.00 Lecture, 3.00 Lab Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the basic components of hydraulic and pneumatic systems and their combination into circuits. They also learn to maintain and size equipment.

**Prerequisite:** MTH 65.**IT 140****INDUSTRIAL SAFETY****(20 Lecture/Lab Hrs. Total)****1 Credit**

Students use a competency-based program to provide the prerequisite amount of knowledge and skills necessary to develop and maintain safe work habits while engaged in various industrial job settings. Course curriculum follows OSHA guidelines and suggested safety practices. 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 work areas.

**IT 141****TOOL AND SHOP BASICS****(20 Lecture/Lab Hr. 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.

**IT 206**  
**VEHICLE ELECTRICITY I**  
(3.00 Lecture, 3 Lab Hrs./Wk.) **4 Credits**  
Basic theory of D.C. electricity; electrical measurement and meter use; and application to chassis wiring. Lab assignments to reinforce theory through applications on simulations or live projects. **Prerequisite:** IT 105.

**IT 207**  
**VEHICLE ELECTRICITY II**  
(3.00 Lecture, 6 Lab Hrs./Wk.) **5 Credits**  
Theory and applications for servicing batteries, starting systems, charging systems and maintenance of automotive electrical circuits and components. Practical applications made on bench components and live projects. **Prerequisite:** IT 206.

**IT 208**  
**MECHANICAL DRIVES AND TRANSMISSION OF POWER**  
(3.00 Lecture, 3.00 Lab Hrs./Wk.) **4 Credits**  
Students demonstrate and apply an understanding of the basic theory required to service and repair mechanical devices that transmit power to perform work including a variety of clutches, gearboxes, fixed shafts, and universal joints. **Prerequisite:** MTH 65.

**IT 209**  
**FLUID DRIVES AND HYDRAULIC TRANSMISSIONS**  
(2.00 Lecture, 4.00 Lab Hrs./Wk.) **4 Credits**  
Students demonstrate and apply knowledge of the principles of fluid power as used to propel equipment and machinery in industrial applications including fluid coupler, torque converters, automatic shift and hydrostatic transmissions. **Prerequisite:** IT 121.

**IT 210**  
**VEHICLE TUNE UP AND INSTRUMENTATION**  
(2.00 Lecture, 6.00 Lab Hrs./Wk.) **4 Credits**  
Theory of ignition systems; methods of testing engine performance using the electronic scope and other diagnostic instruments. Laboratory sessions provide hands-on experience with live projects. **Prerequisite:** IT 108, IT 206, IT 207.

**IT 218**  
**VEHICLE STEERING AND SUSPENSION SYSTEMS**  
(2.00 Lecture, 6 Lab Hrs./Wk.) **4 Credits**  
Theory and applications for service and repair of suspension systems; wheel alignment; wheel bearings; tires and wheels; wheel balance; and steering systems. Applications made on live projects.

**IT 219**  
**VEHICLE BRAKE SYSTEMS**  
(2.00 Lecture, 6.00 Lab Hrs./Wk.) **4 Credits**  
Theory of vehicle brake systems; repair of drum and disc type brakes; disassembly and reassemble of brake components; and assignments on live projects. **Prerequisite:** IT 121 or instructor approval.

**IT 225**  
**HVAC**  
(2.00 Lecture, 2.00 Lab Hrs./Wk.) **3 Credits**  
This class enables students to accurately identify the similarities and differences among standard heating and cooling systems and new technology, for example heat pumps, high efficiency furnaces, and reclaiming refrigerants. **Prerequisite:** IT 121 and MTH 65(or higher) or tested equivalent.

**IT 226**  
**INDUSTRIAL REFRIGERATION**  
(2.00 Lecture, 4.00 Lab Hrs./Wk.) **4 Credits**  
Students learn to service commercial and industrial refrigeration systems and control circuits. Students learn absorption and centrifugal chiller theory and acquire electrical, mechanical, and tubing skills. **Prerequisite:** IT 225 or equivalent competencies.

**IT 281**  
**DIRECTED FIELD EXPERIENCE SEMINAR - INTEGRATED TECHNOLOGIES**  
(1.00 Lecture Hr./Wk.) **1 Credit**  
Students develop appropriate and effective work practices through discussing and analyzing their on-site experiences with the instructor. A maximum of two credits may be applied toward an Integrated Technologies degree. **Prerequisites:** Instructor approval and concurrent enrollment in IT 280 Cooperative Work Experience: Integrated Technologies.

## **MAS** MARINE SCIENCE

**MAS 100**  
**MARITIME OCCUPATIONS**  
(40 Lecture/Lab Hrs. Total) **2 Credits**  
This course is designed for individuals who are interested in maritime occupations such as towing, commercial fishing, passenger vessels, or research. Students demonstrate and apply skills in safe seamanship onboard the Training Vessel "Forerunner" while learning about the Columbia River Estuary and its user groups. Student will apply to the US Coast Guard for an Ordinary Seaman Merchant Mariner's Document.

**MAS 110**  
**LIMITED OPERATOR UNINSPECTED PASSENGER VESSEL CERTIFICATION**  
(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) **3 Credits**  
In this U.S. Coast Guard approved course, students demonstrate knowledge of rules of the nautical road; basic firefighting; marine safety; piloting and dead reckoning; marine electronics; basic seamanship; and tides, currents, and weather. A completion certificate from this course will stand in lieu of the required exam for an original Limited Scope License issued from the Portland Marine Safety Office. Completers will be credited for 20-eight-hour days of sea time toward a license. **Note:** Most instruction takes place onboard the college's training vessel.

**MAS 111  
LIMITED OPERATOR UNINSPECTED PASSENGER  
VESSEL ENDORSEMENT**

(24 Lecture-Lab Hrs.) **1 Credit**

Students demonstrate knowledge of the Nautical Rules of the Road and U.S. Aids to Navigation System(lateral) and acquire the skills and knowledge required to navigate safely and properly interact with vessel traffic found on the navigable inland waters.

**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.

**MAS 130  
RADAR OBSERVER: ORIGINAL ENDORSEMENT,  
UNLIMITED**

(12 Lecture, 28 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students develop proficiency in radar operations gained through lecture, demonstration, transfer plotting, and direct plotting using radar simulators. This course is U.S. Coast Guard approved as Radar Observer "unlimited".

**MAS 131  
RADAR OBSERVER: RECERTIFICATION**

(24 Lecture/ Lab Hrs.; 24 Hrs. Total) **1 Credit**  
Students increase their proficiency in direct plotting problems, and review plotting techniques, and operation of radar. **Note:** For individuals who would like to refresh their skills before taking the radar endorsement final exam.

**MAS 132  
RADAR OBSERVER: RIVERS**

(24 Lecture-Lab Hrs. Total) **1 Credit**  
Students demonstrate mastery of the knowledge and skills required to safely navigate a vessel, with the aid of radar, upon rivers covered by the Inland Navigation Rules of the Road.

**MAS 140  
INTRODUCTION TO SEAMANSHIP & MARITIME  
CAREERS**

(10 Lecture , 30 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students demonstrate the knowledge and seamanship skills necessary for identifying different commercial vessels and, handling lines while docking and proper ship-board courtesies. Students spend considerable time onboard the training vessel.

**MAS 141  
INTRODUCTION TO TRAWLING AND TRAWL SAFETY**

(10 Lecture, 30 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students demonstrate knowledge of terminology; back-deck practices; setting and hauling; shipboard repairs of trawl gear; types of shrimp vessels and gear; and handling the product. Students participate in laboratory exercises onboard the training vessel.

**MAS 142  
INTRODUCTION TO FISHING GEAR TYPES AND  
SAFETY**

(10 Lecture, 30 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students demonstrate knowledge of the terminology; safe back-deck practices; product handling; and shipboard repairs of different types of fishing gear other than trawl gear. Students participate in laboratory exercises onboard the training vessel.

**MAS 143  
NET MENDING**

(10 Lecture, 30 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students demonstrate mastery of the skills used to repair damaged nets. Although the class focuses on the repair of trawl nets, students can apply the skills they learn to repair gillnets, or any item constructed of web.

**MAS 145  
HANDLING, REPAIR, AND STORAGE OF FISHING  
GEAR**

(10 Lecture, 30 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students demonstrate the knowledge and skills needed for the proper handling, repair and maintenance of pots, longline, and trawl gear. This includes preparing the gear for a season and stowage of the gear after the season.

**MAS 146  
VESSEL OPERATIONS**

(10 Lecture, 30 Lecture/Lab Hrs.; 40 Hrs. Total) **2 Credits**  
Students gain practical experience during vessel operations involving the operation of different types of fishing gear; preparing for the trip; securing the vessel after the trip; and operations while underway. Many activities are conducted at sea.

**MAS 150  
MARINE SAFETY**

(10 Lecture, 30 Lecture/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.

**MAS 153  
SEAMANSHIP**

(40 Lecture/Lab Hrs. Total) **2 Credits**  
Students demonstrate mastery of seamanship skills used on different commercial vessels, including tug boats.

**MAS 155  
INTRODUCTION TO WATCHKEEPING**

(10 Lecture, 30 Lecture/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.

**MAS 160****KNOTS, SPLICES, LINES, AND RIGGING****(10 Lecture, 30 Lecture/Lab Hrs.; 40 Hrs. Total) 2 Credits**

Students become proficient with basic knots and splices for synthetic line used on commercial vessels. Students participate in demonstrations of knots and splicing used in a variety of types of line and observe splices in wire rope.

**MAS 164****INTRODUCTION TO NAVIGATION****(20 Lecture, 20 Lecture/Lab Hrs.; 40 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.

**MAS 165****PRACTICAL NAVIGATION****(20 Lecture, 20 Lecture/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.

**MAS 166****ADVANCED NAVIGATION****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) 3 Credits**

Students apply piloting and dead reckoning skills to more advanced navigation techniques including navigation problems encountered in sailing across large open ocean bodies.

**Prerequisite:** MAS 64.**MAS 167****CELESTIAL NAVIGATION****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) 3 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. This course is approved in lieu of testing for U.S. Coast Guard licenses of not more than 1600 GT.

**MAS 168****CHARTS, AIDS TO NAVIGATION, AND MARINE COMPASSES****(20 Lecture, 20 Lecture/Lab Hrs.; 40 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 gyro compasses.

**MAS 170****MARINE WEATHER, TIDES, CURRENTS AND WAVES****(20 Lecture, 20 Lecture/Lab Hrs.; 40 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.

**MAS 175****RULES OF THE ROAD****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) 3 Credits**

Students gain an in-depth knowledge of the Rules of the Road, the USCG Collision Rules, inland rules and rules applicable in western rivers.

**MAS 180****MARINE ELECTRONICS****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) 2 Credits**

Students demonstrate and apply knowledge and skill in the use and operation of marine electronic equipment including radios, sounders, radar, Global Positioning System(GPS), and electronic charting software while on board the training vessel.

**MAS185****GMDSS TRAINING****(20 Lecture, 20 Lecture-Lab Hrs.; 40 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 STCW and IMO guidelines. Students will be prepared to take an FCC exam on Elements 1 and 7.

**MFG****MANUFACTURING TECHNOLOGY****MFG 150****HAZARDOUS MATERIALS AND INDUSTRIAL SAFETY (3.00 Lecture Hrs./Wk.) 3 Credits**

This class equips both employees and employers to deal with workplace safety and health issues including hazardous materials(DEQ and material safety data sheets), Occupational Health and Safety Administration(OSHA), and State Accident Insurance Fund(SAIF).

**MFG 180****MACHINE TOOLS I****(2.00 Lecture-Lab Hrs./Wk./Cr.) 1-6 Credits**

Students demonstrate and apply an understanding of safe use, care, and basic maintenance of machine tools including measuring instruments, metal-cutting lathes, pedestal tool grinders, and hand tools. Students interpret mechanical drawings to fabricate parts. **Prerequisite:** MTH 60 or instructor approval.

**MFG 181****MACHINE TOOLS II****(2.00 Lecture-Lab Hrs./Wk./Cr.) 1-6 Credits**

Students demonstrate and apply safe use, care, and basic maintenance in advanced lathe operations with new measuring instruments. They turn grooves and machine external and internal ACME threads on the lathe. **Prerequisite:** MFG 180 or instructor approval.

**MFG 250****MANUFACTURING PROCESSES I****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-8 Credits**

Students learn and apply principles and practices of production work including the use of jigs and fixtures for multiple work pieces and computerized numerical control(CNC) programming. Each student will complete a manufacturing project.

**Prerequisites:** DRF 214 or instructor approval.

**MFG 251****MANUFACTURING PROCESSES II****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-8 Credits**

Students expand their knowledge and skills of CNC through practice and application of programming for milling machines and lathes. **Prerequisite:** MFG 250 or instructor approval.

**MFG 282****MACHINE TOOLS III****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-6 Credits**

Students demonstrate knowledge of technical information and practice safe operation, care and maintenance of drill presses and vertical milling machines. Students utilize various measuring devices and interpret mechanical drawings of parts layout. **Prerequisite:** MFG 181 or instructor approval.

**MIC****MICROCOMPUTER APPLICATIONS****MIC 145****INTRODUCTION TO INTEGRATED SOFTWARE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to use an integrated software package which includes word processing, database, spreadsheet, graphics, and communications operations. They use their skill to complete projects in their major or area of interest. **Prerequisite:** Keyboard touch skill.

**MIC 171****INTERMEDIATE SPREADSHEETS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students use advanced features and functions of an electronic spreadsheet program which will include: the creation of database tables, analysis of data, and development of complex graphs and advanced macros. **Prerequisite:** CSL 107.

**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.

**MIC 207****PRESENTATION SOFTWARE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students use software packages and creative design principles to create professional quality presentations which may include on-screen, multi-media, slide show, and hard copy applications.

**Prerequisites:** CS 131 or MIC 145.

**MIC 210****(2.00 Lecture & 4.00 Lecture-Lab Hrs./Wk.)****4 Credits****MICROCOMPUTER INTEGRATED APPLICATIONS**

Students use an integrated software applications package(data base, spreadsheet, word processing, graphics, and communications) to develop solutions to problems or case studies from social, business, or other applications. **Prerequisites:** CSD 122, CSL 107, OA 201..

**MIC 250****COMPUTER GRAPHICS****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students get overview information and hands-on experience in creating, editing, and using computer graphics and in the types and uses of fonts. Students use the acquired skills and knowledge to create stand-alone graphics and graphic elements to enhance their computer programs, database applications, WWW pages, and word processing documents created in other classes.

**Prerequisite:** CS 101 or instructor approval.

**MIC 295****MICROCOMPUTER DIRECTED PROJECT****(2.00 Lecture, 6.00 Lab Hrs./Wk.)****4 Credits**

This is the capstone course for the Microcomputer Business Applications and Microcomputer Programming and Networking programs. 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 prepare a comprehensive report and make a professional presentation. **Prerequisite:** completion of all but the last quarter of coursework for the AAS Degree

**MTH****MATHEMATICS****MTH 10****DEVELOPMENTAL MATHEMATICS I****(2.00 Lecture, 2.00 Lab Hrs./Wk.)****3 Credits**

Students develop skills in functional math concepts including estimating, rounding, whole number review, fractions, decimals and metrics. Instruction emphasizes vocabulary and critical thinking skills. **Prerequisite:** DMTH 07 or ASSET score 26-33 or instructor approval.

**MTH 20****BASIC MATHEMATICS I****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course is for students who need a review of basic arithmetic. Students solve a variety of application involving fractions, decimals, percents, ratios and proportions, measurements, graphs, and formulas.

**MTH 60****BASIC MATHEMATICS II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students master the fundamentals of applied algebra with some geometry. They compute simple algebraic expressions, first degree equations, products of binomials, trinomial factorization and do some numerical evaluations. **Prerequisite:** MTH 20 or appropriate score on the ASSET or COMPASS mathematics placement tests.

**MTH 65****MATHEMATICS FOR THE APPLIED SCIENCES****(4.00 Lecture Hrs./Wk.)****4 Credits**

This course satisfies the general education mathematics requirement for most of the Professional and Technical degrees. Students solve problems from a variety of occupations using fractions, decimals, percents, proportions, right angle trigonometry, graphs, and statistics. **Prerequisite:** MTH 60 or equivalent.

**MTH 70****ALGEBRA - BEGINNING****(5.00 Lecture Hrs./Wk.)****5 Credits**

This class is for students who have never taken or need a review of high school algebra and geometry. Students employ communication, and problem solving skills that involve mathematic reasoning. Emphasis is placed on modeling from a graphical format, reading tables and generating equations that represent the real data. Topics will include real numbers, factoring, first and second degree equations, exponents, radicals and the quadratic formula. **Prerequisite:** MTH 60 or ASSET placement at MTH 70 level or instructor approval.

**MTH 95****ALGEBRA - INTERMEDIATE****(5.00 Lecture Hrs./Wk.)****5 Credits**

This course is for students who have had only one year of high school algebra and who need a review in preparation for college algebra. Students demonstrate an understanding of algebraic concepts such as polynomials, exponents, first and second degree equations, inequalities, functions and graphs, systems of equations, and logarithms. Emphasis is on problem-solving. A graphing calculator is required. **Prerequisite:** MTH 70 or equivalent and high school geometry or instructor approval.

**MTH 105****INTRODUCTION TO CONTEMPORARY MATHEMATICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

This course is a survey of applications for non-science majors. Students work with patterns, reasoning, probability, statistics, mathematical modeling, linear programming, and logic to solve problems. **Prerequisite:** MTH 95 or equivalent.

**MTH 111****COLLEGE ALGEBRA****(4.00 Lecture Hrs./Wk.)****4 Credits**

This course is for students who have had two years of algebra and one year of geometry in high school. Students model various real life situations using polynomials, exponents, exponential and logarithmic functions, systems of equations, and matrices. Students gain a thorough understanding of relations and functions. Students use the TI-85 graphing calculator extensively and a graphing calculator is required for this course.

**Prerequisite:** MTH 95 or instructor approval.**MTH 112****ELEMENTARY FUNCTIONS - TRIGONOMETRY****(4.00 Lecture Hrs./Wk.)****4 Credits**

This class is for students planning to take MTH 251 Calculus I and who have little or no background in trigonometry. Students demonstrate an understanding and are able to apply the following concepts to various situations: circular functions, trigonometric functions, inverse functions, vectors, graphs, complex numbers, and DeMoivre's theorem. A graphic calculator is required.

**Prerequisite:** MTH 111 or instructor approval.**MTH 211****FUNDAMENTALS OF ELEMENTARY MATHEMATICS I****(3.00 Lecture, 1.00 Lab Hrs./Wk.)****3 Credits**

This course is for prospective elementary teachers and does not satisfy the general education mathematics requirement for the AA degree. Students gain knowledge of concepts and teaching techniques used in elementary school mathematics including problem solving strategies; sets; numeration; whole number operations; number theory; and mental, electronic, and written computation. **Prerequisite:** MTH 95 or instructor approval.

**MTH 212****FUNDAMENTALS OF ELEMENTARY MATHEMATICS II****(3.00 Lecture, 1.00 Lab Hrs./Wk.)****3 Credits**

This course is for prospective elementary teachers and does not satisfy the general education mathematics requirement for the AA degree. Students learn concepts and teaching techniques used in elementary school mathematics including fractions and rational number operations; decimals, ratio and proportion; percent; introduction to algebra; and descriptive statistics. **Prerequisite:** MTH 95 or instructor approval.

**MTH 213****FUNDAMENTALS OF ELEMENTARY MATHEMATICS III****(3.00 Lecture, 1.00 Lab Hrs./Wk.)****3 Credits**

This course is for prospective elementary teachers and does not satisfy the general education mathematics requirement for the AA degree. Students demonstrate knowledge of concepts and teaching techniques used in elementary school mathematics including the metric system, informal geometry of measurement, graphing, and basic probability theory. **Prerequisite:** MTH 95 or instructor approval.

**MTH 241**  
**CALCULUS FOR MANAGEMENT AND THE SOCIAL SCIENCES**

(4.00 Lecture Hrs./Wk.) **4 Credits**

This class is for students in non-science programs which require only one term of calculus. Students apply techniques of differential and integral calculus to business and economics problems. **Prerequisite:** MTH 111 or instructor approval.

**MTH 243**  
**INTRODUCTION TO PROBABILITY AND STATISTICS**

(4.00 Lecture Hrs./Wk.) **4 Credits**

This course is for students majoring in the arts, sciences and business programs. Students demonstrate knowledge of the role of statistics in making inferences based on observed data utilizing graphing calculators. **Prerequisite:** MTH 111 or instructor approval.

**MTH 244**  
**INTRODUCTION TO PROBABILITY AND STATISTICS**

(4.00 Lecture Hrs./Wk.) **4 Credits**

This course is for students majoring in the arts, sciences and business programs that require two terms of statistics. Students demonstrate knowledge of hypothesis testing, chi-square tests, regression and correlation, analysis of variance, and nonparametric statistics. They will complete a study project. **Prerequisite:** MTH 243.

**MTH 251**  
**CALCULUS I**

(5.00 Lecture Hrs./Wk.) **5 Credits**

Students will learn differentiation with emphasis on concept applications to the real world. Giving equal time to graphical, numerical, and analytic approaches. Students will read, understand and discuss applied differential calculus concepts. Students will utilize graphing programmable calculator and computer technology. Students will interact with science disciplines in laboratory settings and obtain real data for analysis using calculus principles. **Prerequisites:** MTH 111 and MTH 112 or equivalents.

**MTH 252**  
**CALCULUS II**

(4.00 Lecture Hrs./Wk.) **4 Credits**

Second course in the standard calculus sequence. Students demonstrate an understanding of Riemann sums, the fundamental theorem of calculus, the definite integral, and differential equations. Students utilize graphing programmable calculator and computer technology to enhance the learning experience. **Prerequisite:** MTH 251.

**MTH 253**  
**CALCULUS III**

(4.00 Lecture Hrs./Wk.) **4 Credits**

Third course in the standard calculus sequence. Students demonstrate an understanding of polar coordinates, improper integrals, Taylor series, infinite series, and some basic concepts of vectors and linear algebra. Students utilize graphing programmable calculator and computer technology to enhance the learning experience. **Prerequisite:** MTH 252.

**MTH 254**  
**VECTOR CALCULUS I**

(4.00 Lecture Hrs./Wk.) **4 Credits**

Fourth course in the standard calculus sequence. Students demonstrate an understanding of vectors in space, partial differentiation, multiple integrals, and vector analysis. Students utilize graphing programmable calculator and computer technology to enhance the learning experience. **Prerequisite:** MTH 253.

**MTH 255**  
**VECTOR CALCULUS II**

(4.00 Lecture Hrs./Wk.) **4 Credits**

Fifth course in the standard calculus sequence. Students demonstrate an understanding of integration of functions of many variables; descriptions in parametric, polar, cylindrical, spherical, and vector forms; motion in space; introduction to vector fields; line and surface integrals. **Prerequisite:** C grade or higher in MTH 254.

**MTH 256**  
**DIFFERENTIAL EQUATIONS**

(4.00 Lecture Hrs./Wk.) **4 Credits**

Students will demonstrate an understanding of ordinary differential equations, including first order linear differential equations, second order differential equations, series solutions, and systems of equations. **Prerequisite:** MTH 253 or instructor approval.

**MUP** **MUSIC PERFORMANCE**

**MUP 180**  
**INDIVIDUAL LESSONS - GUITAR**

(.50 Lecture, 6.00 Lab Hrs./Wk.) **2 Credits**

Students take individual instruction in guitar and may perform in recitals. **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.

**MUP 275**  
**INDIVIDUAL LESSONS - VIOLIN**

(.50 Lecture, 6.00 Lab Hrs./Wk.) **2 Credits**

Students take individual instruction in advanced violin and may perform in recitals. **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.

## 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.

## NUR 60

**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:** Concurrent registration in nursing courses or instructor permission.

## NUR 101

**NURSING: FOUNDATIONS OF CARE**

(4.00 Lecture, 12.00 Lab Hrs./Wk.)

**8 Credits**

This class prepares students to provide professional nursing care at the novice level for clients in the hospital or extended care setting. Students learn and apply selected functional health patterns in providing individualized nursing care. Students develop an understanding of and use core concepts, including caring, holistic health, critical thinking, the nursing process, and professional behaviors. **Prerequisite:** admission to Nursing program, current CNA certification or satisfactory completion of a CNA course within the past year, current AHA healthcare provider CPR document, hepatitis B and measles immunizations, TB test within past 3 months.

## NUR 102

**NURSING: FOCUS ON INDIVIDUALS**

(4.00 Lecture, 12.00 Lab Hrs./Wk.)

**8 Credits**

This course continues to build on concepts and skills learned in NUR 101. Students learn and practice health restoration interventions for individual clients with surgical and/or other health problems. Students learn and apply selected functional health patterns in planning and providing care. Students practice more complex psychomotor skills and develop client teaching strategies. **Prerequisite:** NUR 101 with C grade or higher.

## NUR 103

**NURSING: FOCUS ON FAMILIES**

(4.00 Lecture, 12.00 Lab Hrs./Wk.)

**8 Credits**

This course continues to build on concepts and skills learned in NUR 102. Students use the concepts of wellness promotion, health maintenance and health restoration and functional health patterns in planning and providing care for clients as individuals and members of families. **Prerequisite:** NUR 102, 112 with C grade or higher.

## NUR 109

**NURSING: FOCUS ON MENTAL HEALTH**

(2.00 Lecture, 5.33 Lab Hrs./Wk.)

**4 Credits**

This class prepares students to provide nursing care for clients with mental health or psychiatric disorders in an inpatient setting. Students incorporate selected functional health patterns in providing care. Students use the concepts of caring, holistic health, critical thinking, and professional behaviors in the mental health setting. **Prerequisite:** NUR 103, 113 with C grade or higher.

## NUR 112

**COLLABORATIVE PRACTICE 1: PHARMACOLOGY**

(2.00 Lecture Hrs./Wk.)

**2 Credits**

Students acquire and demonstrate knowledge of basic principles of pharmacology applied to the nursing role in administering medications. Learners identify nursing roles and responsibilities in caring for clients receiving pain medications used to treat common conditions. **Prerequisite:** NUR 101 with a C grade or higher, concurrent registration in NUR 102, or instructor permission.

## NUR 113

**COLLABORATIVE PRACTICE 2: PATHOPHYSIOLOGY & PHARMACOLOGY**

(1.00 Lecture Hr./Wk.)

**1 Credit**

Students acquire knowledge of pathophysiology and pharmacology that they can apply to the nursing role. Learners demonstrate a basic understanding of the effects of fluid and electrolyte and acid-base imbalance, liver and gall bladder disorders, and cancer on the client. Students identify nursing and responsibilities in administering selected medications. **Prerequisite:** NUR 102 with a C grade or higher, and concurrent registration in NUR 103.

## NUR 201

**NURSING: CLIENTS IN CRISIS**

(3.00 Lecture, 12.00 Lab Hrs./Wk.)

**7 Credits**

This course continues to build on previously learned concepts and skills. It prepares the developing professional nurse to apply functional health patterns in caring for clients with acute and/or critical problems in the hospital setting. Students learn and use complex psychomotor skills and incorporate core concepts into practice. Nursing management strategies such as delegation and supervision are introduced. **Prerequisite:** NUR 109 and all first year nursing program course requirements with C grade or higher, current AHA healthcare provider CPR document, TB test within past 3 months.

## NUR 202

**NURSING: FAMILIES IN CRISIS**

(4.00 Lecture, 12.00 Lab Hrs./Wk.)

**8 Credits**

This course continues to build on previously learned concepts and skills. Students develop the ability to use functional health patterns in providing care for individuals and families in times of crisis. Students demonstrate increasing independence and use of nursing management strategies in providing care. **Prerequisite:** NUR 201, 231 with C grade or higher.

**NUR 208****NURSING: TRANSITION INTO PRACTICE****(2.00 Lecture/ 15 Lab Hrs./Wk.)****7 Credits**

This class prepares students for the transition from nursing student to registered nurse. Students apply learned skills and concepts, providing client care in a community or institutional setting under the guidance of a preceptor nurse. They incorporate concepts in professional behavior and leadership/management issues.

**Prerequisites:** NUR 202, 232 with a C grade or higher.

**NUR 215****PHYSICAL ASSESSMENT****(2.00 Lecture, 2.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Reviews principles and techniques of physical assessment for the practicing nurse or 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:** limited to currently enrolled nursing students, currently licensed nursing personnel, or those employed or employable in the field of nursing.

**NUR 231****COLLABORATIVE PRACTICE 3: 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 the effects of acute and chronic diseases and trauma on clients. Students identify nursing roles and responsibilities in administering selected medications used to treat acute, chronic, and critical conditions. **Prerequisite:** NUR 109 and all first year nursing program course requirements with grade C or higher and concurrent registration in NUR 201.

**NUR 232****COLLABORATIVE PRACTICE 4: PATHOPHYSIOLOGY & PHARMACOLOGY****(1.00 Lecture Hr./Wk.)****1 Credit**

Students acquire knowledge of pathophysiology and pharmacology that they can apply to the nursing role. Learners demonstrate an understanding of the effects of HIV infection and its complications on the client. Students identify the effects of various pediatric disorders, poisoning, enteritis, and spinal cord disorders. Students identify nursing roles and responsibilities in administering blood, selected medications and immunizations. **Prerequisite:** NUR 201, 231 with grade C or higher, concurrent registration in NUR 202.

**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 37+ on the ASSET English placement test, concurrent enrollment in DRD 40, or instructor approval.

**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:** OA 121 or instructor approval.

**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.

**OA 121****KEYBOARDING I****(2.00 Lecture, 3.00 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.

**OA 122****KEYBOARDING II****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Students apply keyboarding skill to moderately complex letters, tables, forms, and manuscripts; increase production words per minute; and master computer word processing vocabulary and concepts. **Prerequisite:** OA 121 or instructor approval.

**OA 124****KEYBOARDING SKILL BUILDING****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Based on their current skill level, students identify and correct keyboarding problems, develop overall keyboarding skill, and evaluate skill development progress. **Prerequisite:** OA 121 or ability to key at least 20 words per minute.

**OA 135****LEGAL TERMINOLOGY****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Students develop a vocabulary of legal terminology and a basic understanding of the United States court system.

**OA 139****LEGAL TRANSCRIPTION****(6.00 Lecture-Lab Hrs./Wk.)****3 Credits**

Students become proficient in the transcription of legal correspondence and documents. **Prerequisites:** OA 122 and OA 135 or instructor approval.

**OA 140****MEDICAL TERMINOLOGY I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students master basic medical terminology.

**OA 141**  
**MEDICAL TERMINOLOGY II**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students master medical terminology dealing with specific body systems.

**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. **Prerequisites:** OA 141 and OA 121 or instructor approval.

**OA 201**  
**WORD PROCESSING PROCEDURES I**  
(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.) **3 Credits**  
Students develop word processing knowledge and skills necessary for using IBM-compatible computers and Windows software to prepare and edit documents.

**OA 202**  
**WORD PROCESSING PROCEDURES II**  
(2.00 Lecture, 2.00 Lab Hrs./Wk.) **3 Credits**  
Students increase their proficiency in using word processing, develop skill in using advanced-level functions, and practice desktop publishing operations and detailed office-style formatting.

**OA 205**  
**DESKTOP PUBLISHING**  
(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.) **3 Credits**  
Students develop skill in using desktop publishing software to create presentations, reports, and camera-ready copy. **Prerequisite:** OA 202 or equivalent.

**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 or instructor approval.

**OA 240**  
**FILING AND RECORDS MANAGEMENT**  
(3.00 Lecture 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.

**OA 281**  
**DIRECTED FIELD EXPERIENCE - BUSINESS**  
(1.00 Lecture Hr./Wk.) **1 Credit**  
Students develop appropriate and effective work practices through discussing and analyzing their cooperative field experience with the instructor. **Prerequisite:** Concurrent enrollment in OA 280 and instructor approval.

**OA 295**  
**OFFICE SYSTEMS DIRECTED PROJECT**  
(2.00 Lecture & 6.00 Lab Hrs./Wk.) **4 Credits**  
This is the capstone course for the Office Systems programs. 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 prepare a comprehensive report and make a professional presentation. **Prerequisite:** completion of all but the last quarter of coursework for the AAS Degree

## 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 185**  
**AEROBIC EXERCISE - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students participate in aerobic exercises designed to increase the strength of the cardiovascular system, promote coordination, and develop total body strength and flexibility.

**PE 185**  
**AEROBIC EXERCISE - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students increase cardiovascular strength and understand the importance of exercise as a lifestyle. Students practice simple routines and develop their own routines to achieve individual goals. **Prerequisite:** PE 185 Aerobic Exercise - Beg.

**PE 185**  
**BASKETBALL - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop and practice basketball skills. They develop sufficient skill and knowledge to serve their recreational interest as a player or spectator.

**PE 185**  
**BASKETBALL - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students will develop and practice more advanced offensive and defensive patterns of basketball play. **Prerequisite:** PE 185 Basketball - Beg.

**PE 185**  
**BICYCLING - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop knowledge and skills and engage in bicycling and bicycle maintenance. They develop cycling skills as a means of aerobic conditioning, transportation and recreation.

**PE 185**  
**BICYCLING - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Bicycle enthusiast students will engage in longer day rides and develop the skills necessary for bicycle maintenance, planning a bicycle tour, or preparing for club racing. **Prerequisite:** PE 185 Bicycling - Beginning.

**PE 185**  
**FOIL FENCING - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students learn the basic skills of foil fencing. Stresses rules, techniques, and bouting strategies. Emphasizes practice rather than competition.

**PE 185**  
**FOIL FENCING - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students continue to develop fundamental skills acquired in beginning foil fencing. Emphasizes perfection of basic techniques and the development of bouting tactics and strategy. Advanced competitive foil techniques and beginning sabre and epee are introduced. **Prerequisite:** PE 185 Fencing - Beginning.

**PE 185**  
**GOLF - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop their golf swing and learn the rules and etiquette of the game of golf.

**PE 185**  
**GOLF - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
While playing golf each week, students refine their golf swing with emphasis on making special shots. **Prerequisite:** PE 185 Golf - Beg.

**PE 185**  
**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.

**PE 185**  
**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 185 Hatha Yoga - Beg.

**PE 185**  
**PHYSICAL CONDITIONING - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop and actively practice an individualized conditioning program emphasizing cardiovascular fitness, muscular strength, endurance, and flexibility. They apply knowledge of weight control and nutrition.

**PE 185**  
**PHYSICAL CONDITIONING - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop and actively practice an individualized conditioning program emphasizing cardiovascular fitness, muscular strength, endurance, and flexibility. **Prerequisite:** PE 185 Physical Conditioning - Beg

**PE 185**  
**SOFTBALL - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students practice the fundamental skills of slow-pitch softball emphasizing game strategy, tactics, rules, and playing each position.

**PE 185**  
**SOFTBALL - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students practice advanced skills of slow pitch softball emphasizing the development of team play, umpiring, and coaching. **Prerequisite:** PE 185 Softball - Beg.

**PE 185**  
**TENNIS - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop and apply the basic skills, strategies, and rules needed to play the game of tennis at a recreational level.

**PE 185**  
**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 185 Tennis - Beg.

**PE 185**  
**VOLLEYBALL - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students develop and apply the fundamental skills, strategies, rules, and etiquette of volleyball.

**PE 185**  
**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 Volleyball-Beginning.

**PE 185**  
**WEIGHT TRAINING - BEGINNING**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students engage in various methods of weight training which emphasize personal lifetime fitness.

**PE 185**  
**WEIGHT TRAINING - INTERMEDIATE**  
(3.00 Lab Hrs./Wk.) **1 Credit**  
Students engage in methods of weight training which emphasize the planning of personal weight work-out goals. **Prerequisite:** PE 185 Weight Training - Beg.

## PH PHYSICS

### PH 201

#### GENERAL PHYSICS

(3.00 Lecture, 1.00 Lect./Lab & 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 a general knowledge of physics from mechanics to nuclear physics, particularly the law of conservation of energy and how it relates to humans in everyday life. **Prerequisite:** MTH 95, concurrent or prior.

### PH 202

#### GENERAL PHYSICS

(3.00 Lecture, 1.00 Lect./Lab & 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:** MTH 111, concurrent or prior.

### PH 203

#### GENERAL PHYSICS

(3.00 Lecture, 1.00 Lect./Lab & 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 thermodynamics, electrical current, and nuclear radiation. **Prerequisite:** PH 202.

### PH 211

#### GENERAL PHYSICS WITH CALCULUS

(3.00 Lecture, 1.00 Lect./Lab & 3.00 Lab Hrs./Wk.) 5 Credits

This sequence is for students planning further study in science or engineering. Students utilize direct inquiry, discussion with peers, and a microcomputer to take the role of a physicist: observing, taking data, and analyzing results rapidly and accurately. Students develop mathematical descriptions of mechanical motion.

**Prerequisite:** MTH 251 or MTH 241, concurrent or prior.

### PH 212

#### GENERAL PHYSICS WITH CALCULUS

(3.00 Lecture, 1.00 Lect./Lab & 3.00 Lab Hrs./Wk.) 5 Credits

Students develop mathematical descriptions of mechanical energy and thermodynamics. **Prerequisite:** PH 211; and MTH 252 or MTH 241, concurrent or prior.

### PH 213

#### GENERAL PHYSICS WITH CALCULUS

(3.00 Lecture, 1.00 Lect./Lab & 3.00 Lab Hrs./Wk.) 5 Credits

Students develop mathematical descriptions for electricity and magnetism. **Prerequisite:** PH 212; and MTH 252 or MTH 241, concurrent or prior.

## PHC PHARMACOLOGY

### PHC 211

#### PHARMACOLOGY

(3.00 Lecture Hrs./Wk.)

3 Credits

Students demonstrate knowledge of basic pharmacologic principles as they relate to specific drug groups, usage, means of drug administration, and precautions. **Prerequisite:** None. Chemistry and human anatomy and physiology strongly recommended.

## PHL PHILOSOPHY

### PHL 101

#### PHILOSOPHICAL PROBLEMS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn to view philosophy as a discipline integrating the sum of human knowledge to "see it whole," develop a concept of self in relation to the world, and understand the dilemmas of contemporary life as well as the great historical ideals of East and West.

### PHL 102

#### ETHICS

(3.00 Lecture Hrs./Wk.)

3 Credits

Within a multi-cultural perspective, students develop an understanding of the main ethical problems that have confronted mankind in all cultures throughout all time. **Note:** Need not be taken in sequence.

### PHL 103

#### CRITICAL REASONING

(3.00 Lecture Hrs./Wk.)

3 Credits

Students develop a practical understanding of creative thinking, critical analysis, the devices and ploys which undercut the rational process, and the fallacious argumentation pervasive in our society. **Note:** Need not be taken in sequence.

## PS POLITICAL SCIENCE

### PS 101

#### AMERICAN POLITICS

(4.00 Lecture Hrs./Wk.)

4 Credits

Students acquire and demonstrate knowledge of the American political system through analysis and description of the American Constitution, problems of federalism, political behavior, political parties, interest groups civil rights and liberties, elections, and the role of the media.

**PS 201**  
**AMERICAN GOVERNMENT**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Institutions and their relation to modern American society. Economic, social, and ideological aspects of modern America in relation to our national goals, emphasizing government institutions.

**PS 202**  
**AMERICAN GOVERNMENT**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop an understanding of the economic, social, and ideological aspects of modern America in relation to our national goals, emphasizing government institutions.

**PS 203**  
**STATE AND LOCAL GOVERNMENT**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students will develop an understanding of the American political institutions and their relationship to the broad American community. Includes an overview of political, economic and social aspects of our society, and their relationship to our national goals. Explores the practical operation and contemporary reforms in government at the state and local levels.

**PS 205**  
**INTERNATIONAL POLITICS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students will 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.

## **PSY** PSYCHOLOGY

**PSY 101**  
**PSYCHOLOGY OF HUMAN RELATIONS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students learn about communication and other aspects of interpersonal behavior. Students practice communication, assertiveness, and other interpersonal skills within a context of self-observation and self-change.

**PSY 201**  
**GENERAL PSYCHOLOGY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
In this year long sequence, students develop an understanding of psychology as a behavioral and social science including its history, theories, research methods, current knowledge, and its application to human problems. This term students gain knowledge of research methods, the nervous system, various mental states, sensation and perception, and learning.  
**Prerequisite:** 12th to 13th grade reading and writing skills. Recommend courses be taken in sequence, but not required.

**PSY 202**  
**GENERAL PSYCHOLOGY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students gain knowledge of memory, cognition, language, psychological development, motivation, personality, and emotion. **Prerequisite:** 12th to 13th grade reading and writing skills. Recommend courses be taken in sequence, but not required.

**PSY 203**  
**GENERAL PSYCHOLOGY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop an understanding of personality, psychological assessment, psychological disorders and their treatment, and social cognition and behavior, and psychological aspects of physical health **Prerequisite:** 12th to 13th grade reading and writing skills. Recommend courses be taken in sequence, but not required.

**PSY 215**  
**INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students demonstrate knowledge of human development from conception to old age and death, with emphasis on the physical, social, personality, and cognitive changes over the life span. **Prerequisite:** PSY 201, 202 or 203 or instructor approval.

**PSY 216**  
**SOCIAL PSYCHOLOGY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students will analyze and explore human social behavior from a social psychology perspective. The course surveys how psychological processes influence the behavior of groups and how individuals are influenced by culture, society, and other groups.

**PSY 219**  
**INTRODUCTION TO ABNORMAL PSYCHOLOGY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop a basic understanding of the variety of emotional, mental, and behavioral disorders experienced by humans. **Prerequisite:** At least two terms of PSY 201, 202, 203 or instructor approval.

**PSY 231**  
**INTRODUCTION TO HUMAN SEXUALITY**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students demonstrate knowledge of the psychological, social, and biological aspects of human sexual functioning with emphasis on sexual response patterns, sexual attitudes, and sexual myths and fallacies. The class addresses cultural and value aspects of human sexuality. **Prerequisite:** None. Two terms of PSY 201, 202, 203 recommended.

**PSY 235****INTRODUCTION TO HUMAN DEVELOPMENT - CONCEPTION THROUGH CHILDHOOD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of human development from conception to pubescence, with emphasis on physical, social, personality, and cognitive changes. **Note:** Students may apply either PSY 235 or HFS 226 (but not both) toward an ECE Certificate or an associate degree. **Prerequisite:** One term of PSY 201, 202, 203.

**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 religion, as well as knowledge of the philosophy of religion, early religion, American Native religion, Egyptian religion, the goddess in religion, and Hinduism. **Note:** Need not be taken in sequence.

**R 202****GREAT RELIGIONS OF THE WORLD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of Joseph Campbell's perspective on myths and world religions as well as knowledge of philosophy of religion Buddhism, Yoga, Tibetan Buddhism, Taoism, and Confucianism. **Note:** Need not be taken in sequence.

**R 203****GREAT RELIGIONS OF THE WORLD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of Joseph Campbell's perspective on myths and world religion, as well as knowledge of the philosophy of religion, Zoroastrianism, Judaism, Greek mystery religions, Christianity, the spiritual dimension of Arthurian romances, and Islam. **Note:** Need not be taken in sequence.

**SCIENCE; SEE BI, CH, G, GS, PH  
SECRETARIAL; SEE OA**

**SOC SOCIOLOGY****SOC 204****GENERAL SOCIOLOGY: INTRODUCTION TO SOCIOLOGY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students become familiar with the terms, concepts, and theories employed by sociologists. Students demonstrate knowledge of social processes, patterns and institutions, and the historical development of social theory and method.

**SOC 205****GENERAL SOCIOLOGY: SOCIAL ISSUES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the sociology of everyday life and social issues with emphasis on descriptive studies, relating forms of interpersonal relationships, conceptual studies, and definitions of the situations by participants.

**SOC 210****MARRIAGE & FAMILY AND 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 marriage and family on human development. **Prerequisite:** One term of PSY 201, 202, 203 or SOC 204, 205.

**SOC 213****MINORITIES: DEALING WITH DIVERSITY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an awareness of the variety of cultural perspectives in contemporary American society; the values, beliefs, problems, and communication patterns of minorities; and the historic, economic, and political aspects of prejudice and discrimination.

**SOC 221****JUVENILE DELINQUENCY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate a theoretical and practical understanding of juvenile delinquency and crime; diversity of delinquent expression; roles of law enforcement, social service agencies, and the court system; relationships with family and schools; and treatment models.

**SOC 223****SOCIOLOGY OF AGING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of biological and behavioral research on the process of aging and its sociological implications, particularly viewing the aged as a minority group subject to prejudice and discrimination.

**SOC 225****GENERAL SOCIOLOGY: SOCIAL PROBLEMS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students utilize the sociological perspective to analyze contemporary social problems in the United States particularly primary social problems including poverty, prejudice and discrimination, overpopulation, and deviance.

**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.

**SP 112**  
**PERSUASIVE SPEECH**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students study and apply persuasion for a variety of purposes, including debate, irony, stumping, and the jeremiad. Students become aware of their unique strengths as speakers. **Prerequisite:** SP 111 or instructor approval.

**SP 115**  
**INTRODUCTION TO INTERCULTURAL COMMUNICATIONS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students explore stereotypes, general attitudes, values, life styles and cultural patterns of communication in an effort to understand different cultures, how individuals react to change and differences, and how languages shape our perspective.

**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 interpersonal interaction.. Task functions include problem solving, conflict management, agenda setting and group presentations. **Prerequisite:** SP 111 recommended.

## SPAN SPANISH

**SPAN 101**  
**FIRST YEAR SPANISH**  
(4.00 Lecture, 1.00 Lab Hrs./Wk.) **4 Credits**  
Students develop skill in reading, writing, hearing, and speaking Spanish and develop an insight into Spanish culture.

**SPAN 102**  
**FIRST YEAR SPANISH**  
(4.00 Lecture, 1.00 Lab Hrs./Wk.) **4 Credits**  
Students expand their comprehension and communication skills in Spanish. **Prerequisite:** SPAN 101 or instructor approval.

**SPAN 103**  
**FIRST YEAR SPANISH**  
(4.00 Lecture, 1.00 Lab Hrs./Wk.) **4 Credits**  
Students further expand their comprehension and communication skills in Spanish. **Prerequisite:** SPAN 102 or instructor approval.

**SPAN 111**  
**CONVERSATIONAL SPANISH**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop skill in Spanish conversation using basic vocabulary, grammatical structures, present tense, and cultural concepts. **Note:** This sequence focuses on oral communication—speaking and hearing, with less emphasis on reading and writing.

**SPAN 112**  
**CONVERSATIONAL SPANISH**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students improve their skill in Spanish conversation including the use of past tense, more complex grammatical structures, and vocabulary related to traveling, jobs and shopping. **Prerequisite:** SPAN 111 or instructor approval.

**SPAN 113**  
**CONVERSATIONAL SPANISH**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students become more proficient in Spanish conversation through using past and future tense and learning vocabulary related to sports, health sciences and everyday situations. **Prerequisite:** SPAN 112 or instructor approval.

**SPAN 201**  
**SECOND YEAR SPANISH**  
(4.00 Lecture Hrs./Wk.) **4 Credits**  
Students advance their listening, speaking, reading, and writing skills. This class is conducted entirely in Spanish and stresses grammatical correctness and communicative ability. **Prerequisite:** SPAN 103 or three years of high school Spanish.

**SPAN 202**  
**SECOND YEAR SPANISH**  
(4.00 Lecture Hrs./Wk.) **4 Credits**  
Students continue to advance their listening, speaking, reading, and writing skills in Spanish. Students use authentic magazine and newspaper articles to expand their cultural awareness. **Prerequisites:** SPAN 201 or instructor approval.

**SPAN 203**  
**SECOND YEAR SPANISH**  
(4.00 Lecture Hrs./Wk.) **4 Credits**  
Students continue to advance their listening, speaking, reading, and writing skills in Spanish. Students use authentic materials dealing with politics, environmental discussions, and health related issues. **Prerequisite:** SPAN 202 or instructor approval.

## TA THEATER ARTS

**TA 101**  
**INTRODUCTION TO THEATRE ARTS**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students demonstrate knowledge of the various arts and skills involved in theatre and their uses in everyday life, including dramatic literature, acting, scenic design, directing, lighting, costuming, stagecraft, and theatre business and publicity.

**TA 121**  
**FUNDAMENTALS OF ACTING**  
(3.00 Lecture, 3.00 Lab. Hrs./Wk.) **4 Credits**  
Students explore the craft of acting through vocal and physical exercises to heighten awareness, creativity, and imagination. The class emphasizes improvisation, character analysis, and characterization.

**TA 122**  
**FUNDAMENTALS OF ACTING**  
(3.00 Lecture, 3.00 Lab. Hrs./Wk.) **4 Credits**  
Students develop audition and improvisational skills while establishing a working file of monologue material. **Prerequisite:** TA 121 or instructor approval.

**TA 123**  
**FUNDAMENTALS OF ACTING**  
(3.00 Lecture, 3.00 Lab. Hrs./Wk.) **4 Credits**  
Students complete acting exercises emphasizing duet acting and character analysis in roles which include dialects, Shakespeare, and other classical period styles. **Prerequisite:** TA 122 or instructor approval.

**TA 129**  
**DANCE FOR MUSICAL THEATRE**  
(2.00 Lecture, 3.00 Lab Hrs./Wk.) **3 Credits**  
Students develop dance technique and movement vocabulary necessary to stage and choreograph for musical theatre. **Prerequisite:** None. Previous experience in dance, music, and/or acting is helpful.

**TA 161**  
**FUNDAMENTALS OF TECHNICAL THEATRE I - COSTUME DESIGN AND MAKEUP**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students investigate theory and practice of designing costumes and makeup for the theatre including design for dance, children's theatre, film, and stage production. **Prerequisite:** TA 101 or instructor approval.

**TA 162**  
**FUNDAMENTALS OF TECHNICAL THEATRE II - SET DESIGN AND STAGE LIGHTING**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students complete scenic design and stage lighting projects for CCC Theatre and Dance productions. **Prerequisite:** TA 161, TA 101, or instructor approval.

**TA 165**  
**TECHNICAL THEATRE WORKSHOP**  
(4.00 Lab Hrs./Wk./Cr.) **1-3 Credits**  
Students prepare the physical background for theatre productions, including construction of sets and costumes, painting, lighting, and stage for CCC Theatre and Dance productions. **Note:** A maximum of six credits of TA 165 may be applied to an associate degree.

**TA 254**  
**FUNDAMENTALS OF DIRECTING**  
(3.00 Lecture Hrs./Wk.) **3 Credits**  
Students develop research, interpretation, rehearsal, and staging techniques for a public performance of a one-act or an extended scene from a three-act play. **Prerequisite:** TA 101 or TA 121 or TA 122.

**TA 265**  
**TECHNICAL THEATRE WORKSHOP**  
(4.00 Lab Hrs./Wk./Cr.) **1-3 Credits**  
Students prepare the physical background for theatre productions, including construction, painting, lighting, and stage management for CCC Theatre and Dance productions. **Note:** A maximum of six credits of TA 265 may be applied to an associate degree.

**TA 282**  
**THEATRE REHEARSAL & PERFORMANCE**  
(3.00 Lab Hrs./Wk./Cr.) **1-3 Credits**  
Students explore the principles of acting and dramatic production through participation in auditions, rehearsal, and performance of a theatrical production.

**TA 285**  
**THEATRE PRODUCTION WORKSHOP**  
(3.00 Lecture-Lab Hrs./Wk./Cr.) **1-3 Credits**  
Students explore the principles of theatre production through participation in technical design, construction, and running crew for a theatrical production.

## **WLD WELDING**

**WLD 100**  
**MATERIALS PROCESSING**  
(2.00 Lecture-Lab Hrs./Wk./Cr.) **1-4 Credits**  
Students gain and apply knowledge of the principles, equipment and skills necessary to identify and process varied material utilized in the fabrication industry. Course curriculum follows AWS specifications for qualification and certification of QC 10-95 Entry Level Welder. **Prerequisite:** student must have instructor approval.

**WLD 101**  
**SHIELDED METAL ARC WELDING**  
(2.00 Lecture-Lab Hrs./Wk./Cr.) **1-10 Credits**  
Students gain and apply knowledge of the principles, equipment and skills related to the shielded metal arc welding process, involving various base metals and joints common to industry. Course curriculum follows AWS specifications for qualification and certification of QC 10-95 Entry Level Welder. **Prerequisite:** student must have instructor approval.

**WLD 102**  
**GAS METAL ARC WELDING**  
(2.00 Lecture-Lab Hrs./Wk./Cr.) **1-9 Credits**  
Students gain and apply knowledge of the principles, equipment and skills related to the gas metal arc welding process, involving various base metals and joints common to industry. Course curriculum follows AWS specifications for qualification and certification of QC 10-95 Entry Level Welder. **Prerequisite:** student must have instructor approval.

**WLD 103****FLUX CORE ARC WELDING****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-9 Credits**

Students gain and apply knowledge of the principles, equipment and skills related to the flux core arc welding process, involving various base metals and joints common to industry. Course curriculum follows AWS specifications for qualification and certification of QC 10-95 Entry Level Welder. **Prerequisite:** student must have instructor approval.

**WLD 104****GAS TUNGSTEN ARC WELDING****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-9 Credits**

Students gain and apply knowledge of the principles, equipment and skills related to the gas tungsten arc welding process, involving various base metals and joints common to industry. Course curriculum follows AWS specifications qualification and certification of QC 10-95 Entry Level Welder. **Prerequisite:** student must have instructor approval.

**WLD 150****BEGINNING WELDING****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-9 Credits**

In this flexible, variable credit course, students develop basic skills in oxy-acetylene and/or shielded metal arc welding. Student entry level depends on previous experience. Credit earned per term depends on the number of new skills mastered.

**WLD 160****INTERMEDIATE WELDING****(2.00 Lecture-Lab Hrs./Wk./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 cored 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. Entry level dependent on completion of WLD 150 or previous experience.

**WLD 170****ADVANCED WELDING****(2.00 Lecture-Lab Hrs./Wk./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.

**WLD 190****WELDING CERTIFICATION PREPARATION****(2.00 Lecture-Lab Hrs./Wk./Cr.)****1-9 Credits**

Students develop skill in the forms of welding tested in various welding certification examinations including pipe and plate welding skills. A **maximum** of five credits may be applied to an associate degree. **Prerequisite:** WLD 160 or instructor approval.

**WLD 296****LAYOUT, FABRICATION, AND REPAIR PRACTICES****(2.00 Lecture, 4.00 Lab Hrs./Wk.)****4 Credits**

Students demonstrate advanced knowledge and/or skills required for welding fabrication repairs. Students complete group and individual projects including a major welded project, as well as repair projects. **Prerequisite:** DRF 139 and WLD 160 or instructor approval.

**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. **Note:** This class is for students who have ASSET writing scores below 45 or need practice before enrolling in WR 121.

**WR 41****WRITING FUNDAMENTALS LABORATORY****(2.00 Lab Hrs./Wk.)****1 Credit**

Students complete self-paced modules involving elements of editing conventions and style. This class provides supplementary work in the conventions of edited American English.

**Prerequisite:** Concurrent enrollment in WR 40 and/or recommendation based on ASSET placement scores.

**WR 121****ENGLISH COMPOSITION****(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 ASSET placement score of 45 or above or equivalent.

**WR 122****ENGLISH COMPOSITION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students write effective essays arguing their own ideas, as well as responding to other texts. **Prerequisite:** WR 121.

**WR 123****ENGLISH COMPOSITION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students apply library skills, conduct research, and produce integrated, evaluative, and appropriately documented academic papers using multiple sources. **Prerequisite:** WR 122.

**WR 227****TECHNICAL REPORT WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students research, organize, and present written and oral technical communications in a variety of fields. **Prerequisite:** WR 121.

**WR 241**

**CREATIVE WRITING - FICTION**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

This three-course sequence focuses on the techniques of creative writing in varied forms. This term students write short stories and read and critique short stories written by members of the class and published authors. **Prerequisite:** WR 121 or instructor approval.

**WR 242**

**CREATIVE WRITING - POETRY**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

This term students read and write poetry with or without meter, rhyme, or stanzas and critique poems written by members of the class and published authors. **Prerequisite:** WR 121 or instructor approval.

**WR 243**

**CREATIVE WRITING - DRAMA**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

This term students read plays written for stage, radio, TV, and reading; write monologues and 1-3 act plays; and critique plays written by members of the class and published authors.

**Prerequisite:** WR 121 or instructor approval.

**WR 270**

**LITERARY PUBLICATIONS**

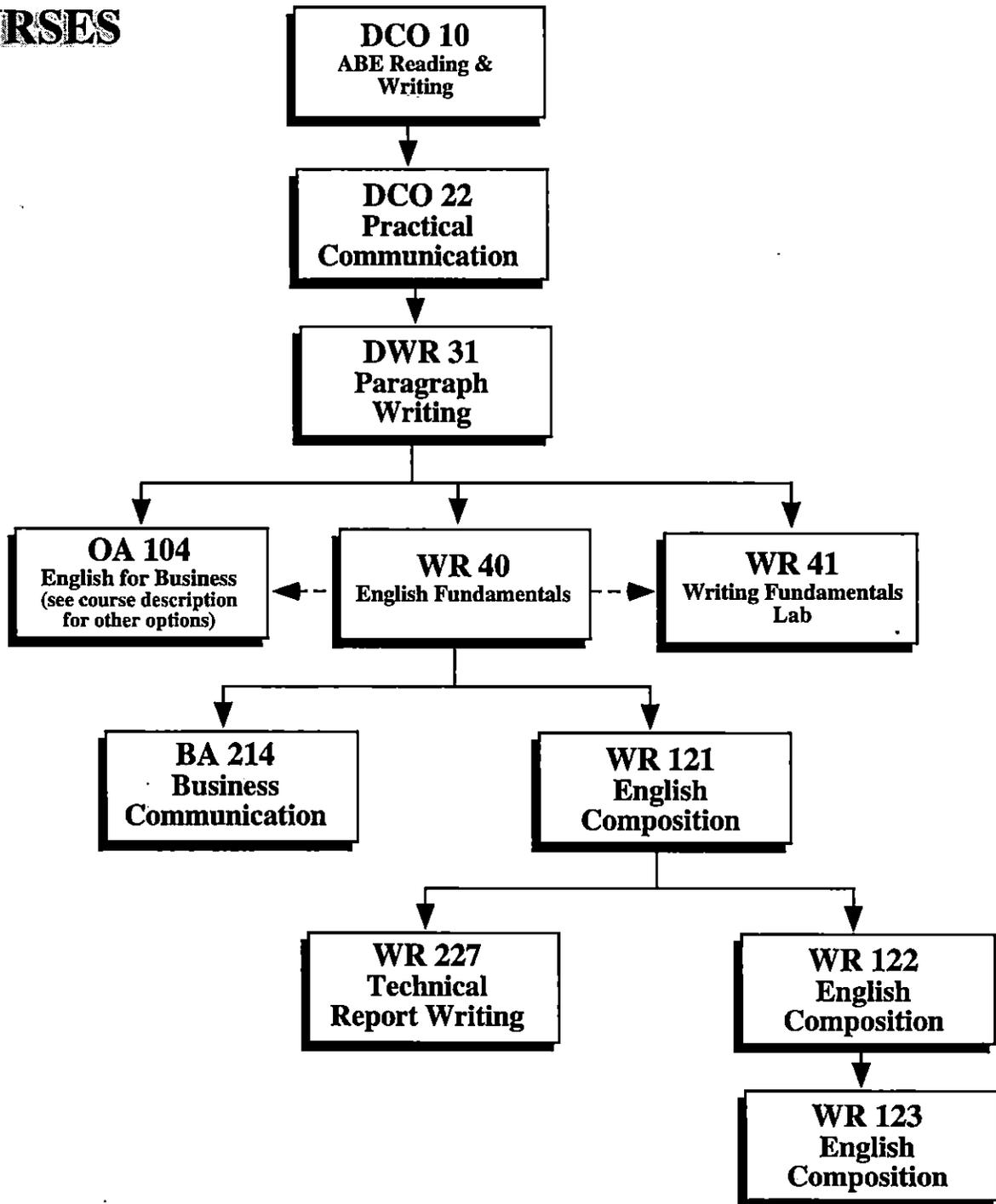
(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

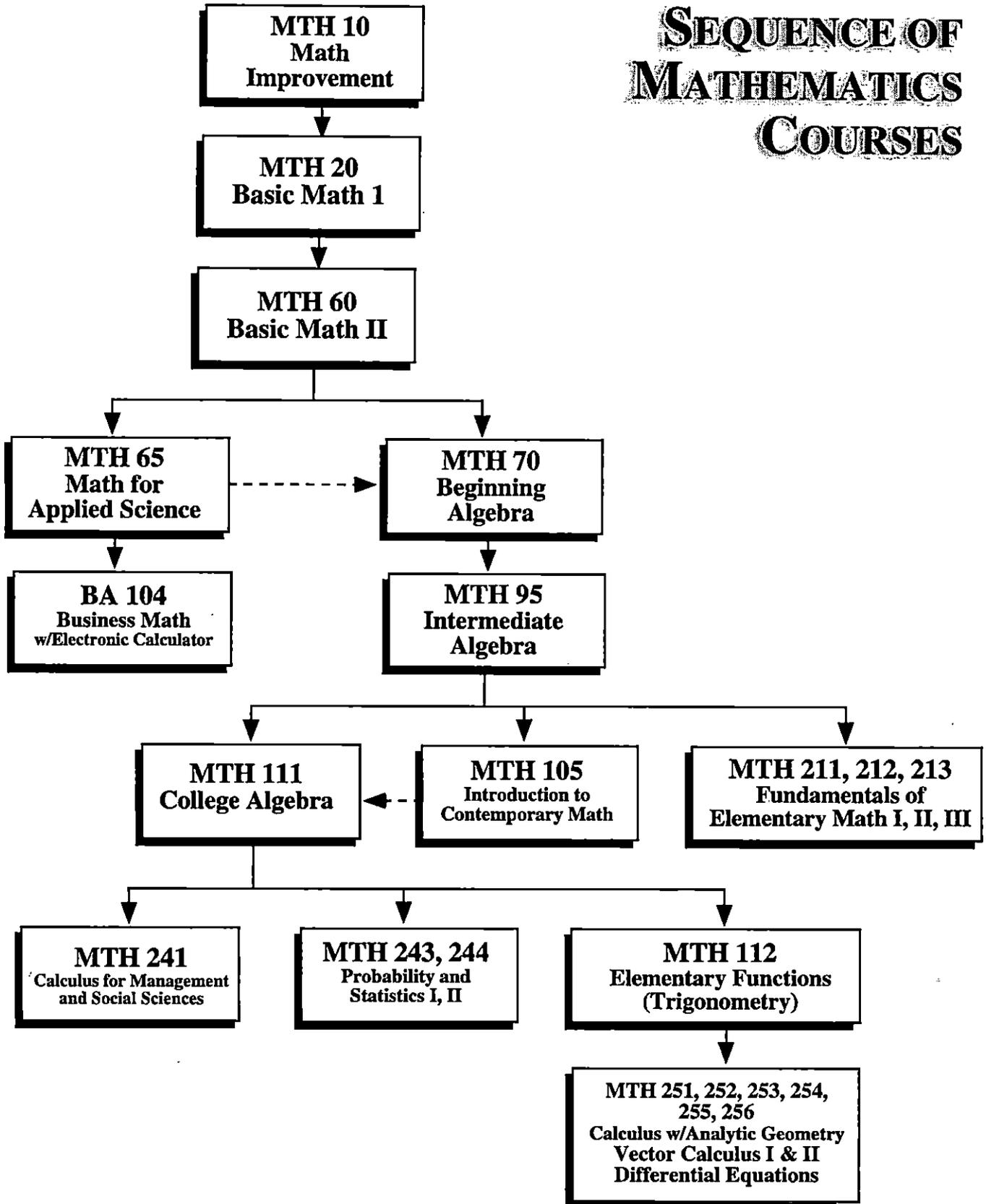
Students learn the fundamentals of professionally editing a literary magazine. Students develop a philosophy of editing and, through active participation in publishing a college literary magazine, develop an understanding of the principles and procedures of editing and publishing. **Prerequisite:** WR 121 or instructor approval.



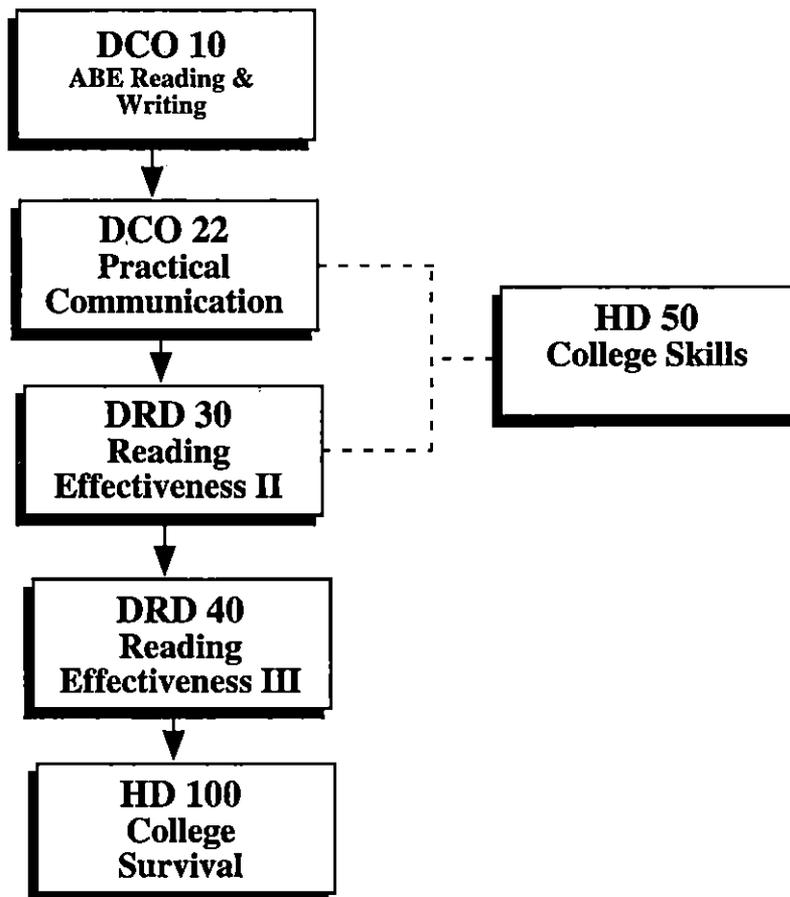
# SEQUENCE OF WRITING COURSES



# SEQUENCE OF MATHEMATICS COURSES



# SEQUENCE OF READING COURSES



# APPENDIX A

The following courses are on the Oregon State Lower Division Collegiate Course List and are eligible to transfer to Oregon University System (OUS) institutions. They are applicable to AA, AGS, and AAS degrees. For courses which fulfill the distribution requirements of the AA degree, see the Distribution Requirements List on pages 23 & 24. **Consult an advisor at Clatsop and the four-year school regarding the transferability of specific programs and/or courses.**

## Arts and Letters

ART 115,116,117	Basic Design
ART 118	Introduction to Calligraphy
ART 131,132,133	Introduction to Drawing
ART 194, 195, 196	Introduction to Watercolor
ART 204,205,206	History of Western Art
ART 211,212,213	Survey Visual Arts of the 20 <sup>th</sup> Century
ART 218,219,220	Calligraphy - Intermediate
ART 231,232,233	Drawing - Intermediate
ART 250,251,252	Introduction to Ceramics
ART 253,254,255	Ceramics - Intermediate
ART 270, 271,272	Introduction to Printmaking
ART 273,274,275	Printmaking - Intermediate
ART 276,277,278	Introduction to Sculpture
ART 279	Intro Mixed Media-Hybrid Forms:Multidisciplinary
ART 281,282,28	Introduction to Painting
ART 284,285,286	Painting - Intermediate
ART 294,295,296	Watercolor - Intermediate
ENG 104,105,106	Introduction to Literature
ENG 107,108,109	World Literature
ENG 110	Introduction to Film Studies
ENG 201,202,203	Shakespeare
ENG 204,205,206	Survey of English Literature
ENG 220	Non-European Minority Literature
ENG 253,254,255	Survey of American Literature
ENG 260	Introduction to Women's Literature
FR 101,102,103	First Year French
FR 201,202,203	Second Year French
GER 101,102,103	First Year German
GER 201,202,203	Second Year German
PHL 101	Philosophical Problèms
PHL 102	Ethics
PHL 103	Critical Reasoning
R 201,202,203	Great Religions of the World
SP 111	Fundamentals of Public Speaking
SP 112	Persuasive Speech
SP 115	Intro. to Intercultural Communications
SP 219	Small Group Discussion
SP 241	Media
SPAN 101,102,103	First Year Spanish
SPAN 111,112,113	Conversational Spanish
SPAN 201,202,203	Second Year Spanish
TA 101	Introduction to Theatre Arts
TA 121,122,123	Fundamentals of Acting
TA 254	Fundamentals of Directing
WR 121,122,123	English Composition
WR 227	Technical Report Writing
WR 241,242,243	Creative Writing
WR 270	Literary Publications

## Business

BA 101	Introduction to Business
BA 104	Business Math with Electronic Calculators
BA 177	Payroll & Business Tax Accounting
BA 206	Management Fundamentals
BA 211,212,213	Principles of Accounting
BA 214	Business Communications
BA 222	Financial Management
BA 223	Principles of Marketing
BA 224	Human Resource Management
BA 226,227	Introduction to Business Law I & II
BA 228	Computer Accounting Applications
BA 230	Management Information Systems
BA 250	Small Business Management
BA 256	Income Tax
BA 285	Human Relations in Business

## Social Science

ANT 110	General Anthropology: Cultural
ANT 150	General Anthropology: Archeological
ANT 170	General Anthropology: Physical
ANT 232	Native North Americans
CJ 100	Careers in Criminal Justice
CJ 101	Introduction to Criminology
CJ 107	Criminal Justice Workshop
CJ 110	Introduction to Law Enforcement
CJ 120	Introduction to the Judicial Process
CJ 121	Concepts of Criminal Law
CJ 130	Introduction to Corrections
CJ 132	Introduction to Parole and Probation
CJ 203	Crisis Intervention
CJ 210	Criminal Investigation
CJ 215	Issues in Criminal Justice Supervision & Administration
CJ 230	Introduction to Juvenile Corrections
CJ 232	Introduction to Corrections Casework
CJ 243	Alcohol & other Dangerous Drugs
CJ 244	Sexual Exploitation of Children
CJ 281	Cooperative Work Experience Seminar - Criminal Justice
CPL 120	Credit for Prior Learning
EC 115	Introduction to Economics
EC 201,202	Principles of Economics
GEO 100	Introduction to Physical Geography
GEO 110	Cultural & Human Geography
GEO 120	World/Regional Geography
GEO 130	Economic/Resource Geography
HD 100	College Survival & Success
HD 110	Career Planning
HD 202	Life Transitions
HD 209	The Complete Job Finder
HD 215	Transition to the University

HFS 226 ..... Growing Years - Child Development,  
Birth through Age Eight  
HS 101 ..... Alcohol Use, Misuse & Addiction  
HS 102 ..... Drug Use, Misuse & Addiction  
HS 154 ..... Community Resources  
HS 155 ..... Interviewing for Social Services  
HS 201 ..... Family Alcoholism/Addiction  
HS 202,203,204 ..... Counseling/Chemically Dependent Client  
HS 205 ..... Youth Addiction  
HST 101,102,103 ..... History of Western Civilization  
HST 201,202,203 ..... History of the United States  
PS 201, 202 ..... American Government  
PS 203 ..... State & Local Government  
PS 205 ..... International Politics  
PSY 101 ..... Psychology of Human Relations  
PSY 201,202,203 ..... General Psychology  
PSY 215 ..... Intro. to Developmental Psychology  
PSY 216 ..... Social Psychology  
PSY 219 ..... Introduction to Abnormal Psychology  
PSY 231 ..... Introduction to Human Sexuality  
PSY 235 ..... Introduction to Human Development -  
Conception through Childhood  
SOC 204 ..... General Sociology: Intro. to Sociology  
SOC 205 ..... General Sociology: Social Issues  
SOC 210 ..... Marriage & Family & Intimate Relations  
SOC 213 ..... Minorities: Dealing with Diversity  
SOC 221 ..... Juvenile Delinquency  
SOC 223 ..... Sociology of Aging  
SOC 225 ..... General Sociology: Social Problems

**Science/Mathematics/Microcomputers**

BI 101,102,103 ..... General Biology  
BI 211, 212, 213 ..... Principles of Biology  
BI 222 ..... Human Genetics  
BI 231,232,233 ..... Human Anatomy and Physiology  
BI 234 ..... Introduction to Microbiology  
CH 104,105,106 ..... Introductory Chemistry  
CH 221,222,223 ..... General Chemistry  
CS 101 ..... Fundamentals of Computing  
CS 131 ..... Intro. to Computer Information Systems  
CS 161 ..... Computer Science I  
CS 162 ..... Computer Science II  
CS 171 ..... Principles of Computer Organization  
CS 260 ..... Data Structures  
CS 271 ..... Computer Architecture  
CS 278 ..... Data Communications & Networking  
CS 279M ..... Network Management-LAN NT  
CS 279N ..... Network Management-LAN Novell  
CSB 133 ..... Beg. Visual BASIC Programming  
CSB 233 ..... Adv. Visual BASIC Programming  
CSD 122 ..... Beg. Database Program Development  
CSD 275 ..... Adv. Database Program Development  
CSL 107 ..... Spreadsheets  
CSU 133 ..... Beg. C++ Programming  
CSU 233 ..... Adv. C++ Programming  
ES 150 ..... Introduction to Environmental Science  
ES 160 ..... Techniques in Environmental  
Information Analysis  
GS 104,105,106 ..... Physical Science

MTH 105 ..... Intro. to Contemporary Mathematics  
MTH 111 ..... College Algebra  
MTH 112 ..... Elementary Functions - Trigonometry  
MTH 211,212,213 ..... Fundamentals of Elementary  
Mathematics  
MTH 241 ..... Calculus for Management & Social Sciences  
MTH 243,244 ..... Intro. to Probability & Statistics  
MTH 251,252,253 ..... Calculus I, II & III  
MTH 254 ..... Vector Calculus I  
MTH 255 ..... Vector Calculus II  
MTH 256 ..... Differential Equations  
PH 201,202,203 ..... General Physics  
PH 211,212,213 ..... General Physics with Calculus

**Health, Physical Education, Dance**

D 192 ..... Dance - Beginning Jazz  
D 192 ..... Dance - Beginning Modern  
D 192 ..... Dance - Beginning Tap  
D 292 ..... Dance - Intermediate Jazz  
D 292 ..... Dance - Intermediate Modern  
D 292 ..... Dance - Intermediate Tap  
D 294 ..... Dance - Advanced Jazz  
D 294 ..... Dance - Advanced Modern  
D 294 ..... Dance - Advanced Tap  
HE 112 ..... Standard First Aid & Emergency Care  
HE 207 ..... Stress Management  
HPE 295 ..... Health & Fitness for Life  
NFM 225 ..... Human Nutrition  
PE 185 ..... All Beginning/Intermediate Activity Classes

**Performing Arts**

D 260 ..... Dance Performance  
MUP 171 - 192 ..... Individual Lessons  
MUP 271 - 292 ..... Individual Lessons  
TA 129 ..... Dance for Musical Theatre  
TA 161,162 ..... Fundamentals of Technical  
Theatre I & II  
TA 165 ..... Technical Theatre Workshop  
TA 265 ..... Technical Theatre Workshop  
TA 282 ..... Theatre Rehearsal & Performance  
TA 285 ..... Theatre Production Workshop

**Cooperative Work Experience (all 280 numbers)**

AGR - Agriculture	FR - French	PSY - Psychology
ANT - Anthropology	FW - Fish & Wildlife	RE - Real Estate
ART - Art	G - Geology	SPN - Spanish
BA - Accounting	GEO - Geography	SOC - Sociology
BA - Business Admin.	GER - German	SP - Speech
BI - Biology	GS - General Science	TA - Theatre
BOT - Botany	HE - Health	Z - Zoology
CH - Chemistry	HPE - Health & PE	
CJ - Criminal Justice	HR - Human Resources	
CS - Computer Science	HS - Human Services	
CWE - Career Explor.	HST - History	
DH - Dental Hygiene	J - Journalism	
EC - Economics	MTH - Mathematics	
ED - Education	MUS - Music	
EGR - Engineering	PA - Public Admin.	
ENG - English	PE - Physical Education	
ES - Environ. Science	PH - Physics	
F - Forestry	PHL - Philosophy	
FA - Film Arts	PS - Political Science	

# APPENDIX 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 Professional/Technical courses, numbered 100 and higher from the list below, can be used as elective credit for the AA-OT degree. **Consult an advisor at Clatsop and the four-year school regarding the transferability of specific programs and/or courses.**

BA 131,132,133.....	Accounting Procedures I, II & III	ECE 177.....	Infant/Toddler Development-Group Care
BA 281.....	CWE Seminar: Accounting & Business Mgmt.	ECE 281.....	CWE Seminar- Early Childhood Education
CS 281.....	CWE Seminar: Programming & Networking	ELT 150.....	Intro. to Direct Current Circuit Analysis
DRF 139.....	Technical Print Interpretation	ELT 155.....	Intro. to Alternating Current Circuit Analysis
DRF 185.....	Computers in Design	ELT 206.....	Semiconductor Devices
DRF 213.....	AUTOCAD - Beginning	ELT 207.....	Industrial Process Controls
DRF 214.....	AUTOCAD - Intermediate	ELT 208.....	Programmable Logical Controllers
DRF 215.....	AUTOCAD - Advanced	ELT 219.....	Digital Computer Electronics
DRF 228.....	AutoCAD Exam Preparation	ELT 220.....	Introduction to Robotics
DRF 280.....	CWE: CADD Technician	ELT 231.....	Digital Circuits
DRF 281.....	CWE Seminar: CADD Technician	EMT 151.....	Emergency Medical Tech. Basic, Part 1
DRF 295.....	CADD Directed Projects	EMT 152.....	Emergency Medical Tech. Basic, Part 2
ECE 101.....	Language Arts Activities for Young Children	EMT 165.....	Emergency Med. Tech. Intermediate, Part 1
ECE 103.....	Math and Science for Young Children	EMT 166.....	Emergency Med. Tech. Intermediate, Part 2
ECE 105.....	Nutrition for Young Children	EMT 169.....	Emergency Medical Tech. Rescue
ECE 107.....	Health and Safety for Young Children	EMT 170.....	Emergency Communication & Transportation
ECE 108.....	Music & Creative Movement	EMT 175.....	Intro. to Emergency Medical Services
ECE 109.....	Early Childhood Environments	EMT 280.....	CWE: Emergency Medical Tech.
ECE 115.....	Early Childhood Teaching Aids	EMT 281.....	CWE Seminar: Emergency Medical Tech.
ECE 116.....	Social & Emotional Developmental Activities for Young Children	FRP 150.....	Introduction to Fire Protection
ECE 117.....	Problem Solving Activities for Young Children	FRP 151.....	Firefighter Skills
ECE 118.....	Literature for Young Children	FRP 154.....	Water Distribution Systems
ECE 119.....	Self-concept for Young Children	FRP 155.....	Instructional Methodology
ECE 124.....	Physical Fitness Activities for Young Children	FRP 156.....	Firefighter Law
ECE 125.....	Creative Activities: Art	FRP 157.....	Firefighter Safety
ECE 126.....	First Aid for Young Children	FRP 158.....	Pump Construction & Hydraulics
ECE 127.....	Instructional Media and Materials	FRP 160.....	Fundamentals of Fire Protection
ECE 128.....	Curriculum Planning for Young Children	FRP 164.....	Hazardous Materials
ECE 129.....	Observing Young Children	FRP 166.....	Building Construction
ECE 131.....	Child Development for the Day Care Worker	FRP 169.....	Fire Department Leadership
ECE 132.....	Planning & Starting an Early Childhood Center	FRP 170.....	Firefighting Strategy & Tactics
ECE 133.....	Starting a Family Day Care Home	FRP 171.....	Fire Protection Systems & Extinguishers
ECE 134.....	Childcare: Statutes, Liability and Licensing Considerations	FRP 172.....	Fire Codes & Ordinances
ECE 135.....	Program Evaluation	FRP 181.....	Fire Prevention & Inspection
ECE 136.....	Developmental Screening in Early Childhood	FRP 280.....	CWE: Fire Science
ECE 137.....	Child Abuse and the Law	FRP 281.....	CWE Seminar: Fire Science
ECE 138.....	Guidance & Self-discipline	HD 50.....	College Skills
ECE 139.....	Infant and Toddler Programs	IT 101.....	Engine Rebuilding - Gasoline
ECE 142.....	Responding to Infants	IT 102.....	Engine Rebuilding - Diesel
ECE 144.....	Non-competitive Games	IT 105,106,107.....	Principles of Technology I,II & III
ECE 145.....	Toys: Tools for Learning	IT 108.....	Engine Principles
ECE 146.....	Handicapping Conditions in Young Children	IT 110.....	Applied Technology Projects
ECE 147.....	Careers Working with Young Children	IT 121.....	Principles of Fluid Power
ECE 149.....	Disease Control in School Settings	IT 140.....	Industrial Safety
ECE 150.....	Games & Toymaking	IT 141.....	Tool & Shop Basics
ECE 175.....	Infant/Toddler Development-Social Growth	IT 206, 207.....	Vehicle Electricity I, II
ECE 176.....	Infant/Toddler Development- Learning & Development	IT 208.....	Mechanical Drives & Trans. of Power
		IT 209.....	Fluid Drives & Hydraulic Transmissions
		IT 210.....	Vehicle Tune Up and Instrumentation
		IT 218.....	Vehicle Steering and Suspension Systems

IT 219 ..... Vehicle Brake Systems  
 IT 225 ..... HVAC  
 IT 226 ..... Industrial Refrigeration  
 IT 280 ..... CWE: Integrated Technologies  
 IT 281 ..... CWE Seminar: Integrated Technologies  
 MAS 100 ..... Maritime Occupations  
 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 130 ..... Radar Observer: Original Endorsement,  
                   Unlimited  
 MAS 131 ..... Radar Observer: Recertification  
 MAS 132 ..... Radar Observer: Rivers  
 MAS 140 ..... Intro. to Seamanship & Maritime Careers  
 MAS 141 ..... Intro. to Training & Trawl Safety  
 MAS 142 ..... Introduction to Fishing Gear  
                   Types & Safety, Part I  
 MAS 143 ..... Net Mending  
 MAS 145 ..... Handling, Repair, & Storage-Fishing Gear  
 MAS 146 ..... Vessel Operations  
 MAS 150 ..... Marine Safety  
 MAS 153 ..... Seamanship  
 MAS 155 ..... Introduction to Watchkeeping  
 MAS 160 ..... Knots, Splices, Lines & Rigging  
 MAS 164 ..... Introduction to Navigation  
 MAS 165 ..... Practical Navigation  
 MAS 166 ..... Advanced Navigation  
 MAS 167 ..... Celestial Navigation  
 MAS 168 ..... Charts, Aids to Nav. & Marine Compasses  
 MAS 170 ..... Marine Weather, Tides, Currents, & Waves  
 MAS 175 ..... Rules of the Road  
 MAS 180 ..... Marine Electronics  
 MAS 185 ..... GMDSS Training  
 MAS 280 ..... CWE: Maritime Science  
 MAS 281 ..... CWE Seminar: Maritime Science  
 MFG 150 ..... Hazardous Materials & Industrial Safety  
 MFG 179 ..... Orientation to Machine Tools  
 MFG 180,181 ..... Machine Tools I & II  
 MFG 250,251 ..... Manufacturing Processes I & II  
 MFG 282 ..... Machine Tools III  
 MIC 145 ..... Introduction to Integrated Software  
 MIC 171 ..... Intermediate Spreadsheets  
 MIC 178 ..... Internet for Communication & Research  
 MIC 207 ..... Presentation Software  
 MIC 210 ..... Microcomputer Integrated Applications  
 MIC 250 ..... Computer Graphics  
 MIC 280 ..... CWE: Microcomputer  
 MIC 281 ..... CWE Seminar: Microcomputer  
 MIC 295 ..... Microcomputer Directed Project  
 MTH 10 ..... Math Improvement  
 MTH 20 ..... Basic Mathematics I  
 MTH 60 ..... Basic Mathematics II  
 MTH 65 ..... Math for the Applied Sciences  
 MTH 70 ..... Algebra - Beginning  
 MTH 95 ..... Algebra - Intermediate  
 NUR 101 ..... Nursing: Foundations of Care  
 NUR 102 ..... Nursing: Focus on Individuals

NUR 103 ..... Nursing: Focus on Families  
 NUR 109 ..... Nursing: Focus on Mental Health  
 NUR 111 ..... Nursing Concepts & Clinical Practice  
 NUR 112 ..... Collaborative Practice I: Pharmacology  
 NUR 113 ..... Collaborative Practice 2: Patho-  
                   physiology and Pharmacology  
 NUR 118,119,120 ..... Nursing Science Skills I,II, & III  
 NUR 121 ..... Nursing Clinical Practicum: LPN Trans.  
 NUR 201,202,203 ..... Nursing IV ,V & VI  
 NUR 206,208,209 ..... Clinical Nursing of  
                   Adults & Children I, II & III  
 NUR 207 ..... Advanced Nursing: Mental Health  
 NUR 215 ..... Physical Assessment for Nurses  
 NUR 280 ..... CWE: Nursing  
 NUR 281 ..... CWE Seminar: Nursing  
 PHC 211 ..... Pharmacology  
 OA 104 ..... English for Business  
 OA 116 ..... Office Procedures  
 OA 120 ..... Computer Keyboarding  
 OA 121,122 ..... Keyboarding I, II  
 OA 124 ..... Keyboarding Skill Building  
 OA 135 ..... Legal Terminology  
 OA 139 ..... Legal Transcription  
 OA 140,141 ..... Medical Terminology I & II  
 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 280 ..... CWE: Office Systems  
 OA 281 ..... CWE Seminar: Office Systems  
 OA 295 ..... Office Systems Directed Project  
 WLD 100 ..... Materials Processing  
 WLD 101 ..... Shielded Metal Arc Welding Process  
 WLD 102 ..... Gas Metal Arc Welding Process  
 WLD 103 ..... Flux Core Arc Welding Process  
 WLD 104 ..... Gas Tungsten Arc Welding Process  
 WLD 150 ..... Beginning Welding Practices  
 WLD 160 ..... Intermediate Welding Practices  
 WLD 170 ..... Advanced Welding Practices  
 WLD 190 ..... Welding Certification Preparation  
 WLD 195 ..... General Shop Practices  
 WLD 296 ..... Layout, Fabrication & Repair Practices  
 WR 40 ..... English Fundamentals

# Clatsop Community College Faculty

**ADCOCK, SUSAN K.**

**INSTRUCTOR,  
NURSING**

B.S.N. Nursing, Oregon Health Science University, 1970; MS Nursing, University of Portland, 1990. Three years home health experience; twelve years hospital staff nurse; at Clatsop Community College since 1987.

**ANTILLA, WILLIAM**

**INSTRUCTOR,  
MARITIME SCIENCE**

Has twenty-three years of commercial fishing experience and licensing through US Coast Guard; at Clatsop Community College since 1995.

**BLACK, JO ANN**

**INSTRUCTOR,  
NURSING**

B.S. Nursing, Arizona State, 1971; MS in Community Health Nursing, University of Portland, 1997. Three years experience as Infection Control Nurse as well as seventeen years as 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; PhD 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. Three years in research; over fifteen years of teaching, administration, and instructional development in higher education; at Clatsop Community College since 1993.

**CAMPBELL, SARA**

**TECHNICAL SERVICES  
LIBRARIAN**

M.L.S. Librarianship, University of Washington; B.A. South Asian Area Studies, University of CA at Berkeley; at Clatsop Community College since 1996.

**CHOATE, LAURIE**

**INSTRUCTOR,  
BIOLOGICAL SCIENCES**

M.S.N. Maternal Child Nursing, University of Washington, 1978; B.S. Nursing, University of Washington 1976; at Clatsop Community College since 1997.

**DEGNER, DENNIS**

**INSTRUCTOR,  
MARITIME SCIENCE**

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**DURST, VICKI L.**

**INSTRUCTOR,  
DANCE & PHYSICAL EDUCATION**

B.A. Physical Education/Dance, San Diego State University, 1971; M.A. Dance, University of Oregon, 1973. Two years dance/theatre experience; two years college dance instructor; at Clatsop Community College since 1978.

**EAKIN-WEBER, RENAE**

**INSTRUCTOR,  
MATH**

B.S. Math, OSU, 1987; M.S. Math/Computer Education, OSU, 1989. Has taught at Linfield College and at the secondary level; at Clatsop Community College since 1995.

**ELLSBERG, ROBERT A.**

**INSTRUCTOR,  
CRIMINAL JUSTICE**

B.A. Political Science, University of California, 1969; M.A. Criminal Justice, California State University-Sacramento, 1976. Four years police officer; three years criminal justice specialist; two years elementary special education instructor; at Clatsop Community College since 1977.

**ENTLER, JIM**

**INSTRUCTOR**

**SMALL BUSINESS MANAGEMENT**

B.A., Ambassador College; M.M., Adkison Graduate School of Management Willamette University, 1991. Nine years experience consulting for EMC2 Consulting/ Business and Management; at Clatsop Community College since 1992.

**FISHER, DON R.**

**INSTRUCTOR,  
INTEGRATED TECHNOLOGIES**

A.S., Oregon Institute of Technology, 1965; B.T. Auto-Tuneup and Instrumentation, Oregon Institute of Technology, 1972; M.Ed. Education, Oregon State University, 1981; at Clatsop Community College since 1972.

**GUNDERSON, LUANN**

**INSTRUCTOR,  
OFFICE/MICROCOMPUTERS**

M.A. Business & Industry Education, University of Minnesota, 1997; B.S. Business Education/Vocational Education, Minot State University, 1994; at Clatsop Community College since 1997.

**HALSTEAD, JAMES S.**

**INSTRUCTOR,  
BUSINESS ADMINISTRATION**

B.S. Accounting, Southern Illinois University - Carbondale, 1977; M.B.A. Business Administration, Southern Illinois University - Edwardsville, 1981. Three years tax auditor, State of Illinois; at Clatsop Community College since 1985.

**HARRISON, BRIAN F.**

**INSTRUCTOR,  
SOCIOLOGY & ANTHROPOLOGY**

B.A., M.A. Sociology, 1969, 1970, Gonzaga University. Post-graduate work at National Science Foundation Institute and Oregon State University; three years industry experience in archaeology; at Clatsop Community College since 1978.

**HAUSER, JOHN D.**

**INSTRUCTOR,  
HISTORY, PHILOSOPHY & WORLD RELIGION**

B.A. Economics, Miami University, 1965; Ph.D. History, Washington State University, 1973; at Clatsop Community College since 1972.

**HOFFMAN, NANCY**

**INSTRUCTOR,  
ENGLISH & LITERATURE**

B.A. Political Science, University of California, Davis, 1970; M.A. English, California State University, Sacramento, 1992. Fourteen years experience management and analysis, state of California; one year political columnist; at Clatsop Community College since 1993.

**JACKSON, MICHAEL R.**

**INSTRUCTOR,  
BUSINESS ADMINISTRATION &  
DATA PROCESSING**

B.A. Biological Science, Stanford University, 1965; M.B.A. Business Administration, Brigham Young University, 1967. Fifteen years U.S. Government, Department of State; at Clatsop Community College since 1986.

**KASPAR, DEBBIE E.**

**INSTRUCTOR,  
DEVELOPMENTAL PROGRAMS**

B.S. Secondary Education, 1973, M.A. History, 1975, University of Idaho; at Clatsop Community College since 1981.

**KEEFE, PAT**

**INSTRUCTOR,  
PHYSICS/PHYSICAL SCIENCE**

B.S. Physics, Baker University, 1986; M.S. Physics, Portland State University, 1990. Two years training staff of volunteers at OMSI for public hands-on experiments; at Clatsop Community College since 1991.

**KILLION, PATRICK J.** **DIRECTOR,**  
**MARITIME SCIENCE DEPT.**  
B.S. Biology, Western Oregon State College, 1971; M.Ed., Vocational Education, Oregon State University, 1981; Master License, U.S. Merchant Marine; Two years high school biology teacher. Thirteen summers commercial fishing, Kodiak, Alaska; at Clatsop Community College since 1972.

**KNIPPA, AUDREY E.** **INSTRUCTOR,**  
**NURSING**  
B.A. English, Colgate University, 1976; M.S.N. Nursing, Pace University, 1979; M.P.H. Public Health, University of California, 1983. Registered Nurse; four years staff nurse; at Clatsop Community College since 1983.

**KNUTSON-HAWES, CAROL** **INSTRUCTOR,**  
**WRITING**  
B.A. English and Language Arts Degree in secondary ed., 1977; M.A. English, University of Oregon, 1985. At Clatsop Community College since 1998.

**KOEHMSTEDT, MARIA D.** **AUDIO-VISUAL/**  
**PERIODICALS LIBRARIAN**  
B.A. English, North Dakota State University, 1972; M.L. Librarianship, University of Washington, 1977. Three years library technician; at Clatsop Community College since 1977.

**KRUGER, J. DAVID** **INSTRUCTOR,**  
**CHEMISTRY**  
B.S. Chemistry, Harvey Mudd College, 1966; Ph.D. Chemistry, University of Washington, 1972. Postdoctoral research, University of Washington, IBM/San Jose, and Harvey Mudd College; at Clatsop Community College since 1973.

**McNARY, MARGERY F.** **INSTRUCTOR,**  
**BUSINESS EDUCATION**  
B.S. Business Education, Oregon State University, 1965; M.A. Counseling/Psychology, Stanford University, 1969. Over eighteen years teaching business and office practice courses; at Clatsop Community College since 1990.

**MORRISSEY, PATRICIA** **INSTRUCTOR,**  
**FOREIGN LANGUAGES/SPANISH**  
Masters in Marine Affairs, University of Rhode Island, 1991; M.S. Marine Biology, ITESM, Mexico, 1983; five years adjunct Spanish instructor at CCC; at Clatsop Community College since 1997.

**NEBEKER, ROYAL G.** **INSTRUCTOR,**  
**ART**  
B.A. Art, 1970, M.F.A. Design, 1971, Brigham Young University. Two years graphic design, motion picture art direction, interior design experience; at Clatsop Community College since 1974.

**NEWTON, JOHN R.** **INSTRUCTOR,**  
**INTEGRATED TECHNOLOGIES**  
Seventeen years high school industrial education instructor; at Clatsop Community College since 1989.

**REED, G. EDWARD** **INSTRUCTOR,**  
**INTEGRATED TECHNOLOGIES**  
A.A. Fine Arts, Ventura College, 1969. State, Federal and NASA Welding Certification; twenty-four years industry experience; one year elementary instructor; at Clatsop Community College since 1976.

**RICHARDSON, SUSAN C.** **INSTRUCTOR,**  
**MATHEMATICS**  
B.S. Mathematics, University of Portland, 1965; M.S. Education, Portland State University, 1966. Two years high school mathematics instructor; at Clatsop Community College since 1979.

**SAGE, FLORENCE E.** **INSTRUCTOR,**  
**SOCIAL SCIENCE/COUNSELOR**  
M.Ed. Counseling, Montana State University, 1986; M.A. English, University of New Brunswick, 1967. Seven years journalist and public information experience; two years college, mental health, and displaced homemaker counselor; Licensed Professional Counselor; at Clatsop Community College since 1987.

**SELIGMAN, ROSS** **INSTRUCTOR,**  
**PSYCHOLOGY**  
Advanced B.A. Psychology, Occidental College, 1989; M.A. Clinical Psychology, California State University at Los Angeles, 1991. At Clatsop Community College since 1998.

**SIMON, STEPHEN** **INSTRUCTOR,**  
**COMPUTER APPLICATIONS**  
M.S. Computer Education and Cognitive Systems, University of North Texas; B.S. Information Science, University of North Texas; at Clatsop Community College since 1996.

**TASHIMA, HIROTSUNE** **INSTRUCTOR,**  
**ART**  
B.F.A. Ceramics and Drawing, Osaka University of Arts, 1993; M.F.A. Ceramics, New York State College of Ceramics at Alfred University, 1990. Two years artist-in-residence; at Clatsop Community College since 1998.

**VORWERK, MICHAEL** **INSTRUCTOR,**  
**MATH**  
B.S. Applied Mathematics, Western Carolina University, 1987; M.S. Applied Mathematics, Georgia Institute of Technology, 1989; Ph.D. Zoology/Limnology, Clemson University, 1997. At Clatsop Community College since 1998.



**COORDINATOR,  
MORRISON, PATRICK S. EDUCATIONAL TALENT SEARCH**  
B.S. Liberal Studies, California State University-Sacramento, 1977; Multiple Subject Teaching Credential, California State University-Sacramento, 1978; Veteran's Counselor, American River College-Placerville. Three years elementary school teaching; six years as itinerant teacher/coordinator of Academic Talented and Gifted Program; independent video producer; mentor, Upward Bound Grant Program, 1993; at Clatsop Community College since 1993.

**OLDENKAMP, LINDA K. DIRECTOR OF ADMISSIONS**  
B.A. Elementary Education, Northwest Nazarene College, 1971; M.S. Adult Education, Oregon State University, 1976. Nine years industry experience; at Clatsop Community College since 1976.

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SERVICES  
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A.A.S. in Accounting from College of the Albemarle in NC. At Clatsop Community College since 1995..

**VICE PRESIDENT,  
COLLEGE SERVICES  
OVERTON, LINDI**  
B.A. English, Lindenwood College, 1973; M.S. Accounting, University of Missouri, 1987; Ph.D. Education, St. Louis University, 1997. At Clatsop Community College since 1998.

**DEAN, COMMUNITY EDUCATION  
PAINO, KATHLEEN**  
B.S. Humanities Education, Oregon State University, 1974; M.S. Art Education, 1978, M.S. Curriculum and Instruction, 1984, University of Oregon; at Clatsop Community College since 1979.

**VICE PRESIDENT, INSTRUCTIONAL  
PROGRAMS/STUDENT SERVICES  
PHILLIPS, DAVID W.**  
B.S. Forest Management, Humboldt State University, 1965; M.F. Forest Management, Oregon State University, 1969; Graduate U.S. Army Command and General Staff College, 1980. U.S. Coast Guard License - Operator Passenger Carrying Vessels (Ocean); three years private, state and federal forest experience; two years college forestry instructor; at Clatsop Community College since 1972.

**STUDENT SERVICES SPECIALIST  
PIERIE, TERRI**  
Seven years student services and financial aid experience, ten years business experience; at Clatsop Community College since 1989.

**EXECUTIVE ASSISTANT TO PRESIDENT  
POMEROY, DONNA**  
A.A. Liberal Arts, Clatsop Community College. Twenty-five years business operations experience; at Clatsop Community College since 1989.

**DIRECTOR OF  
COMPUTER SERVICES  
RICHARDS, ALAN T.**  
B.A. Mathematics, University of Oregon, 1969; M.A. Sociology, University of Washington, 1973. Twenty-one years industry experience; at Clatsop Community College since 1985.

**PROGRAMMER/ ANALYST  
SAMUEL, CONNIE**  
A.A. Business/Liberal Arts, Clatsop Community College, 1978. Seven years secretarial and office management experience, eight years experience as programmer/analyst; at Clatsop Community College since 1978.

**GUIDANCE COORDINATOR,  
STUDENT SUPPORT SERVICES (Plus)  
SEELEY, ESTEELE**  
B.S. Sociology, 1987; Certificate Women's Studies, 1989; M.S. Counseling Psychology, 1989, University of Oregon. Fifteen years special education/counseling experience. National Certified Counselor; ethnic/gender equity specialist; at Clatsop Community College since 1993.

**LIBRARY SPECIALIST  
SERREAU, ELIZABETH**  
M.L.S. U.C. Berkeley, 1991; C.A.F.B. Ecole Nationale Supérieure de Bibliothécaires, Masy, France; M.A. Comparative Literature, U. of O., Eugene, 1980; Licence Es Lettres, German, Université de Poitiers, France, 1978; at Clatsop Community College since 1995.

**GUIDANCE COORDINATOR  
UPWARD BOUND  
WALKER, INTZ**  
B.A. History, North Texas University, 1964, M.S.L.S., University of Southern California, 1967, M.A. Counseling/ Psychology, John F. Kennedy University, 1987. Thirteen years librarian, seven years Alternative Education teaching, four years marriage and family counseling experience; at Clatsop Community College since 1992.

**DISABILITY SPECIALIST  
WHITMAN, JENNIFER**  
B.S. Psychology, College of Charleston, 1994; M.S.W. University of Washington, 1996. At Clatsop Community College since 1998.

**BOOKSTORE MANAGER  
WONDER, JOHN**  
B.A. Political Science & Economics, University of California at Davis, 1966. Fourteen years experience business management experience; at Clatsop Community College since 1981.

**PRESIDENT  
WUBBEN, JOHN W.**  
A.A. Liberal Arts, Mesa College, 1959; B.A. Social Sciences, Adams State College, 1961; M.A. Education, Adams State College, 1961; Ed.D. Higher Education Administration, University of Northern Colorado, 1984. Twenty-seven years of higher education administrative experience in Colorado, Alaska, Wyoming, and Oregon; at Clatsop Community College since 1993.

**DIRECTOR, LIVES IN TRANSITION  
ZEA, ELAINE**  
B.A. Business Management, Linfield College, 1991. Three years experience as coordinator of Adult Education; at Clatsop Community College since 1992.

**GUIDANCE COORDINATOR,  
STUDENT SUPPORT SERVICES (Plus)  
ZINN, CAROL**  
B.S. English & Secondary Education, 1988; M.S.Ed. Southern Oregon State College, 1995. At Clatsop Community College since 1998.

# INDEX

<b>A</b>		<b>D</b>	
Academic Calendar .....	Inside Back Cover	Dance Courses .....	72
Academic Information .....	13	Degrees .....	13
Academic Programs .....	23	Associate in Arts .....	23
Academic Standards .....	15	Associate in General Studies .....	27
Accounting .....	30	Associate in Applied Sciences .....	28
Accreditation .....	1	Developmental Education .....	61
Activities, Student .....	21	Course Descriptions .....	72-73
Admission to the College .....	2	Disabled Students .....	19
Admission Workshop .....	2	Drafting .....	73-74
Advising .....	19	<b>E</b>	
Affirmative Action Policy .....	inside front cover	Early Childhood Education Certificate .....	40, 74-77
American Welding Society Entry Level Welding Cert. ....	48	Economics .....	74
Anthropology .....	62	Educational Talent Search .....	59
Applied Science Degree .....	28	Electronics .....	77
Applied Science Programs .....	30-53	Emergency Medical Technician Certificate .....	42, 77-78
Program Index .....	29	English .....	78-79
Warranty .....	13	English for Speakers of Other Languages (ESOL) .....	61
Apprenticeship .....	55	Environmental Science .....	79
Art .....	62-66	Ethics .....	95
ASSET .....	2	Extended Learning (see Community Education) .....	54
Associate in Applied Science .....	28	<b>F</b>	
Associate in Arts .....	23	Fees .....	4
Associate in Arts Worksheet .....	26	Financial Aid .....	6-8
Associate Degree Requirements .....	23	Fire Science .....	41, 80-81
Associate in General Studies .....	27	French .....	79-80
Associated Student Body Government .....	20	Full-time Students .....	2
Auditing a Class .....	12	<b>G</b>	
Automotive Technician Certificate .....	45	G.E.D. ....	61
Awards .....	18	Gender Equity in Professional Technical Education .....	60
<b>B</b>		General Office Certificate Program .....	35
Behavior Standards .....	21	General Science .....	82
Biology .....	67-68	General Studies Degree .....	27
Business & Industry, Services For .....	55	Geography .....	81
Business Courses .....	66-67	Geology .....	81
Business Management .....	31	German .....	81-82
Business Programs .....	30-37	Gold Card Status .....	5
Business Technical Options .....	38	Grades .....	14-15
<b>C</b>		Graduation Requirements .....	17-18
Cafeteria .....	20	<b>H</b>	
Career Services .....	19	Health .....	82-83
Carl Perkins Prof/Tech Improvement Grant .....	60	Health Occupations (also see Nursing) .....	42-43
Certificates .....	13	History .....	83-84
Chemistry .....	68-69	Honors & Awards .....	18
Code of Conduct .....	21	Human Development .....	82
CollegeCard .....	5	Human & Family Studies .....	83
College Preparation .....	61	Human Services .....	83
Community Education .....	54	<b>I</b>	
Computer Aided Design & Drafting (CADD) .....	46	Independent Study .....	16
Computer Science Courses .....	70-71	Industrial Manufacturing Technologies .....	44-48, 84-85
Continuing Education Units (CEUs) .....	13	Installment Payment Plan .....	6
Cooperative Education .....	16	Integrated Technologies .....	44
Counseling .....	19	International Students .....	3
Course Descriptions .....	62-101	<b>J</b>	
Course Numbering .....	14	JOBS Program .....	56
Credit .....	13		
Credit by Examination .....	15-16		
Credit for Prior Learning .....	16, 70		
Criminal Justice .....	39, 69-70		
Customized Training .....	55		

<b>L</b>	
Late Registration, Fee .....	4, 11
Law Enforcement (See Criminal Justice)	
Legal Word Processing .....	36
Library (Learning Resource Center) .....	17
Lifelong Learning .....	54
Linfield/Clatsop Program .....	56
Literacy Program .....	61
Literature .....	78-79
Lives in Transition .....	56

<b>M</b>	
Machine Tools .....	87-88
Machinist .....	47
Manufacturing Technology .....	84-85
Marine Safety Training .....	57
Marine Science Courses .....	85-87
Maritime Science Training .....	50
Maritime Sciences One-Year Certificate .....	49
Math Lab (SEA Services) .....	20
Mathematics .....	88-90
Mathematics Sequence Chart .....	103
Maxine's .....	20
Medical Assistant .....	43
Medical Word Processing .....	37
Microcomputer Applications-1 year certificate .....	32
Microcomputer Business Applications- Assoc. degree .....	33
Microcomputer Programming & Networking .....	34
Microcomputers .....	88
Mission Statement .....	inside front cover
Money Matters .....	4-10
Music .....	90

<b>N</b>	
New Student Orientation .....	2
Numbering, Course .....	14
Nursing .....	3, 51-53, 91-92
Nursing, Admission Requirements .....	3, 52
Nutrition .....	91

<b>O</b>	
Office Administration .....	92-93
Office Management .....	37
Office Systems .....	36-37
Oregon Advanced Technology Consortium .....	58
Oregon Transfer Degree .....	23
Organizations & Activities .....	21
Off Campus Classes .....	54

<b>P</b>	
Payment Options, Obligations .....	5
Pharmacology .....	95
Philosophy .....	95
Physical Education .....	93-94
Physics .....	95
Plus Program .....	19, 59
Political Science .....	95-96
Practical Nursing .....	53
Psychology .....	96-97

<b>R</b>	
Radar Observer Program .....	57
Reading, Developmental .....	73
Reading Sequence Chart .....	104
Records, Student .....	12
Recreational Opportunities .....	21
Refundable Fees .....	4
Refunds .....	6
Registration Information .....	11-12
Religion .....	97
Residency .....	5
Rights & Responsibilities .....	21

<b>S</b>	
Satisfactory Progress .....	8
Scholarships .....	9-10
SEA Services .....	20
Senior Citizens .....	5
Small Business Development Center .....	55
Small Business Management .....	58
Sociology .....	97
Spanish .....	98
Special Programs .....	54-61
Speech .....	97-98
Student Activities .....	21
Student Center .....	20
Student Government .....	20
Student Records .....	12
Student Rights & Responsibilities .....	21
Student Services .....	19-21
Student Support Services .....	59
Summer Term .....	55

<b>T</b>	
Talent Grants .....	9
Talent Search .....	59
Televised Courses .....	54
Theatre Arts .....	98-99
Transcripts .....	12
Transfer Information .....	2
Transfer Programs/Degrees .....	23
TRIO Programs .....	59
Tuition & Fees .....	4
Tutoring .....	20

<b>U</b>	
Underage Students .....	11
Upward Bound .....	59

<b>V</b>	
Veterans Services .....	20
Vocational Programs (See Applied Science)	
Volunteer Literacy Tutor Program .....	20

<b>W</b>	
Warranty, Associate in Applied Science .....	13
Welding .....	48, 99-100
Withdrawal .....	12
Work Experience for Credit .....	16
Work Study Aid (See Financial Aid)	
Writing .....	100-101
Writing Sequence Chart .....	102

# ACADEMIC CALENDAR 1999 - 2000

	<b>SUMMER 99</b>	<b>FALL 99</b>	<b>WINTER 00</b>	<b>SPRING 00</b>	<b>SUMMER 00</b>
<b>EARLY REGISTRATION</b>	June 1	June 1	November 28	March 6	May 30
<b>REGISTRATION</b>	June 21	September 1	January 3	March 27	June 19
<b>CLASSES BEGIN</b>	June 21	September 20	January 3	March 27	June 19
<b>HOLIDAYS</b>	July 5	Nov 11 Nov 25 & 26	January 17 February 14	May 29	July 4
<b>FINAL EXAMS</b>	Aug 9 -12	Dec 6 - 10	March 14 - 17	June 5 - 9	Aug 7 - 10
<b>VACATIONS</b>	Aug 13 - Sept. 19	Dec 13 - Jan 2	March 20 - 24	June 10 - 18	August 11 - Sept. 17
<b>END OF TERM</b>	August 12	December 10	March 17	June 9	August 10
<b>GRADUATION</b>				June 9	





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