



2010-2012 Catalog



3028 Lindbergh Avenue
Bellingham WA 98225-1599
Phone 360.752.7000 • Fax 360.676.2798
www.btc.ctc.edu

Effective Fall 2010

MESSAGE FROM THE PRESIDENT



On behalf of the Board of Trustees, faculty, administration, and the staff, I welcome you to Bellingham Technical College.

Whether you are just out of high school, beginning or re-entering college or a life-long learner, you will find that Bellingham Technical College (BTC) offers a wide range of opportunities to create the educational future that's right for you. Located in beautiful northwest Washington, on the shore of north Puget Sound, Bellingham Technical College is a diverse community of students and faculty engaged in the pursuit of learning. At Bellingham Technical College, you will find exemplary faculty who, along with our dedicated staff, are committed to helping you achieve your educational goals and prepare for your career.

Bellingham Technical College's certificate and degree programs have earned a well-deserved regional and national reputation of excellence. The College offers solid academic instruction and partners with business, industry, and other educational institutions to ensure our programs meet current workforce and employer needs.

Bellingham Technical College prepares students for careers in many fields, and our approach is high-tech, hands-on, and student-centered. Business owners, corporate leaders, and our students all agree that BTC is a first-rate workforce training institution. Annually we conduct a survey of current students and employers. Last year, the responses we received were consistent with those of many prior years: 98 percent of our students would recommend BTC to potential students and 96 percent of area employers are both satisfied with the workplace performance of BTC graduates and eager to hire more. Even in these challenging economic times, our graduates are still finding work.

Our goal is your success, now and in the future. Thank you for your interest in Bellingham Technical College and again, welcome to our campus.

A handwritten signature in cursive script that reads "Patricia L. McKeown".

Patricia L. McKeown, Ed D
Interim President

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About Our College



ABOUT BTC

BTC History

Bellingham Technical College began in 1957, serving Whatcom County adults as Bellingham Vocational Technical Institute and was operated by Bellingham School District. In 1991, through state legislative action, the institution was designated a member of the Washington State Community and Technical College system as Bellingham Technical College (BTC). The College is located in a district of 2,210 square miles with a population of over 193,100. The majority of students are local, with a growing number moving to the area to enroll at BTC.

About our Students

In the 2008-2009 academic year, the College served over 8,400 students. In fall of 2008, the student body was 53 percent female, 27.6 percent male with 19.4 percent minority students, and the average student age was 29 years old. BTC served over 2,336 full-time equivalent students during the 2008-2009 academic year.

Accreditation Status

Bellingham Technical College is accredited by Northwest Commission on Colleges and Universities, 8060 165th Avenue NE Suite 100, Redmond, Washington 98502-3981. The Commission is an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. In addition to institutional accreditation, many of BTC's programs have national certification or accreditation. These are highlighted in the program descriptions and include Dental Assisting, Culinary Arts, EMT-Paramedic, Automotive Technology, Diesel Technology, and Surgery Technology.

Advisory Committees

The degree & certificate programs at Bellingham Technical College rely on the involvement and support of over 300 business and industry employers and employees from the community. Advice and direction offered by experts in the working world ensure that students are acquiring the knowledge and skills that are in demand in the workforce.

An advisory committee representing each specific professional technical field meets regularly with the faculty of the same instructional area on matters of curriculum review and development, facilities and equipment, guidance and career advisement, employment opportunities and placement, plus public relations and promotional activities.

Drug Free Workplace

BTC intends to promote a drug free, healthful, safe and secure work environment. The unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in or on property owned or controlled by Bellingham Technical College. The use of any unlawful controlled substance while in or on property owned or controlled by BTC is prohibited. No employee will report to work while under the influence of any unlawful controlled substance. A controlled substance is defined by RCW 69.50.201 through RCW 69.50.214 or pursuant to Title 21 USC Section 821 (Schedules I-IV), as now enacted or subsequently amended. Violation of this policy by any employee may result in a referral for mandatory evaluation

or treatment for a substance abuse disorder. Disciplinary action up to and including dismissal from employment may be imposed.

BTC recognizes drug dependency to be an illness and major health problem. The institution also classifies drug usage and abuse as a potential safety and security problem. Employees needing assistance in dealing with such problems are strongly encouraged to utilize the Employee Assistance Program provided by health insurance plans, when appropriate.

Equal Opportunity Statement

BTC provides equal opportunity in education and employment, and does not discriminate on the basis of race, ethnicity, creed, color, sex, national origin, age, marital status, religious preference, the presence of any sensory, mental, or physical disability, reliance on public assistance, sexual orientation, status as a disabled person or Vietnam-era veteran, or political opinions or affiliations. The College complies with all Washington State antidiscrimination laws (RCW 49.60) and the following federal laws relating to equal opportunity: Title VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA). Questions regarding Title IX, Section 504, equal opportunity, affirmative action, or the ADA should be directed to Human Resources, Building A, Room 2, 360.752.8354 or 752.8515/TTY.



STRATEGIC PLAN

Vision

Bellingham Technical College will be a recognized leader in providing innovative and effective technical education, creating options for career success, and developing a competitive workforce.

Mission

Bellingham Technical College delivers superior professional technical education for today's needs and tomorrow's opportunities.

Values

As a learning community, Bellingham Technical College is committed to educational excellence realized through a positive, values-based campus environment. To realize BTC's mission and vision, the college will adhere to the following values:

STUDENT SUCCESS

Promote instruction, activities, and an environment to enable student success.

INCLUSIVENESS

Create a welcoming, respectful campus.

LEADERSHIP

Support instruction in current and emerging workforce skills.
Structure learning that embraces, adapts to, and fosters change.

OPPORTUNITY

Provide seamless educational opportunities.
Improve the quality of life for students and employees.

PARTNERSHIP

Contribute to a sustainable regional economy.
Create mutual value for students, the College, and the community.

ACCOUNTABILITY

Foster a results-oriented culture.
Demonstrate ethical decision-making and stewardship of public and private resources.

Goals

ACCESS

BTC will increase student access to seamless, educational pathways.

MARKETING & RESOURCE DEVELOPMENT

BTC will broaden resources and community support to ensure the College's growth and viability.

EXCELLENCE & INNOVATION

BTC will support and promote excellence and innovation throughout the College.

STUDENT SUCCESS

BTC will increase students' goal achievement by providing activities and opportunities for learning, growth, and leadership.

PARTNERSHIPS

BTC will maintain and develop effective partnerships that enrich the communities it serve.

WELCOMING CAMPUS ENVIRONMENT

BTC will create and maintain an attractive and inclusive campus environment that promotes a sense of community, respect for individuals, and effective work and learning.

ACCOUNTABILITY

BTC will demonstrate to its constituents the effective, efficient, ethical, and strategic use of all resources.



BTC FOUNDATION

The mission of the Bellingham Technical College Foundation is to enhance student success by raising community awareness and securing gifts that support student scholarships, program development, and capital projects or campaigns. The Foundation achieves this mission through fundraising and friend-raising activities and events with individuals, businesses, alumni, grant-making institutions and other community organizations.

Established in 1987 as a non-profit, tax-exempt organization, the Foundation is governed by a volunteer board of directors and comprised of business and civic leaders from around Whatcom County. Early on, the Foundation's primary function was to serve as a conduit for scholarship awards and in-kind gifts to the College. Since 1997, when staff was first hired, the BTC Foundation has played an increasingly important role in helping Bellingham Technical College reach its goals.

As a result of its expanding role, the Foundation's activities now include planned giving, capital campaigns, event coordination, alumni relations, and equipment fundraising, along with scholarship fundraising, strengthening community relations, and securing in-kind gifts for the College. In the past three years, the foundation has witnessed its greatest success by increasing student scholarship disbursements by over 100 percent!

If you or someone you know wants to make a gift to the Foundation, you can do so online by visiting the Foundation website at www.btcfound.org, or by calling 360-752-8464. The Foundation accepts gifts of stock and equipment and offers the flexibility of making pledged gifts over time. Moreover, if you are interested in making a bequest to the College or establishing a planned gift, please contact the Foundation's Executive Director at 360-752-8378.

BTC transforms lives. The Foundation is privileged to be able to work on behalf of the College and to champion student success. We thank each one of our donors, business, and corporate partners for their confidence in our work, our faculty, and our students.

Please come by and visit us. Our door is always open.

Bellingham Technical College Foundation
College Services Building, Suite 204
Bellingham, WA. 98225
Telephone: 360-752-8464
www.btcfound.org



COLLEGE CALENDAR 2010-2012

FALL QUARTER 2010

BTC Classes Begin	September 20
WAOL Classes Begin.....	September 23
Faculty Inservice (no daytime program classes).....	October 29
Continuing Program Student Registration by Appt for Winter Begins	November 8
Veteran's Day Holiday	November 11
New Program Student Registration by Appt. for Winter Begins.....	November 15
Last Day to Officially Withdraw or Change Schedule in a Fall Program	November 17
Thanksgiving Holiday	November 25-26
Winter Quarterly Schedule Available and General Registration Begins	November 29
Tuition/Fees Due for Winter	December 8
Quarter Ends	December 10
Grades Posted to Student Transcripts.....	December 17

WINTER QUARTER 2011

Winter Break	December 13 – January 4
BTC Classes Begin	January 5
WAOL Classes Begin.....	January 6
Martin Luther King Jr. Day Holiday	January 17
Continuing Program Student Registration by Appt for Spring Begins.....	February 9
New Program Student Registration by Appt for Spring Begins.....	February 14
President's Day Holiday	February 21
Spring Quarterly Schedule Available and General Registration Begins.....	February 28
Last Day to Withdraw or Change Schedule in a Winter Program	March 2
Tuition/Fees Due for Spring	March 16
Quarter Ends	March 24
Grades Posted to Student Transcripts.....	March 31

SPRING QUARTER 2011

Spring Break	March 25-April 4
WAOL Classes Begin.....	March 31
BTC Classes Begin	April 5
Continuing Program Student Registration by Appt for Summer & Fall Begins.....	May 9
New Program Student Registration by Appt for Summer & Fall Begins.....	May 16
Summer Quarterly Schedule Available and General Registration Begins.....	May 23
Memorial Day Holiday.....	May 30
Last Day to Withdraw or Change Schedule in a Program	June 1
Tuition/Fees due for Summer	June 2
Quarter Ends	June 21
Grades Posted to Student Transcripts.....	June 28

SUMMER QUARTER 2011

WAOL Classes Begin.....	June 23
BTC Classes Begin	June 27
Independence Day Holiday.....	July 4
Last Day to Withdraw or Change Schedule in a Summer Program	July 19
Fall Quarterly Schedule Available and General Registration Begins.....	August 1
Quarter Ends	August 4
Tuition/Fees Due for Fall	August 23
Grades Posted to Student Transcripts.....	August 31

College Calendar – subject to change.
Visit us on the web at www.btc.ctc.edu

LIMITS OF CATALOG

Bellingham Technical College reserves the option to amend, modify, or revise any provision of this catalog and its programs for any reason, including but not limited to:

- A lack of funds to operate a program or course
- Unavailability of faculty
- A change in administrative or Board of Trustees policy
- A change in laws, rules, or regulations of the State of Washington, which governs the operation of technical colleges

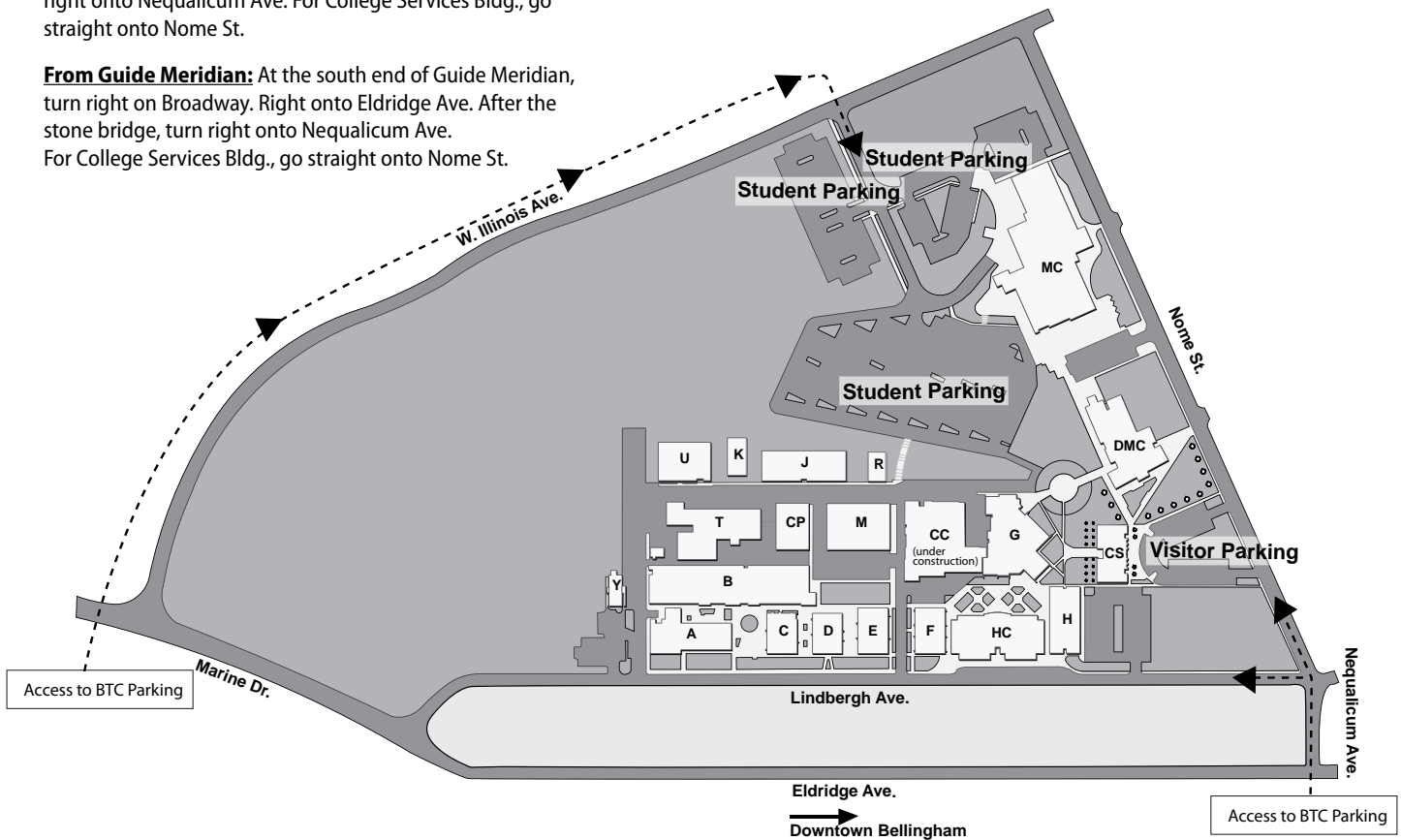
BTC Map & Directions to Campus

How to Find our Campus

From I-5: Take Exit 258 (airport exit), follow the signs - left off the exit, left onto Bennett Drive, left onto Marine Drive, left onto Lindbergh Ave. For College Services Bldg., turn left onto Nome St.

From Downtown Bellingham: Follow Holly St. to Eldridge Ave. After the stone bridge (watch for sign), turn right onto Nequalicum Ave. For College Services Bldg., go straight onto Nome St.

From Guide Meridian: At the south end of Guide Meridian, turn right on Broadway. Right onto Eldridge Ave. After the stone bridge, turn right onto Nequalicum Ave. For College Services Bldg., go straight onto Nome St.



A	Library, Tutoring Center, Human Resources	H	Health Occupations, Practical Nursing, Continuing Ed
B	Building Construction, Appliance & Refrigeration, Precision Machining, & Electrician	HC	<u>Haskell Center</u> Nursing, Radiologic Technology, Surgery Technology, General Ed
C	Dental Assisting & Dental Hygiene, Dental Clinic	J	Engineering, Surveying & Mapping
CC	Campus Center (under construction)	K	Facilities
CP	Construction Pavilion	M	Automotive Technology
CSB	<u>College Services Bldg</u> Student Services, Administration	MC	<u>Morse Center</u> Welding, Auto Collision
D	Computer Networking	R	Bookstore
DMC	<u>Desmond McArdle Center</u> Instrumentation, Process Technology, Electronics	T	Diesel Equipment
E	Learning Center, Veterinary Technician	U	HVAC
F	Business Courses	Y	Family Learning Center
G	Cafe Culinaire, Cafeteria, Bake Shop, Culinary Arts		

Instructional sites are easily accessible to students using wheelchairs or crutches. Building M and Fisheries Technology are not barrier-free. Disabled students who wish to take a class at a site which does not accommodate their disability should contact the Career Center.

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Getting Started



ADMISSION & ENROLLMENT

College Services Building, 102
360-752-8345

Students must apply for program admission to all programs and register in the degree/certificate program. Students may register for full-time or part-time based on personal preference, availability of space, and/or specific program offerings. Most courses within the program will be offered at various times throughout the program as scheduled by the instructor. In some programs, specific courses required for a degree/certificate may only be offered in certain quarters. Students should consult a BTC counselor, advisor, and/or faculty advisor to assist in determining the best schedule option to meet their needs.

Full-time students enroll in a minimum of 12 credits; part-time students enroll in a minimum of 6 credits. Full-time students generally attend class six hours per day, five days per week. The maximum amount of credits a student may enroll in per quarter is 26. Enrollment in more than 26 credits requires written approval from the program Dean. Specific program information is defined in the sequence and schedule section on the program pages of this catalog.

Assessment testing is required for degree/certificate-seeking students in all programs except Bookkeeping Assistant, Business & Supervision Management, Child Development, Clerical Assistant, Construction Management, Customer Service Management, Human Resource Management, Hypnotherapy, Leadership Management, Medical Coding, Medical Insurance Billing, Nursing Assistant, Paraeducator, Personal Fitness Trainer, Project Management, Residential Home Inspection, and Retail Management. Students seeking enrollment in these programs at Bellingham Technical College should utilize the Course Registration Procedure.

ASSESSMENTS & TESTING

Placement Testing

Student success in individual degree/certificate programs and in subsequent employment is closely related to abilities to read and compute. For this reason, acceptance into specific degree/certificate programs is determined in part by students' demonstration that their reading and mathematic competencies are at the level identified for program success. Students seeking enrollment in most programs must achieve required scores in reading and mathematics. BTC uses the College Board's Accuplacer Placement Test to assess students' academic skill levels. Requirement for Accuplacer testing may be waived upon evaluation of official transcripts from a regionally accredited college or university. Request for evaluation for Accuplacer waiver should be made to the Admissions and Advising Office.

The Accuplacer is available at scheduled times through the Assessment Center. Appointments are required and can be made through the Admissions and Advising Office at 360-752-8345. Students may take any portion of the Accuplacer Test a maximum of two times within a 12 month period. Test scores are valid for a period of 5 years. Students must present picture identification when they report for testing.

PROGRAM ADMISSION PROCEDURE and POLICIES

New students may be admitted into degree/certificate programs at the beginning of each quarter. Some programs have established entry dates or multiple start dates throughout the year.

Applicants seeking program admission are encouraged to meet with an advisor or counselor to discuss specific plans prior to completing the application process. Contact the Admissions and Advising Office at 360-752-8345 to meet with an advisor and receive program and schedule information. Contact the Counseling and Career Center at 360-752-8450 to meet with a counselor if you need assistance deciding on a program.

1. Complete the Degree/Certificate Program Admissions Application. Applications for program admission are accepted at any time. The application will be kept on file for a period of one year beyond the date of application. Applicants who complete the admissions process and are placed on a program ready list (wait list) do not need to resubmit an application while waiting for a program opening. After one year of inactivity, the applicant will need to reapply. Application materials can be obtained through Admissions and Advising at 360-752-8345.
2. Take the Accuplacer Placement Test, or equivalent assessment test, and achieve required scores for the specific program or college coursework as defined below. If the placement scores are below the level identified for the specific program, the student will meet with an advisor to identify an individual plan of study. Appointments for the Accuplacer test can be made through Admissions and Advising at 360-752-8345.
 - a) An applicant seeking program admission, who has completed a minimum of three credits for a course in English or mathematics with a "C" (2.0) grade or above, which at that college is deemed a prerequisite for a course equivalent to the BTC course in which the student wishes to place, may have the Accuplacer requirement waived upon evaluation of an official transcript from a regionally accredited college or university and completion of the Evaluation Request form. Requests for evaluation of transcripts for Accuplacer waiver can be made to the Admissions and Advising Office.
 - b) Applicants who have taken other college placement/assessment tests (i.e. ASSET, COMPASS, SAT, etc.) at accredited colleges or universities may request evaluation of the official scores for equivalency to the Accuplacer. Requests for test score equivalency may be made to Admissions and Advising.
 - c) Certain programs require higher placement in general education requirements in reading and mathematics.
 - Students interested in programs that require English Composition (ENGL&01), such as Practical Nursing, must test into the course or complete preparatory coursework such as Fundamentals of Standard Written English (ENGL 092) or Oral and Written Communications (COM 170), prior acceptance.
 - Students interested in programs that require Precalculus I (MATH&141) such as Civil and Mechanical Engineering, Process Technology, Instrumentation, Electronics, and Surveying & Mapping must test into Precalculus I or complete Intermediate Algebra (MATH 099) at a minimum for acceptance.
3. Some programs have additional admissions requirements, which may include but are not limited to:
 - Criminal background check
 - Prerequisite course requirements
 - Evidence of high school completion or equivalent

Admission & Enrollment Policy

In accordance with WAC 131-12-010, any applicant to Bellingham Technical College seeking admission or enrollment shall be accepted on a space available basis when, as determined by the President or designee, such applicant:

1. Is competent to profit from the curricular offerings of the College (for degree/certificate programs, attainment of identified scores in reading comprehension and in arithmetic or algebra on the Accuplacer or equivalent test is required)
2. Would not, by his or her presence or conduct, create a disruptive atmosphere within the College inconsistent with the purposes of the institution,
3. Is eighteen years or older OR is a high school graduate OR has applied for program admission under the provisions of a student enrollment options program such as Running Start or a successor program OR has applied for program admission under the Local Enrollment Option

Local Enrollment Option

Bellingham Technical College will admit students to degree/certificate programs and courses who:

1. Are sixteen years of age or older, and
2. Meet the requirements of Section 1 and Section 2 above, and
3. Are not currently enrolled in high school, or who are currently enrolled high school students who have written approval (if required) from their sending high school to enroll, and who agree to pay all regular tuition and fees.

(See Underage Admission or Enrollment Appeal listed below.)

Admission & Enrollment Policy Appeal Procedure

Persons who have been denied admission or enrollment may appeal the decision. The appeal should be directed, in writing, to the Vice President of Student Services. Such written petition must include, at a minimum, the reasons that support reconsideration of the application or the policy. Any appeal to the Admission & Enrollment Policy must be reviewed and approved by the College President or designee. Persons may further appeal the decision of the Vice President by requesting an Admission Appeal Hearing.

Underage Admission or Enrollment Appeal

The College does not desire to replace or duplicate the functions of the local public and private schools. Persons who do not meet the regular admission and enrollment standards and who are under sixteen years of age may appeal for special admission to degree/certificate programs or short-term courses. Requests for consideration of an underage admission or permission to register in a course must be submitted to the Vice President of Student Services, in writing, at least one week prior to the start date or registration date. Written request must include evidence that

1. The student is competent at an appropriate academic level and/or technical skill level
2. The student demonstrates the ability to participate in an adult learning environment

(See also Local Enrollment Option listed above.)

Degree/Certificate Program Re-Admission Policy

Students seeking readmission to degree/certificate programs may return to the same program at priority placement for a negotiated re-entry date, one time only. Re-admitted students will be enrolled

on a space available basis and will be required to re-submit a Degree/Certificate Program Admissions Application and meet any new program admissions requirements. This may include repeating the Accuplacer Placement test to meet current program level requirements. Health program students will be enrolled on a space available basis into the same cohort that the student exited from.

Students seeking program readmission who have not officially withdrawn or who are seeking program admission in a different degree/certificate program must complete the BTC application process including meeting all program admissions requirements at the time of application for enrollment. Students will be placed on the bottom of the program ready list and will receive a registration appointment in the order that they applied.

New Student Orientation

GET READY! New Student Orientation is designed especially for students new to BTC. In this information packed session, we'll demonstrate all of the resources needed to be a successful BTC student. From support systems and online services to advisors and counselors, GET READY! introduces the people, places, and attitudes that will help students navigate their educational experience, and show where to find help when it is needed. Students in their first quarter of classes are expected to register for and attend GET READY!. A current list of GET READY! seminar offerings is available in the quarterly schedule and online.

HIGH SCHOOL DUAL ENROLLMENT PROGRAMS

College Services Building, 102
360-752-8345

Running Start

Running Start is a statewide program that provides an opportunity for qualified high school juniors and seniors to attend college classes tuition free while completing high school. Students enroll simultaneously in high school and college classes (or solely in college classes) for the purpose of earning credit to be awarded by the high school and college.

At BTC, Running Start students apply to a professional technical program and enroll in courses directly required to that specific degree/certificate. Running Start students are expected to attend and complete the entire course session and receive a satisfactory decimal grade. Students are not eligible to challenge a course to receive a "CR" on their transcript. The Running Start program is not available during Summer Quarter, however students interested in attending during summer may elect to self-pay tuition and fees.

Students must pay administrative, technology, and program fees and submit a signed Running Start Referral Form when registering each quarter. A waiver form for the administrative and technology fee charges is available for low income Running Start students. Running Start students must meet eligibility criteria outlined by Statute RCW 28A.600.310 and submit the waiver request upon enrollment and no later than the first day of classes. Running Start students are still responsible to pay all other program fees. Eligibility criteria and waiver forms are available at the Registration Department or from the Running Start Advisor.

Students needing program information, guidance, or counseling in completing this process should schedule an appointment with the BTC Running Start advisor at 360-752-8459.

Application Process

To apply for enrollment in Running Start, the student must:

1. Meet with a high school counselor to determine a plan for study. The student is responsible for notifying the school district through which the student seeks to obtain the award of running start program high school credit of the specific courses he or she intends to take and shall request confirmation of the amount of high school credit that will be awarded upon successful completion of the courses (WAC 392-169-050)
2. Take the Accuplacer Placement Test in the Assessment Center, College Services Building, or at student's high school if applicable. Running Start students must achieve program level scores to be eligible to participate in the Running Start program. High school students may not enroll in remedial or pre-college courses (numbered below 100) at BTC through the Running Start program.
Students whose scores are below the level identified for the program they have selected should meet with a BTC counselor or advisor for planning.
3. Complete the Degree/Certificate Program Admissions Application Form and submit it to the Admissions and Advising Office, indicating Running Start student.
4. Receive a registration appointment. Submit signed Running Start Referral Form and BTC Registration Form at the assigned time for registration. Pay all consumable fees by the due date indicated.
5. Attend GET READY! New Student Orientation.

Tech Prep

Tech Prep is a college preparatory program that offers high school students an opportunity to earn college credit for approved high school courses. Working together, high school and college instructors have determined that certain high school career and technical education courses meet the entry level course requirements of comparable college courses. These courses are identified as Tech Prep approved. Students enrolled in these courses may be eligible to receive BTC credit through the schools' articulation agreements with the college.

Students who complete approved high school College Tech Prep courses with a grade of "B" or better may request college credit by completing and submitting a Dual Credit Application Form. Registration instructions are available in the career and counseling centers at each area high school. All college Tech Prep courses accepted for credit at BTC will be transcribed with the grade earned in the student's high school course. Courses are only transcribed within the academic year the student completes the course work.

Award of articulated credits through BTC does not guarantee or imply acceptance of such credits by other institutions. For more information, contact the BTC Tech Prep coordinator via email at techprep@btc.ctc.edu or visit Whatcom County's Tech Prep web site at www.whatcomtechprep.org

INTERNATIONAL STUDENTS

International students must demonstrate competency in English and mathematics and complete all other admissions processes before their program application will be activated and placed on the selected training program waitlist. Taking the TOEFL and attaining a score of 470 or greater may accomplish the reading portion of the assessment requirement. International students may be able to take this test through the U.S. Consulate or Embassy in their country. In

addition to this, students must meet admission requirements for the selected college program and the College. Some programs have pre-requisite requirements in mathematics, English, computer skills, and science that must be met before students will be placed on the program waitlist. Prerequisite requirements for each program are listed on the BTC web page, www.btc.ctc.edu, or contact the Admissions and Advising Office for program information. An official transcript must accompany any request for acceptance of prerequisite credit or advanced placement to a program from the college or university attended. If the college or university is located outside the United States, the class and credits will need to be evaluated by an independent credit evaluation service and the individual program dean at Bellingham Technical College. Several of these services are listed below. Do not send a program application with the application fee until you have met these requirements. Bellingham Technical College cannot issue an I-20 student visa for students to come to the College for placement testing.

INDEPENDENT CREDIT EVALUATION SERVICES

American Association of Collegiate Registrars

www.aacrao.org

World Education Services

www.wes.org

Foundation for International Students

19015 N Creek Parkway, Suite 103

Bothell, WA 98011-8019

REGISTRATION

College Services Building

360-752-8350

How to Register

Students may select and register for a variety of courses intended for employment training, retraining or upgrading, as well as personal enrichment, business, and professional development as listed in the quarterly schedule. Some BTC courses listed in the quarterly schedule do not require admission in order to register.

A student is considered officially enrolled in a course or program by registering and paying all tuition and fees by specific due dates. The student has the responsibility for completion of the Registration Form and payment of tuition and fees each quarter. Registration appointment dates for new and continuing degree/certificate program students are assigned by cumulative credit earned at BTC and students are notified prior to each registration period. All degree/certificate program tuition and fees must be paid on the due dates specified in the fee notices. Students may be withdrawn from programs if tuition and fees are not paid when due.

Changes in Program Schedule

Degree/Certificate program students may add or drop classes online using Online Registration or by submitting a completed Add/Drop Form to the Registration and Enrollment Office. Students receiving financial aid should consult with the Financial Aid Office before requesting to drop a class, as doing so may impact the financial aid award. Non-attendance in a class for which a student is officially enrolled does not constitute an official drop.

2010-2012 Getting Started

Students may change their schedule prior to the quarter start as space in a class allows. After the quarter begins, students will have the first five instructional days of the quarter (three days Summer Quarter) in which to change their schedule. Adding a class will depend on space available. If there is a waitlist, priority will be given to students on the waitlist. If space is available, and students have met all prerequisite requirements of the course, they may enter. If the class is full, students may enter a class by obtaining written permission from the instructor.

Refer to the College Calendar for specific program withdrawal and schedule change dates for each quarter.

See the Calendar for quarterly course registration dates.

Withdrawal Procedure

1. To officially withdraw from the college, students must complete the Add/Drop Form available at Registration and Enrollment. Refer to the College Calendar for specific program withdrawal and schedule change dates for each quarter. Students who do not officially withdraw from the college or never attended will forfeit any refund to which they may be entitled, and may be issued a failing grade by their instructor.
2. Students should meet with their instructor to discuss plans for withdrawal and potential plans for returning. Students may also meet with a counselor to develop future plans.
3. Students can withdraw online or bring the completed Add/Drop Form to the Registration and Enrollment Office for withdrawal to be official and to receive any refund for which they may be eligible. Students receiving financial aid should contact the Financial Aid office to give notification of intent to withdraw.

TUITION & FEES

All tuition and fees must be paid by the due date for the enrollment period. The College evaluates and adjusts the tuition and fees annually to conform with state legislative regulations and program/course costs. Adjustments in tuition and fees become effective at the time they are implemented. Because changes may be made during the academic year, an up-to-date listing of tuition and fees for any program is available on the BTC website, www.btc.ctc.edu. All applicants should review the current tuition and fee schedule at the time of application and before payment is due.

Running Start

Students must pay administrative, technology, and program fees and submit a signed Running Start Referral Form when registering each quarter. A waiver form for the administrative and technology fee charges is available for low income Running Start students. Running Start students are not eligible for financial aid.

Other Fees

Application Fee (health program exceptions, see application forms on website)	None
Criminal Background Processing Fee (Practical Nursing, Surgery Technology, Radiologic Technology, and Veterinary Technician only)	\$10.00
Student Body Card	\$ 7.50
GED Transcript	\$ 5.00
Replacement Student Body Card	\$ 7.50
Official BTC Transcript (per copy)	\$ 5.00
(No cost for unofficial transcript; available for student access on website)	
Replacement Degree/Certificate (per copy)	\$ 5.00

Refund Policy

General Refund Information

- An Official Withdrawal is defined as when a student has submitted a completed Add/Drop Form to the Registration Office before the withdrawal deadline. The refund will be calculated based on the date the Form is submitted rather than the last day of attendance. No refund of tuition and fees will be made beyond the current quarter.
- Students who fail to attend or stop attending a course or program without notice, and do not officially withdraw will forfeit all claims to the refund of tuition and fees and may receive a failing grade of "F". The College may drop students in courses who fail to pay at the time of registration or by the tuition and fee payment due date.
- Refunds for Financial Aid students may be adjusted based on the type of aid received. Contact the Financial Aid Office at 360-752-8351 for any questions.
- The College may extend the refund period for students with medical reasons or for those called into military service of the United States. Written documentation must be provided for consideration for an exception. All requests for an exception to the Refund Policy must be submitted in writing to the Director of Registration and Enrollment for determination.
- Refunds for payments made by cash or check will be processed through the Business Office and a check mailed within three weeks. Refunds for payments made by credit card will be processed back to the credit card in two business days. Outstanding debts to the college will be deducted from refunds.
- A 100 percent refund will be made when the college cancels a course.

Degree/Certificate Credit Courses

Non-degree/Non-certificate Credit Courses

General Education Courses (Supported with state funds)

STATE FUNDED (courses supported by state funds)

- One hundred percent refund if a student officially withdraws through the 5th instructional day of the quarter.
- Fifty percent refund if a student withdraws after the fifth instructional day through the 20th calendar day of the quarter.
- There are NO refunds after the 20th calendar day of the quarter.

Instructional Days are defined as days the College is in session, not including weekends or scheduled holiday.

Calendar Days are defined as all days the College is in session, including weekends and scheduled holidays.

Refunds for classes starting prior to the first officially scheduled day of the quarter are calculated by the 1st day of class rather than the first day of the quarter.

Refund Policy (continued)

Mini Sessions and Summer Sessions

(Sessions that are no longer than six weeks in length)

- One hundred percent refund if a student officially withdraws through the second instructional day of the session.
- Fifty percent refund if a student withdraws after the 2nd instructional day through the 5th instructional day of the session.
- There are NO refunds after the fifth instructional day of the session.

Community Education and Child and Family Life Courses**Child & Family Life Courses (supported by student fees)**

SELF-SUPPORT (courses supported by student fees)

- One hundred percent refund if official withdrawal is submitted by midnight two calendar days prior to the first instructional day of the class.
- There are NO refunds on or after two calendar days prior to the first instructional day of the class.

Exceptions to the Refund Policy

The College may extend the refund period for students with medical reasons or for those called into military service of the United States. Written documentation must be provided for consideration for an exception. All requests for an exception to the Refund Policy must be submitted in writing to the Director of Registration & Enrollment for determination.

TAX CREDIT INFORMATION

Note: The following information is general and is not for tax advice related to any taxpayer's particular situation. Please contact your tax advisor or IRS for questions or assistance.

The American Opportunity Tax Credit, which expanded and renamed the already existing Hope Credit, can be claimed for tuition and certain fees paid for higher education in 2009 and 2010. The American Opportunity Tax Credit can be claimed for expenses for the first four years of post-secondary education. It is a tax credit of up to \$2,500 of the cost of qualified tuition and related expenses paid during the taxable year. That is a \$700 increase from the previous Hope Credit. The term "qualified tuition and related expenses" has been expanded to include expenditures for "course materials." For this purpose, the term "course materials" means books, supplies, and equipment needed for a course of study whether or not the materials are purchased from the educational institution as a condition of enrollment or attendance.

Taxpayers will receive a tax credit based on 100 percent of the first \$2,000 of tuition, fees and course materials paid during the taxable year, plus 25 percent of the next \$2,000 of tuition, fees, and course materials paid during the taxable year. Tax liability will be reduced by one dollar per dollar of credit for which a taxpayer is eligible. If the amount of the American Opportunity Tax Credit for which a taxpayer is eligible is more than the tax liability, the amount of the credit that is more than the tax liability is refundable up to a maximum refund of 40 percent of the amount of the credit for which a taxpayer is eligible. A taxpayer who pays qualified tuition and related expenses and whose federal income tax return has a modified adjusted gross income of \$80,000 or less (\$160,000 or less for joint filers) is eligible for the credit. The credit is reduced ratably if a taxpayer's modified adjusted gross income exceeds those amounts. A taxpayer whose modified adjusted gross income is greater than \$90,000 (\$180,000 for joint filers) cannot benefit from this credit.

At the end of each tax year students will receive a 1098T form from BTC. The 1098T is for information only. The credit is claimed using Form 8863, attached to Form 1040 or 1040A. The American Opportunity Tax Credit is for amounts paid in 2009 and 2010 only. A taxpayer may be eligible for the lifetime learning credit for any tuition and fees required for enrollment you pay after 2010.

QUARTERLY PROGRAM COSTS

Estimated quarterly program costs for 2010-2012 are located online at www.btc.ctc.edu, under Student Resources>Registration>Tuition and Fees.

PAYING FOR COLLEGE

Financial Aid

College Services Building, 101
360-752-8351

To help finance your education, we encourage you to inform yourself about Student Financial Resources, which includes the Financial Aid Office and the Workforce Funding Office. To learn more, visit our website at www.btc.ctc.edu, read the available literature, or contact our office. Bellingham Technical College believes people should have the opportunity to achieve their educational goals and we are here to help support you in your educational efforts.

Financial aid is available for eligible students who enroll either to earn a certificate or a degree. Students and their families need not be low-income to qualify for some kinds of financial aid. Not all programs are eligible for financial aid. By applying for financial aid as early as possible and meeting the institutional priority date, students have the best chance of being reviewed before the beginning of each quarter, and the best chance of maximum funds eligibility each financial aid year.

Financial aid is intended to add to but not replace a person's financial resources. If combined resources are not sufficient to cover expenses, you may be eligible for financial aid in the form of grants, scholarships, low-interest loans, and student employment. You must demonstrate a financial need to be eligible for most types of assistance.

Financial need is calculated as the difference between the cost of attending school and what you and your family can afford to pay.

SAMPLE CALCULATION:

Cost of Attendance
- Expected Family Contribution
= Financial Need

The Free Application for Federal Student Aid (FAFSA) is the basic form to apply for assistance and is your passport to financial aid. Information on this form determines your eligibility for grants, scholarships, work-study, and low-interest loans.

FINANCIAL AID PROGRAMS**Financial Aid Procedure**

Complete and submit the Free Application for Federal Student Aid (FAFSA) to the federal processor. This application collects financial data and other information used to calculate the Expected Family

2010-2012 Getting Started

Contribution (EFC) that determines a student's eligibility for aid. Students may complete their FAFSA online at www.fafsa.ed.gov. Be sure to sign with an electronic signature from the pin site. Once BTC receives your FAFSA, other information may be requested from you to complete your file. Most of the forms needed may be downloaded from the Student Financial Aid Portal or from the BTC Financial Aid website.

Be certain that all required information has been received to complete your file. Students must reapply for financial aid each year via a new FAFSA after January first for the new award year beginning with Summer Quarter. The financial aid year begins with Summer Quarter and ends with Spring Quarter.

Eligibility Requirements

Students are eligible for financial aid if they are:

1. For most aid programs, attending for the purpose of obtaining a degree or certificate at the College. (Some certificate programs may not be eligible for certain types of aid. Check with the Financial Aid Office to verify program eligibility.)
2. A U.S. citizen or an eligible non-citizen.
3. Making satisfactory academic progress in a program of study as defined by the financial aid satisfactory progress criteria.
4. Not in default on any previous student loans or owing a refund on any grants.
5. Registered for the draft with Selective Service (if male), as required by law.
6. A high school graduate, or have a GED or have passing scores on an approved ability-to-benefit test.
7. Aid may only be offered for classes required for the student's program.

Students who have the equivalent of a bachelor's degree (including degrees earned in a foreign country) are limited to applying for loans and work-study assistance. Students will be notified of their financial aid award by mail or email. Awarding for Summer Quarter begins in May. Awarding for students starting school in September begins after summer term begins.

Satisfactory Academic Progress:

Students are expected to complete all classes paid for by financial aid, scholarships, and/or agency funding. When students do not complete all credits, financial aid warning status or termination from aid may result. Terminated students may appeal for reinstatement, but students should be ready to pay themselves while waiting for the committee's decision.

To remain in good standing, students need to maintain a quarterly 2.0 grade point average and complete all their attempted credits. All attempted credits count, no matter who paid for them. Students will be notified when they approach excessive credits, which is approximately 125 percent of their program. Students who change programs may run out of eligibility before completing a new program. Contact the financial aid office for details.

Federal Financial Aid Refund Policy

Students who receive federal financial aid are subject to the federal Return to Title IV Funds regulations. These regulations state that aid eligibility for a student receiving federal aid must be recalculated under most circumstances if the student withdraws from classes early or ceases to attend during the quarter. Some students may

owe a repayment to the federal and or state aid programs if they do not complete 61 percent of the quarter. This includes the Pell Grant, FSEOG, student loans, SNG, and other funds. These are governed by regulations and any resulting amounts owed are separate from and may be in addition to the College's own tuition refund policy. For a copy of the Return to Title IV Funds refund policy, please contact the Financial Aid Office.

Available Financial Aid Programs

Federal Pell Grant

The Federal Pell Grant is aid that is free monetary assistance for educational expenses. Students who have earned a baccalaureate degree are no longer eligible. Like other grants, the Pell Grant is adjusted for less than full-time enrollment.

Federal SEOG Grant

This is the Supplemental Educational Opportunity Grant. This grant is awarded to high need students who apply early in the year (funds are limited). Students must be eligible for the Pell Grant to receive this assistance.

Washington State Need Grant

This grant is available for Washington residents only. The State Need Grant is adjusted for less than full time enrollment and may not exceed the amount of allowable tuition and fees each quarter. Although this is a state grant, eligibility is determined by FAFSA.

Scholarships

Scholarships, like grants, offer free monetary assistance for educational needs. Scholarships are offered by multiple organizations associated with the College, and by outside agencies. For a current list of resources, please visit our website.

BTC Foundation Scholarships

Bellingham Technical College Foundation offers many scholarships to new and returning students enrolled in degree and certificate programs. Applications are generally open each Spring Quarter. Please visit the BTC Foundation website at www.btcfound.org for more information.

Student Work Study

Work Study is part-time employment funded by federal or state financial aid funds. Students apply by marking they are interested in work study on their FAFSA. State Work Study is available only to Washington state residents. Funds are limited and are awarded to students on the basis of need who apply early. Students may work up to a maximum of 19 hours a week. Students must be enrolled at least half-time. All placements are on campus at this time.

Stafford and Plus Student Loans

The Federal Stafford Loan is a student loan guaranteed by the federal government; students do not need to have established credit to qualify. Student repayment begins up to six months after you leave school or drop below half-time. The Parent PLUS Loan is available for dependent students, and parents may borrow up to the cost of the student's budget, minus any other aid, with this loan if approved.

Veterans Benefits

Eligible veterans or dependents of veterans must apply for admission to the college and should contact the college veteran's coordinator as early as possible before enrolling. Not all programs are eligible for veteran's educational benefits. Please call (360) 752-8450 for more information.

WORKFORCE FUNDING

Workforce Funding, a program within Student Financial Resources in 101 College Services Building, oversees the following funding resources listed below. Students may be eligible for additional funding to supplement their financial aid package available through the FAFSA (see section on Financial Aid). In some cases these programs can financially assist students who are not eligible for aid through the FAFSA.

Opportunity Grant

The Opportunity Grant program is designed to help low income students get prepared for and enter programs at Bellingham Technical College that will result in high demand, high wage occupations. The Grant provides tuition and fees for up to 45 credits, as well as \$1,000 for books and tools. The program is available for students below 200 percent of the poverty level, who are Washington state residents, have earned less than an Associate's degree, and are interested in any of the following programs: Welding, Surveying & Mapping, Precision Machining, Building Construction, Electrician, Instrumentation, Engineering, HVAC, Electronics, Process Technology, Automotive Technology, Diesel Mechanics, Surgery Technology, LPN, Electro Mechanical Technology, Dental Hygiene, and Dental Assistant (additional programs may be added).

Opportunity Grant supports students through financial aid planning, program choice, academic advising and support services. For more information on how to apply, call 360-752-8442.

Worker Retraining

The Worker Retraining Program is designed to help unemployed workers in a variety of situations. The Worker Retraining Program may provide assistance to students who:

- 1) Have been laid off or have received a layoff notice
- 2) are currently receiving or are eligible to receive unemployment benefits
- 3) Have exhausted unemployment benefits within the last two years
- 4) Are displaced homemakers
- 5) Were self-employed but are now unemployed due to economic conditions in our community
- 6) Are veterans having been honorably discharged within the past 2 years.

Bellingham Technical College can financially assist eligible students with an opportunity to upgrade skills with one-quarter classes, or with the first quarter of a full or part-time program. In addition to potential funding for one quarter, Worker Retraining offers assistance in a variety of other arenas, including coordination of programs and services with WorkSource and Employment Security. To find out more, please contact the Bellingham Technical College Worker Retraining Coordinator at 360-752-8492.

Basic Food Employment & Training (BFE & T)

BFE&T is another funding source that can help you get on, and stay on, your educational path. If you receive, or are eligible for federal Basic Food Assistance (food stamps), and do not receive TANF (Temporary Assistance to Needy Families), you may be eligible. BFE&T can help with a wide variety of expenses, including tuition, books, tools, supplies, job search and other services. BFE&T at BTC will also coordinate child care subsidy eligibility through the Department of Social and Health Services. Call 360-752-8492 for more information.

WorkFirst

WorkFirst is part of the Washington State Welfare-to-Work Program and provides tuition, books, and fees for qualified students as funding permits. Eligible students are WorkFirst parents who are receiving TANF cash grants and who are not receiving other financial assistance sufficient to pay all of the tuition, books, and fees. To apply, contact your Case Manager or Social Worker at DSHS. Receiving WorkFirst funding requires that the student have a career plan that includes development of basic skills, better employability skills, or a new career in order to progress in wages. Contact WorkFirst staff at 360-752-8467 or 360-752-8461.

Funding from Outside Agencies

The following are some of the state and local agencies that may provide funds for tuition, books, and/or equipment needed as a student at BTC. Each one has its own guidelines for determining eligibility and for what can be funded. Students should check with the agencies that might fit their individual circumstances. BTC processes the funding paperwork for these students, but it originates with the agency. Students may contact some of these outside agencies with this information:

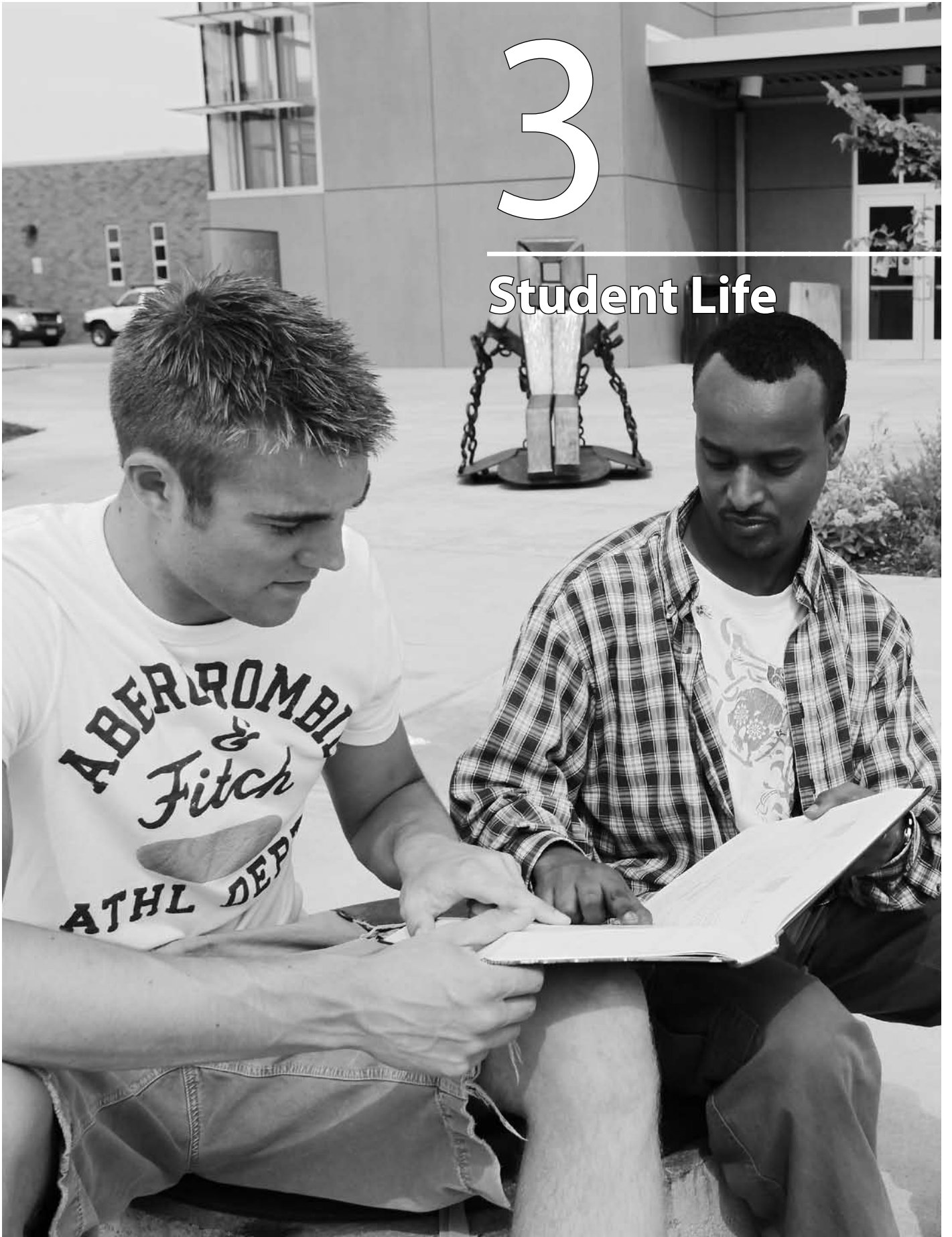
- Division of Vocational Rehabilitation (DVR), for individuals with disabilities, 360-714-4136.

- Division of Vocational Rehabilitation (DVR), individuals with disabilities, 360-714-4136
- L&I (Labor & Industries), 360-902-5800, injured workers who need retraining in order to return to work.
- Trade Act Adjustment (Employment Security), 360-676-3238, for dislocated workers who have been certified as eligible through the Trade Act by Employment Security.
- NWC Scholarships through WorkSource, 360-676-3242 or 360.676.3217, for individuals who are unemployed, at risk of losing a job, or underemployed.



3

Student Life



ADVISING, COUNSELING, & CAREER SERVICES

It is the goal of BTC advisors and counselors to facilitate access, retention, and success in workforce training and education by assisting students in planning, monitoring, and managing their own learning while pursuing career and personal development.

ADVISING

College Services Building, 102
360-752-8345

The Admissions & Advising Office is a great place to get started for students who need general program information, direction on admissions criteria, course placement and test advising, transcript evaluation, course sequencing planning, and for those who just need to know what steps to take next.

In addition to general program advising, advisors and staff provide campus tours, program information sessions, pre-enrollment workshops, and new student orientation. Advisors also help facilitate enrollment for Running Start students and students who are citizens of other countries.

Admissions Advisors are available on a drop-in basis Monday through Thursday from 10:00 am-4:00 pm. No appointment is necessary. For further information or to be directed to an advisor, please contact the Admissions Receptionist.

CAREER SERVICES

College Services Building, 106
360-725-8450

Career and employment services are available to prospective and current students as well as graduates of Bellingham Technical College through the Counseling and Career Center. The types of services included are résumé and cover letter development and critique, mock interviews, and job searching; all of which are provided on an appointment basis. Career Services also provides workshops to BTC programs throughout the year. Career and vocational assessments are administered by staff in the Counseling and Career Center. Students should make an appointment to arrange testing. Contact the Counseling and Career Center at 360-752-8450 to make an appointment.

The Counseling and Career Center coordinates targeted career and employment fairs that are held during the year. Contact the Counseling and Career Center for upcoming dates.

COUNSELING SERVICES

College Services Building, 106
360-752-8450

Counseling services available to students include academic, career, and personal counseling. Academic counseling is provided to assist with issues such as educational planning, adjusting to college life, study and time management skills, and test anxiety. Career counseling includes exploration of values, skills, and temperament for various careers, research into the world of work, career goal setting, and career assessments. Personal counseling is available for crisis management, stress and anxiety, depression, grief and loss, anger, abuse, cultural conflicts, relationship issues, life transitions, and community referral.

DISABILITY SUPPORT SERVICES

College Services Building, 106
360-752-8367

TTY: 360-752-8515

Bellingham Technical College is committed to ensuring access to facilities, programs, and activities for students with either permanent or temporary physical, sensory, or psychological disabilities through a variety of services and equipment. The Disability Support Services (DSS) Office, located in the Counseling and Career Center, coordinates accommodations for enrolled students with documented disabilities. Accommodations are determined on a case-by-case basis. DSS also provides needs assessment, mediation, referrals, and advocacy as necessary and appropriate. Requests for accommodations or services must be arranged in advance and require documentation of the disability, verifying the need for such accommodation or service. Requests for accommodations cannot alter the essential abilities required to perform an activity or program occupation. Additional information is available by calling 360-752-8450 (Voice); 360-752-8515 (TTY).

DIVERSITY / MULTICULTURAL SUPPORT SERVICES

College Services Building, 106
360-752-8450

Diversity/Multicultural Support Services assists students with diverse cultural and ethnic backgrounds, abilities, gender, and languages of origin to access, pursue, and attain success in achieving their educational goals. Students seeking assistance should contact the Director of Multicultural and Student Support Services at 360-752-8377 or schedule an appointment by calling 360-752-8450.

Creating and nurturing a diverse campus is a central goal in Bellingham Technical College's mission of delivering superior professional technical education for today's needs and tomorrow's opportunities. Engaging with and learning to honor a range of perspectives and backgrounds is of paramount importance to the College and in keeping with the spirit that is BTC.

At all times BTC strives to create an egalitarian environment in which students, faculty, and staff are encouraged to participate in the life of the campus free from harassment and discrimination. Ranging in age from 16 to 60+, our student body is comprised of more than 20 ethnic backgrounds, as well as single parents, veterans, adults wanting new careers, immigrants, GED holders, ESL, and first-time college students. Regardless of motivation, all seek an education with the common goal of enriching their own lives and that of their communities.

BTC encourages diversity on our campus by welcoming, respecting, and supporting people of every ethnicity, nationality, culture, gender, age, sexual orientation, religious belief, physical ability, and socioeconomic background.

BASIC ACADEMIC SKILLS

Learning Center
Building E, 213
360-752-8341

The mission of the Basic Academic Skills program is to prepare students for lifelong success by facilitating basic academic learning and workplace behaviors and attitudes.

LEARNING CENTER

The Basic Academic Skills Program offers

- Adult Basic Education (ABE) including reading, writing, and math
- GED preparation
- Study Skills/Accuplacer preparation
- English as a Second Language (ESL)
- Basic computer skills
- I-BEST programs

Adults who seek Basic Academic Skills classes should contact the Learning Center for information. The Learning Center hours are Monday through Friday from 8 am to 4:30 pm. and Monday through Thursday from 6:00 pm to 9:00 pm.

Most classes are offered in the morning (8 am-11 am), afternoon (12 pm-3 pm), and evening (6 pm-9 pm). See the Quarterly Schedule for details.

The Basic Academic Skills program is open to adults who meet these requirements for adult basic education:

- Completion of basic academic skills assessment (CASAS);
- Participation in orientation sessions;
- Commitment to regular attendance;
- Ability to participate positively in an adult learning environment; and sixteen years or older and not enrolled in a K-12 school.
- Sixteen to eighteen year olds must submit "Request for Approval to Test GED Certificate" signed by a high school representative.

REFUGEE ESL

The Refugee ESL program (Limited English Proficiency) is a specially funded class for recent immigrant adults who are referred through DSHS. ESL Levels one through four are taught in this program.

GED TESTING

GED testing is conducted in the Assessment Center at scheduled times. There is one fee of \$75 for the entire test battery and a fee of \$10 for each retest. Please contact Admissions & Advising at 360-752-8345 for more information or to schedule testing. Students must present state or federal issued picture ID each time they report for testing. Candidates must be at least 16 years of age. At the time of testing, those less than 19 years of age must bring a completed Request for Approval to Test Form signed by the designated employee at their current high school of residence. This form is available at each high school. Registration one day in advance is required for testing. 100 percent of the GED testing fee will be refunded, upon written request, prior to taking any tests in the GED battery. No refunds are offered for remaining tests once a student has taken any test in the battery. A retesting fee must be paid prior to retaking any individual tests. GED Transcript fee is \$4.00, and can only be requested in person or in writing. Contact the Assessment Center to request an official GED transcript at 360-752-8335.

Persons needing testing accommodations should meet with the BTC Disability Support Services in advance, 360-752-8367. Persons interested in preparation for GED testing should contact the BTC Learning Center at 360-752-8341.

ASSOCIATED STUDENT GOVERNMENT

Building D6
360-752-8357

The Associated Students of Bellingham Technical College (ASBTC) provides an opportunity for students to develop leadership skills and to take an active role in issues affecting students and the campus community. In an effort to promote student leadership opportunities and to further promote the development of students at Bellingham Technical College, the ASBTC is encouraged and supported by the faculty, staff, administration, and Board of Trustees of the College.

The goals of the ASBTC are to

- Provide a means of self-governance for the students of BTC
- Promote the educational, cultural, and social welfare of the students of BTC
- Guarantee an equal opportunity for student participation and representation
- Foster cooperation among students, faculty, administration, and the community

Membership is open to all persons currently enrolled in degree/certificate programs at BTC. The Student Senate consists of representatives and alternates elected from each degree/certificate program. The duties of the program representatives are to represent their programs in all matters coming before the Senate, to report Senate activities to their respective programs, to serve on Senate committees, and to set an example of school spirit, leadership, and citizenship. The Student Senate is governed by an Executive Committee. Students interested in participating in the Student Council should contact the ASBTC at <https://sharepoint.btc.ctc.edu/Programs/ASBTC> or 360-752-8357.

PHI THETA KAPPA

College Services Building 2nd Floor
pmcconne@btc.ctc.edu

Bellingham Technical College is pleased to offer membership in Phi Theta Kappa to students who exhibit academic excellence in associate degree programs. Phi Theta Kappa is the international honor society of the two-year college, which purposes to recognize and encourage scholarship among associate degree students. BTC's Beta Lambda Beta chapter of Phi Theta Kappa was chartered in 2002.

Invitation to membership is extended by the chapter to students who have completed at least 24 credits of coursework leading to an associate degree in which they have a grade point average of 3.5. Students pay a membership fee and are given access to online services and activities provided by Phi Theta Kappa.

Phi Theta Kappa provides opportunities for the development of leadership and service through chapter involvement and community service projects.

Information on Phi Theta Kappa is available in the Counseling & Career Center.

LIBRARY

Building A
360-752-8383

The Bellingham Technical College Library, located in Building A, encourages individual research and the exploration of ideas by connecting students, staff, faculty, and community with information for teaching and learning and by providing instruction to enhance information access and understanding. Books, DVDs, journals and digital resources are specifically selected to support the college curriculum. The BTC Library's digital resources include several journal databases which offer access to 9,000+ full-text journals, newspapers and ebooks. Access to BTC Library's catalog and digital resources is available through the library's website: www.btc.ctc.edu/library.

Library users are encouraged to ask for help. Library staff can give individual assistance and instruction from the Information Desk. Classroom instructional sessions on library research may also be arranged. If needed information is not available at Bellingham Technical College, we can help obtain materials from other libraries through interlibrary loan.

The BTC Library houses the campus open computer lab. There are 34 computers with 40+ types of software including one computer station with an Arkenstone Reader, which voices printed material; ZoomText; and a Clarity Flex Video Magnifier. Students may access the wireless network using their personal laptops or by borrowing a laptop for use in the library. Students may check out digital or video cameras, digital recorders, and flash drives at the Information Desk. Individual carrels, group study rooms, media viewing stations, and tables are available for quiet and group study.

Round-the-clock chat reference service is available at www.btc.ctc.edu/library/AskLibrarian.asp. Library staff are always available to help with research, information, and technology questions. For more information visit us in Building A, email at library@btc.ctc.edu or call 360-752-8383.

BOOKSTORE

Building R
360-752-8342

The BTC Bookstore is located in Building R, on the north side of campus overlooking the student parking lot. It provides the required textbooks and supplies for degree/certificate programs and courses. Bring a printed class schedule and bookstore staff will help find the required books. Textbook lists can be found at www.btcbookstore.com. Additionally, student ID cards are available at the bookstore for a cost of \$6.50. A variety of other goods, including office supplies, software, flash drives, calculators, book bags, BTC apparel, and other emblem items, as well as coffee, soda, pastries, candy, and other snacks.

Services include a student-accessible photocopying machine, outgoing fax service, phone service and special orders.

Students funded through an independent funding agency (DVR, Labor and Industries, etc.) or Workforce Investment Act (WIA) must work with counselors from their agency and the Admissions and Advising Office prior to purchasing books and supplies. Students receiving financial aid checks from BTC must pay for books and supplies at the time of purchase. The Bookstore does not cash financial aid or other two-party checks.

The bookstore accepts cash, VISA, MasterCard, most debit cards and personal checks with identification.

FOOD SERVICE

Building G
360-752-8347

Food service is available in Building G. The Cafeteria serves a selection pizza, salad bar, and other specialty favorites. The Bake Shop (in the foyer of Building G) also serves limited breakfast/lunch items, espresso, and fresh baked goods. Both operate from Monday-Friday. The Food Service Department also provides catering for meetings and college events. Conference/meeting rooms are available. For booking, please call the Food Service department.

The Culinary Arts Program operates the Café Culinaire restaurant and Culinaire Express window in the Cafeteria are both open to the public at selected times throughout the year. Please visit: www.btc.ctc.edu/Culinary/CafeCulinaire.asp

Vending machines are located in the College Services Building, buildings C and J, Haskell Center, Desmond McArdele Center, and Morse Center. Snack items can also be purchased in the BTC Bookstore.

INSURANCE

Students in degree/certificate programs that require work with machinery and who do not have personal accident insurance, are encouraged to purchase it, as BTC does not cover students' medical or accident insurance.

Voluntary student accident and health insurance is available for purchase by students enrolled at Bellingham Technical College. Insurance forms are available in the Counseling & Career Center in CSB 106 or by calling 360-752-8450. Students may also enroll in the Washington Basic Health Plan, which has a sliding scale cost based on income.

PARKING

Visitor parking is located in front of the College Services Building at the east end of campus off Nome street.

Free parking is provided in three parking lots located north of the campus buildings, accessed via West Illinois Avenue. The entire upper level of the college campus is designated as restricted parking and reserved for visitor, carpool, permit, and handicap parking.

Students who require use of handicap parking will need a handicap parking permit. Contact the Whatcom County Auditor (360-676-6740) for information on obtaining a permit. For information on handicap parking spaces at BTC, please contact the Information Desk, located in the College Services Building at 360-752-8300. Information on carpool parking spaces can be obtained by calling 360-752-8567

The following situations will be subject to vehicle towing at the owner's expense:

- Any vehicle that receives three parking violation tickets will be subject to towing when the third violation is issued (towing company will charge \$160 per hour for towing and \$45 per day for storage)
- Any vehicle parked in a fire lane or in handicap parking without a handicap parking permit will be immediately subject to towing and a parking citation by the Bellingham Police Department
- Vehicles left overnight or through the weekend on College property may be subject to towing

The College assumes no liability for vehicles parked in the campus parking lots.

Violations may also be forwarded to the Vice President of Student Services for disciplinary action.

PROGRAM SERVICES FOR THE PUBLIC

Many of the College's degree/certificate programs provide services or repairs for staff, students, and the general public if the work needed applies to the training of students in the program and does not negatively impact community private enterprise. Services include automotive, auto collision, electronic repair, and dental services.

The BTC Dental Clinic is open to the public and welcomes new patients September through June. Dental care is provided by a licensed dentist from the community and by dental assisting and dental hygienist students under the direction of certified faculty members. The Clinic provides low cost dental care on a cash-only basis. Contact the Clinic at 360-752-8349 for an appointment.

TUTORING SERVICES

Building A8
360-752-8499

Bellingham Technical College provides free drop-in tutoring to students all year when classes are in session. Tutors are recruited in all subjects where tutoring assistance is requested. Online tutoring is also available. To request tutoring assistance, contact the Tutoring Center at tutoring@btc.ctc.edu. The current drop-in tutoring schedule is available at www.btc.ctc.edu/tutoring.

4

Policies, Requirements, and Records



ACADEMIC REQUIREMENTS

Degree/Certificate Programs

The Associate in Applied Science (AAS) degree is awarded for completion of a comprehensive program of study in professional technical education designed to prepare graduates for technician level employment. Programs leading to the AAS degree are 90 or more credits in length.

The Associate in Applied Science-Transfer (AAS-T) option contains the technical courses needed for job preparation as well as 20 credits of transferable general education course work in English, math, psychology, transfer level humanities, social science, or natural science.

A certificate of completion is awarded for successful completion of an approved course of study totaling less than 90 credits within a program of professional technical education.

A state high school diploma is available to students who have not otherwise satisfied the State Board of Education's high school graduation requirements upon successful completion of a BTC AAS or AAS-T degree. Students must meet eligibility criteria as defined in bill SHB 1758 and present a written request for the diploma to the Registration and Enrollment Office.

Students may elect to graduate under the provisions of the catalog in force either at the time of entry OR at the time of completion, providing four years have not lapsed AND the student has remained continuously enrolled in the program. Students needing longer than four years to complete a given degree or certificate will be subject to any updated completion requirements.

The College provides assistance through faculty advisors, counselors, and the college catalog in determining if the requirements for graduation have been met. However, the final responsibility for meeting all completion requirements rests with the student. Students have the responsibility of verifying specific completion requirements with their faculty advisor.

General Completion Requirements

1. Complete, with a passing grade, all technical and general education courses as listed on the program pages defining requirements for individual degrees/certificates. Some degree/certificate programs may require minimum grades in required courses. See program pages.
2. Complete the BTC (Graduation) Application for each degree or certificate requested and submit to the Registration and Enrollment Office.
3. Meet all financial obligations to the College.
4. Earn a cumulative grade point average of 2.0 or above in the required program courses. Individual programs may require a higher grade point average.
5. Complete the last 50 percent of the required course work at BTC.

General Education Requirements

General education courses are included in the programs to prepare students with communication, computation, and interpersonal skills required for success. All candidates for degrees and certificate options of one year (45 credits) or longer in length must satisfy the requirements for general education in communications, psychology, and mathematics.

These requirements will be satisfied by completing the following courses: COM170 Oral and Written Communications (5 credits) or ENGL&101 English Composition (5 credits), PSYC&100 General Psychology (5 credits) or CMST&210 Interpersonal Communications (formerly PSYC111 Interpersonal & Organizational Psychology) (5 credits), MATH100 Occupational Math (5 credits), MATH&107 Math in Society (5 credits), MATH&111 Technical Math (5 credits) or MATH&141 Pre-Calculus I (5 credits); or equivalent courses included within the program requirements.

Requirements for individual degrees/certificates are listed on the program pages of this catalog. Appropriate safety, industrial safety, leadership, and environmental awareness instruction are included in the specific degree and certificate program requirements.

Challenge of some general education courses is permitted. Students must be registered in the course to be eligible to challenge. Successful challenge of courses will be transcribed with a "CR" grade. Challenge procedure directions are available from the general education course instructor.

STUDENT GRADES

Grading Policy

BTC uses the letter grading symbols listed below:

Grade Point Value

Grade	Point Value
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0

Interpretation of Grade Symbols

A (4.0) Excellence in Achievement of Competency

In relation to the standards set for the course, the student has done an exceptionally high level of work and has achieved all competencies.

B (3.0) Above Average Achievement of Competency

In relation to the standards set for the course, the student has significantly exceeded the average and has achieved all competencies.

C (2.0) Average Achievement of Competency

In relation to the standards set for the course, the student accomplished an average level of work and, at a minimum, has achieved all competencies.

D (1.0) Below Average Achievement of Competency

In relation to the standards set for the course, the student did not do average work and did not meet the minimum level competencies.

F (0.0) Failure to Achieve Minimum Competency

The student failed to progress toward minimum competencies and performed at exceptionally low level of skill. Students must repeat degree/certificate program course requirements in which an "F" grade has been earned.

R - Repeat

Indicates the course has been repeated. Only the highest grade will compute in the cumulative GPA. This indicator appears after the letter grade of the lowest grade.

NOTE: + and - symbols are used with traditional letter grades "A" through "D" to differentiate level of achievement within a grade range. The + symbol is not used with the letter grade "A", nor are the +/- symbols used with the letter grade "F".

The following grades are also used when appropriate and are not calculated in the grade point average.

GRADE	DESIGNATION
AU	Audit
CR	Credit for Prior Experiential Learning
I	Incomplete
NP	No Pass
P	Pass
T	Transfer
V	Unofficial Withdrawal
W	Withdrawal

AU - Audit

This designation is used for courses only and must be requested by the student before the course begins or prior to the second class session. This grade is not used for degree/certificate programs. No credit or grade will be awarded for audit classes.

CR - Credit for Prior Experiential Learning

Prior experiential learning is credit granted toward the award of a degree or certificate for prior learning experiences that can be shown, through various means of assessment, to be the equivalent of learning gained through formal collegiate instruction.

I - Incomplete

The student completed a significant portion of the course requirements but did not complete all requirements at the time of exit. A "contract" with the instructor for completing the competencies must be established. All work, according to the contract, must be completed within one year from the date the "I" grade was received to earn a letter grade.

NP - No Pass

In relation to the standards set for the course, the student did not meet the requirements. Used for Pass/No Pass, internship courses, workbased learning experiences, and clinical courses.

P - Pass

In relation to the standards set for the course, the student met all requirements. Used for Pass/No Pass, internship courses, workbased learning experiences, and clinical courses.

T - Transfer credit (valid grade prior to Summer Quarter 2009)

Transfer credit granted for coursework completed from other regionally accredited institutions as determined by the designated transcript evaluator, program instructor, or Dean through evaluation of official transcripts. Effective summer 2009, cumulative transfer credits will be noted on the student transcript.

V - Unofficial Withdrawal

The student discontinued the course and has not officially withdrawn. The 'V' grade may not be awarded for course requirements in certificate and degree programs.

W - Withdrawal

This designation is a system-awarded grade for students who officially withdraw from a course or program prior to the end of the quarter. It is also the designation of administrative withdrawal of the student by the College.

Grading Policy/Grading Changes

A grade posted on a student's transcript is considered final. If a student believes there has been a grading error, it is the student's responsibility to contact the instructor as soon as possible. Instructors can submit grade changes due to error not more than four quarters from the time the grade was awarded.

Grades and Transcripts

Quarterly grades for all graded programs and courses are available online within five working days following the end of the quarter through the College website Online Services. Students must have their student ID number and a personal identification number (PIN) to access their grades on their unofficial transcript. PINS are available at www.btc.ctc.edu>Online Services>PIN Request/Reset PIN.

The official transcript is a sealed copy of the student's academic record bearing the College's seal and the signature of the Registrar. Requests for official transcripts require a student signature and must be accompanied by a \$4.00 payment. An unofficial transcript is an unsigned and unsealed copy of the student's record, and available online. There is no charge for unofficial transcript copies. It is the responsibility of the student to view their transcript for accuracy. Contact Registration and Enrollment to request an official BTC transcript at 360-752-8350.

ACADEMIC ACHIEVEMENT

Academic Awards

Dean's List - Students who carried a 12-credit load or more in graded courses and who earned a quarterly grade point average of 3.75 or higher are placed on the Dean's List for the quarter.

President's List - Awarded to each full-time student enrolled in a degree/certificate program with a cumulative grade point average of 3.75 or higher at the completion of all degree/certificate requirements. Full-time is defined as being enrolled for a minimum of 12 credits per quarter. Awarded only upon completion and noted on the student's transcript.

Certificate of Merit - Full or part-time degree/certificate program students who demonstrate academic and/or program excellence in their program may be awarded the Certificate of Merit at program completion by the program faculty. It is awarded at the discretion of the program faculty, only upon completion.

ACADEMIC STANDARDS & PROGRESS

Academic Progress

The primary objective of Bellingham Technical College is to prepare an educated workforce. In educating students, Bellingham Technical College stresses equally the development of technical skills, communication and interpersonal skills, positive work habits, and attitudes that are required for employment. In light of this, Bellingham Technical College expects that students demonstrate academic progress.

In 2003, the Legislature of the State of Washington established a law requiring colleges to develop policies “to ensure that undergraduate students complete degree and certificate programs in a timely manner in order to make the most efficient use of instructional resources and provide capacity within the institution for additional students.”

Academic Standards/Credit Completion Policy

Students who wish to graduate and receive a degree or certificate must earn a cumulative grade point average of 2.0 or better in the program course requirements for the specific degree or certificate.

In order to demonstrate satisfactory progress, all students must:

1. Maintain regular attendance for each enrollment period.

This standard will be reflected in the grading policy within each degree/certificate program. BTC believes that attendance is a critical workplace competency and is important to overall student success.

2. Demonstrate satisfactory progress toward meeting program objectives.

This standard is defined as maintaining a cumulative grade point average minimum of 2.0 in the enrolled quarterly coursework competencies.

* Individual programs may require higher level grades in program or individual course requirements in defining satisfactory progress. These requirements will be published and made available to students upon enrollment in the program.

Academic Alert/Probation/Suspension/Readmission

Students who do not demonstrate satisfactory progress, as defined above, will be placed on academic alert. Students who do not demonstrate satisfactory progress for the following quarter will be placed on academic probation. Students will be suspended after three consecutive quarters of unsatisfactory progress.

Students who have been suspended as a result of unsatisfactory academic progress may petition for readmission. The suspended student must meet with a counselor to complete a plan for improvement. The Academic Probation Readmission Plan Form can be obtained from the Counseling & Career Center. Once completed, the plan will need to be signed by the student’s instructor and submitted to the Appeals Committee for consideration of approval. All students readmitted following suspension will remain on academic probation for one quarter.

NOTIFICATION OF RIGHTS UNDER FERPA

FAMILY EDUCATIONAL RIGHTS AND PRIVACY PRIVACY OF RECORDS / RELEASING OF INFORMATION

Bellingham Technical College’s policy on privacy of records and releasing of information follows the directives outlined in the Family Educational Rights and Privacy Act (FERPA), the federal law governing the protection of educational records. Registered students will be notified of this policy on an annual basis. Others can find the policy in the Bellingham Technical College catalog.

Personally identifiable information will not be released from an education record without the prior written consent of the student, unless an exception has been granted by FERPA (see “Exceptions under FERPA” section below).

RIGHTS UNDER FERPA

FERPA affords students certain rights with respect to their education records. They are as follows:

- (1) *The right to inspect and review the student’s education records within 45 days of the day the college receives a request for access.*

Students should present to the Director of Registration and Enrollment a signed, written request that identifies the record(s) they wish to inspect. The Director of Registration and Enrollment will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Director of Registration and Enrollment, the Director of Registration and Enrollment shall advise the student of the College official to whom the request should be addressed. At the time of viewing, the student will present some form of picture identification, such as a valid driver’s license, before being allowed to view the record.

- (2) *The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading. Students may ask the college to amend a record they believe is inaccurate or misleading.*

Students should request forms for this purpose from the Director of Registration and Enrollment. Students should clearly identify the part of the record they want changed and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

- (3) *The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent (see “Exceptions under FERPA” below).*

(4) *The right to file a complaint with the US Department of Education concerning alleged failures of the college to comply with the requirements of FERPA.*

The name and address of the office that administers FERPA is
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue SW
Washington D.C. 20202-5920

EXCEPTIONS UNDER FERPA

Under certain conditions, as authorized by FERPA, the following information can be released without student consent:

Directory Information

The term “directory information” is a legal term applying to that information the College can release, without student consent, to any third party with the exception of GED candidates or graduates, and subject to college staff approval. The use of the term directory information does not imply that the College actually has documents containing student directory information or that the College has any obligation to produce such a document.

The College has defined Directory Information as the following:

- Student name
- Student e-mail account
- Program of enrollment
- Full-time or part-time status
- Period of enrollment
- Date of completion
- Degree/certificate awarded
- Photos/videos of student for use in college press releases, publications, and websites

The fact that a person has or has not taken a GED test will be treated as confidential information. This information will be released only with written permission by the GED candidate or graduate.

Students have the right to restrict the disclosure of directory information at any time. To restrict the disclosure of directory information, a student may file a signed written request with the Director of Registration and Enrollment. This request to restrict disclosure of directory information will be honored until such time as the student presents signed written notification to the Director of Registration and Enrollment.

U.S. Military

According to federal law, the College must release to the US Armed Forces the following: student name, address, phone number, date of birth, and field of study.

To restrict the disclosure of this information, a student may file a signed written request with the Director of Registration and Enrollment.

Authorized Federal, State, and Local Authorities

Student authorization is not required for disclosure to an authorized representative of the following individuals or entities:

- The Comptroller General of the United States
- The Secretary of the U.S. Department of Education
- State educational authorities
- Any party legitimately connected with the student's application for or receipt of financial aid
- Accrediting organizations

- Agencies involving an audit or evaluation of compliance with education programs
- Organizations conducting studies for or on behalf of educational institutions

Other Institutions

Information can be released to other schools to which a student seeks or intends to enroll.

Emergency Situations

Information can be released to law enforcement personnel, emergency personnel, and college officials in an emergency in order to protect the health or safety of students or other persons.

Legitimate Educational Interest

Officials of the College who are determined by the College to have a legitimate educational interest may have access to student records without obtaining consent from the student. “Officials of the College” are defined as:

- Persons employed by the school in an administrative, supervisory, academic, research, or support staff position
- Persons serving on school governing bodies
- Persons employed by or under contract to the college to perform a specific task, such as an attorney
- Auditors
- Persons or companies with whom the college has contracted (such as attorneys; third party services, such as National Student Clearinghouse; auditors or collection agents/agencies)
- Persons serving on the Board of Trustees
- Students serving on official committees (such as a disciplinary or grievance committee) or who are assisting other school officials in performing their tasks

An official of the College has a legitimate educational interest if they need to

- Perform duties specified in their job description or under terms of contractual agreement
- Provide campus services related to a student, such as advising, financial aid, and counseling
- Conduct tasks related to a student's education or campus discipline

Judicial Order

Information must be released to comply with a judicial order or lawfully issued subpoena. The College will make a reasonable effort to notify the student of the order or subpoena in advance of compliance so that the student may seek protective action. However, if the court (or other issuing agency) has ordered that the existence or the contents of the subpoena or judicial order not be disclosed, the College will comply, and notification to the student will be withheld.

Grievance Hearing

Information about a student or students involved in a grievance investigation or grievance hearing may be released to members of the grievance committee, including any students assigned to that committee, if such information is germane to the investigation or hearing.

Disciplinary Hearing

The results of a disciplinary hearing may be released to an alleged victim of a crime of violence without the permission of the accused.

Bellingham Technical College Foundation

Student names and addresses may be released to the Bellingham Technical College Foundation for Foundation-related activities. The Foundation is considered part of the College and will hold confidential such information, using the information only in specific activities intended to aid and support the College. Release of such information to the Foundation will be made only with the approval of the College President or his/her designee.

U.S. Patriot Act

The College must release, without consent or knowledge of the student, personally identifiable information from a student's education record to the Attorney General of the United States or his/her designee in connection with the investigation or prosecution of terrorism crimes specified in sections 233b (g)(5)(B) and 2331 of Title 18, US Code.

Written Release

Personnel employed by the College who have consent in the form of a written release of information signed by the student may disclose student information to appropriate outside agencies or persons.

STUDENT RIGHTS & RESPONSIBILITIES

Harassment

Bellingham Technical College, as a place of work and study for all members of its community, will be free of all forms of ethnic, religious, or sexual harassment, intimidation, or exploitation. Any student who is subjected to offensive behavior is encouraged to pursue the matter in accordance with the Sexual Harassment Policy by contacting the Affirmative Action Officer in the College's Human Resources Office at 360-752-8354. Sexual harassment complaints are treated as sexual discrimination complaints under state and federal regulations. Complaints are confidential.

All students shall have access to due process in accordance with the Student Grievance Procedure without fear of harassment or intimidation.

Campus Code of Conduct

All students are subject to the Bellingham Technical College Campus Code of Conduct published in Chapter 495B-120 of the Washington Administrative Code and as defined in this catalog.

Copies of the entire Campus Code of Conduct are published and available to students and the campus community in the Counseling & Career Center, the Office of the Vice President of Student Services, and are distributed to new students at New Student Orientation, and posted in each degree/certificate program classroom.

Enrollment in the College carries with it the requirement that the student will conduct himself or herself as a responsible member of the community. This includes an expectation that the student will obey appropriate laws, will comply with the rules of the College and its departments, and will maintain a high standard of integrity and honesty. Sanctions for violations of College rules or for conduct that interferes with the operation of College affairs will be dealt with by the College, and the College may impose sanctions independently of any action taken by civil or criminal authorities. In the case of minors, misconduct may be referred to parents or legal guardians.

Disciplinary action may be taken for a violation of any provision of the student code or violation of other College rules.

See the Bellingham Technical College Campus Code of Conduct.

Student Grievance Process

Definition of Grievance

A grievance is a complaint by a student against a policy or practice of the College or College staff that is considered improper or unfair, or where there has been deviation from, or misinterpretation, or misapplication of a practice or policy.

Grievance Procedure

Grievances relating to grades, grade omissions, or faculty must be initiated by the student. Grievances regarding grades will be considered only when no more than four quarters have elapsed from the time the grades were awarded/missed.

- A. A student wishing to pursue a grievance must take the following steps to try to resolve the grievance prior to filling out an Official Complaint Form.
 1. The student will first try to resolve the matter with the appropriate BTC staff member.
 2. If resolution is not achieved between the student and the BTC staff member, the student will ask the staff member's immediate supervisor to resolve the grievance.
 3. If resolution is not achieved at the supervisory level, the student will ask the supervisor's vice president to resolve the grievance.
 4. If resolution is not achieved as this point, the student may file a complaint using the appropriate complaint forms. (An appointment must be made with the Vice President of Student Services or a designee to obtain the necessary forms and information.)
- B. Complaints must be filed with the Vice President of Student Services or a designee.
- C. Complaints must be filed within twenty school days of the date of the action causing the complaint.
- D. The student will receive acknowledgment of the filing of a formal, written complaint. The student may withdraw the complaint at any point during the formal procedure. The Vice President of Student Services or a designee will notify the person(s) against whom the complaint has been filed (hereafter referred to as the staff member). The staff member will also receive a copy of the complaint.
- E. A Grievance Committee will be appointed annually by the College President and will consist of five individuals representing the various college constituencies. The Committee will be made up of one administrator, two faculty members, and two support staff members. The complainant may request student representation on the committee. If requested, the President may select two students to substitute for a like number of existing members of the committee. Members of the Grievance Committee will remove themselves from the process if they deem themselves biased or personally interested in the outcome of the grievance.
- F. The Vice President of Student Services or a designee will serve as the Investigating Officer in the complaint.
- G. The Investigating Officer will:
 1. Meet with the student and the staff member
 2. Examine documentation and interview witnesses
 3. Consult with the appropriate vice president, or equivalent unit head and/or other appropriate administrator

4. Prepare a written investigative report
- H. The investigating officer may meet individually with the student and the staff member to discuss the report in the hope that a resolution can be reached. If a resolution is not achieved, copies of the investigative report will be forwarded to the Grievance Committee, the student, the staff member, and the appropriate administrator(s).
- I. The Grievance Committee will review the complaint and the findings of the Investigating Officer and determine whether or not the facts warrant a hearing. The Committee's decision will be limited to one of the following statements:
 1. Based on the evidence presented to us, we find probable cause for believing that an improper or unfair practice or act has been committed.
 2. Based on the evidence presented, we find no probable cause for believing that an improper or unfair practice or act has been committed.The Committee will make its report in writing to the Vice President of Student Services or a designee after receipt of the report by the Investigating Officer. The deliberations of the Committee will not be disclosed to anyone except the Vice President of Student Services or a designee who will hold them confidential.
- J. If no probable cause is found, the matter will be considered concluded. However, the student may submit a written appeal to the President within ten working days from the date the decision is made. The appeal must specify in detail what findings, recommendations, or other aspects of the report or decision were not acceptable. The appeal should also include what corrective action the student desires after consideration of the appeal by the President. The President may uphold the decision of the Committee, and at that point no further appeals within the College will be considered. Or, the President may instruct the Committee to go forward with the grievance hearing process.
- K. If probable cause is found, a hearing will be held.
 1. The Committee will select a Chair. The Chair of the Committee will establish a date for the hearing. A notice establishing the date, time, and place of the hearing will be provided to all involved parties.
 2. The hearing will be held within thirty working days from the date of the hearing notice.
 3. The student and the staff member will each have the privilege to challenge one member of the Committee without cause (stated reason). Unlimited challenges may be issued if it is felt that a member of the Committee is biased. In the case of a challenge for bias, a majority of the Grievance Committee members must be satisfied that a challenged member cannot hear the case impartially before the member can be disqualified. In the case of removal of a member through the challenge process, the President will restore the Committee to full membership.
 4. The hearing will be conducted as expeditiously as possible and on successive days, if possible.
 5. The student and the staff member and any others the Committee deems necessary to the proceedings will make themselves available to appear at the proceeding unless they can verify to the Committee that their absence is unavoidable.
 6. The student and the staff member will be permitted to have with him/her a party of his/her own choosing to act as advisor and counsel. The hearing may be monitored by the Assistant Attorney General assigned to the College.
 7. The hearing will be closed to all except those persons directly involved in the case as determined by the Grievance Commit-

tee. Statements, testimonies, and all other evidence given at the hearing will be confidential and will not be released to anyone. They may be used by the committee only for the purpose of making its findings and recommendations to the President.

8. The Chair of the Grievance Committee will convene and regulate the proceeding. The student, the staff member, and the members of the hearing panel must be present during the proceeding, unless excused by the Chair for good cause. Repeated failure, without reasonable explanation, of either the student or the staff member to appear will be grounds for defaulting that party's case. The student will have the burden of presenting the case and the staff member will have the burden of challenging the evidence presented.
 - a. All parties will have the opportunity to present evidence, respond to evidence presented, and examine and cross examine witnesses.
 - b. The hearing panel will be empowered to examine witnesses and receive evidence, exclude any person(s) felt to be unreasonably disruptive of the proceeding, hold conferences for the settlement of the issues involved, make decisions or proposals for decisions, and take any other actions authorized by the rule consistent with this procedure.
 - c. No individual will be compelled to divulge information in any form that he/she could not be compelled to divulge in or in connection with court proceedings.
 - d. Any legal opinion or interpretation given to the Grievance Committee by the parties may be shared with all parties to the case.
 - e. The Grievance Committee will file its findings and recommendations with the President, the Vice President of Student Services, the student, and the staff member after the conclusion of the hearing. If the findings and recommendations of the Grievance Committee are acceptable to the student and the staff member, the President may direct implementation of the recommendations.
- L. If the student or staff member objects to the findings and recommendations and wishes to appeal, a written appeal may be submitted to the President within ten working days from the date the finding is issued. The appeal must specify in detail the findings, recommendations, or other aspects of the report or decision that are not acceptable. The appeal should also include what corrective action the student or staff member desires after consideration of the appeal by the President.
- M. After considering an appeal, the President will issue a written decision to the parties involved. The decision of the President will be final and no further appeals within the college will be considered.

Student Identification Numbers

In accordance with Washington State Law SB5509, BTC uses randomly assigned student identification (SID) numbers as the primary identifier for student academic records. This law is intended to add additional protection to student identity, records, and privacy.

Although the student social security number (SSN) will not be listed as the primary student identifier, the College will still need to record it for a number of uses including financial aid, Hope Scholarship and Lifelong Learning tax credits, employment verification, workforce or unemployment data, assessment/accountability research projects authorized by the College and/or the state of Washington, transcripts, and other legitimate uses authorized under state law and/or federal law.

Student Body Cards

BTC student body cards are available at the Bookstore. The picture identification card includes the student identification (SID) number, which is needed for registration, library usage, and other campus functions. It may also entitle the student to some community/retail discounts.

Student Rights

All students at Bellingham Technical College shall have the right to pursue professional technical education in the area of their choice within the established College standards and policies.

Student Right to Know and Campus Security Act

In compliance with Public Law 101-542, the Student Right To Know Act and Campus Security Act, as amended by Public Law 102-26 (Higher Education Technical Amendments Act of 1991), Bellingham Technical College provides students with information about the student completion rates for the institution, as well as substance abuse prevention information, campus crimes, and security. This information is available in the Counseling and Career Center. The annual campus security report can also be located on the web at <http://ope.ed.gov/security>.

The College is not responsible for lost or stolen articles. Students use campus lockers at their own risk.

TRANSFERRING & EARNING CREDITS

Credit Acceptance Policy

Transfer Credit

Transfer credit is credit that is granted for course work completed at other regionally accredited institutions. Only courses completed at a regionally accredited college or university with an earned grade of "C" or better will be considered for equivalent transfer credit. Recency of coursework will be considered in acceptance of transfer credit as defined in the Transfer Credit Advising Guide. A course will be considered for transfer credit if it matches in content a course that is required for a BTC program. Transfer credit may not exceed fifty percent of the total credits required for the degree or certificate.

Course work equivalent to technical content in the degree/certificate programs will be evaluated for acceptance based on the content of the courses. Programs may establish higher grade requirements for technical content transfer credit award.

Transfer Credit Evaluation Procedures

The College maintains Transfer Credit Equivalency Charts that list courses that have been identified as equivalent for general education and academic support courses.

Students seeking transfer credit must submit to the Admissions and Advising Office a completed Evaluation Request Form and official, sealed college transcripts documenting equivalent credit. Evaluation Request processing typically takes 14-28 business days and may take longer during peak registration periods. It is recommended that students plan ahead and send records in advance of the quarter they plan to attend.

For some courses, course syllabi or other descriptive information may be required in addition to an official transcript.

Technical Course Requirements

A student seeking transfer credit for technical courses must submit a completed Evaluation Request Form and official transcripts or equivalent documentation to the Admissions and Advising Office. Program faculty will evaluate and determine credit granted for equivalent technical content.

General Education Courses

Students must submit a completed Evaluation Request Form with sealed, official transcripts to the Admissions and Advising Office for evaluation and approval of credit granted for equivalent general education content. The Form and the official transcript will be reviewed by the College-designated transcript evaluator.

AP Score Credit

BTC will accept certain high school advanced placement (AP) exam scores to satisfy specific BTC general education course requirements as defined in the Acceptance of Transfer Credit Policy.

Credit for Prior Learning/Prior Learning Assessment(PLA)

Bellingham Technical College recognizes credit for prior learning. Credit for prior experiences that can be shown through various means of assessment to be the equivalent of learning gained through formal collegiate instruction may be granted toward the award of a degree or certificate. Credit for prior learning applies only to approved degree/certificate programs and may not exceed twenty-five percent of the total credits required for the degree or certificate. The following is a list of some of the approved programs: BCIS, Civil Engineering, Culinary, Diesel, EMTEC, Instrumentation, Pastry, and Welding.

Credit for prior learning will be granted only to currently enrolled program students. The credits granted will be based upon procedures developed and published by the program faculty and approved by the Instruction Council in accordance with institutional policy. Assessment must include theory and practicum if applicable. The prior learning cannot duplicate credit granted by transfer or previously graded course work.

Prior learning credit will not be awarded in lieu of general education courses, including MATH100, MATH&107, MATH&141, PSYC&100, CMST&210 (formerly PSYC111), ENGL&101, COM170, and other academic support courses. Professional technical faculty may consider professional/industry certifications as credit for prior learning.

Advanced Placement

The College may offer advanced placement into a professional technical program to eligible applicants/students with prior college technical coursework or recognized professional/industry certification(s).

Procedure

1. Advanced placement is initiated by the applicant/student, by meeting with an admissions advisor. The applicant must submit official transcripts showing prior college course work and/or copies of professional/industry certification(s) with the Evaluation Request Form.
2. The Request Form and documentation is logged and routed to the appropriate person for evaluation. The professional technical faculty member will conduct the evaluation of technical course equivalency. Professional technical faculty may consider professional/industry certifications for credit for prior experiential learning. The assigned College evaluator(s) will conduct the evaluation of general education or academic support courses.

3. The evaluation of transcripts and/or certification(s) will determine advanced placement, outline which coursework the applicant/student has completed (students will receive transfer credit for college course work), and identify at what point in the program the applicant/student is eligible for advanced placement.
4. The evaluated Request Form and documentation are returned to the Admissions and Advising Office, and students are notified of their eligibility for advanced placement.
5. The completed form is routed to the Registration and Enrollment Office for processing and will be filed in the student's permanent record.

Students are accepted to enroll as advanced placed students based on the date of completion of all program admission requirements and space availability.

Degree and Transfer Program

Currently enrolled Bellingham Technical College degree/certificate program students may be considered for priority placement on the program list for admission in a related program if the student has completed portions of the technical content/competencies that are transferable to the degree/certificate program.

Procedure

1. Student obtains an unofficial transcript (grade report) from the BTC website>Online Services.
2. Student meets with a BTC advisor or counselor to discuss possibility of transfer and obtains a Request for Program Transfer Form. Student's Accuplacer Test scores will be evaluated to determine if the student is eligible for acceptance in the program or if retesting is necessary. Students receiving financial aid should determine the effect of transfer on financial aid status prior to initiating the transfer procedure.
3. Student meets with instructor of program into which the student desires to transfer for evaluation and to obtain approval if the transfer is appropriate.
4. Student presents completed Request for Program Transfer Form (with all signatures affixed) to the Registration and Enrollment Office in the College Services Building.
5. The request will be processed prior to the start of a quarter, and the student will be notified of permission to register or program list status.
6. Students transferring to another degree/certificate program are responsible for any additional tuition or fees at the time of registration. Running Start students transferring will be required to submit a new Running Start Referral Form signed by the appropriate high school official.

Transferability of BTC Credits

To determine transferability of credits earned at Bellingham Technical College, students must request an official BTC transcript be forwarded to the college where they wish to have credits evaluated. The receiving college will determine the value of course work completed at BTC. Contact the Registrar at any other college you wish to send transcripts to for evaluation. Official BTC transcripts are available through the Registration and Enrollment Office.

The BTC course suffix "&" designates Washington State Community and Technical College "Common Course Numbering (CCN)." The purpose of Common Course Numbering is to identify those courses common within the 34 community and technical colleges in Washington State and make course transfer between and among those institutions and to the four-year colleges and universities as easy as possible for students, advisors, and receiving institutions.

Articulation Agreements

Through county-wide agreements with school district superintendents and BTC, students may enroll in classes to receive high school and college credit at the same time. These articulation agreements are managed through the Whatcom County Tech Prep Consortium and provide opportunities for high school students under five career pathways: science and natural resources, arts and communications, business and marketing, engineering and technology, and health and human services.

Articulation agreements with public and private colleges and universities provide BTC students with transfer options to earn four-year degrees related to specific programs of study and business and management. To view a current listing of colleges that BTC has developed articulation agreements with, please visit the BTC website at: www.btc.ctc.edu/StuServices/transferoptions.asp. City University offers courses on BTC's campus at a very competitive price.

Beyond the formalized degree articulation agreements, BTC has a number of transfer agreements with state colleges and universities regarding courses. To check if BTC credits are transferable to other colleges, contact the Registrar at the receiving college.

Transfer of Credits

Credits, qualifications, or requirements waived by one college may not necessarily be waived by another college. Those decisions are made at each institution.

Upon student application, each college evaluates and, if appropriate, transfers recognized or accepted credits that apply to the area of study for which the student has applied. The enrolling college determines transfer of credits earned elsewhere. When applicable, students may be accepted for advanced placement or receive a waiver of course requirements with demonstration of credits earned.



5

Programs of Study



ACCOUNTING

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Accounting Assistant

The Accounting Program prepares students with the necessary technical and professional skills to obtain employment in the accounting field. Students can earn a certificate or associate degree. The successful Accounting Assistant certificate graduate will be able to analyze financial transactions, use various types of office machines, and process transactions using both manual and computerized systems. Accounting Assistants may seek employment in the area of accounts receivable, accounts payable, or payroll.

To be successful, accounting students should have an aptitude for working with numbers, be detail oriented, and have the ability to concentrate and communicate. Jobs in the area of accounting afford many opportunities for challenging and rewarding work.

Accounting students are eligible to join the North Cascades Chapter of American Society of Women Accountants (ASWA).

PROGRAM OUTCOMES:

- Prepares students to seek employment with public, private, and/or governmental entities as Accounting Clerks, Accounting Technicians, Bookkeepers, Accounting Support Personnel, or Payroll Assistants
- Graduates of Accounting will be able to demonstrate with 73 percent accuracy effective skills using computerized accounting software, computing payrolls, payroll taxes, tax forms and the ability to apply generally accepted accounting principles in recording transactions, and in locating and correcting errors made to the financial records of a business
- In a three minute timing, with 100 percent accuracy, graduates will demonstrate effective ten-key calculator skills. With a three error limit, graduates will demonstrate basic keyboarding at 35 wpm.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Accounting Technician Program at the start of each quarter on a space available basis. Students may enroll full-time or part-time.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites. A schedule of course offerings can be obtained from program advisors. It is estimated that a full-time student can complete Accounting Assistant in three quarters and Accounting Technician in five quarters. Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards. In order to earn an Accounting degree or certificate, students must maintain a 2.0 grade point average with no course grade below "C" (2.0). Students may successfully challenge CAP 101, Introduction to Computers, by passing the three IC3 Certification tests, which requires a \$75 testing fee.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and some of the required courses and electives are also offered online.

ASSOCIATE OF APPLIED SCIENCE

Accounting

ACCT 141	Financial Accounting I	5
ACCT 242	Financial Accounting II	5
ACCT 243	Financial Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 254	Managerial Accounting	5
ACCT 270	Internship	3
OR		
ACCT 273	Internship 4	
BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting With MS Word	4
CAP 142	MS Excel	5
Departmental Electives		29
Approx. 5-6 quarters		86 CRs

AAS ACADEMIC CORE REQUIREMENTS

BUS 171	Technical Communications	5
BUS 150	Mathematics For Business	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math In Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

Accounting Assistant

ACCT 141	Financial Accounting I	5
ACCT 242	Financial Accounting II	5
ACCT 246	Computerized Accounting I	5
BUS 100	Electronic Math Applications	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 142	MS Excel	5
CMST& 210	Interpersonal Communication	5
Suggested Department Electives		7
Approx. 3 quarters		61 CRs

ADMINISTRATIVE ASSISTANT

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

This program prepares students for careers in a variety of business and office settings. Students may achieve an Associate of Applied Science degree in Administrative Assistant. Coursework is taught using multiple teaching methods. Students not only work independently but also learn in structured class sessions. Emphasis is placed on hands-on learning and application. Skills needed for success in today's workforce are interwoven throughout the program. With the help of a program advisor, students declare their career goals when entering the program or after working through course material and further identifying their personal strengths. Program content requires the application of basic math, technical reading, and communication skills.

Administrative Assistant students are eligible to join the International Association of Administrative Professionals (IAAP).

PROGRAM OUTCOMES:

- Administrative Assistant graduates will demonstrate competency in touch keyboarding at 50 wpm on a three minute timing.
- Graduates will demonstrate with 80 percent competency in business document formatting, proofreading, word processing, spreadsheets, databases, presentation graphics, data entry, ten-key proficiency, alphabetic and numeric filing, and administrative assistant support to an employer.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Administrative Assistant Program at the start of each quarter on a space available basis. Students may enroll on a full-time or part-time basis.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites. A schedule of course offerings can be obtained from program advisors. It is estimated that a full-time student can complete the degree requirements in five quarters. Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree upon completion and verification of all requirements and standards. In order to earn an Administrative Assistant degree, students must maintain a 2.0 grade point average with no course grade below "C" (2.0). Students may successfully challenge CAP 101, Introduction to Computers, by passing the three IC3 Certification tests.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and some of the required courses and electives are also offered online.

ASSOCIATE OF APPLIED SCIENCE

Administrative Assistant

ACCT 141	Financial Accounting I	5
BUS 100	Electronic Math Applications	3
BUS 125	Records Management and Data Entry	5
BUS 188	Business English	5
BUS 225	Internship	6
BUS 232	Office Procedures	5
BUS 280	Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting With MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 109	Computerized Keyboarding Skillbuilding II	3
CAP 138	MS Word	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS Powerpoint	3
CAP 200	Integrated Computer Applications	5
Departmental Electives		25
Approx. 5-6 quarters		95 CRs

AAS ACADEMIC CORE REQUIREMENTS

BUS 171	Technical Communications	5
BUS 150	Mathematics For Business	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math In Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		5
		20 CRs

AUTOMOTIVE COLLISION REPAIR

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Automotive Refinishing

The Auto Collision Repair Technology Program prepares students for employment in the professional Auto Collision Repair and Refinishing industry. The Associate of Applied Science degree includes a combination of classroom/laboratory instruction and hands-on experience. Using a variety of the most current technological methods and equipment, students will learn how to repair and refinish a damaged vehicle (including automobile and truck bodies, unibody, frames, plastic bumpers and glass) to its original condition per industry standards. By successfully completing the Auto Collision Technology Program curriculum students may earn 8 to 15 I-Car alliance points towards I-Car Gold Class or Platinum Status.

PROGRAM OUTCOMES:

- Graduates will demonstrate their knowledge and skills to repair and refinish a damaged vehicle using teamwork, methods, and skills in structural repair and refinishing.
- Graduates will demonstrate their knowledge and skills to I-Car standards on non-structural and structural repair, soft to semi-rigid plastic and MIG welding, oxy-acetylene and plasma cutting, oxy-acetylene welding, spot welding (STRSW), and refinishing.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Automotive Collision Repair Technology Program twice a year on a space available basis.

SEQUENCE AND SCHEDULE: The Auto Collision Repair Technology student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes. Generally, classroom instruction is held during morning hours with most lab activities occurring in the afternoon.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Automotive Collision Repair

ACRT 101	Introduction to Auto Collision Repair	4
ACRT 105	Non-structural Welding	8
ACRT 110	Refinishing Safety	2
ACRT 115	Non-structural Repair	2
ACRT 123	Non-structural Metal Finishing	7
ACRT 125	Refinishing Surface Preparation	7

ACRT 130	Damage Analysis	3
ACRT 133	Paint Matching and Blending	7
ACRT 135	Refinish Paint Defects	3
ACRT 138	Restoring Corrosion Protection	3
ACRT 140	Drive Train, Fuel, Brakes, HVAC	2
ACRT 141	Outer Body Panel Repair	4
ACRT 142	Shop Practicum I	3
ACRT 143	Shop Practicum II	6
ACRT 251	Structural Welding	4
ACRT 253	Moveable Glass and Hardware	2
ACRT 254	Structural Fixed Glass	2
ACRT 255	Suspension and Steering	4
ACRT 256	Unibody Inspection	4
ACRT 260	Shop Practicum III	6
ACRT 262	Frame Inspection and Repair	4
ACRT 263	Restraint Systems	2
ACRT 264	Plastics and Adhesives	4
ACRT 266	Electrical System Repair	3
ACRT 268	Refinishing Final Detail	3
ACRT 270	Shop Practicum IV	10
ACRT 275	Internship	7

Approx. 6 quarters & 1 summer **116 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		

Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.

20 CRs

CERTIFICATE

Automotive Refinishing

ACRT 101	Introduction to Auto Collision Repair	4
ACRT 110	Refinishing Safety	2
ACRT 115	Non-structural Repair	2
ACRT 123	Non-structural Metal Finishing	7
ACRT 125	Refinishing Surface Preparation	7
ACRT 133	Refinish Paint Defects	3
ACRT 138	Restoring Corrosion Protection	3
ACRT 142	Shop Practicum I	3
ACRT 143	Shop Practicum II	6
ACRT 268	Refinishing Final Detail	3
ACRT 275	Internship	7
CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5

Approx. 4 quarters **62 CRs**

AUTOMOTIVE TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – General Automotive Repair

Certificate – Vehicle Service Technician

The Automotive Technology Program prepares students for employment in the automotive trade. Instructional time is divided between classroom theory, practical application in the lab, and time spent in a work-based learning situation. The program utilizes current diagnostic equipment and techniques to prepare students to meet the challenge of this highly technical industry. Students have classroom theory and shop experience in all major automotive systems. Students must participate in a work-based learning component as an employee in an automotive shop. The program emphasizes safety, proper work habits, and human relations skills, as well as the technical ability necessary for employment.

PROGRAM OUTCOMES:

- Graduates will use appropriate clothing and protective gear and practice ergonomically correct actions to safeguard against injuries in the workplace.
- Graduates will research and utilize vehicle repair information from web-based programs such as Alldata, Mitchell On Demand, the iATN, and manufacturer specific programs to perform vehicle repairs in a professional and timely manner utilizing all information resources available.
- Graduates will be able to diagnose accurately and critically across all major automotive systems and repair common vehicle problems using appropriate tools, equipment and procedures, adhering to standard time and quality standards.
- Graduates will perform common vehicle service (maintenance) procedures using appropriate tools, and equipment while adhering to standard time and quality standards
- Upon program completion, graduates will be prepared to obtain ASE certification.
- Graduates will review, interpret and convey written, verbal, and graphic information to communicate effectively with co-workers, management, and customers, and they will act responsibly and ethically as an employee by being punctual, following industry accepted practices, adhering to company policies, and interacting positively and appropriately with co-workers, supervisors, and customers.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Automotive Technology Program twice a year on a space available basis. Students must have a valid driver’s license and be insurable to participate in the work-based learning sections of the AAS-degree program. It is highly recommended that students be 18 years old before beginning the second quarter.

SEQUENCE AND SCHEDULE: First quarter students enroll in TRANS 101, 102, and 103 plus at least one General Education class (MATH 100, COM 170, PSYC& 100 or CMST& 210). We recommend enrolling in a morning MWF or an evening General Education class during the first quarter. Full-time students will finish in seven quarters; summer is required.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree or a Certificate upon completion and verification of all requirements and standards. Automotive Technology AAS graduates must receive a 2.0 cumulative grade point average with no required course below a grade of “D”(1.0).

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Automotive Technology

AUTO 103	Engines	8
AUTO 107	Brakes	6
AUTO 122	Basic Drive Train	4
AUTO 141	Engine Performance 1	2
AUTO 151	Electricity/Electronics 1	10
AUTO 161	Steering and Suspension	6
AUTO 213	HVAC	4
AUTO 219	Applied Automotive Concepts I	12
AUTO 229	Applied Automotive Concepts II	4
AUTO 250	Automatic Transmission/Transaxle	7
AUTO 255	Electricity/Electronics 2	7
AUTO 259	Applied Automotive Concepts III	4
AUTO 260	Manual Transmission/Drive Train	3
AUTO 265	Engine Performance 2	3
AUTO 275	Engine Performance 3	10
AUTO 279	Applied Automotive Concepts IV	4
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5

Approx. 7 quarters **109 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		5

20 CRs

Automotive Technology continued on the next page

AUTOMOTIVE TECHNOLOGY

(CONTINUED)

CERTIFICATE

General Automotive Repair

AUTO 103	Engines	8
AUTO 107	Brakes	6
AUTO 122	Basic Drive Train	4
AUTO 141	Engine Performance 1	2
AUTO 151	Electricity/Electronics 1	10
AUTO 161	Steering And Suspension	6
AUTO 213	HVAC	4
CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5
Approx. 3 quarters		70 CRs

CERTIFICATE

Vehicle Service Technician

TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5
Approx. 1 quarter		15 CRs

BOOKKEEPING ASSISTANT

Certificate

The Bookkeeping Assistant Program will prepare students for entry level employment in a bookkeeping position in a wide variety of businesses or agencies.

PROGRAM OUTCOMES:

- The Bookkeeping Assistant certificate prepares students to seek employment in public, private, and/or governmental entities. Graduates will be able to demonstrate effective skills using computerized accounting software, computing payrolls, payroll taxes, tax forms, and the ability to apply generally accepted accounting principles in locating and correcting errors made to the financial records of a business, under the direction of a bookkeeper, CPA or other financial supervisor.

APPLICATION & REGISTRATION: Prerequisite: Basic keyboarding skills. Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: See a Quarterly Schedule for course schedule information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Bookkeeping Assistant

ACCT 141	Financial Accounting I	5
BUS 100	Electronic Math Applications	3
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 142	MS Excel	5
CAP 154	Computerized Accounting Level A Using Quickbooks	3
Recommended Electives		6
BUS 150	Mathematics for Business	5
BUS 184	Customer Service	3
CAP 155	Computerized Accounting Level B Using Quickbooks	3
MGMT 100	Business & Professional Ethics	3
Approx. 4 quarters		29 CRs

BUILDING CONSTRUCTION TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Construction Technician

The Building Construction Technology Program prepares students for employment in a wide range of construction and building maintenance industry positions. The Associate of Applied Science degree focuses on training students in the use of tools, materials, and techniques to be problem solvers and provides theory and practice through class projects and internships in all aspects of the construction trade. The program emphasizes that graduates have the necessary trade skills, academic competencies, and industry/work attitudes to become competent and efficient tradespersons employable in the industry or through self-employment. Students are able to complete the (AAS) degree program in five quarters. The program also offers a Construction Technician certificate.

PROGRAM OUTCOMES:

All Program completers will:

- Demonstrate competency in their ability to use the tools of the trade in a safe and efficient manner
- Demonstrate competency in their ability to use and work safely with common power tools, i.e. circular saws, electric drills, power planers, etc.
- Demonstrate competency in their ability to plan and execute projects to completion
- Demonstrate competency in their ability to read and interpret architectural drawings and plans
- Demonstrate competency in light frame construction methods

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Building Construction Technology program twice a year on a space available basis. Part-time enrollment is available for the morning section only, with instructor approval.

SEQUENCE AND SCHEDULE: The Building Construction Technology Program student will complete a specific course requirement sequence based on quarter of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

Classroom instruction is scheduled during morning hours. Lab activities occur during the afternoons. Lab activities include group and individual projects. A weekly schedule is distributed to students in class.

DEGREE REQUIREMENTS: Students may apply for an (AAS) Associate of Applied Science degree or an (AAS-T) Associate of Applied Science - Transfer degree upon completion and verification of all requirements and standards. Students may also apply for Construction Technician certificate.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Building Construction Technology

BCT 111	Career Opportunities and Industrial Safety	1
BCT 112	Construction Materials and Application	2

BCT 113	Hand Tool Use and Operations	2
BCT 114	Portable Power Tools Use and Operations	4
BCT 115	Stationary Power Tool Use and Operations	4
BCT 116	Building Layout	3
BCT 117	Concrete and Concrete Forming	2
BCT 121	Blueprint Reading	4
BCT 122	Framing Methods - Floor Framing	4
BCT 123	Framing Methods - Wall Framing	4
BCT 124	Framing Methods - Ceiling Framing	4
BCT 125	Truss Roof Framing	4
BCT 130	Roof Framing	6
BCT 132	Stair Framing	1
BCT 134	Exterior Walls and Roof Coverings	2
BCT 135	Interior Wall Covering Insulation & Trim	4
BCT 136	Intro to House Wiring and Plumbing	2
BCT 137	Roof Sheathing and Coverings	1
BCT 138	Exterior Doors, Windows, and Skylights	3
BCT 241	CAD Drafting Fundamentals	8
BCT 242	Building Plan Drafting	8
BCT 243	Estimating Materials and Labor	5
BCT 245	Project Management	2
BCT 251	Internship Building Construction	9

Approx. 5 quarters **89 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		5

20 CRs

CERTIFICATE

Construction Technician

BCT 111	Career Opportunities and Industrial Safety	1
BCT 112	Construction Materials and Application	2
BCT 113	Hand Tool Use and Operations	2
BCT 114	Portable Power Tools Use and Operations	4
BCT 115	Stationary Power Tool Use and Operations	4
BCT 116	Building Layout	3
BCT 117	Concrete and Concrete Forming	2
BCT 121	Blueprint Reading	4
BCT 122	Framing Methods - Floor Framing	4
BCT 123	Framing Methods - Wall Framing	4
BCT 124	Framing Methods - Ceiling Framing	4
BCT 125	Truss Roof Framing	4
BCT 130	Roof Framing	6
BCT 132	Stair Framing	1
BCT 134	Exterior Walls and Roof Coverings	2
BCT 135	Interior Wall Covering Insulation & Trim	4
BCT 136	Intro to House Wiring and Plumbing	2
BCT 137	Roof Sheathing, and Coverings	1
BCT 138	Exterior Doors Windows and Skylights	3
CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5

Approx. 3 quarters **72 CRs**

BUSINESS & SUPERVISION MANAGEMENT

Certificate

The Business & Supervision Management Certificate Program is a series of courses and seminars designed to provide essential practical skills for employment in:

- Supervision
- Office Management
- Small Business Operation

This evening program can benefit those who want to improve their managerial skills, seek career advancement, or gain professional recognition.

PROGRAM OUTCOMES:

- The Business and Supervision Management Program prepares the student for entry level supervision, supervisory advancement, or entry into an entrepreneurial venture
- Graduates will demonstrate knowledge of: labor laws, general accounting principles, various leadership styles, effective employee discipline, development of a business plan, customer service, business ethics, and general concepts in human resource management

APPLICATION & REGISTRATION: Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: Courses are generally held each quarter at various times and online. See a Quarterly Schedule for specific information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Business & Supervision Management

ACCT 141	Financial Accounting I	5
BUS 140	Supervision & Management	3
	OR	
HRM 201	Management Of Human Resources: An Overview	3
BUS 141	Total Quality Management	2
BUS 184	Customer Service	3
MGMT 100	Business & Professional Ethics	3
MGMT 101	Conflict Management	1
MGMT 102	The Leadership Process	3
	Recommended Electives	12
CAP 101	Introduction to Computers	5
CAP 154	Computerized Accounting Level A	
	Using Quickbooks	3
GBUS 110	Business Communications	5
MGMT 152	Small Business Management	3
MKT 100	Marketing Fundamentals	5
	Any HRM course in area of interest	3

Approx. 4-5 quarters

32CRs

CHILD DEVELOPMENT (CDA)

Certificate

The Child Development Essentials (CDA) Program prepares students for work in the early childhood care and education field. This coursework can lead to a certificate in Child Development from Bellingham Technical College and provides the coursework for the national credential as a Child Development Associate. The three CDA Essentials courses are also transferable to Washington Community and Technical Colleges for nine or more credits towards a certificate or degree in Early Childhood Education.

Core competencies covered in this program prepare early childhood educators to work effectively with young children and their families. Major topic areas include introduction to early childhood, ways children learn, healthy environments, social and emotional development, physical and intellectual competency, curriculum development, family relationships, and professionalism.

Courses are offered fully online or occasionally as face-to-face courses. Participants must be working with young children regularly either in a paid or volunteer position to fulfill their coursework requirements.

PROGRAM OUTCOMES:

Prepares student to:

- Plan safe, healthy environments to invite learning
- Facilitate steps to advance children's physical and intellectual development
- Create positive ways to support children's social and emotional development
- Develop strategies to establish productive relationships with families
- Facilitate strategies to manage an effective program operation
- Maintain a commitment to professionalism
- Observe and record children's behavior
- Apply principles of child growth and development

APPLICATION & REGISTRATION: Prerequisite: Students must be working with young children regularly either in a paid or volunteer position to fulfill their coursework requirements.

It is best for students to begin the program by registering for ECED 120—CDA Essentials: Intro to ECE/Health, Safety & Nutrition Fall Quarter on a space available basis. However, students can begin the courses Winter or Spring Quarter as well. It is recommended that students have good basic academic skills or enroll in basic skills courses to work on improving their reading, writing, and math skills. Before students take the online courses, students should be confident about computer and study skills. Students will need access to a computer and the internet five out of seven days a week for a total of ten or more hours a week for each four-credit class. A program brochure is available from the Counseling and Career Center.

Child Development (CDA) continued on the next page

CHILD DEVELOPMENT (CDA)

(CONTINUED)

SEQUENCE AND SCHEDULE: This program consists of three required courses that are offered either fully online or as a face-to face course. The online course is offered through WAOL. When scheduled, the group class meets one evening a week and one Saturday per quarter.

Each course includes field work as well as coursework and ten hours of mentored activities. See a Quarterly Schedule for specific information.

DEGREE REQUIREMENTS: Students may apply for a BTC certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: All three courses required for the certificate are offered fully online and occasionally as a group course. Students will use some online tools and resources throughout the program in the group classes. Before students take these online courses, they should be confident about their computer and study skills. Online participants will need access to a computer and the internet five out of seven days a week for a total of ten or more hours a week for each four-credit class.

CERTIFICATE

Child Development (CDA)

ECED 120	CDA Essentials 1: Intro To ECE/Health, Safety & Nutrition	4
ECED 121	CDA Essentials 2: Child Development/Learning Environments	4
ECED 122	CDA Essentials 3: Working With Families/Professionalism	4
(Optional Electives)		
ECED 123	Prep For Child Development Associates (CDA) Assessment	1
BAS/ABE	Basic Academic Skills Courses	
Approx. 3 quarters		12 CRs



CIVIL ENGINEERING TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

The Civil Engineering Technology Program prepares students for opportunities in diverse professions including Civil Drafting/Design, and Junior Construction Management. The AAS degree in Civil Engineering Technology prepares the student in the theory and application of civil engineering principles in civil drawing, civil design, construction engineering, geographic information systems (GIS) production, and field engineering. In addition, the program includes Survey and Mapping Technology coursework to prepare the Civil Engineering Technology graduate for a profession that integrates with the surveying profession such as Desktop Mapping (Geographic Information, Systems - GIS), Construction Materials Testing, Construction Estimating and Inspection, and Surveying. Jobs can be found at the Department of Transportation, County & City Public Works, various private civil engineering and surveying firms, and civil construction companies.

The program consists of classroom lectures; the Computer Aided Drafting (CAD) lab and field measurement with surveying instruments. The coursework utilizes hands-on projects to simulate the work environment. All students are expected to develop and demonstrate positive work ethics, technical skills, and interpersonal and communication skills as required by the industry.

PROGRAM OUTCOMES:

All program completers will:

- Produce a wide variety of design quality plan sets using computer aided drafting methods.
- Inspect and track project revisions to produce As-Built record drawings using appropriate design standards
- Import, export, and create several types of GIS data for the production of specialized planning and demonstration maps
- Solve engineering problems using a variety of mathematical processes and quantitative reasoning
- Calculate quantities and assign costs for the production of detailed cost estimates and schedules for a variety of construction projects
- Assess and approve specifications for construction materials
- Communicate, solve, and present engineering problems using Microsoft Office programs

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Civil Engineering Technology Program once a year on a space available basis. Part-time enrollment and individual class enrollment is available with instructor approval.

CAP 101 Introduction to Computers is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC3 exams (Living Online, Computer Fundamentals, and Key Applications - Word, Excel and PowerPoint). These tests require a \$75 fee and may be taken at BTC or any other CertiPort Testing Center.

Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH&141) is also a required prerequisite for enrollment in this program.

Civil Engineering Technology continued on the next page

CIVIL ENGINEERING TECHNOLOGY

(CONTINUED)

SEQUENCE AND SCHEDULE: The Civil Engineering Technology student will complete a specific course requirement sequence. Students will be advised by the program instructor regarding sequence and schedule of classes. Generally, a full-time student will be enrolled for six hours per day. Instructor permission is required for a part-time student.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree upon completion and verification of all requirements and standards.

ASSOCIATE OF APPLIED SCIENCE

Civil Engineering Technology

ENGT 122	CAD I: Basics	6
ENGT 128	Civil/Survey CAD 2	7
ENGT 132	MS Office Applications	5
ENGT 152	Estimating and Scheduling	5
ENGT 153	Intermediate GIS	7
ENGT 156	Earthmoving Fundamentals	5
ENGT 251	AutoCAD Civil 3D I	8
ENGT 252	AutoCAD Civil 3D II	8
ENGT 256	Standards, Specifications, and Codes	3
ENGT 258	Construction Materials	7
MATH& 142	Precalculus II	5
SURV 102	Fundamentals of Surveying I	7
SURV 104	Construction and Highway Surveys	6
SURV 116	Survey Data Systems	4
SURV 140	Fundamentals of GIS & GPS	4
SURV 152	Zoning, Permitting, and Platting	4
SURV 191	Professional Development and Safety	3
SURV 205	Advanced GIS Applications	7

Approx. 6 quarters **101 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		

20 CRs

CLERICAL ASSISTANT

Certificate

The Clerical Assistant program will prepare the student for an entry level position in almost any office environment. Students will learn basic computer skills, light filing, accounting support, and customer service skills.

PROGRAM OUTCOMES:

- Students will be able to perform clerical support functions in an office environment to include filing, light accounting, typing, and front office customer service.

APPLICATION & REGISTRATION: Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: See a Quarterly Schedule for specific course schedule information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Clerical Assistant

BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
BUS 184	Customer Service	3
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 138	MS Word	5
CAP 142	MS Excel	5
Recommended Electives		8
ACCT 141	Financial Accounting I	5
BUS 125	Records Management and Data Entry	5
BUS 150	Mathematics for Business	5
CAP 154	Computerized Accounting Level A	
	Using Quickbooks	3
MGMT 100	Business & Professional Ethics	3

Approx. 4 quarters **36 CRs**

COMPUTER NETWORKING

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Computer Network Support

The program offers an Associate of Applied Science degree in Computer Network Technology and a certificate in Computer Network Support. Students are prepared to manage computer network systems through a combination of classroom theory and practical application. They develop the knowledge and skills to troubleshoot and repair computer systems and design, install, and maintain Local Area Networks (LANs). This program prepares students for obtaining industry standard certifications such as Microsoft Certified Professional (MCP), A+, Network+, and Linux+.

PROGRAM OUTCOMES:

- Graduates earn the industry standard Microsoft Certified Professional (MCP) certification along with CompTIA A+, Network+, Security+, and Linux+ certifications. Graduates may also pass an internal exam that measures equivalent skills
- Graduates will design and implement a team project including a report and will install, configure, and administer a Linux server and Microsoft Windows Network

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Computer Network Technology Program three times a year on a space available basis.

SEQUENCE AND SCHEDULE: The Computer Network Technology student will complete a specific course requirement sequence. Students will be advised by the program instructor regarding sequence and schedule of classes.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards. Students may successfully challenge CAP 101 Introduction to Computers by passing the three IC3 Certification tests, which require a \$75 testing fee.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and some of the required courses and electives are also offered online.

IT 210	Network Security Fundamentals	10
IT 220	Network Communication Infrastructure	5
IT 240	UNIX Administration & Configuration	10
IT 242	Windows Server Administration	5
IT 243	Windows Server Network Infrastructure	5
IT 261	Advanced Topics in Networking I	5
IT 262	Advanced Topics in Networking II	5
IT 270	Internship	9
IT 272	Capstone Project	5
Approx. 6 quarters		113 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

Computer Network Support

CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
IT 102	IT Ethics and Careers	5
IT 112	PC Hardware A+	8
IT 121	Introduction to Programming	5
IT 140	Command Line Operating Systems	5
IT 141	Operating Systems A+	8
IT 142	Client/Desktop Operating Systems II	10
IT 160	Networking Technologies	8
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5
Approx. 3 quarters		69 CRs

ASSOCIATE OF APPLIED SCIENCE

Computer Networking

CAP 101	Introduction to Computers	5
IT 102	IT Ethics and Careers	5
IT 112	PC Hardware A+	8
IT 121	Introduction to Programming	5
IT 140	Command Line Operating Systems	5
IT 141	Operating Systems A+	8
IT 142	Client/Desktop Operating Systems II	10
IT 160	Networking Technologies	8

COMPUTER SOFTWARE SUPPORT

Associate of Applied Science -Degree

Associate of Applied Science – Transfer Degree

Certificate – Computer Applications Specialist

The Computer Software Support Technology Program prepares students for employment in the computer technology field in jobs such as Computer Support Specialist, Technical Support, Computer Software Specialist, or Help Desk Technician. It also prepares them for obtaining industry certifications such as Microsoft Certified IT Professional (MCITP), A+, and Network+. Students will gain a working knowledge of a variety of computer software and fundamental office and customer service skills as well as specialized computer skills and knowledge outlined in the outcomes below.

PROGRAM OUTCOMES:

- Graduates will demonstrate competency in word processing, customer service, spreadsheets, databases, presentation graphics, introductory programming concepts, web design, hardware, operating systems, and networking.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Computer Software Support Program at the start of each quarter on a space available basis. Students may enroll full-time or part-time.

SEQUENCE AND SCHEDULE: Students meet with their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites.

Classes are scheduled between 8:00 am-11:00 am, 12:00 pm-3:00 pm, and 3:15 pm-6:15 pm. Degree-seeking students may need to attend several quarters from 3:15 pm- 6:15 pm. Certificate students may need to attend at least one quarter from 3:15pm-6:15pm. A schedule of course offerings can be obtained from program advisors.

It is estimated that a full-time student can complete the certificate requirements in three or four quarters. The degree requirements can be completed in five to six quarters. Because not all courses are offered every quarter, completion times may vary depending on when the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards. In order to earn a Computer Software Support degree or Computer Applications certificate, students must maintain a 2.0 grade point average with no course grade below "C" (2.0).

Students may successfully challenge CAP101, Introduction to Computers, by passing the three IC3 Certification tests.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and some of the required courses and electives are also offered online.

ASSOCIATE OF APPLIED SCIENCE

Computer Software Support

CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 138	MS Word	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS Powerpoint	3
CIS 145	Website Development	5
CIS 160	Computer User Support I	5
CIS 251	Script Programming	5
CIS 276	Internship	6
IT 112	PC Hardware A+	8
IT 141	Operating Systems A+	8
IT 160	Networking Technologies	8
Departmental Electives		15
Approx. 5-6 quarters		89 CRs

AAS ACADEMIC CORE REQUIREMENTS

BUS 171	Technical Communications	5
BUS 150	Mathematics for Business	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

Computer Applications Specialist

BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 138	MS Word	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS Powerpoint	3
CIS 160	Computer User Support I	5
IT 112	PC Hardware A+	8
OR		
IT 141	Operating Systems A+	8
OR		
IT 160	Networking Technologies	8
CMST& 210	Interpersonal Communication	5
Departmental Electives		5
Approx. 3-4 quarters		62 CRs

CONSTRUCTION MANAGEMENT

Certificate

This certificate is designed to meet the needs of the working student who has experience in some phase of the construction industry and wants to specialize in construction management. Most courses are offered in the evening; some may also be offered in the afternoon. The program prepares people for careers in construction management, including superintendents, project managers, field engineers, estimators, foremen, and other administrators. Students learn estimating, scheduling, project management, safety, and other skills that are critical in the construction management field.

PROGRAM OUTCOMES:

Upon successful completion of the Construction Management program, students will be able to:

- Determine personnel, material, and financial resources necessary to manage construction projects
- Synthesize information from building codes, zoning and other laws, and manufacturers' specifications
- Communicate effectively with supervisors, subordinates, subcontractors, customers, and regulatory personnel orally and in writing
- Write bids, contracts, and other construction management documents in accordance with industry standards
- Use technology to obtain, organize, and distribute information
- Draw conclusions and make management decisions based on available information
- Demonstrate leadership, motivation, and problem solving skills in diverse and complex work situations
- Apply ethical business principles to construction management settings
- Describe under what conditions it would be appropriate to use various construction materials, methods, and systems
- Create schedules, budgets, and plans that can be monitored to keep projects going smoothly
- Demonstrate responsibility for safety planning and productivity in construction management settings

APPLICATION & REGISTRATION: Students begin the program by registering for the required evening courses on a space available basis. Refer to the current Quarterly Schedule for class offerings.

SEQUENCE AND SCHEDULE: Courses are held in the evening, generally from 6:00 pm to 9:00 pm. See Quarterly Schedule for specific information. Some courses have prerequisites.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Some classes may be offered online or may have a component of the class online.

CERTIFICATE

Construction Management

CONST 100	Computers in Construction	3
OR		
CAP 101	Introduction to Computers	5
CONST 120	Building Green	3
CONST 141	Blueprint Reading	3
CONST 200	Basic Estimating	3
CONST 201	Contracts and Construction Law	3
CONST 220	Project Planning and Scheduling	3
CONST 250	Safety and Accident Prevention	3
CONST 251	Safety Plan Administration	3
CONST 260	Construction Project Management	3
CONST 280	Building Codes	3
ENGT 122	CAD I: Basics	6

Approx. 3 quarters

33 CRs

CULINARY ARTS

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate

The Culinary Arts Program, which is taught by award winning faculty, is designed to provide students with the skills and knowledge necessary to successfully perform as a professional in hotels, restaurants and many other hospitality operations. Students gain skills in a well-equipped, professional kitchen and classroom facilities. Students participate in an industry internship program in hotels, restaurants, clubs, and resorts. The American Culinary Federation has recognized the Culinary Program as an Exemplary Program symbolizing the highest educational standards recognized by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC).

PROGRAM OUTCOMES:

At the end of this program students can:

- Safely store perishable and non-perishable foods from delivery through preparation and service
- Conform and comply with health standards based on US Food and Drug Administration, Washington State and local health department sanitation and hygiene codes and laws
- Apply fundamentals and advanced skills in cookery, fabrication, product specifications, food, and beverage service
- Plan, prepare and cook food products consistently in a visually appealing manner while maintaining taste, nutritive value, flavor and texture in classical and contemporary cooking methods
- Correctly prepare a variety of classical breads, pastry items, and desserts with the ability to correctly evaluate finished products for proper texture, color, palatability, shape, and doneness
- Plan, develop and analyze the dining room layout and design, menu design, labor costs, fixed costs, variable costs, marketing plan and projected profit and loss statements in a restaurant setting.
- Plan, organize, and execute à la carte, buffet, and plated banquet menus

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Culinary Arts Program once a year on a space available basis.

SEQUENCE AND SCHEDULE: Specific courses will be offered each quarter. The sequence and schedule are available from the program instructor. Most first year classes will be offered from 8:00 am to 4:00 pm.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and Introduction to Computers may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Culinary Arts

CAP 101	Intro to Computers	5
CUL 110	Sanitation	3
CUL 112	Introduction to the Hospitality Industry	4
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 120	International Cuisine	5
CUL 122	Culinary Skill Development II	7
CUL 124	Banquet and Catering Management	3
CUL 140	Garde Manger	6
CUL 142	Nutrition	3
CUL 144	Introduction to À La Carte Cookery	5
CUL 150	Culinary Arts Internship	9
OR		
CUL 152	Culinary Arts Team	9
CUL 212	Breads, Cookies, Tarts, and Puff Pastry	7
CUL 214	Pies, Cakes, and Restaurant Desserts	7
CUL 216	Introduction to Chocolates and Sugar Work	3
CUL 220	Restaurant Management	7
CUL 222	Hospitality Supervision	4
CUL 224	Food and Beverage Service	3
CUL 230	American Regional À La Carte Cookery	9
CUL 232	Food and Beverage Service Lab	4
CUL 234	Capstone Project and Practical Exam	3
Approx. 7 quarters		123 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math In Society	5
OR		
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

CUL 110	Sanitation	3
CUL 112	Introduction to the Hospitality Industry	4
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 120	International Cuisine	5
CUL 122	Culinary Skill Development II	7
CUL 124	Banquet and Catering Management	3
CUL 142	Nutrition	3
CUL 144	Introduction to À La Carte Cookery	5
CUL 212	Breads, Cookies, Tarts, and Puff Pastry	7
Approx. 3 quarters		63CRs

CUSTOMER SERVICE MANAGEMENT

Certificate

Customer service, or lack of it, is one of the hottest topics in business today. Quality customer service is expected whether the business is transacted on the phone, in person, or via the internet. Various resources are available in one-day seminars, which can give some direction towards improving customer service, but managing on a constant basis needs a more complete exploration. This short certificate is designed for the person who is currently in a lead, training, or supervisory role, or whose career path involves a heavy emphasis on quality customer service. Students will learn to define areas in which customer service can be increased and to pinpoint areas where they never realized customer service was expected.

PROGRAM OUTCOMES:

- Graduates will be able to demonstrate high quality customer principles and assist offices and other business entities in improving customer service and satisfaction.

APPLICATION & REGISTRATION: Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: See a Quarterly Schedule for specific course schedule information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Customer Service Management

BUS 140	Supervision & Management	3
MGMT 100	Business & Professional Ethics	3
MGMT 101	Conflict Management	1
BUS 184	Customer Service	3
HRM 201	Management of Human Resources: An Overview	3
MGMT 104	Defining & Managing Quality Customer Service	3
BUS 141	Total Quality Management	2
Approx. 3 quarters		18 CRs

DATA ENTRY SPECIALIST

Certificate

This program prepares students for careers in data entry. Students not only work independently, but also learn in structured class sessions. Emphasis is placed on hands-on learning and application. Skills needed for success in today's workforce are interwoven throughout the program. With the help of a program advisor, students declare their career goals when entering the program or after working through course material and further identifying their personal strengths.

Program content requires the application of basic math, technical reading, and communication skills.

PROGRAM OUTCOMES

- Graduates will be able to enter data into spreadsheets and databases in a timely and accurate manner.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Data Entry Specialist Program at the start of each quarter on a space available basis. Students may enroll full-time or part-time.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites. A schedule of course offerings can be obtained from program advisors.

It is estimated that a full-time student can complete Data Entry Specialist in two quarters. Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards. In order to earn a Data Entry Specialist certificate, students must maintain a 2.0 grade point average with no course grade below "C" (2.0). Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and Introduction to Computers may be taken entirely online.

CERTIFICATE

Data Entry Specialist

BUS 100	Electronic Math Applications	3
BUS 125	Records Management and Data Entry	5
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 142	MS Excel	5
CAP 146	MS Access	5
Departmental Electives		13
Approx. 2 quarters		42 CRs

DENTAL ASSISTING

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate

The Dental Assisting Program prepares the student to be a key member of the dental team and assist the operator chair-side during diagnostic, preventive and operative dental procedures, including exposing x-rays, placing sealants, polishing teeth, preparing dental materials and placing temporary restorations. The College operates a dental clinic that is open to the public on Thursdays and Fridays, and is staffed with a Dentist, Dental Hygienist, Clinic Manager, Clinical Instructor and Certified Dental Assistant. The clinic provides students with clinical experiences, including four-handed expanded function chair-side practice and equipment maintenance using a variety of delivery systems. The clinic fully incorporates the application of infection control, digital x-ray and dental software. Students are expected to complete the National Certification Exam (Dental Assistant National Board) or meet other comparable certification requirements by program completion.

PROGRAM OUTCOMES:

All program completers will:

- Apply academic, technical, and professional skills to effectively contribute to the dental health team
- Apply cognitive retention of dental terminology, theory and science
- Expose and evaluate intraoral and extraoral radiographs implementing radiation safety and processing skills
- Verify critical thinking, problem solving, and positive work ethics as they directly relate to the Dental Assistant profession
- Validate the importance of National Certification and participation in professional activities and education opportunities

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Dental Assisting program twice a year on a space available basis. To be eligible for admission to the Dental Assisting Program, applicants must meet college admission requirements.

To be eligible for the program ready list, all general education courses must be successfully completed with a 2.0 or above. General education courses may be taken in any quarter. Students are required to submit official transcripts (BTC can be unofficial), additional application materials, and the Application Completion Form for program ready list placement. Application materials are available on the Admissions Forms webpage or in the Admissions Office in the College Services Building.

After acceptance to be on the program ready list for the Dental Assisting Program, and prior to the beginning of the dental courses, students are required to:

- Be 18 years of age
- Demonstrate satisfactory oral health by dental examination
- Demonstrate satisfactory health status by physical examination and current immunization status
- Provide evidence of negative test for tuberculosis from physician or health department
- Complete hepatitis B immunization series. (Students should note that the cost of this immunization is estimated to be approximately \$225.00.)
- Possess and maintain a current CPR card. Minimum CPR required is HO 127-Healthcare Provider (six hr)

SEQUENCE AND SCHEDULE: Following completion of general education courses, the Dental Assisting Program is a three quarter sequence. Students are generally in class from 8:00 am-3:00 pm. All students will have the Summer Quarter off. Extramural clinical experience requires a minimum of 200 clinical hours by the end of the final quarter. The clinical schedule varies according to the BTC dental office hours and students must be available to meet the arranged schedule.

DEGREE REQUIREMENTS: Students may apply for a certificate or degree upon completion and verification of all requirements and standards. Students must receive a minimum of "B" 3.0 in all clinical courses and a "C" 2.0 or above in all academic courses to receive a certificate. Students wanting transferable credits can replace BIO 105 with the following three-courses: BIOL& 160, BIOL& 241, and BIOL& 242.

ASSOCIATE OF APPLIED SCIENCE

Dental Assisting

BIO 105	Essentials Of Anatomy & Physiology	5
DEN 100	Introduction to Dental Assisting	1
DEN 105	Head and Neck Anatomy	2
HLTH 133	HIV/AIDS: Healthcare Professional	1
HO 127	Healthcare Provider CPR	0.5
DEN 110	Dental Foundations	5
DEN 112	Chairside Assisting	7
DEN 114	Dental Sciences	4
DEN 115	Dental Clinic Practicum I	6
DEN 120	Patient Assessment	8
DEN 122	Chairside Assisting II	6
DEN 124	Radiography	3
DEN 125	Dental Clinic Practicum II	4
DEN 130	Preventive Dentistry	3
DEN 132	Dental Specialties	1
DEN 134	Laboratory Procedures	2
DEN 135	Dental Clinic Practicum III	4
DEN 137	Extramural Practicum	8

Approx. 5 quarters

70.5 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
OR		
ENGL& 101	English Composition I	5
OR		
MATH 100	Occupational Math	5
OR		
MATH 107	Math in Society	5
CMST 210	Interpersonal Communication	5
OR		
PSYC 100	General Psychology	5

20 CRs

Dental Assisting continued on the next page

DENTAL ASSISTING

(CONTINUED)

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
	OR	
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
	OR	
CMST& 210	Interpersonal Communication	5
	PLUS	
	Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.	5
Approx. 5 quarters		20 CRs

CERTIFICATE Dental Assisting

COM 170	Oral & Written Communications	5
	OR	
ENGL& 101	English Composition I	5
MATH& 107	Math in Society	5
	OR	
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5
	OR	
PSYC& 100	General Psychology	5
BIO 105	Essentials of Anatomy & Physiology	5
DEN 100	Introduction to Dental Assisting	1
DEN 105	Head and Neck Anatomy	2
HLTH 133	HIV/AIDS: Healthcare Professional	1
HO 127	Healthcare Provider CPR	0.5
DEN 110	Dental Foundations	5
DEN 112	Chairside Assisting	7
DEN 114	Dental Sciences	4
DEN 115	Dental Clinic Practicum I	6
DEN 120	Patient Assessment	8
DEN 122	Chairside Assisting II	6
DEN 124	Radiography	3
DEN 125	Dental Clinic Practicum II	4
DEN 130	Preventive Dentistry	3
DEN 132	Dental Specialties	1
DEN 134	Laboratory Procedures	2
DEN 135	Dental Clinic Practicum III	4
DEN 137	Extramural Practicum	8
Approx. 4 quarters		85.5 CRs

DENTAL: EXPANDED FUNCTION DENTAL AUXILIARY

Certificate

This 18 credit certificate program is designed to prepare certified Dental Assistants and licensed Dental Hygienists to become licensed in Washington State as an Expanded Function Dental Auxiliary (EFDA). Course content is designed to prepare students for the Washington Restorative Exam (WARE) and the restorative portion of the Western Regional Examining Board (WREB). The Program combines didactic, laboratory, and clinical instruction to prepare EFDA's for such duties as placing and contouring restorations, final impressions, and performing certain dental assisting procedures under general supervision.

PROGRAM OUTCOMES:

Graduates will be able to:

- Recognize the role and laws of the EFDA in expanding access to care
- Take final impressions on a typodont
- Recall procedures for coronal polish, radiographs, fluoride treatment, sealants, oral hygiene instruction, and infection control
- Place amalgam restorations on a typodont and on a patient, restoring function and anatomy to harmonious form
- Place composite restorations on a typodont and on a patient, restoring function and anatomy to harmonious form

APPLICATION & REGISTRATION: To be eligible for admission to the Bellingham Technical College EFDA program, applicants must provide all of the following items in one complete application packet to:

Bellingham Technical College
ATTN: Admissions, Expanded Function Dental Auxiliary
3028 Lindbergh Avenue
Bellingham, WA 98225-1599

Admission forms for the application packet are available in the Admissions Office or online. Incomplete application packets will not be considered.

- Completed BTC admissions application
- Evidence of high school graduation or its equivalent; acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate
- Evidence of completion of a Dental Assisting Education Program accredited by the ADA Council on Dental Accreditation (CODA)
OR
Dental Assisting National Board (DANB) certified Dental Assistant
OR
Dental Hygienist with limited license
- Provide evidence that you have completed seven hours of HIV/AIDS training
- Possess and maintain a current CPR card. Minimum CPR required is HO 127-Healthcare Provider (six hr)
- Current experience (last 5 years) as a Dental Assistant or Dental Hygienist for a minimum of three years or 3500 hours
- Provide evidence that you have a Dentist willing to sponsor you as a mentor and provide clinical experience

Expanded Function Dental Auxiliary continued on the next page

DENTAL: EXPANDED FUNCTION DENTAL AUXILIARY

(CONTINUED)

- Accuplacer sentence skills of 86 and reading comprehension score of 85 or completion of COM 170-Oral and Written Communications or ENGL& 101-English Composition I with a "C" or above.
- Provide evidence of negative test for tuberculosis from physician or health department
- Complete Hepatitis B immunization series (students should note that the cost of this immunization is estimated to be approximately \$225.00).

SEQUENCE AND SCHEDULE: The EFDA program is a three quarter sequence with fall entry only. Students are generally in class once a week in the evening along with online coursework. Students must achieve a 70 percent in each course to progress in the program.

Extramural clinical experience requires each student to have their own supervising dentist and access to a sufficient number of clinical experiences. The clinical schedule varies according to the dental office hours and students must be available to meet the arranged schedule.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all program requirements and standards.

CERTIFICATE

Expanded Function Dental Auxiliary

EFDA 100	Dental Anatomy	1
EFDA 101	Restorative Dentistry I	3
EFDA 102	Restorative Lab I	2
EFDA 110	Principles of Dental Assisting	2
EFDA 111	Restorative Dentistry II	2
EFDA 112	Restorative Lab II	2
EFDA 120	Final Impressions	1
EFDA 122	Restorative Lab III	2
EFDA 123	Restorative Clinical Practice	3
3 Quarters		18 CRs

DENTAL HYGIENE

Associate of Applied Science – Transfer Degree

The Dental Hygiene Program is designed to prepare students to become Dental Hygienists. The Dental Hygiene Program provides sequential courses that fulfill the educational objectives established by the American Dental Association (ADA) Commission on Dental Accreditation. The program consists of classroom instruction and dental hygiene clinical experience in an on-campus patient care clinic. Upon successful completion students will earn an Associate of Applied Science-Transfer degree from Bellingham Technical College and will be eligible to take the National Board Examination. The BTC Dental Hygiene Program has received initial accreditation from the Commission on Dental Accreditation (CODA).

PROGRAM OUTCOMES: Students will be able to:

- Demonstrate current dental hygiene techniques, the use and application of dental materials, and safety and health standards
- Demonstrate cognitive retention of dental terminology, theory, and science
- Demonstrate positive work ethics, team skills, and professionalism
- Demonstrate a foundation in professionalism through participation in professional activities and education opportunities
- Incorporate into dental hygiene practice professional laws, regulations and policies established by the licensing state and regulatory agencies
- Counsel clients/patients to reduce health risks and provide community oral health services in a variety of settings
- Formulate a comprehensive dental hygiene care plan in collaboration with the client and other health professionals and evaluate the effectiveness of the implemented client/patient dental hygiene care plan; modify as needed. Maintain appropriate records for all dental hygiene services provided
- Provide preventive and therapeutic services that promote oral health according to the needs of the patient/client

APPLICATION & REGISTRATION: Students are typically offered enrollment in Dental Hygiene once every other year.

The Dental Hygiene Program requires a selective admissions process. Please see the application packet on the BTC website.

Prospective students must complete the following prerequisites prior to applying to the program.

- English Composition I (ENGL& 101)
- English Composition II (ENGL& 102)
- General Psychology (PSYC& 100)
- Intro to Sociology (SOC& 101)
- Interpersonal Communications (CMST& 210) or Public Speaking (CMST& 220) or Introduction to Communication (CMST& 101)
- Pre-Calculus I (MATH& 141) or Math in Society (MATH& 107)
- Human A & P 1 (BIOL& 241)
- Human A & P 2 (BIOL& 242)
- Intro to Chemistry (CHEM& 121)
- Intro to Organic Chemistry (CHEM& 122)
- Microbiology (BIOL& 260)
- Nutrition (NUTR& 101)

Dental Hygiene continued on the next page

DENTAL HYGIENE

(CONTINUED)

SEQUENCE AND SCHEDULE: It is estimated that a full-time student will complete the program in 7 consecutive quarters. Classes are held between the hours of 8:00am and 6:00pm and students may have varying schedules.

DEGREE REQUIREMENTS: Students may apply for a degree upon completion and verification of all requirements and standards.

ASSOCIATE OF APPLIED SCIENCE TRANSFER

Dental Hygiene

Students may apply for a degree upon completion and verification of all requirements and standards.

DHYG 112	Dental Hygiene Clinical Practice I	5
DHYG 113	Restorative Dentistry I	4
DHYG 114	Principles of Dental Hygiene I	3
DHYG 115	Oral & Dental Anatomy	4
DHYG 116	Oral Radiology I	4
DHYG 122	Dental Hygiene Clinical Practice II	5
DHYG 123	Restorative Dentistry II	4
DHYG 124	Principles of Dental Hygiene II	3
DHYG 125	General Pathology	4
DHYG 126	Oral Radiology II	2
DHYG 127	Pharmacology	3
DHYG 132	Dental Hygiene Clinical Practice III	6
DHYG 133	Restorative Dentistry III	2
DHYG 134	Principles of Dental Hygiene III	3
DHYG 138	Periodontology	3
DHYG 146	Medical & Dental Emergencies	3
DHYG 142	Dental Hygiene Clinical Practice IV	6
DHYG 143	Restorative Dentistry IV	2
DHYG 144	Principles of Dental Hygiene IV	3
DHYG 149	Pain Management	4
DHYG 145	Community Oral Health I	4
DHYG 212	Dental Hygiene Clinical Practice V	8
DHYG 213	Restorative Dentistry V	1
DHYG 214	Principles of Dental Hygiene V	3
DHYG 219	Oral Pathology	3
DHYG 215	Community Oral Health II	4
DHYG 222	Dental Hygiene Clinical Practice VI	8
DHYG 223	Restorative Dentistry VI	2
DHYG 224	Principles of Dental Hygiene VI	3
DHYG 228	Oral Therapy	3
DHYG 225	Community Oral Health III	2
DHYG 229	Dental Hygiene Seminar	1
DHYG 232	Dental Hygiene Clinical Practice VII	7
DHYG 233	Restorative Dentistry VII	1
DHYG 234	Principles of Dental Hygiene VI	3

Approx. 7 Quarters

126 CRs

DIESEL TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate –

- Diesel Drive Train/Brakes/Suspension/Steering/ Electrical Electronic Systems
- Diesel Engine & Electrical Electronic Systems
- Diesel Hydraulics Preventative Maintenance & Electrical/Electronic Systems

The Diesel Technology Program is certified by Automotive Service Excellence (ASE) as a Medium/Heavy Duty Truck Training Program.

This assures that the curriculum follows the stringent standards identified by National Automotive Technicians Education Foundation (NATEF). Graduates of this Program may transfer directly into the Bachelor of Science Diesel Technology Program at Montana State University-Northern in Havre, Montana with junior placement status.

The AAS and AAS-T degree program paths combine current technology in the classroom and computer lab with self-paced instruction and practicum/shop experience. The Caterpillar Basics Library, used in a modern 24-station computer lab, is an important component of the program. Modules in Electrical/Electronics, Hydraulics, Failure Analysis, and Diesel Engines are included in a self-paced CD-ROM format. A 1,000 HP dyne is used in engine testing with computer diagnostics for understanding modern fuel and control systems. Notebook computers and engine simulators are used in conjunction with the dyne.

Program content follows the ASE areas of Electrical/Electronics, Preventive Maintenance, Brakes, Steering/Suspension, Drive Train, Diesel Engines, and Hydraulics with great importance placed on leading edge technology in the diesel field. This Program emphasizes the development of appropriate work habits and attitudes, leadership, interpersonal communication, teamwork skills, customer service competencies, as well as the technical skills necessary for employment.

Students are required to participate in work-based learning where they will work in an actual shop under the guidance of experienced technicians and the instructor. They may be employed in the transportation, construction, marine, agricultural, public transportation, or equipment rental industries. Working diesel technicians are encouraged to enroll, with instructor permission, in courses for industry upgrade skills.

PROGRAM OUTCOMES:

- Graduates will use appropriate clothing and protective gear and practice ergonomically correct strategies/technologies to safeguard against injuries in the workplace
- Graduates will read and interpret a variety of schematics from a variety of sources to repair diesel equipment, and troubleshoot and repair common problems using appropriate testing equipment, procedures and information systems
- Graduates will act responsibly and ethically as an employee by being punctual, adhering to company policies and interacting positively and appropriately with co-workers, supervisors and customers; research, train and stay current with new and emerging heavy equipment technologies
- Graduates will review, interpret and convey written, verbal and graphic information to communicate effectively with co-workers, management and customers.

Diesel Technology continued on the next page

DIESEL TECHNOLOGY

(CONTINUED)

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Diesel Technology Program twice a year on a space available basis. Enrollment at other times or part-time enrollment may be available by instructor permission. Students must have a valid driver's license and be insurable to participate in Applied Diesel Concepts courses. A mandatory mechanical aptitude test will be given during the Transportation (TRANS) courses as a counseling and guidance tool. Safety glasses (required), tools, coveralls, and work boots are not supplied and are the student's responsibility. A tool list is available from the instructors. Students must be at least 18 years of age to enroll in any Applied Diesel Concepts course, or obtain instructor permission.

SEQUENCE AND SCHEDULE: Beginning students enroll in TRANS 101, 102, and 103; exceptions may be available with instructor permission. These classes meet from 12:00 pm to 3:00 pm. While taking the TRANS classes, enrollment in General Education courses is limited to morning or evening classes. Students who wish to take one Diesel course per quarter must start in Fall Quarter with TRANS 101 Basic Transportation Service & Systems I.

Full-time degree students will generally finish in seven quarters; summer enrollment may be required to complete in this time frame.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree, an Associate of Applied Science - Transfer degree or various certificates upon completion and verification of all requirements and standards. Diesel program students must maintain a 2.0 grade point average with no TRANS or DET course below a "C-" (1.7) to earn a degree.

ONLINE LEARNING: The diesel industry requires the use of many different computer systems. Throughout the program students will use a variety of computer programs along with online tools and resources. Some classes may be delivered entirely online.

ASSOCIATE OF APPLIED SCIENCE

Diesel Technology

DET 104	Hydraulic Brakes	2
DET 106	Electrical/Electronics I	4
DET 116	Electrical/Electronics II	4
DET 126	Electrical/Electronics III	4
DET 129	Applied Diesel Concepts I	12
DET 139	Applied Diesel Concepts II	12
OR		
other college-level electives totaling 12 credits, which may include DET 240 Current Industry Topics I		
OR		
DET 242	Current Industry Topics II	
DET 201	Hydraulics	8
DET 202	Diesel Engines	13
DET 203	Drive Train	3
DET 204	Air Brakes	5
DET 205	Suspension/Steering	5
DET 208	Preventive Maintenance	6
DET 239	Applied Diesel Concepts III	13
DET 240	Current Diesel Industry Topics I	6
DET 242	Current Diesel Industry Topics II	6
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5

Approx. 7 quarters**118 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		

5**20 CRs**

CERTIFICATE

Diesel Drive Train/Brakes/Suspension/Steering/Electrical Electronic Systems

DET 126	Electrical/Electronics III	4
DET 203	Drive Train	3
DET 204	Air Brakes	5
DET 205	Suspension/Steering	5
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5

Approx. 2-3 quarters**32 CRs**

CERTIFICATE

Diesel Engine & Electrical Electronic Systems

DET 104	Hydraulic Brakes	2
DET 106	Electrical/Electronics I	4
DET 202	Diesel Engines	13
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5

Approx. 2-3 quarters**34 CRs**

CERTIFICATE

Diesel Hydraulics Preventative Maintenance & Electrical/Electronic Systems

DET 116	Electrical/Electronics II	4
DET 201	Hydraulics	8
DET 208	Preventive Maintenance	6
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5

Approx. 2-3 quarters**33 CRs**

CERTIFICATE

Vehicle Service Technician

TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5

Approx. 1 quarter**15 CRs**

ELECTRICIAN

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Electrical Fundamentals

The Electrician Program prepares students for the Electrical Industry, including residential, industrial, and commercial jobs. The Program emphasizes the development of electrician skills along with communication and interpersonal skills to be successful at the workplace. The curriculum starts with basic math and electrical theory and advances to complex systems building upon the knowledge and skills acquired throughout the program. Classroom instruction and practicum/lab instruction provide opportunities for students to achieve the competencies they need to maintain existing electrical install systems, new electrical construction and to perform other electrical jobs.

Graduates applying to the Department of Labor and Industries for a specialty electrical license can be credited with supervised work experience per RCW 19.28.191 and WAC 296-46B-940 as follows: Residential (02) - 1,550 hours of work experience or Nonresidential Maintenance (07) - 1,550 hours of work experience.

PROGRAM OUTCOMES: Successful program graduates will:

- Design, analyze, and diagnose basic electrical systems through the application of electrical theory fundamentals
- Ensure safe work practices and installations through compliance with national, state, and local regulations and industry standards including the National Electrical Code and WAC/RCW
- Use proper tools and test equipment to construct and maintain power, lighting, signaling, and control systems in residential, commercial, and industrial settings
- Install new and modify existing electrical systems and components utilizing appropriate wiring methods and materials
- Estimate costs of labor and material for small electrical projects
- Exhibit professional and personal conduct and appearance appropriate to the workplace
- Communicate clearly with team members, supervisors, and others in the workplace, effectively using oral communication as well as drawings, blueprints, and other documents

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Electrician Program twice a year on a space available basis.

SEQUENCE AND SCHEDULE: The Electrician student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes. Currently, most classes are held from 8:00 am to 3:00 pm.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science-Transfer degree upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Electrician

ELCN 101	DC Circuits	3
ELCN 102	AC Circuits	3
ELCN 103	Electrical Drawings and Blueprints	2
ELCN 104	Grounding and Bonding	2
ELCN 105	Transformers, Motors and Generators	3
ELCN 112	Basic NEC Calculations	3
ELCN 113	Advanced NEC Calculations	3
ELCN 131	DC Circuit Lab	3
ELCN 132	AC Circuit Lab	3
ELCN 142	Residential Wiring Projects	6
ELCN 143	Electrical Distribution	3
ELCN 151	Commercial Wiring Methods and Materials	6
ELCN 201	Electronics for Electricians	4
ELCN 202	Machine Control Fundamentals	4
ELCN 203	PLCs and VFDs	4
ELCN 214	Special Occupancies, Equipment, & Conditions	4
ELCN 251	Commercial Wiring Projects	6
ELCN 261	Industrial Wiring Methods and Materials	5
ELCN 262	Industrial Wiring Projects	6
ELCN 263	Control Projects	5
ELCN 280	Alternative Electrical Sources	3
ELCN 281	Electrical Estimating and Design	3
EMTEC 105	Trade Safety	2
EMTEC 125	Applied Mechanics	4

Approx. 5 quarters **90 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5

20 CRs

CERTIFICATE

Electrical Fundamentals

ELCN 101	DC Circuits	3
ELCN 103	Electrical Drawings and Blueprints	2
ELCN 131	DC Circuit Lab	3
EMTEC 105	Trade Safety	2
EMTEC 125	Applied Mechanics	4
MATH 100	Occupational Math	5

1 quarter **19 CRs**

ELECTRO MECHANICAL TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate –

- Electrical Fundamentals
- Electro Mechanical Technology

The Electro Mechanical Technology (EMTEC) Program prepares students with the knowledge and skills required for success as an Industrial Maintenance Technician (often referred to as Millwrights or Stationary Engineers). This Program will appeal especially to students who want a broad knowledge about various industrial processes including electricity, hydraulics, pneumatics, engineering graphics, welding, boilers, etc. The EMTEC Program uses hybrid online instruction, classroom lectures, and labs. Graduates will have the opportunity to work in a variety of industrial settings including advanced manufacturing operations particularly petrochemical, refining, pharmaceuticals, chemical, value-added wood products, pulp and paper, power generation and utilities, wastewater treatment facilities as well as in smaller facility maintenance.

PROGRAM OUTCOMES: Successful program graduates will:

- Design, analyze, and diagnose basic electrical systems through the application of electrical theory fundamentals
- Design, analyze, and diagnose basic industrial mechanical systems through the application of hydraulic, pneumatic, lever and pulley theory fundamentals
- Ensure safe work practices and installations through compliance with federal, state, and local regulations and industry standards including the National Electrical Code, WAC Chapter 296 and related RCW
- Use proper tools and test equipment to construct and maintain power, lighting, signaling, and control systems in industrial settings
- Use proper tools and test equipment to construct and maintain mechanical systems in industrial settings
- Install new and modify existing process systems and components utilizing appropriate electrical and millwright/mechanical skills and materials
- Exhibit professional and personal conduct and appearance appropriate to the workplace
- Communicate clearly with team members, supervisor, and others in the workplace, effectively using oral communication as well as drawings, blueprints, and other documents

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Electro Mechanical Technology program once a year on a space available basis.

SEQUENCE AND SCHEDULE: The EMTEC student will complete a course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

Many classes will have a combination of in-class and hybrid online content or simulation. Generally, classroom instruction is offered in the afternoon.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science or an Associate of Applied Science-Transfer degree upon completion and verification of all requirements and standards and a one year certificate.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Electro Mechanical Technology

ELCN 101	DC Circuits	3
ELCN 103	Electrical Drawings and Blueprints	2
ELCN 131	DC Circuit Lab	3
EMTEC 103	Electrical Circuits	5
EMTEC 105	Trade Safety	2
EMTEC 121	Fundamentals of Hydraulic & Pneumatics	5
EMTEC 123	Hydraulics and Pneumatics Circuits	5
EMTEC 125	Applied Mechanics	4
EMTEC 126	Engineering Graphics	3
EMTEC 131	Rigging	3
EMTEC 133	Introduction to Machinery Skills	4
EMTEC 175	EMTEC Advanced Welding	2
EMTEC 201	AC Components and Measurements	5
EMTEC 205	Programmable Logic Controllers	4
EMTEC 211	Electrical Controls I	5
EMTEC 217	Instrumentation & Controls	5
EMTEC 218	Introduction to National Electrical Code	3
EMTEC 231	Bearings and Drives	5
EMTEC 232	Drive Alignment-Conveyors and Machining Systems	5
EMTEC 234	Valves, Pumps, and Traps	5
EMTEC 235	Boilers and Combustion Technology	5
EMTEC 237	Computerized Maintenance and Management Systems	5
EMTEC 250	Capstone Project	9
WLD 173	EMTEC Basic Welding	2

Approx. 6 quarters **99 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
	Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.	5

20 CRs

Electro Mechanical Technology continued on the next page

ELECTRO MECHANICAL TECHNOLOGY

(CONTINUED)

CERTIFICATE

Electrical Fundamentals

ELCN 101	DC Circuits	3
ELCN 103	Electrical Drawings and Blueprints	2
ELCN 131	DC Circuit Lab	3
EMTEC 105	Trade Safety	2
EMTEC 125	Applied Mechanics	4
MATH 100	Occupational Math	5
Approx. 1 quarter		19 CRs

CERTIFICATE

Electro Mechanical Technology

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
ELCN 101	DC Circuits	3
ELCN 103	Electrical Drawings and Blueprints	2
ELCN 131	DC Circuit Lab	3
EMTEC 103	Electrical Circuits	5
EMTEC 105	Trade Safety	2
EMTEC 121	Fundamentals Of Hydraulic & Pneumatics	5
EMTEC 123	Hydraulics and Pneumatics Circuits	5
EMTEC 125	Applied Mechanics	4
EMTEC 126	Engineering Graphics	3
EMTEC 133	Introduction to Machinery Skills	4
EMTEC 201	AC Components and Measurements	5
EMTEC 235	Boilers and Combustion Technology	5
EMTEC 237	Computerized Maintenance and Management Systems	5
MATH 100	Occupational Math	5
Approx. 3 quarters		66 CRs



ELECTRONICS

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Electronics Program graduates work primarily as Technicians or Engineer Techs in a variety of industries including electronic equipment, opto-electronic equipment, manufacturing, computer systems, cable or satellite TV, broadcasting, and microwave technology. Typical tasks include installing, maintaining, and repairing electronic equipment such as communications equipment, radar, industrial equipment controls, computers, telephone systems, and fiber optic equipment.

PROGRAM OUTCOMES:

- Graduates will demonstrate competency in electrical/electronic safety, direct current, alternating current, basic test equipment, semiconductors, op-amps, digital systems, opto-electronics (photonics and fiber-optic), and troubleshooting.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Electronics Technology Program several times a year on a space available basis.

Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH&141) is a required prerequisite for enrollment in this program.

SEQUENCE AND SCHEDULE: Students must complete courses in a specific sequence based on date of program entry. Program instructors will advise students regarding the scheduling of required courses.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree upon completion and verification of required courses and standards.

ASSOCIATE OF APPLIED SCIENCE

Electronics

CAP 101	Introduction to Computers	5
CTE 292	Career Search	2
ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 150	Electronic Communications	6
ETEC 212	Microprocessors	6
ETEC 214	Nano Technology	5
ETEC 236	Photonics 1	5
ETEC 241	Photonics 2	5
ETEC 245	Mechatronics	6
ETEC 250	Principles of Telecommunication	6
ETEC 281	Robot Technology	5
ETEC 282	Certified Electronics Technician Test Prep	3
Optional		
ETEC 294	Work Based Learning	3
ETEC 295	Work Based Learning	6
Approx. 6 quarters		96 CRs

Electronics continued on the next page

ELECTRONICS

(CONTINUED)

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

FISHERIES & AQUACULTURE SCIENCES

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Fisheries Resources

The Fisheries & Aquaculture Sciences Program prepares students for employment in a variety of fisheries occupations with emphasis on fish culture and aquaculture. The Program offers an Associate of Applied Science degree or a certificate in Fisheries Resources.

The Fisheries & Aquaculture Sciences Program operates the Whatcom Creek Hatchery at the Maritime Heritage Park in Bellingham. The Hatchery provides an actual work site for the instructional "laboratory." This complements the classroom theory and related instruction components. The Fisheries Technology Program operates in partnership with several regional and statewide industries and agencies.

PROGRAM OUTCOMES:

- Graduates will demonstrate competency in hatchery methods and apply appropriate techniques to spawn, incubate, rear and release fish.
- Graduates will utilize proper use of tools, equipment, and protective devices to safeguard against injury to self, others and workplace facilities. They will act responsibly and ethically as an employee by being punctual, adhering to company policies, and interacting positively and appropriately with co-workers and supervisors.
- Graduates will receive, interpret, and convey written, verbal, and graphic information to communicate effectively with co-workers, management, and the general public. They will compute, calculate, and convert standard and metric measurements for the purposes of disease treatment and prevention, and rearing of fish.
- Graduates will observe and comply with environmental laws and regulations related to fish rearing and the use and disposal of chemicals and drugs.
- Graduates will use current and emerging computerized systems and software to operate equipment, calculate results, keep records, and enter data on proper forms and records. They will attend industry workshops and conferences to stay current with new and emerging research, equipment, and techniques

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Fisheries Program twice a year on a space available basis. Students may enroll full-time or part-time. Part-time enrollment requires instructor permission.

SEQUENCE AND SCHEDULE: Course requirements are scheduled for specific quarters. Students will be advised by the program instructor regarding sequence and schedule of classes.

Generally, classroom instruction is held during morning classroom hours with most lab activities occurring in the afternoon.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree, an Associate of Applied Science-Transfer degree or a certificate upon completion and verification of all requirements and standards.

Fisheries and Aquaculture Sciences continued on the next page

FISHERIES & AQUACULTURE SCIENCES

(CONTINUED)

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and Introduction to Computers may be taken entirely online.

This degree program is available entirely online for people currently employed in the Fish culture Industry. Contact the instructor, Earl Steele for details.

ASSOCIATE OF APPLIED SCIENCE

Fisheries Technology

CAP 101	Introduction to Computers	5
CTE 290	Job Search	4
FISH 100	Introduction To Safety	2
FISH 105	Water Quality	1
FISH 111	Salmonid Biology	3
FISH 125	Sampling Techniques	3
FISH 133	Hatchery Operations I	5
FISH 136	Spawning Techniques I	6
FISH 146	Fish and Shellfish Biology	3
FISH 155	Environmental Awareness	3
FISH 161	Aquaculture Techniques	6
FISH 170	Hatchery Operations II	4
FISH 186	Hatchery Operations III	10
FISH 195	Fisheries Internship	6
FISH 236	Spawning Techniques II	6
FTEC 200	Applied Concepts I	10
FTEC 205	Field Projects I	4
FTEC 250	Applied Concepts II	10
FTEC 255	Field Projects II	4
Electives		14

Electives may include any of the Fisheries Current Topics, First Aid Fundamentals, Word Level I-III, Excel Level I-III, Access Level I-III, Powerpoint, Intro to Welding, Creative Welding, Intro to Maritime Piloting and Safety, Forklift Driver Certification, or other Fisheries related college level courses

FISH 194	Fisheries Current Topics	4
FISH 196	Fisheries Current Topics	4
FISH 197	Fisheries Current Topics	4
FISH 198	Fisheries Current Topics	8

Approx. 6 quarters **109 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5

20 CRs

CERTIFICATE

Fisheries Resources

CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
CTE 290	Job Search	4
FISH 100	Introduction To Safety	2
FISH 105	Water Quality	1
FISH 111	Salmonid Biology	3
FISH 125	Sampling Techniques	3
FISH 133	Hatchery Operations I	5
FISH 136	Spawning Techniques I	6
FISH 146	Fish and Shellfish Biology	3
FISH 155	Environmental Awareness	3
FISH 161	Aquaculture Techniques	6
FISH 170	Hatchery Operations II	4
FISH 186	Hatchery Operations III	10
FISH 195	Fisheries Internship	6
FISH 236	Spawning Techniques II	6
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

Approx. 4 quarters **82 CRs**



HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

The Heating, Ventilation, Air Conditioning & Refrigeration Program prepares students for employment as Technicians in the design, operation, service, repair, installation and sales of these systems and equipment. The program combines theory with extensive practical hands-on training designed to simulate the actual work environment and skills needed to excel in this challenging field. Labs afford the student the opportunity to install, repair and/or operate a wide variety of actual field equipment, such as commercial coolers; warm air, hydraulic, electric, gas, and oil furnaces; package and split system A/C; rooftop commercial gas packs; refrigerated sea water systems; liquid chillers; industrial ice machines; centrifugal chillers; cascade refrigeration; pneumatic controls; and direct digital controls.

Prospects for employment are excellent, with high paying jobs. Students learn CFC refrigerants, Indoor Air Quality requirements and increased use of computerized building controls. Employers in this industry include heating contractors, refrigeration contractors, controls contractors, commercial food storage facilities, property management firms, wholesale vendors, hotels, schools, industrial processing plants, and many others.

The degree emphasizes the development of technical skills as well as diagnostic, problem solving and customer service skills.

Graduates of the degree can apply to the Department of Labor and Industries to become an HVAC/Refrigeration (06A) specialty electrician and are credited with 1334 hours of supervised work experience per RCW 19.28.191 and WAC 296-46B-940.

PROGRAM OUTCOMES: Graduates of this program:

- Diagnose, repair and maintain common HVAC/R electrical and mechanical system problems
- Communicate effectively with customers, managers and fellow workers
- Adhere to environmental laws and regulations as applied to HVAC/R
- Demonstrate employability behaviors and work ethics
- Embrace the model of lifelong learning, accessing new information to remain current in industry trends

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Heating, Ventilation, Air Conditioning & Refrigeration Program twice a year on a space available basis.

SEQUENCE AND SCHEDULE: Course requirements are scheduled for specific quarters. Students will be advised by the program instructor regarding sequence and schedule of classes.

Generally, classroom instruction is held during morning classroom hours with most lab activities occurring in the afternoon. Students must complete General Education requirements prior to entering the second year.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science-Transfer degree upon completion and verification of all requirements and standards.

To be eligible for the Associate of Applied Science degree, students must pass the ARI Commercial Refrigeration and Light Commercial A/C and Heating Certification Tests. Students must also hold EPA certification for at least TYPE I and II Section 608 of the Clean Air Act.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Heating, Ventilation, Air Conditioning & Refrigeration

CREF 122	Fundamentals of Refrigeration	5
CREF 123	Fundamentals Lab I	5
CREF 126	Basic Electricity for HVAC/R	5
CREF 127	Fundamentals Lab II	5
CREF 132	Commercial Self Contained Systems	5
CREF 133	Commercial Self Contained Systems Lab	5
CREF 135	Commercial Ice Systems Theory and Applications	3
CREF 137	Commercial Ice Systems Lab	4
CREF 139	Commercial Ice Systems Interactive Learning	2
CREF 141	Air Properties and Psychometrics	3
CREF 143	HVAC System Design	3
CREF 145	Duct Layout and Fabrication	4
CREF 147	Applied Air Conditioning Systems	4
CREF 149	Applied Heat Pump Systems	4
CREF 221	Electric Heating Technology	4
CREF 223	Gas Heating Technology	7
CREF 225	Fuel Oil Heating Technology	4
CREF 227	Hydronic Heating Technology	5
CREF 231	Commercial/Industrial Refrigeration Applied Components	5
CREF 233	Commercial/Industrial Refrigeration Applied Components Lab	5
CREF 236	Commercial and Industrial Chilled Water Systems	3
CREF 237	Cooling Towers and Water Treatment	1
CREF 238	Cascade/Transport Refrigeration Systems	5
CREF 239	Absorption Refrigeration Systems	1
CREF 241	Control Theory For HVAC Automation Systems	5
CREF 242	Control Theory Lab	5
CREF 245	Commercial and Industrial Boilers	2
CREF 246	HVAC System Design and Commissioning	2
CREF 247	Job Prep and Internship, National Testing Prep	5

Approx. 6 quarters

116 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
	Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.	5

20 CRs

HUMAN RESOURCE MANAGEMENT

Certificate

The management of Human Resources has continued to be a growing field. With the increasing legal issues involved in personnel and the need for companies to carefully select and maintain their employment force, this field will continue to grow. The Human Resource Management Certificate Program is for individuals who have been assigned human resources duties, want to refine existing skills, or want to move into the field of Human Resources. The Program will also benefit small business owners who need human resource information to operate their company effectively.

PROGRAM OUTCOMES:

- Graduates will demonstrate the ability to apply legal principles and human resource practices in the role of human resource manager, assistant, or other support role

APPLICATION & REGISTRATION: Students begin the program by registering in HRM 201 or equivalent. It is recommended that students have excellent basic academic skills.

SEQUENCE AND SCHEDULE: One to three courses are offered quarterly and online. Students may complete the program in one to two instructional years.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Human Resource Management

HRM 201	Management of Human Resources: An Overview	3
HRM 235	Human Resource Info Systems	2
HRM 240	Risk Management & Safety	3
HRM 205	Recruitment & Staffing Policies & Practices	3
HRM 220	Training & Staff Development	3
MGMT 100	Business & Professional Ethics	3
HRM 245	Diversity in The Workplace	1
HRM 207	Fundamentals of Employee Benefits & Compensation	3
HRM 210	Employment Law & Labor Relations	3
HRM 260	Conducting Internal Investigations	1
HRM 255	Strategic Human Resources	3

Approx. 4-5 quarters

28 CRs

HYPNOTHERAPY

Certificate

This Program instructs students in the use of hypnosis techniques in a professional setting for the purpose of pain management, behavior modification, and many other psychological and social concerns clients may have. The Hypnotherapy Program also covers the legal and ethical issues involved. Along with private practice, hypnotherapists also work in a variety of healthcare settings with doctors, dentists, nurses, psychologists, and psychiatrists.

PROGRAM OUTCOMES: Graduates of this program will be able to apply legal and ethical issues of healthcare workers and use hypnosis techniques in a professional setting for the purpose of pain management, behavior modification, and many other psychological and social concerns clients may have.

APPLICATION AND REGISTRATION: Students begin by registering for HYPN 101 during Fall or Spring Quarter. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: Courses are held in the evening, generally from 6:00 pm to 9:00 pm one evening per week. Courses must be taken in sequence.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Human Resource Management

HLTH 103	CPR: Adult Heartsaver	0.5
HLTH 131	HIV/AIDS for Counselors	0.5
HYPN 101	Basic Hypnosis	5
HYPN 102	Intermediate Hypnotherapy	5
HYPN 103	Advanced Hypnotherapy	5

16 CRs

INSTRUMENTATION AND CONTROL

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

The degree in Instrumentation & Control Technology prepares students for employment to maintain, repair, and troubleshoot instrumentation and control systems in such industries as petroleum refining, pulp and paper, pharmaceuticals, aluminum, food processing, chemical manufacturing, semiconductor manufacturing, and power generation. A combination of theory and hands-on training offers a variety of modern process measurement and control instrumentation with actual working processes and computer simulations. The Program applies math and physics and duplicates conditions and industry standards that technicians experience. Approximately half of the instructional time is laboratory experience to develop knowledge and skills with electronic circuits, test equipment, individual instruments, multiple instrument control systems, and practical computer applications.

BTC's Instrumentation & Control Technology Program is an active member of the Industrial Instrumentation & Controls Technology Alliance (IICTA). This is an organization with educational and industry partners across the nation. The IICTA's mission is to "promote the partnership of education, industry and businesses in developing activities to assure the existence of a sufficient quantity of highly qualified instrument & controls technicians who are highly sought after by the industry." These activities include: setting educational standards, promoting networking, and providing funding for scholarships and programs.

PROGRAM OUTCOMES:

- Graduates will demonstrate basic knowledge and critical thinking in the field of Instrumentation and Control .
- Graduates will be able to design, build, and test functioning AC, DC, semiconductor, analog, and digital electronic circuits
- Graduates will be able to demonstrate basic troubleshooting skills and apply basic computer application skills

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Instrumentation and Control Technology Program several times a year on a space available basis.

Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH& 141) is a required prerequisite for enrollment in this program.

SEQUENCE AND SCHEDULE: The Instrumentation & Control Technology student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree (AAS) or an Associate of Applied Science - Transfer degree (AAS-T) upon completion and verification of all requirements and standards. Students must maintain a 2.0 grade point average with no course (including related instruction) below "C-"(1.7) to earn the degree.

ASSOCIATE OF APPLIED SCIENCE

Instrumentation and Control

ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ENGT 122	CAD I: Basics	6
EETC 150	Electronic Communications	6
INST 200	Intro to Instrumentation Profession	2
INST 205	Job Preparation I	1
INST 206	Job Preparation II	1
INST 230	Motor Controls	3
INST 231	PLC Programming	3
INST 232	PLC Systems	3
INST 240	Pressure and Level Measurement	6
INST 241	Temperature and Flow Measurement	6
INST 242	Analytical Measurement	5
INST 250	Final Control Elements	5
INST 251	PID Control	5
INST 252	Loop Tuning	4
INST 260	Data Acquisition Systems	4
INST 262	DCS and Fieldbus	5
INST 263	Control Strategies	5
INST 290	Internship	5
PHYS& 121	General Physics I	5

Approx. 7 quarters (one in the summer)

122 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PSYC& 100	General Psychology	5
PLUS		
	Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.	5

20 CRs



LEADERSHIP MANAGEMENT

Certificate

Good leaders are developed, not born. Everyone is placed in a position of responsibility or a leadership role at various times in his or her life. Developing leadership qualities in yourself, coworkers, and/or subordinates is a desired outcome, but not one without frustration. This Program was created for anyone who desires a more effective leadership style, whether in themselves or in those with whom they work.

PROGRAM OUTCOMES:

- Graduates will have improved leadership skills and gain a clear understanding of the difference between leadership and management.
- Graduates will understand the link between leadership behavior and bottom-line results and the importance of personal accountability for results. Students will have the confidence and courage to effectively lead in a changing, turbulent environment.

APPLICATION & REGISTRATION: Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: Courses are held at various times and online. Some courses may be offered in the afternoon. See a Quarterly Schedule for specific information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Leadership Management

BUS 140	Supervision & Management	3
MGMT 100	Business & Professional Ethics	3
MGMT 152	Small Business Management	3
HRM 201	Management of Human Resources: An Overview	3
MGMT 102	The Leadership Process	3
MGMT 101	Conflict Management	1
BUS 141	Total Quality Management	2
Approx. 3 quarters		18 CRs

LEGAL ADMINISTRATIVE ASSISTANT

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate - Legal Assistant

The Legal Administrative Assistant Program prepares students to work in law firms, corporations, real estate, and law-related government offices as legal assistants, receptionists, or clerks. Legal terminology, legal document preparation, and legal office procedures, as well as word processing and computer applications are emphasized to prepare students for today's high-tech law offices. Successful students will complete an internship and are eligible to join the International Association of Administrative Professionals (IAAP). The program offers a Legal Administrative Assistant Associate of Applied Science degree or a Legal Assistant certificate.

PROGRAM OUTCOMES:

- Graduates will demonstrate competency in touch keyboarding at 55 wpm on a three minute timing;
- Graduates will demonstrate eighty percent competency in business document formatting, proofreading, word processing, spreadsheets, presentation graphics, alphabetic and numeric filing, legal proofreading, legal terminology, legal keyboarding, and ten-key proficiency.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Legal Administrative Assistant Program at the start of each quarter on a space available basis. Students may enroll full-time or part-time.

SEQUENCE AND SCHEDULE: Students meet with their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites. A schedule of course offerings can be obtained from the program advisor.

It is estimated that a full-time student can complete the certificate requirements in three quarters. The degree can take up to six quarters. Since not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards.

In order to earn a legal administrative assistant degree or certificate, students must maintain a 2.0 grade point average with no course grade below C (2.0).

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and Introduction to Computers may be taken entirely online.

Legal Administrative Assistant continued on next page

LEGAL ADMINISTRATIVE ASSISTANT

(CONTINUED)

ASSOCIATE OF APPLIED SCIENCE

Legal Administrative Assistant

ACCT 141	Financial Accounting I	5
BUS 100	Electronic Math Applications	3
BUS 125	Records Management and Data Entry	5
BUS 188	Business English	5
BUS 200	Business Law	5
BUS 280	Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 109	Computerized Keyboarding Skillbuilding II	3
CAP 138	MS Word	5
CAP 142	MS Excel	5
CAP 148	MS Powerpoint	3
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology/Transcription	5
LGL 211	Legal Document Processing	5
LGL 226	Internship	6
Departmental Electives		15
Approx. 5 - 6 quarters		90 CRs

AAS ACADEMIC CORE REQUIREMENTS

BUS 171	Technical Communications	5
BUS 150	Mathematics For Business	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

Legal Assistant

BUS 125	Records Management and Data Entry	5
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 200	Business Law	5
BUS 280	Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology/Transcription	5
LGL 211	Legal Document Processing	5
LGL 225	Internship	3
CMST& 210	Interpersonal Communication	5
Departmental Electives		5
Approx. 3 & 1/2 quarters		68 CRs

MECHANICAL ENGINEERING TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate – Mechanical Engineering Drafting

The degree in Mechanical Engineering Technology is based on engineering theory with specialized applications in manufacturing, process piping, structural detailing, and engineering drawing and design. Coursework provides multilevel training in Computer Aided Drafting (CAD) and solid modeling using specialized 3D graphics software. Knowledge of national drawing standards and common industry practices are acquired through instruction and class projects, providing the necessary background for transferring skills to specific industrial design projects.

A wide variety of companies employ graduates, including structural engineering companies, architectural firms, commercial and residential construction firms, petroleum refineries, equipment wholesalers/distributors, and numerous manufacturing industries such as: electronics, aircraft, industrial equipment, and wood products (e.g., truss, cabinet, door, and furniture manufacturers).

PROGRAM OUTCOMES:

- Graduates will develop a parametric solid model of an existing assembly or one of their own design, and then create a set of working drawings including exploded assembly views and dimensioned individual part drawings; demonstrate proficiency in using CAD software command functions to generate engineering drawing
- Graduates will create fully dimensioned orthographic and isometric CAD drawings (of various machine parts) that adhere to national standards and industry conventions
- Graduates will be able to design and evaluate the stress, strain, and deflection levels of engineering components subjected to deformations, axial loads, and shear loads. They will apply static's principles including force equilibrium and force resultants to determine the member forces for structural elements that comprise trusses, machines, and frames
- Graduates will apply knowledge of various pipes, fittings, connections, and process piping equipment (such as valves, pumps, tanks, etc.) to draft single line, double line, and isometric depictions of industrial piping systems. They will demonstrate the ability to understand and interpret structural steel framing plans and detail all structural steel beams for a single floor level according to AISC specifications

APPLICATION & REGISTRATION: Students may enroll in the Mechanical Engineering Technology Program prior to Fall Quarter on a space available basis. Part-time enrollment is available with instructor approval.

CAP 101 Introduction to Computers is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC3 exams (Living Online, Computer Fundamentals, and Key Applications - Word, Excel and PowerPoint). These tests require a fee and may be taken at BTC or any other CertiPort Testing Center.

Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH&141) is a required prerequisite for enrollment in this program.

Mechanical Engineering Technology continued on next page

MECHANICAL ENGINEERING TECHNOLOGY

(CONTINUED)

SEQUENCE AND SCHEDULE: The Mechanical Engineering Technology student will complete a specific course requirement sequence. Program course work is structured such that each course is offered once per year during a specific quarter in a sequential order. Students will be advised by the program instructor regarding sequence and scheduling of classes. Generally, a full-time student will be enrolled for six hours per day. Classes will be offered from 12:00 pm to 6:00pm.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree (AAS) or an Associate of Applied Science - Transfer degree (AAS-T) or a Mechanical Engineering Drafting Certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Mechanical Engineering Drafting

COM 170	Oral & Written Communications	5
ENGT 121	Drafting I	6
ENGT 122	CAD I: Basics	6
ENGT 123	Descriptive Geometry	6
ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
ENGT 132	MS Office Applications	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
CMST& 210	Interpersonal Communication	5
SURV 191	Professional Development and Safety	3
Approx. 3 quarters		62 CR

ASSOCIATE OF APPLIED SCIENCE

Mechanical Engineering

ENGT 121	Drafting I	6
ENGT 122	CAD I: Basics	6
ENGT 123	Descriptive Geometry	6
ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
ENGT 132	MS Office Applications	5
ENGT 210	CAD III: Advanced Applications	6
ENGT 211	Project Design 1	4
ENGT 212	Project Design 2	3
ENGT 213	Project Design 3	4
ENGT 215	Statics	10
ENGT 216	Strength of Materials	7
ENGT 220	Parametric Modeling	7
ENGT 223	Structural Detailing	6
ENGT 224	Process Pipe Drafting	9
SURV 191	Professional Development and Safety	3
Approx. 6 quarters		97 CRs

AAS ACADEMIC CORE REQUIREMENTS

MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
COM 170	Oral & Written Communications	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
ENGL& 101	English Composition I	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

MEDICAL CODING

Certificate

This program prepares for a career in the rapidly expanding medical coding field. Medical Coding Specialists are professionals skilled in classifying medical data from patient records, generally in the hospital setting. These coding practitioners review patient records and assign numeric codes for each diagnosis and procedure. Coding accuracy is highly important to healthcare organizations because of its impact on revenues and describing health outcomes.

This program will prepare students for job opportunities in hospitals, physicians' offices, insurance companies, extended care facilities, or other medical environments. Good opportunities exist for individuals who wish to combine their interest in health care with other professional skills. Students who successfully graduate from the Program are eligible to take national medical coding exams for certification.

PROGRAM OUTCOMES:

- Graduates will have the requisite skills and knowledge of organizing, analyzing, and technically evaluating health records content for accuracy and completeness.
- Graduates will be able to assign code numbers to diagnoses and procedures for indexing health data and processing claims.

APPLICATION & REGISTRATION: Students begin the program by registering for HT 126 and BIO 105. It is recommended that students have good typing skills (45 wpm), English skills, and word processing skills.

SEQUENCE AND SCHEDULE: Students must take BIO 105, BIO 127, and HT 126 (or HT 129) prior to taking remaining coding and billing courses. See a Quarterly Schedule for specific course schedule information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE		
Medical Coding		
BIO 105	Essentials of Anatomy & Physiology	5
BUS 230	Medical Office Procedures	5
HT 126	Fundamentals of Medical Terminology	5
OR		
HT 129	Comprehensive Medical Terminology I	5
BIO 127	Diseases of The Human Body	4
HT 135	Pharmacology for the Medical Office	2
HT 230	Medical Coding ICD-9	3
HT 240	Medical Coding CPT	4
HT 242	Medical Coding Applications	3
HT 250	Advanced Medical Coding	5
OR		
HT 265	Medical Coding & Billing Practicum	5
HT 262	Medical Coding Internship	2
HT 270	Excel for the Medical Office	3
Approx. 4-5 quarters		41 CRs

MEDICAL CODING & BILLING GENERALIST

Certificate

The Medical Coding and Billing Generalist Program will prepare students for careers in the medical office. Students may find jobs in a variety of medical offices, insurance companies, and hospitals. Coursework is taught using various teaching methods. Students will gain a broad base of knowledge in general office skills, along with the required background in medical insurance billing and coding procedures.

Students who desire employment only at hospitals are encouraged to take HT 250. Advanced Medical Coding since this program is a generalist focus, whereas hospital-based coding is more intensive.

PROGRAM OUTCOMES:

- Graduates will have the skills and knowledge to organize, analyze, and technically evaluate health records for accuracy and completeness.
- Graduates will be able to assign code numbers to diagnoses and procedures for indexing health data and processing claims and complex billing procedures based on various requirements of health plans and insurance companies.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Medical Coding & Billing Generalist full-time Program twice a year or in the part-time Program at the start of each quarter on a space available basis.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to obtain the scheduled classes. Many classes are sequential and have prerequisites. Students must complete BIO 105, BIO 127, and HT 126 (or HT 129) prior to taking any coding or billing courses. Full-time students can complete this program in three to four quarters.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

Students must maintain a 2.0 grade point average with no grade below "C" (2.0) to earn a certificate. Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests. There is a fee to take these tests, which may be taken at BTC, or any testing center.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some courses may be taken entirely online.

CERTIFICATE		
Medical Coding & Billing Generalist		
BIO 105	Essentials of Anatomy & Physiology	5
BIO 127	Diseases of The Human Body	4
HT 126	Fundamentals of Medical Terminology	5
OR		
HT 129	Comprehensive Medical Terminology I	5
CAP 105	Computerized Touch Keyboarding	2

Medical Coding & Billing Generalist continued on the next page

MEDICAL CODING & BILLING GENERALIST

(CONTINUED)

HT 120	Medical Insurance Billing	5
HT 230	Medical Coding ICD-9	3
HT 240	Medical Coding CPT	4
CAP 101	Introduction to Computers	5
BUS 100	Electronic Math Applications	3
	OR	
HT 270	Excel for the Medical Office	3
BUS 230	Medical Office Procedures	5
HT 135	Pharmacology for the Medical Office	2
BUS 223	Internship	3
HT 265	Medical Coding & Billing Practicum	5
RECOMMENDED ELECTIVES		7
CAP 106	Formatting with MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 142	MS Excel	5
BUS 125	Records Management and Data Entry	5
BUS 184	Customer Service	3
Approx. 4 quarters		58 CRs



MEDICAL INSURANCE BILLING

Certificate

The Medical Insurance Billing Program prepares students for employment in medical clinics, offices, and other medical centers, where they will prepare patient bills for submission to insurance companies.

PROGRAM OUTCOMES:

- Graduates will be able to demonstrate, with accuracy and timeliness, the medical office skills needed to prepare patient bills for submission to insurance companies.
- Students will effectively manage patient accounts for billing and requirements of various health plans and submittal forms.

APPLICATION & REGISTRATION: It is recommended that students have good typing skills (45 wpm), English skills, and word processing skills.

SEQUENCE AND SCHEDULE: Students must complete BIO 105, BIO 127, and HT 126 (or HT 129) prior to taking the remaining courses. See a Quarterly Schedule for specific course schedule information.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE

Medical Insurance Billing		
BIO 105	Essentials of Anatomy & Physiology	5
HT 126	Fundamentals of Medical Terminology	5
OR		
HT 129	Comprehensive Medical Terminology I	5
BIO 127	Diseases of the Human Body	4
HT 135	Pharmacology for the Medical Office	2
HT 230	Medical Coding ICD-9	3
HT 240	Medical Coding CPT	4
HT 270	Excel for the Medical Office	3
HT 120	Medical Insurance Billing	5
Approx. 4 quarters		31 CRs

MEDICAL RECEPTIONIST

Certificate

The Medical Receptionist certificate prepares students for careers in the medical field. Students may find jobs in medical offices, hospitals, or insurance companies. Coursework is taught using multiple teaching methods. Students not only work independently but also learn in structured class sessions. Emphasis is placed on hands-on learning and application. Skills needed for success in today's workforce are interwoven throughout the program. With the help of their faculty advisor, students declare their career goals when entering the Program or after working through course material and further identifying their personal strengths.

PROGRAM OUTCOMES:

- Graduates will complete with the skills and competencies to operate medical office software and perform daily office functions.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Medical Receptionist Program at the start of each quarter on a space available basis. Students may enroll full-time or part-time.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites. A tentative schedule of course offerings for new students may be obtained from admissions advisors.

It is estimated a full-time student can complete the Medical Receptionist certificate requirements in two quarters. Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards. In order to earn a Medical Receptionist certificate, students must maintain a 2.0 grade point average with no course grade below "C" (2.0).

ONLINE LEARNING: Students will use some online tools and resources throughout the Program. Some of the General Education classes and Introduction to Computers may be taken entirely online.

CERTIFICATE

Medical Receptionist

BUS 125	Records Management and Data Entry	5
BUS 230	Medical Office Procedures	5
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CMST& 210	Interpersonal Communication	5
Departmental Electives		15
Recommended elective HT 126 Fundamentals of Medical Terminology		
Approx. 2 quarters		41 CRs

NURSING ASSISTANT

Certificate

This program is a prerequisite requirement for the Practical Nursing program. This course prepares student for the Nursing Assistant certification exam. Focus is on nursing skills to assist in the care of the long-term health care client. Included are discussions of legal/ethical issues of health care, communications skills, safety concepts, hygiene and restorative care, growth and development concepts, and monitoring body functions.

PROGRAM OUTCOMES:

Basic Technical Skills

- Graduates will demonstrate basic technical skills, which facilitates an optimal level of functioning for the client, recognizing individual, cultural, and religious diversity.

Personal Care Skills

- Graduates will demonstrate basic personal care skills.

Mental Health and Social Service Needs

- Graduates will demonstrate the ability to identify the psychosocial characteristics of all clients, including persons with mental retardation, mental illness, dementia, Alzheimer's Disease and related disorders.

Basic Restorative Services

- Graduates will incorporate principles and skills of restorative nursing in providing nursing care Client's Rights and Promotion of Client's Independence.
- Graduates will demonstrate behavior that maintains and respects client's rights and promotes client's independence, regardless of race, religion, life-style, sexual preference, disease process, or ability to pay.

Communication and Interpersonal Skills

- Use communication skills effectively in order to function as a member of the nursing team.

Infection Control

- Graduates will use procedures and techniques to prevent the spread of microorganisms.

Safety/Emergency Procedures

- Graduates will demonstrate the ability to identify and implement safety/emergency procedures.

Rules and Regulations Knowledge

- Graduates will demonstrate the knowledge of and is responsiveness to the laws and regulations that affect his/her practice, including, but not limited to, client abuse and neglect, client complaint procedures, "workers right to know", and the Uniform Disciplinary Act

APPLICATION & REGISTRATION: Students register for Nursing Assistant on a space available basis. Refer to the Quarterly Schedule for current class offerings. It is a state requirement that students speak and understand English at the level necessary for performing duties of a nursing assistant. (WAC 308-173- 210 (1-9), 270 (2a))

In order for Nursing Assistant students to attend the clinical portion of the course, they will need to complete a satisfactory Washington State Patrol background check. This will be completed the first night of class at no cost. The first step of the two step TB PPD (tuberculin test) is required

prior to the first day of class. PPD test must have been completed within the last year. Bring documentation with you on the first day of class. You will be required to bring your textbook to the first class and clinical uniforms are required prior to the first clinical day.

SEQUENCE AND SCHEDULE: The Nursing Assistant certificate is a total of 99 hours. (See Quarterly Schedule for specific information.) All class/laboratory sessions are conducted on the College campus. Clinical experiences are eight hours per day and conducted at local healthcare facilities during varied hours. Students must complete all theory and all nursing laboratory experiences prior to clinical experiences.

DEGREE REQUIREMENTS: Attendance is required for all sessions; students must attend required number of class and clinical sessions in order to receive a certificate.

Additional fees are required for state testing and certification, which are not part of the Nursing Assistant Program.

CERTIFICATE

Nursing Assistant

NA 101	Nursing Assistant Essentials	3
NA 102	Nursing Assistant Clinical	2
HLTH 103	CPR: Adult Heartsaver	0.5
HLTH 133	HIV/AIDS: Healthcare Professional	1

Approx. 3-4 weeks

6.5 CRs



OFFICE ASSISTANT / RECEPTIONIST

Certificate –

- Office Assistant
- Receptionist

This Program prepares students for careers in a variety of business and office settings. Students may achieve certificates in Office Assistant or Receptionist. Coursework is taught using multiple teaching methods. Students not only work independently but also learn in structured class sessions. Emphasis is placed on hands-on learning and application. Skills needed for success in today's workforce are interwoven throughout the Program. With the help of a program advisor, students declare their career goals when entering the Program or after working through course material and further identifying their personal strengths. Program content requires the application of basic math, technical reading, and communication skills

Office Assistant and Receptionist students are eligible to join the International Association of Administrative Professionals (IAAP).

PROGRAM OUTCOMES:

- Graduates will demonstrate competency in touch keyboarding at 40 wpm on a three minute timing with a three error limit .
- 80 percent competency in word processing, written business communication, business math, effective oral communication skills, office skills and procedures, and MS Windows.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Office Assistant/Receptionist Program at the start of each quarter on a space available basis. Students may enroll full-time or part-time.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to plan and schedule classes. Many classes are sequential and have prerequisites. A schedule of course offerings can be obtained from program advisors.

It is estimated that a full-time student can complete Office Assistant in three quarters and Receptionist in two to three quarters.

Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards. In order to earn an Office Assistant or Receptionist certificate, students must maintain a 2.0 grade point average with no course grade below "C" (2.0). Students may successfully challenge CAP 101 Introduction to Computers by passing the three IC3 Certification tests, which require a testing fee.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes and Introduction to Computers may be taken entirely online.

CERTIFICATE

Receptionist

BUS 100	Electronic Math Applications	3
BUS 125	Records Management and Data Entry	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CMST& 210	Interpersonal Communication	5
	Departmental Electives	11
Approx. 2-3 quarters		45 CRs

CERTIFICATE

Office Assistant

BUS 100	Electronic Math Applications	3
BUS 125	Records Management and Data Entry	5
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 280	Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 138	MS Word	5
CAP 142	MS Excel	5
CAP 148	MS Powerpoint	3
CMST& 210	Interpersonal Communication	5
	Departmental Electives	13
Approx. 3 quarters		66 CRs

PARENTING EDUCATION & EARLY LEARNING

Certificate – Early Learning Certificate

Parenting Education is provided through the Child & Family Studies Department and is designed to educate and support individuals in their role as parents or caregivers of children. The Program incorporates positive parenting skills with a child development knowledge base that promotes strong and healthy families. The Program recognizes parenting as an important occupation that requires education, experience, knowledge, thought, energy, and concern. The various parenting courses offered provide instruction in the principles of child development, specific parenting skills and prepare individuals for their dual role of parent/wage earner.

The value of Parenting Education at BTC is that participation in the various parenting courses contributes to the development of children into healthy, mature adults. Course goals vary depending on the particular course but all include developing realistic age-level expectations from knowledge of stages of child behavior and growth; clarifying child rearing values, attitudes, and methods of child guidance; sharing support, consultation, and resource information concerning child rearing and family life; developing skills and practice in teaching children; and developing and/or increasing confidence in managing the demanding role of the parent in a changing society.

Courses for parents and others involved with children, ages from birth through adolescence, are offered each quarter on campus and throughout Whatcom County at schools, agencies, and church sites. Students are encouraged to take as many different parenting courses as they wish as their child grows and changes. Some parenting discussion courses are now offered fully online.

Classes include:

- Childbirth Preparation courses
- Parent/Child courses, in which parents and young children attend class together
- Parenting Discussion courses

For more information contact BTC at 360.752.8350.

The Early Learning certificate is designed to educate and support individuals in their role as teachers of young children. The Program incorporates positive parenting/teaching skills with a child development knowledge base that promotes developmentally appropriate practices with children and families. The various Early Learning/Parenting courses offered provide the knowledge and skills that are relevant to people working in early learning settings including home or group settings.

PROGRAM OUTCOMES: Students will be able to:

- Plan safe, healthy environments to invite learning
- Facilitate steps to advance children's physical and intellectual development
- Create positive ways to support children's social and emotional development
- Develop strategies to establish productive relationships with children and families
- Observe and record children's behavior
- Apply principles of child growth and development

APPLICATION & REGISTRATION: Parenting Education--A variety of parent/child and adult-only parenting courses are offered each quarter. Participants can register for their course of interest. Half scholarships are generally available.

Early Learning Certificate--Students begin the program by registering for the certificate courses on a space available basis. It is recommended that students have good basic academic skills. Students register for "CHFM" Parent/child or Parenting Discussion courses and then let their instructor know that they want to work for credit. The student will then be transferred to a corresponding "ECED" course offered for credit.

SEQUENCE AND SCHEDULE: Parenting Education--Parent/child classes for parents of infants-preschoolers are offered quarterly and participants can continue on in those courses as their child grows. Participants can enter the courses at the beginning of any quarter.

Early Learning Certificate--This program consists of ten credits in Adult/child courses that are offered weekdays and some Saturdays, and two credits of adult-only discussion courses that are offered weekday evenings and online. See a Quarterly Schedule for specific information.

DEGREE REQUIREMENTS: Early Learning Certificate--Students may apply for a certificate upon completion and verification of all requirements and standards which include completion of a combination of twelve credits in early learning/parenting courses. Students need to complete a minimum of two credits in early learning/parenting discussion courses with a maximum of ten credits in Adult/Child courses with a study of at least three different age groups. It is anticipated that it will take three years or more for students to complete this certificate.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the adult discussion courses are now offered online.

PARENTING EDUCATION & EARLY LEARNING

(CONTINUED)

CERTIFICATE

Parenting Education & Early Learning Certificate

Take eight-ten credits from the following coursework:

ECED 130	The Developing Infant	1.5
ECED 131	Approaching Toddlerhood	1.5
ECED 135	Adult/child One Yr Dev - A	2
ECED 136	One Yr Development - B	2
ECED 137	One Yr Development - C	2
ECED 140	Adult/child Two Yr Dev - A	2
ECED 141	Two Yr Development - B	2
ECED 142	Two Yr Development - C	2
ECED 145	Three & Four Yr Development - A	3
ECED 146	Three & Four Yr Development - B	3
ECED 147	Three & Four Yr Development - C	3
ECED 150	Adult/child Four-Five Yr Dev -A	1.5
ECED 151	Four & Five Yr Development - B	1.5
ECED 152	Four & Five Yr Development - C	1.5
ECED 155	Adult/child Toddler Dev -A	2
ECED 156	Toddler & Preschooler Dev - B	2
ECED 157	Toddler & Preschooler Dev - C	2

Two-three credits of the following can be used towards the certificate:

ECED 160	Positive Discipline	1.5
ECED 161	Early Childhood Step	1
ECED 162	Talk So Kids Will Listen	1.5
ECED 170	Love & Logic Parenting	1

Two-four credits of the following can be used towards the certificate:

ECED 112	Basics in Child Care	2
ECED 120	CDA Essentials 1: Intro To ECE/Health, Safety, & Nutrition	4
ECED 121	CDA Essentials 2: Child Development/Learning Environments	4
ECED 122	CDA Essentials 3: Working with Families/Professionalism	4

12 CR

PERSONAL FITNESS TRAINER

Certificate

This Program is designed for people currently employed or seeking employment in the Fitness Industry, or individuals wanting a better understanding of health and fitness. Completion of the Program will prepare students for jobs working in the Fitness Industry, both in a fitness facility and as a Private Trainer. Students will be introduced to the National Federation of Professional Trainers (NFPT). This certifying agency offers a career and employment placement program with a nationwide network to assist successful candidates with job placement in the Fitness Industry.

PROGRAM OUTCOMES:

- Graduates will be prepared to successfully pass the NFPT Personal Fitness Trainer Certification test.
- On a personal level, certification prepares an individual for a healthy lifestyle by giving them the tools to develop healthy lifestyle habits.

APPLICATION & REGISTRATION: Students may enroll in the program on a space available basis.

SEQUENCE AND SCHEDULE: Classes meet in the evenings and on Saturdays. One course is offered each quarter beginning with PFT 100 in the fall. This part-time Program can be completed in three consecutive quarters. Students can also complete the entire program by attending the required courses full-time during Winter Quarter.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program.

CERTIFICATE

Personal Fitness Trainer

PFT 100	Foundations of Health & Fitness	6
PFT 110	Program Development & Training Principles	6
PFT 120	Facility Management & Marketing for a Fitness Trainer	6
HLTH 155	First Aid Fundamentals	1

19 CRs


PRACTICAL NURSING

Certificate

Bellingham Technical College offers a program that prepares the student for licensure as a Practical Nurse. The Practical Nursing Program is approved by the Washington State Department of Health: Nursing Care Quality Assurance Commission. Students who complete the Program will have met the educational requirements needed to apply for permission to take the National Council Licensure Examination for Practical Nursing (NCLEX-PN). The Program is structured to facilitate in lifelong learning skills, which students develop while assisting clients in meeting their healthcare needs. Computer skills are required.

PROGRAM OUTCOMES:

Nursing Process:

- Graduates will assist in implementing the nursing process

Communication Skills:

- Graduates will communicate effectively with client, family, peer group, nursing team, and a multi-disciplinary team

Teaching:

- Graduates will assist in the health teaching of clients
- Graduates will share knowledge and skills with peers

Personal and Professional Responsibilities:

- Graduates will demonstrate, in a structured setting, responsibility for own actions by using common techniques of problem solving and decision making to plan and organize own assignment
- Graduates will demonstrate personal integrity and application of ethical and legal principles as they pertain to self, clients, and others
- Graduates will demonstrate an understanding of own role in health care delivery system

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Practical Nursing Program three times a year on a space available basis.

To be eligible for admission to the Bellingham Technical College Practical Nursing program, applicants must meet College admission requirements including a completed criminal history background check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43.

Prior to enrollment into the Practical Nursing Program, the student is to submit an Application Completion Form showing proof that they have satisfactorily completed the following general education program requirements:

- English Composition (ENGL& 101)
- Elementary (MATH 098) or Intermediate Algebra (MATH 099)
- General Psychology (PSYC& 100)
- General Biology w/Lab (BIOL& 160)
- Human A&P 1 (BIOL& 241)
- Human A&P 2 (BIOL& 242)
- Pharmacology for PN's (NUR 105)
- Nursing Assistant Training from a state approved program

Prior to enrollment into the Practical Nursing Program, and prior to clinical, the student is required to:

- Demonstrate satisfactory health status by a physical examination within the preceding six months, including current immunizations
- Possess and maintain a current CPR card. Minimum CPR required is Adult Heartsaver (three hr)
- Be 18 years of age
- Complete a urine test for prohibited substances prior to entering NUR 101.

SEQUENCE AND SCHEDULE: A student planning to apply to the Practical Nursing Program begins by completing the program prerequisites listed under Application & Registration. Upon completion of these courses, the student must submit a completed Application Completion Form. Once students are admitted into the Nursing program, students must receive a minimum of "C" (2.0) to progress to the next sequential course. A grade of "B" (3.0) is required in NUR 132 to graduate. Not including General Education courses, a full-time program of study is three quarters and a part-time program of study is six quarters. There are no Summer Quarter Program classes.

Full-time Practical Nursing Program: Students may enter Fall, Winter and Spring Quarters and should meet with an advisor to plan and schedule classes. Generally, classes are held between the hours of 8:00 am and 3:00 pm or 3:00 pm and 10:00 pm on campus. Nursing practice NUR 102, 122, and 132 are the lab/clinical courses and are 8 hours a day. Times vary depending on the clinical location and the shift. Students must be able to accommodate the various clinical schedules.

Part-time Practical Nursing Program: Students may enter fall only and should meet with an advisor to plan and schedule classes. Hours vary depending on class schedules. Nursing Foundations courses are two or three days a week, on campus, generally between the hours of 8 am and 3 pm. Nursing practice 102, 122 and 132 are the lab/clinical courses are eight hours a day. Times vary depending on the clinical locations and the shift. Students must be able to accommodate the various clinical schedules.

DEGREE REQUIREMENTS: Students may apply for a Practical Nursing certificate upon completion and verification of all requirements and standards. Students must receive a minimum of "C" (2.0) in all clinical courses and a "B" (3.0) in NUR 132 to receive the certificate.

Practical Nursing continued on the next page



PRACTICAL NURSING

(CONTINUED)

CERTIFICATE

Practical Nursing - Full Time

ENGL& 101	English Composition I	5
MATH 099	Intermediate Algebra	5
OR		
MATH 098	Elementary Algebra	5
PSYC& 100	General Psychology	5
OR		
CMST& 210	Interpersonal Communication	5
BIOL& 160	General Biology With Lab	5
BIOL& 241	Human A & P 1	5
BIOL& 242	Human A & P 2	5
NUR 105	Pharmacology for PN's	2
HLTH 133	HIV/AIDS: Healthcare Professional	1
<u>NUR 010</u>	<u>Nursing Foundations I:</u>	
NUR 101	Common Health Needs	15
NUR 102	Nursing Practice 1	7
<u>NUR 020</u>	<u>Nursing Foundations II:</u>	
NUR 121	Common Health Disturbances 1	15
NUR 122	Nursing Practice 2	7
<u>NUR 030</u>	<u>Nursing Foundations III:</u>	
NUR 131	Common Health Disturbances 2	15
NUR 132	Nursing Practice 3	7
Approx. 5-6 quarters full-time		99 CRs

CERTIFICATE

Practical Nursing - Part Time

ENGL& 101	English Composition I	5
MATH 099	Intermediate Algebra	5
OR		
MATH 098	Elementary Algebra	5
PSYC& 100	General Psychology	5
OR		
CMST& 210	Interpersonal Communication	5
BIOL& 160	General Biology With Lab	5
BIOL& 241	Human A & P 1	5
BIOL& 242	Human A & P 2	5
NUR 105	Pharmacology for PN's	2
HLTH 133	HIV/AIDS: Healthcare Professional	1
NUR 101A	Common Health Needs 1A	8
NUR 102A	Nursing Practice 1A	4
NUR 101B	Common Health Needs 1B	7
NUR 102B	Nursing Practice 1B	3
NUR 121A	Common Health Disturbances 1A	7
NUR 122A	Nursing Practice 2A	4
NUR 121B	Common Health Disturbances 1B	8
NUR 122B	Nursing Practice 2B	3
NUR 131A	Common Health Disturbances 2A	12
NUR 131B	Common Health Disturbances 2B	3
NUR 132	Nursing Practice 3	7
Approx. 9-10 quarters part-time		99 CRs

PRECISION MACHINING

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate –

- CNC Operator
- Machine Operator

The Precision Machining Program provides students with employment skills in the Computerized Machining Industry. The degree includes CAD/CAM, theory, and related academic skills for continued success in the machine trades. In addition to the degree, the Program offers a Machine Operator certificate and a CNC Operator certificate. BTC is a Master CAM Training site with state-of-the-art Computer Numerical Control (CNC) machining equipment.

PROGRAM OUTCOMES: All program completers will:

- Demonstrate competency in their ability to operate machine shop equipment: lathes, mills, grinders, and drills
- Demonstrate competency in their ability to read and interpret blueprints per industry standards
- Successfully demonstrate their ability to process and plan a piece part through the lab until completion
- Demonstrate competency in CNC machine tool operation and programming
- Demonstrate competency in CAM design and manufacturing

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Precision Machining Program several times a year.

SEQUENCE AND SCHEDULE: Students will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

DEGREE REQUIREMENTS: Students may apply for an Associate in Applied Science degree or an Associate of Applied Science - Transfer degree or certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the Academic Core Requirements classes may be taken entirely online.

Precision Machining continued on the next page

PRECISION MACHINING

(CONTINUED)

ASSOCIATE OF APPLIED SCIENCE

Precision Machining

MACH 100	Introduction to Trade/Occupational Safety	1
MACH 101	Machine Technology I	2
MACH 102	Machine Technology II	2
MACH 111	Benchwork/Handtools	2
MACH 113	Machinery Handbook 1	
MACH 119	Machine Fundamentals IA	5
MACH 120	Machine Fundamentals IB	5
MACH 122	Machine Fundamentals II	10
MACH 123	Machine Fundamentals III	8
MACH 125	Quality Control	2
MACH 131	Blueprint Reading I	4
MACH 132	Blueprint Reading II	4
MACH 162	Applied Math I	5
MACH 192	Job Preparation	1
MACH 201	Advanced Manufacturing Technologies	2
MACH 202	CNC Machine Theory	2
MACH 212	Metallurgy & Heat Treatment	3
MACH 213	Applied Machinery's Handbook	1
MACH 214	Tool and Cutter Grinding	3
MACH 215	Hydraulics	1
MACH 221	Machine Fundamentals IV	4
MACH 222	Machine Fundamentals V	10
MACH 241	Introduction to CNC Machining	8
MACH 242	CNC Programming/Operation	9
MACH 244	CNC/CAM Programming & Operations A	6
MACH 245	CNC/CAM Program & Operations B	6
MACH 262	Applied Mathematics II	5

Approx. 6 quarters **112 CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Mat in Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5

20 CRs

CERTIFICATE

Machine Operator

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MACH 100	Introduction to Trade/Occupational Safety	1
MACH 101	Machine Technology I	2
MACH 102	Machine Technology II	2
MACH 111	Bench work/Hand tools	2
MACH 113	Machinery Handbook	1
MACH 119	Machine Fundamentals IA	5
MACH 120	Machine Fundamentals IB	5
MACH 122	Machine Fundamentals II	10
MACH 123	Machine Fundamentals III	8
MACH 131	Blueprint Reading I	4
MACH 132	Blueprint Reading II	4
MACH 162	Applied Math I	5
MACH 201	Advanced Manufacturing Technologies	2
MACH 213	Applied Machinery's Handbook	1
MACH 214	Tool and Cutter Grinding	3
MACH 241	Introduction to CNC Machining	8
MACH 262	Applied Mathematics II	5
MATH 100	Occupational Math	5

Approx. 4 quarters **81 CRs**

CERTIFICATE

CNC Operator

Prerequisite: Completion of Machine Operator Certificate or two or more years of trade experience.

MACH 125	Quality Control	2
MACH 162	Applied Math I	5
MACH 241	Introduction to CNC Machining	8
MACH 242	CNC Programming/Operation	9
MACH 244	CNC/CAM Programming & Operations A	6
MACH 262	Applied Mathematics II	5
MATH 100	Occupational Math	5

Approx. 2 quarters **46 CRs**

PROCESS TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

Certificate

Process Technology prepares students for employment as Plant Operators in such industries as petroleum refining, pulp and paper, food processing, chemical manufacturing, power generation, and waste water treatment.

The skills learned include monitoring and controlling processing equipment such as pumps, compressors, heat exchangers, distillation columns, boilers, furnaces, troubleshooting and problem solving, safety awareness, and testing product quality.

A combination of theory and hands-on training equips students with the required skills using Envision Computer Simulation modules, computer based equipment training modules, state of the art process technology labs, visits to local refineries and power plants, and student team projects. The Program offers the necessary technical, scientific, academic, communication, and interpersonal skills to prepare students for entry level jobs.

The Process Technology Program at BTC is designated as The Northwest Center of Excellence for Process and Control Technology within the Washington State Community and Technical College system. Currently this is the only such program in the western United States except California. The program is a member of the Center for Advancement of Process Technology (CAPT), an NSF funded Advanced Technology Center in Texas. Core instruction is based on standardized industry-based curriculum developed for CAPT.

PROGRAM OUTCOMES:

- Graduates will demonstrate a knowledge of the typical hazards found in process plants, basic PPE and requirements of regulating bodies regarding safety, health and environmental issues (OSHA, DOT, EPA). (Example: Worker Right-to Know, PSM, RMP, RCRA, and Clean Air Act)
- Graduates will be able to apply mathematics, physics and chemistry . They will have the ability to link the knowledge to applications such as the nature of heat, chemical reactions, boiling points, vapor pressure, and electrical currents.
- Graduates will be able to demonstrate a knowledge of the typical organizational structures, economics, and quality controls, and the fundamentals of refining and power generation processes
- Graduates will be able to perform core functions and principles of operation of typical process industry equipment such as pumps, compressors, filters and dryers, lubricating systems, valves and piping systems, and process plant instrumentation systems (from an operations viewpoint).
- Graduates will know the principles and typical operation of electronic control systems (DCS).
- Graduates will have the ability to operate simulated DCS process control systems effectively.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Process Technology Program three times a year on a space available basis. Part-time enrollment and individual class enrollment is available with instructor approval.

CAP 101 Introduction to Computers is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC3 exams (Living Online, Computer Fundamentals, and Key Applications - Word, Excel and PowerPoint). These tests require a fee and may be taken at BTC or any other CertiPort Testing Center.

Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH& 141) is a required prerequisite for enrollment in this program.

SEQUENCE AND SCHEDULE: Students will complete a specific course requirement sequence based on date of enrollment. The instructor will advise students regarding sequence and class scheduling.

DEGREE REQUIREMENTS: Students may apply for an Associate in Applied Science degree or an Associate of Applied Science - Transfer degree or certificate upon completion and verification of all requirements and standards.

ASSOCIATE OF APPLIED SCIENCE

Process Technology

CAP 101	Introduction to Computers	5
CHEM& 121	Intro to Chemistry	5
ECON 103	Industrial Economics	5
ENGL 175	Technical Communications	5
PHYS& 121	General Physics I	5
PHYS& 122	General Physics II	5
PTEC 101	Introduction to Process Technology	5
PTEC 102	Process technology I (Equipment)	6
PTEC 103	Safety, Health and Equipment I	5
PTEC 105	Process Technology II (Systems)	5
PTEC 110	Process Instrumentation I	6
PTEC 203	Safety, Health and Environment II	5
PTEC 205	Dynamic Process Control	5
PTEC 207	Quality Control	5
PTEC 210	Process Instrumentation II	6
PTEC 212	Industrial Processes and Equipment	5
PTEC 215	Process Technology III (Operations)	6
PTEC 217	Process Troubleshooting	5

Electives:

Take 6 credits in Special Topics, and 10 credits in Project/Practicum

PTEC 190	Food Processing	3
PTEC 191	PTEC Leadership	3
PTEC 192	Pulp & Paper Processing	3
PTEC 193	Upstream Process	3
PTEC 194	Wastewater Treatment	3
PTEC 195	Biodiesel Fundamentals	3
PTEC 196	Green Energy	3
PTEC 197	Cooperative Education	3
PTEC 270	Process Technology Project	5
PTEC 272	Process Technology Project II	5
PTEC 291	Process Technology Practicum/Internship	5
PTEC 290	Process Technology Practicum/Internship	5

Approx. 6 quarters

115 CRs

Process Technology continued on the next page

PROCESS TECHNOLOGY

(CONTINUED)

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

Process Technology

CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
PHYS& 121	General Physics I	5
CMST& 210	Interpersonal Communication	5
PTEC 101	Introduction to Process Technology	5
PTEC 102	Process technology I (Equipment)	6
PTEC 103	Safety, Health and Equipment I	5
PTEC 105	Process Technology II (Systems)	5
PTEC 110	Process Instrumentation I	6
PTEC 205	Dynamic Process Control	5
PTEC 210	Process Instrumentation II	6
PTEC 215	Process Technology III (Operations)	6
Approx. 3 quarters		69 CRs

PROFESSIONAL TECHNICAL EDUCATION

Associate of Applied Science – Transfer Degree Certificate– Career and Technical Education

The Professional Technical Education degree will provide a structured degree pathway in education for post-secondary professional-technical educators, providing them with an educational continuum toward a baccalaureate in education. The degree structure—designed around the Washington State Skill Standards for Professional Technical College and Customized Trainers—will provide leadership and technical skills beyond those required for professional-technical certification.

PROGRAM GOAL: The program will provide students with a blend of academic, professional-technical teaching, and experiential learning opportunities needed to be an effective faculty member and professional-technical teacher.

The Career and Technical Education certificate will provide a structured pathway in education for post-secondary professional-technical educators, providing them with an educational continuum toward an AAS-T in Professional Technical Education. The Certificate Program is designed around the Washington State Skill Standards for Professional-Technical College and Customized Trainers and will provide leadership and technical skills beyond those required for professional-technical certification.

The curriculum for both programs is entirely competency based, with skills and their associated tasks mirroring Industry and skill standards requirements. The curriculum is designed as a series of discreet extended learning courses. Students are rated according to their mastery of these skills/tasks at predetermined industry standards of performance.

These programs are designed specifically for post-secondary professional-technical educators. Approval of the Dean overseeing the Education courses is required.

The Program will provide students with a blend of academic, career and technical teaching, and experiential learning opportunities needed to be an effective faculty member and professional-technical teacher.

PROGRAM OUTCOMES: Graduates will be able to:

- Facilitate well-organized learner-centered instructional activities and lessons that actively engage students and promote achievement of student learning outcomes
- Create quality instructional materials in support of curriculum outcomes and diverse learning styles
- Design authentic, appropriate assessment tools as part of the learning process linked to student learning outcomes
- Analyze instructional strategies implemented in career and technical programs
- Analyze leadership styles, strategic planning, program development using a DACUM, and total quality management
- Manage and maintain an effective learning environment
- Perform faculty administrative functions

APPLICATION & REGISTRATION: Students may enroll in this degree or certificate Program at the start of each quarter. Admissions is offered

PROFESSIONAL TECHNICAL EDUCATION

(CONTINUED)

on a space available basis. Approval of the Dean overseeing the Education courses is required. The Program is set up for students to enroll on a part-time basis.

SEQUENCE AND SCHEDULE: Students meet with and are advised by their program advisor to plan and schedule classes. Some classes are sequential and have prerequisites. A schedule of course offerings can be obtained from program advisors.

It is estimated that a student can complete the degree requirements in six quarters and the certificate program in three quarters. Not all courses are offered every quarter so completion times may vary depending on which quarter the student first enrolls.

DEGREE REQUIREMENTS: Students may apply for the certificate upon completion and verification of all requirements and standards.

Students may apply for an Associate of Applied Science-Transfer degree upon completion and verification of all requirements and standards. Students must maintain a 2.0 grade point average with no course grade below "C" (2.0) to earn a degree.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Many of the Education courses are offered as Hybrid (partially online). Some of the General Education classes and Introduction to Computers may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER Professional Technical Education

Professional Technical CORE Education Coursework:

EDUC 200	Introduction To Teaching Professional Technical Education	3
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OR

EDUC 241	Learning & Adapting New Technologies	3
EDUC 207	Teaching & Facilitating Learning: Level I	3
EDUC 209	Teaching & Facilitating Learning: Level II	3
EDUC 211	Planning for Instruction	3
EDUC 216	Assessment for Learning	3
EDUC 231	Learning Environment Management	3
EDUC 175	Achieving Information Literacy	1
HLTH 150	First Aid Industrial	1

Required: 20

Professional Technical Applications Coursework: 17 Required

EDUC 251	Teaching Practicum 1	12
EDUC 299	Professional Technical Education Capstone	5

Required: 17

Recommended Electives: (33 credits chosen from following):

EDUC 252	Teaching Practicum 2	12
CAP 101	Introduction to Computers	5
EDUC 199	Professional Technical Specialization	12
EDUC 261	Industry Based Professional Development	3
EDUC 262	Advanced Industry Based Professional Development	6
EDUC 221	Leadership Development	3
EDUC 226	Learning Styles	3

EDUC 236	Occupational Analysis	3
EDUC 246	The Adult Learner	3
EDUC 241	Learning & Adapting New Technologies	3
EDUC 256	Program Management, Promotion, and Recruitment	3
EDUC 257	Current Topics for Professional Technical Educators	5

Note: List of electives is not all-inclusive. Students should seek guidance regarding other coursework or acceptability of courses taken previously.

Approx. 6 quarters 90 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
OR		
CMST& 210	Interpersonal Communication	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		

20 CRs

CERTIFICATE

Career & Technical Education

EDUC 175	Achieving Information Literacy	1
EDUC 200	Introduction to Teaching Professional Technical Education	3
OR		
EDUC 241	Learning & Adapting New Technologies	3
EDUC 207	Teaching & Facilitating Learning: Level I	3
EDUC 209	Teaching & Facilitating Learning: Level II	3
EDUC 211	Planning for Instruction	3
EDUC 216	Assessment for Learning	3
EDUC 231	Learning Environment Management	3
HLTH 150	First Aid Industrial	1

Approx 3 quarters 20 CRs

PROJECT MANAGEMENT

Certificate

Project Management is one of the hottest careers in the world today. As a Project Manager your ability to demonstrate best practices in project management, both on the job and through professional certification, is becoming the standard to successfully compete in today's fast-paced and highly technical workplace. After completion of Project Management Fundamentals, Microsoft Project levels 1 and 2, and Project Management PMP Preparation, students will be ready for the final capstone class in this series to complete their certificate in Project Management. This in-depth Program covers the essential elements of managing a successful project.

PROGRAM OUTCOMES:

- Graduates will be able to apply project management principles and software to a given project.

APPLICATION & REGISTRATION: Students begin the Program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: It is recommended that students take PMP 100 Project Management Fundamentals prior to taking the other PMP courses. Both CAP 150 and CAP 151 may be taken concurrently with PMP courses. Classes are held in the evening and on Fridays or Saturdays. See a Quarterly Schedule for specific dates and times.

DEGREE REQUIREMENTS: Students may apply for a certificate upon completion and verification of all requirements and standards.

CERTIFICATE Project Management

CAP 150	Project Level 1	1
CAP 151	Project Level 2	1
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management-PMP Prep	3
PMP 130	Project Management Integration Project	1
Approx. 1-2 quarters		7 CRs

RADIOLOGIC TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

The Radiologic Technology Program fulfills the educational objectives established by the American Society of Radiologic Technologists (ASRT) and competencies outlined by the American Registry of Radiologic Technologists. Program graduates are eligible to apply to take the National Certification Examination administered by the American Registry of Radiologic Technologists; successful completion of the Registry Examination results in national certification as a Registered Radiologic Technologist, RT (R) ARRT.

The Program is planned with a regional focus in collaboration with Edmonds Community College, Everett Community College, Peninsula College, Skagit Valley College, and Whatcom Community College. Students are admitted through Bellingham Technical College. Students will be assigned regional clinical experience on a variety of shifts in hospitals and clinics in Whatcom, Skagit, Island, Snohomish, and King counties. Students will need to provide their own transportation to clinical sites and be able to meet the various clinical schedules. Theory and application of coursework will be articulated with clinical experience using an integrated model of instruction, including distance education components. This experience will provide opportunities for the clinical competencies required of an entry-level staff technologist.

Radiologic Technologists must remain mentally and physically alert to react to emergency situations, safety hazard warnings, and equipment problems. The Technologist must have the ability to feel, see, hear, and smell. The Technologist is required to communicate with patients and maneuver patients and heavy equipment. Thus, the Technologist must have adequate use of limbs and speech. Every reasonable attempt will be made to accommodate disabilities.

PROGRAM OUTCOMES: Graduates will be able to:

- Follow all safety guidelines and practice safe radiation procedures to fully protect staff, patients, and self
- Competently perform clinical and administrative components of each radiographic procedure. Produce optimal radiographic images, accurately assessing and applying corrections required when correcting suboptimal images.
- Interact in a compassionate, respectful manner assessing patient condition and concerns, provide for patient safety, comfort, confidentiality, and modesty.
- Conduct herself/himself in a professional manner according to ARRT and ASRT standards. Assess situations, exercise care, discretion and judgment, assume responsibility for professional decisions, support colleagues, and act in the best interest of the patient.

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Radiologic Technology Program once a year on a space available basis.

To be eligible for admission to the Bellingham Technical College Radiologic Technology Program, applicants must provide all of the following items in one complete application packet to:

Bellingham Technical College
ATTN: Admissions, Radiologic Technology
3028 Lindbergh Avenue
Bellingham, WA 98225-1599

Radiologic Technology continued on the next page

RADIOLOGIC TECHNOLOGY

(CONTINUED)

Admission Forms for the application packet are available in the Admissions Office or online. Incomplete application packets will not be considered.

- Completed BTC admissions application
- Criminal history background check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43
- Receipt of payment of \$10.00 for the criminal disclosure processing fee
- Radiologic Technology checklist, including an indication of cohort preference
- Official transcripts containing evidence of successful completion of the prerequisite courses with the corresponding required GPA:
 - a. English Composition (ENGL& 101) five credits or equivalent. (Minimum 2.0 GPA)
 - b. Introduction to Computers (CAP 101) 5 credits or equivalent. Equivalent courses must include Windows, word processing, and spreadsheet. Students who do not have transcripts of formal computer training may challenge the CAP 101 requirement through examination
 - c. Intermediate Algebra (MATH 099) five credits or equivalent (Minimum 2.7 GPA)
 - d. Medical Terminology (HT 126 or HT 129) five credits (Minimum 2.0 GPA)
 - e. Human A&P 1 and Human A&P 2 (BIOL& 241 & BIOL& 242), five credits each or equivalent within the last three years or departmental approval (Minimum 2.7 GPA)
 - f. General Psychology (PSYC& 100) five credits. (Minimum 2.0 GPA)

Note: It is acceptable to repeat a prerequisite course in order to receive the required GPA. These courses must be taken at a regionally accredited college or university.

After acceptance into the Radiologic Technology Program, and prior to registering for first quarter, the student is required to:

- Demonstrate, within the preceding six months of going to clinical, satisfactory health status by a physical examination, including current immunizations. Student must also provide documentation of negative 2-step PPD testing, negative chest x-ray, or appropriate treatment. Attend a mandatory summer orientation day. During this time the student is required to successfully complete a urine test for prohibited substances. This test will be arranged by a college representative and be administered on campus. Testing expenses are the responsibility of the student.

Prior to registration for the second quarter, the student is required to

- Be at least 18 years of age
- Possess a current CPR card. Minimum CPR requirement is Healthcare Provider. Those with current CPR credentials expiring prior to completion of this program will be required to take the Healthcare Provider course offered specifically for this program at BTC.
- Show proof of personal health insurance (student accident insurance is available). Accepted no later than Oct. 31st.
- Failure to comply with these requirements will block student access to clinic. Without access to clinic student will not progress in program.

SEQUENCE AND SCHEDULE: The Radiologic Technology Program begins Fall Quarter and is a total of seven quarters. First year students attend fall, winter, spring, and summer. Second year students attend fall, winter, and spring. Courses will be scheduled at a variety of times during the day, late afternoon, and evening. Some courses will be provided online and some using video conference media at Everett and Bellingham. Clinical shifts may be from eight to twelve hours dependent on the quarter and may vary from days, evenings, or weekends at a variety of clinics and hospitals. Students must be able to accommodate the various clinical schedules. A cumulative GPA of 2.5 is required to progress in the program, but no course can be completed with less than a 2.0 GPA.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree upon completion and verification of all requirements and standards.

ASSOCIATE OF APPLIED SCIENCE

Radiologic Technology

HLTH 133	HIV/AIDS: Healthcare Professional	1
RT 101	Radiographic Positioning I	5
RT 108	Medical Informatics	4
RT 112	Patient Care In Radiology	4
RT 114	Leadership Seminar	1
RT 120	Imaging And Processing	4
RT 102	Radiographic Positioning II	5
RT 121	Radiographic Physics I	4
RT 131	Radiographic Clinic I	7
RT 210	Radiation Biology	4
RT 103	Radiographic Positioning III	5
RT 123	Radiographic Physics II	4
RT 132	Radiographic Clinic II	7
RT 133	Radiographic Clinic III	8
RT 122	Quality Assurance	3
RT 220	Radiographic Physics III	4
RT 231	Radiographic Clinic IV	10
RT 201	Adv Patient Procedures & Pathology I	4
RT 205	Radiology Pharmacology	3
RT 232	Radiographic Clinic V	10
RT 202	Adv Patient Procedures & Pathology II	4
RT 230	Registry Review & Employment Readiness	4
RT 233	Radiographic Clinic VI	10

Approx. 7 quarters

115 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
	OR	
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
	OR	
CMST& 210	Interpersonal Communication	5
	PLUS	
	Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.	5

20 CRs

REGISTERED NURSING: LPN TO RN

Associate of Applied Science – Transfer Degree

Bellingham Technical College offers a program for nurses who have graduated from a PN Program and have a current Washington State LPN license. The Registered Nursing LPN to RN Program at BTC was created and approved with the intent to serve Whatcom County employer needs and to create a pathway specifically for BTC's PN graduates to move into high-wage, high-demand career opportunities. Therefore, applicants who are former BTC PN graduates who complete the admissions process will be prioritized into available RN Program seats.

The LPN to RN Program prepares the student for licensure as a Registered Nurse and awards an AAS-T degree. Applicants should be aware that the Program requires independent study. Students who complete the Program will have met the educational requirements needed to apply for permission to take the National Council Licensure Examination for Registered Nursing (NCLEX-RN).

The following regional employers and agencies have contributed funds to help expand the Nursing Program at Bellingham Technical College: St. Joseph Hospital, St. Lukes Foundation, Whidbey General Hospital, Island Hospital, Skagit Valley Hospital, Alderwood Park Convalescent, Shuksan Health Care, St. Francis Health Care, Stafholt Good Samaritan, Evergreen North Cascade Nursing Home, US Department of Labor, and Foundation of the National Student Nurse's Association.

PROGRAM OUTCOMES:

Provider of Care:

- Graduates will practice competently and safely in a variety of health care settings with clients of diverse socio-cultural identities across the life span
- Graduates will demonstrate critical thinking and clinical judgment by integrating and building upon theoretical concepts from nursing and related fields
- Graduates will implement the nursing process

Manager of Care:

- Graduates will plan and coordinate care for an individual or group of clients with health care needs by using established priorities
- Graduates will demonstrate an understanding of own role in the health care delivery

Member Within the Discipline of Nursing:

- Graduates will actively participate within the nursing profession
- Graduates will seek opportunities for continued learning, self-development, leadership, and management skills

APPLICATION & REGISTRATION: Students are typically offered enrollment in the LPN to RN Program twice a year on a space available basis.

To be eligible for admission to the Bellingham Technical College Registered Nursing: LPN to RN Program, applicants must provide all of the following items in one complete application packet to:

Bellingham Technical College
 ATTN: Admissions, Registered Nursing
 3028 Lindbergh Avenue
 Bellingham, WA 98225-1599.

Admission Forms for the application packet are available in the Admissions Office or online. Incomplete application packets will not be considered.

- Current WA State LPN license number
- Evidence of completion of at least 1000 hours as a working LPN within the last five years
- Completed BTC admissions application
- Criminal history background check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43
- Receipt of payment of \$10.00 for the criminal disclosure processing fee
- Official transcripts containing evidence of successful completion of the prerequisite courses with a 2.0 or above:
 - BIOL&241 Human A & P 1 (5 cr)
 - BIOL&242 Human A & P 2 (5 cr)
 - ENGL&101 English Composition I (5 cr)
 - CHEM&121 Intro to Chemistry (5 cr)
 - BIOL&260 Microbiology (5 cr)
 - PSYC&100 General Psychology (5 cr)
 - PSYC&200 Lifespan Psychology (5 cr)
 - MATH&107 Math in Society (5 cr) or MATH&141 Precalculus I (5 cr)

BTC LPN graduates have priority placement.

Any questions regarding admission should be directed to Chris Richter, Admissions at 360-752-8321, or crichter@btc.ctc.edu.

SEQUENCE AND SCHEDULE: The Registered Nursing Program of study is three quarters. Students will average 140 hours per quarter in a combination of lecture, lab and clinical work, attending school for one to three days every week (six to eight hours per day). Hospital clinical experiences are scheduled to take place Thursday through Sunday either during the day or in the evening.

DEGREE REQUIREMENTS: Students may apply for a degree upon completion and verification of all requirements and standards.

ASSOCIATE IN APPLIED SCIENCE-TRANSFER

LPN To RN

NUR 211	Nursing Dimensions I	7
NUR 212	Client Care Management Practice I	4
NUR 221	Nursing Dimensions II	6
NUR 222	Client Care Management Practice II	4
NUR 231	Nursing Dimensions III	5
NUR 234	Capstone Clinical	4

Approx. 3 quarters

RESIDENTIAL HOME INSPECTION

Certificate

Requirements for the licensing of Home Inspectors in Washington State began September 1, 2009. Governor Gregoire signed Senate Bill 6606 into law requiring that all Home Inspectors be licensed in Washington. In April, 2009 BTC was the first to receive approval from the Washington State Department of Licensing for our precertificate "Fundamentals of Home Inspection" course.

Bellingham Technical College provides a high quality, fast-track training program designed to prepare students to begin their own professional home inspection business or seek employment with a home inspection company.

Participants will take both the 12 credit "Fundamentals of Home Inspection" course which is an intensive three week full-time Home Inspection Training Program and a final week of field instruction in the three credit "Field Training" course. This last week includes hands-on training and students who complete both courses successfully will qualify to sit for the State Home Inspector Licensing Exams. Coursework will primarily follow the renowned Carson Dunlop and Associates textbooks and in-depth presentations. Hands on study and a combination of technical labs and field inspections will supplement classroom instruction.

This program is offered on the BTC campus and can be offered at other locations in Washington State.

For questions, contact lead instructor Steve Smith at ssmith@btc.ctc.edu or 360-752-8796.

To register contact BTC registration at 360-752-8350 or register on the BTC website at www.btc.ctc.edu.

A personal laptop with wifi capability is highly recommended for participants.

PROGRAM OUTCOMES:

- RHI 111: Students will describe the systems and components found in homes and carry out a noninvasive inspection of a home using special training and education.
- RHI 112: Students will complete a thorough home inspection report that meets state standards.

APPLICATION & REGISTRATION: Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic and computer skills.

SEQUENCE AND SCHEDULE: RHI 111 Fundamentals of Home Inspection course at Bellingham Technical College typically runs for three weeks and RHI 112 Home Inspection Field Training typically runs for one week, from 8:00 am-5:00 pm, Monday-Friday.

DEGREE REQUIREMENTS: Students may apply for a BTC certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program.

CERTIFICATE

		Residential Home Inspection
RHI 111	Fund of Home Inspection	12
RHI 112	Home Insp. Field Training	3
Approx. 4 weeks		15 CRs

RETAIL MANAGEMENT

Certificate

The Retail Management Certificate is designed to give individuals a clear sense of what is involved in managing a retail sales operation or line of merchandise. The retail industry is fast-paced and rapidly changing. Technological advances and innovations in marketing and distribution have created a need for personnel with strong fundamental management and computer skills. Candidates possessing these skills have excellent prospects for employment and/or advancement. Developed with and endorsed by the Western Association of Food Chains (WAFC), this certificate provides broad-based training in ten content areas for future and current employees in a variety of retail operations, including grocery stores, department stores, and specialty retailers.

PROGRAM OUTCOMES:

- Graduates will have the knowledge and skills to manage a retail sales operation or line of merchandise

APPLICATION & REGISTRATION: Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE AND SCHEDULE: See a quarterly schedule for specific course schedule information.

DEGREE REQUIREMENTS: Students who have started a Western Association of Food Chains (WAFC) endorsed Retail Management Certificate Program with another college may receive a certificate from Bellingham Technical College by completing at least four of the courses listed and transferring in equivalent courses to meet the remaining requirements.

CERTIFICATE OF COMPLETION – RETAIL MANAGEMENT OPTION

Some colleges offering WAFC-endorsed Retail Management Certificates utilize courses with less credits than the comparable Bellingham Technical College course. For students who have started a Retail Management certificate with these colleges, a Certificate of Completion may be obtained by transferring in courses in the content areas listed below, with the following provisions:

- A maximum of six of the ten content areas may be satisfied with transfer courses (i.e., four of the content areas must be completed at Bellingham Technical College, 18 credits minimum)
- Courses transferred in must equate to at least three quarter credits per content area. Content areas:
 - Business Communication
 - Business Mathematics
 - Leadership and Human Relations
 - Microcomputer Applications
 - Oral Communications (Business or Speech)
 - Bookkeeping or General Accounting
 - Introduction to Management
 - Marketing Management
 - Human Resources Management
 - Retail Management & Merchandising

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some courses may be taken entirely online.

CERTIFICATE		
Retail Management		
ACCT 141	Financial Accounting I	5
BUS 150	Mathematics for Business	5
	OR	
	Transfer level math course	
COM 170	Oral & Written Communications	5
	OR	
ENGL& 101	English Composition	
CAP 101	Introduction to Computers	5
BUS 171	Technical Communications	5
HRM 110	Human Resource Management	5
MGMT 152	Small Business Management	3
MGMT 210	Supervision for the Office	5
	OR	
PSYC 111	Interpersonal Psychology	
MKT 100	Marketing Fundamentals	5
BUSAD 111	Retail Management	5
Approx. 3-4 Quarters		48 CRs

SURGERY TECHNOLOGY

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

The Surgery Technology Program is an accredited program designed to meet the expanding demand of surgery and related healthcare departments. This is an exciting career opportunity that will prepare men and women to function as an integral part of the team of healthcare practitioners, providing surgical care to the patient. The Surgery Technologist is under the supervision of the physician and/or registered nurse. The Program prepares students to develop expertise in the theory and application of sterile and aseptic technique and combines knowledge of human anatomy and surgical procedures. Additionally, the Program prepares competent entry-level Surgical Technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Students learn how to implement surgical tools and technologies to facilitate a physician's performance of invasive, therapeutic and diagnostic procedures. Students will spend a major portion of their training in clinical practice, coordinated by the instructor. Clinical practice will take place regionally in hospitals, surgery centers, and outpatient surgery centers. Students will need to provide their own transportation to clinical sites.

PROGRAM OUTCOMES:

Graduates will:

- Utilize critical and logical thinking processes to evaluate and interpret requests from the surgical field while performing surgical procedures
- Understand current practices and demonstrate sound decision making to provide patient, staff, and personal safety
- Strive for excellence in the practice of sterile technique; recognize and respond immediately to any breaks in sterile technique
- Successfully demonstrate professional behavior and positive work ethics; take responsibility for own learning
- Effectively write the P.A.E. (Program Assessment Exam) or equivalent per the ARC/STSA

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Surgery Technology Program once a year on a space available basis.

To be eligible for the Program's ready list, all General Education and Science Program courses must be completed. For admission to the Bellingham Technical College Surgery Technology Program, applicants must meet college admission requirements and submit additional materials, including a completed criminal history background check, verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43. Applicant must submit evidence of high school graduation or its equivalent. Acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate.

Students can complete General Education courses in any quarter. Transcripts are required showing evidence that all General Education courses are complete to become eligible for the Program's ready list and entry into the Surgery Technology courses.

After acceptance to be on the Program's ready list for the Surgery Technology Program, and prior to enrollment in SURG 120, students are required to:

- Demonstrate satisfactory health status by a physical examination within the preceding six months, including current immunizations

- Complete an 11 panel urine drug screen for prohibited substances
- Possess and maintain a current CPR card. Minimum CPR required is Adult Heartsaver (three hrs)
- Show proof of personal health insurance (student accident insurance is available)
- Be eighteen (18) years of age prior to the start of the clinical coursework (SURG 120 and SURG 125)

SEQUENCE AND SCHEDULE: Following completion of General Education courses the Surgery Technology program is generally three consecutive quarters. This sequence does not include summer. The Surgery Technology courses are sequenced and require passage to progress to the next course. Students are generally in class from 8:00 am to 3:00 pm.

DEGREE REQUIREMENTS: Students may apply for an AAS or an AAS-T degree upon completion and verification of all requirements and standards.

ASSOCIATE OF APPLIED SCIENCE

Surgery Technology

Students may apply for an AAS or an AAS-T degree upon completion and verification of all requirements and standards.

HT 126	Fundamentals of Medical Terminology	5
OR		
HT 129	Comprehensive Medical Terminology I	5
HLTH 133	HIV/AIDS: Healthcare Professional	1
BIOL& 160	General Biology with Lab	5
BIOL& 241	Human A & P 1	5
BIOL& 242	Human A & P 2	5
HO 105	Pharmacology	2
SURG 120	Surgery Technology I	10
SURG 125	Surgery Technology Lab	10
SURG 133	Surgery Technology II	10
SURG 136	Surgery Tech Clinical Practice I	12
SURG 143	Surgery Technology III	6
SURG 145	Surgery Tech Clinical Practice II	10
Approx. 5 quarters		76 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
OR		
ENGL& 101	English Composition I	5
MATH& 107	Math in Society	5
OR		
MATH 100	Occupational Math	5
PSYC& 100	General Psychology	5
OR		
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
OR		
CMST& 210	Interpersonal Communication	5
PLUS		
Five credit elective course in Science, Social Science, or Humanities from the generally accepted transfer list.		5
		20 CRs

SURVEYING AND MAPPING

Associate of Applied Science Degree

Associate of Applied Science – Transfer Degree

The Surveying & Mapping Technology Program prepares the student for employment as a Survey and Mapping Technician in field and office applications. Instruction is individualized within a structured curriculum, and instructional time is divided between classroom theory and practical application. The degree Program includes use of a variety of equipment and computer software, including GPS equipment, and the use of drafting software, including CAD & GIS. Students receive the necessary technical and academic skills to be productive and dependable employees. Surveying students are encouraged to participate in the activities of the Land Surveyor's Association of Washington (LSAW) as student members.

PROGRAM OUTCOMES:

- Graduates will demonstrate competency in basic GIS and surveying and mapping skills
- Prepare for the Level I Survey Technical Exam given by the Career Development Committee of LSAW
- Possess the ability to prepare a topographic map of a parcel of property that is evaluated by WAC 332-130 standards
- Demonstrate entry level competency in using CAD skills
- Demonstrate a working knowledge of the Global Positioning System (GPS); demonstrate a working knowledge of Washington Law related to surveying and boundaries
- Receive, interpret, and convey written, verbal and graphic information
- Prepare a BTC campus map data using current RTK GPS equipment

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Survey and Mapping Technology Program once a year on a space available basis. Part-time enrollment and individual class enrollment is available with instructor approval.

CAP 101 Introduction to Computers is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC3 exams (Living Online, Computer Fundamentals, and Key Applications - Word, Excel and PowerPoint). These tests require a fee and may be taken at BTC or any other CertiPort Testing Center.

Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH&141) is a required prerequisite for enrollment in this Program.

SEQUENCE AND SCHEDULE: The Surveying & Mapping Technology student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science degree or an Associate of Applied Science - Transfer degree upon completion and verification of all requirements and standards.

ASSOCIATE OF APPLIED SCIENCE

Surveying and Mapping

ENGT 122	CAD I: Basics	6
ENGT 128	Civil/Survey CAD 2	7
ENGT 132	MS Office Applications	5
ENGT 153	Intermediate GIS	7
ENGT 251	AutoCAD Civil 3D I	8
ENGT 252	AutoCAD Civil 3D II	8
SURV 102	Fundamentals of Surveying I	7
SURV 103	Fundamentals of Surveying II	5
SURV 104	Construction and Highway Surveys	6
SURV 112	Public Lands Survey System	5
SURV 113	Boundary/Legal Principals	7
SURV 116	Survey Data Systems	4
SURV 140	Fundamentals of GIS & GPS	4
SURV 152	Zoning, Permitting and Platting	4
SURV 191	Professional Development and Safety	3
SURV 201	Advanced Survey Seminar	7
SURV 202	GPS Systems	7
SURV 204	Environmental Mapping	4
SURV 205	Advanced GIS Applications	7

Approx. 6 quarters **111CRs**

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
CMST& 210	Interpersonal Communication	5

15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5

20 CRs



VETERINARY TECHNICIAN

Associate of Applied Science – Transfer Degree
Certificate – Veterinary Assistant

The Veterinary Technician Program prepares students for employment as a Veterinary Technician with duties as allowed by WA State Law. This new Program is in the accreditation process through the American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities (CVTEA). Pending accreditation, graduated students will be eligible to take the National Veterinary Technician Test, and are required to take the Washington State Veterinary Technician Exam for licensure. Clinical experience is provided under the supervision of veterinarians and licensed veterinary technicians at a variety of regional animal care offices and facilities.

The individual that successfully completes this program will have the knowledge base, critical thinking and technical skills to become a licensed Veterinary Technician upon completing the state licensing requirements. The training of the Veterinary Technician will be divided into three concept stages:

- 1) Understanding normal anatomy, physiology, and behavior of health for the species studied
- 2) Understanding the causes of disease and the process of diagnosis; treating and preventing animal disease
- 3) Understanding the profession of Veterinary Technician including: occupational safety, public health, client and colleague communication, ethics of animal welfare, and the human-animal bond.

PROGRAM OUTCOMES:

Graduates will:

- Demonstrate current veterinary techniques in areas such as animal husbandry, necropsy and anesthesia, the use and application of medicines and materials, and safety and health standards
- Provide support for companion animal, equine, and food animal practice, biomedical research, and other veterinary medical activities
- Comprehend basic medical terminology and science and demonstrate clinical application skills; integrate skills such as nursing, surgical, pharmacological, dental, and imaging knowledge and skills in order to care for live animals
- Demonstrate cognitive retention of medical terminology, theory and science, including anatomy and physiology, clinical pathology, and microbiology
- Demonstrate positive work ethics, professionalism, and understanding of team health care delivery
- Demonstrate a foundation in professionalism through participation in professional organizations and activities and continuing education opportunities
- Incorporate into practice professional laws, regulations, and policies established by the licensing state and regulatory agencies
- Promote humane animal care and management through counseling owners to reduce health risks and provide community veterinary health services in a variety of settings
- Demonstrate understanding of veterinary office management and economics. Understanding of varying roles and organizational structures present in veterinary practice
- Provide preventive and therapeutic services, including nutritive, nursing and dental care, that promote animal health according to the needs of the patient

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Veterinary Technician Program once a year on a space available basis.

Admission Forms for the application packet are available in the Admissions Office upon request at 360.752.8345 or online. Incomplete application packets will not be considered

Veterinary Technician students must show that they are program ready by submitting a complete packet containing the following items:

- 1) Admissions application
- 2) Evidence of high school graduation or its equivalent: acceptable documents include a copy of high school diploma, high school transcript, or GED certificate
- 3) The criminal history background check, verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43 along with \$10.00 criminal background check processing fee
- 4) Official transcripts containing evidence of the four general education courses:
 - English Composition (ENGL& 101) five credits or equivalent (Minimum 2.0 GPA)
 - Math in Society (Math& 107) or Pre-Calculus (Math& 141) five credits or equivalent or departmental approval (Minimum 2.0 GPA)
 - General Psychology (PSYC& 100) five credits, or Introduction to Sociology (SOC& 101) 5 credits, or equivalent. (Minimum 2.0 GPA)
 - Transfer Science 5 credits or equivalent. (Minimum 2.0 GPA)
- 5) The health status report including evidence of required physical abilities and recommended immunizations.
- 6) Signed Informed Consent Form.
- 7) Completion and appropriate verification of 20 hours of observation in animal care

SEQUENCE AND SCHEDULE: The Veterinary Technician Program includes an early out certificate option as a Veterinary Assistant. The Program will use a variety of delivery models, including face-to-face instruction, web-based tools, research projects, and online segments.

FULL-TIME PROGRAM: (SIX QUARTERS)

This full-time program is normally scheduled Monday through Thursday during the hours of 8 am to 3:00 pm with clinical experience mainly on Fridays. Some weeks, students will meet only three days, with additional clinical on other days. After the first two quarters, students who opt out with a certificate in Veterinary Assisting will then need to enroll in VET 117, Clinical Internship.

- When required lab components require the students to be at on off-site Veterinary Facility, the schedule is subject to change to other days and times of the week, depending on availability.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science - Transfer degree upon completion and verification of all requirements and standards.

Veterinary Technician continued on the next page

VETERINARY TECHNICIAN

(CONTINUED)

ASSOCIATE OF APPLIED SCIENCE- TRANSFER

Veterinary Technician

CAP 101	Introduction to Computers	5
VET 120	Veterinary Math	2
VETT 101	Veterinary Nursing I	5
VETT 102	Veterinary Anatomy & Physiology I	5
VETT 103	Veterinary Medical Terminology	3
VETT 201	Mentorship Lab I	2
VETT 104	Veterinary Nutrition I	3
VETT 106	Microbiology, Virology, & Mycology	3
VETT 107	Small Animal Parasitology	3
VETT 108	Radiology I	5
VETT 109	Laboratory Sciences	5
VETT 202	Mentorship Lab II	2
VETT 105	Learning for a Lifetime	2
VETT 110	Veterinary Anatomy & Physiology II	3
VETT 111	Small Animal Medicine I	4
VETT 112	Veterinary Nursing II: Surgical	4
VETT 113	Immunology & Pharmacology I	6
VETT 114	Dentistry	4
VETT 203	Mentorship Lab III	2
VETT 115	Radiology II	4
VETT 118	Small Animal Medicine II	3
VETT 119	Advanced Clinical Lab Science	4
VETT 120	Anesthesia	4
VETT 121	Exotic Animal Medicine	3
VETT 125	Humanity of Veterinary Medicine	2
VETT 204	Mentorship Lab IV	2
VETT 116	Large Animal Medicine	3
VETT 117	Veterinary Nursing III: Large	4
VETT 122	Veterinary Nutrition II	2
VETT 123	Veterinary Nursing IV	5
VETT 124	Specialty Medicine	3
VETT 126	Pharmacology II	3
VETT 205	Mentorship Lab V	2
VETT 130	Veterinary Clinical Work Experience	10

Approx. 6 quarters **119 CRs**

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
OR		
CMST& 210	Interpersonal Communication	5
PLUS		
Five credit elective course in Science from the generally accepted transfer list.		

20 CRs

CERTIFICATE

Veterinary Assistant

CAP 101	Introduction to Computers	5
VET 120	Veterinary Math	2
VETT 101	Veterinary Nursing I	5
VETT 102	Veterinary Anatomy & Physiology I	5
VETT 103	Veterinary Medical Terminology	3
VETT 104	Veterinary Nutrition I	3
VETT 106	Microbiology, Virology, & Mycology	3
VETT 107	Small Animal Parasitology	3
VETT 108	Radiology I	5
VETT 109	Laboratory Sciences	5
VET 117	Veterinary Assisting Internship	2

Approx. 2 quarters **45 CRs**



WELDING TECHNOLOGY

Associate of Applied Science Degree –

- Aluminum/Steel Fabrication & Aluminum Welding
- Pipe Welding
- Structural Fabrication

Certificate – Industrial Welding

Certificate – Basic Welding Skills

The Welding Technology Program prepares students for employment in the metal and construction trades; a field that continues to grow and is in very high demand. Students will gain experiences and competencies in all major welding theory, processes, and Washington Association of Building Officials (WABO) welding certification testing procedures. Students can earn a certificate or AAS degree in Welding with a specialization in Structural Steel Fabrication, Pipe, or Aluminum.

The program includes classroom instruction and hands-on training in metal trades including safety, blueprint reading, metallurgy, power sources, tools and materials, and layout and fitting techniques. Students are taught in a state-of-the-art facility completed in 2007; the welding facility includes 20,000 plus square feet of lab facilities including a large fabrication and clean room for aluminum welding. Instruction includes self-paced and competency-based components with a core curriculum and electives for specialization and student customization. BTC is a certified WABO testing site for the benefit of our students. Occupational upgrade and retraining for the professional Welder are also major components of the Welding Technology Program.

In addition to the degree and certificate Program, evening courses and self-guided upgrades are available for weld test preparation and brush-up on familiar processes, including SMAW, GMAW, FCAW, GTAW, PLATE, and PIPE.

PROGRAM OUTCOMES:

All BTC Welding Program graduates will:

- Exhibit & maintain essential employability behaviors
- Observe and practice industry safety guidelines
- Achieve competency in all major manual and semi-automatic welding processes in all positions
- Demonstrate proper set-up and use of welding and fabricating equipment
- Troubleshoot and solve basic welding, fabricating and equipment problems
- Pass one WABO certification or industry-accepted simulated welding test
- Exhibit knowledge of metallurgy, materials, fabrication, layout and cutting processes and techniques
- Demonstrate appropriate oral and written communication with customers, co-workers, and supervisors
- Analyze and interpret prints and drawings for welding and fabricating
- Employ efficient organizational skills
- Stay current with new and emerging technologies

APPLICATION & REGISTRATION: Students are typically offered enrollment in the Welding Technology Program once a year on a space available basis.

SEQUENCE AND SCHEDULE: The Welding Technology student will complete a specific course requirement sequence. Students will be advised by the program instructor regarding sequence and schedule of classes. Program hours vary and can range from 7:00 am to 6:30 pm depending on the section in which students are enrolled.

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science or an Associate of Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards.

ONLINE LEARNING: Students will use some online tools and resources throughout the program. Some of the General Education classes may be taken entirely online.

ASSOCIATE OF APPLIED SCIENCE

Welding Technology-Aluminum/Steel Fabrication & Aluminum Welding, Pipe Welding, Structural Fabrication

First Year: Welding

WLD 101	Welding Safety I	2
WLD 102	Welding Safety II	2
WLD 103	Hand and Power Tools	4
WLD 104	Career Opportunities for Welders	2
WLD 105	Thermal Cutting Processes	3
WLD 106	Print Reading I	2
WLD 107	Welding Leadership I	1
WLD 110	SMAW I	4
WLD 120	GMAW I	4
WLD 121	GMAW Aluminum I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	3
WLD 151	Aluminum Fabrication I	3

Second Year: Aluminum/Steel Fabrication & Aluminum Welding

WLD 206	Print Reading II	3
WLD 230	FCAW II	4
WLD 242	GTAW Aluminum II	5
WLD 252	Aluminum Fabrication II	5
Department Electives		4
WLD 208	Metallurgy	3
WLD 222	GMAW Aluminum II	4
WLD 254	Steel Fabricating II	5
WLD 270	Aluminum Testing	4
Department Electives		5
WLD 207	Welding Leadership II	1
WLD 209	Codes and Standards	2
WLD 271	WABO/ASME Testing I	6
WLD 295	Capstone	4
Department Electives		6

Welding Technology continued on the next page

WELDING TECHNOLOGY

(CONTINUED)

Second Year: Pipe Welding & Structural Fabrication

WLD 206	Print Reading II	3
WLD 210	SMAW II	4
WLD 215	SMAW Pipe	4
WLD 254	Steel Fabricating II	5
WLD 256	Pipe Fitting I	5
Pipe Welding Track		
WLD 208	Metallurgy	3
WLD 257	Pipe Fitting II	5
WLD 262	GTAW Pipe Welding	6
Department Electives		6
Structural Fabrication Track		
WLD 208	Metallurgy	3
WLD 230	FCAW II	4
WLD 261	Advanced Structural Steel Welding	6
Department Electives		6
WLD 207	Welding Leadership II	1
WLD 209	Codes and Standards	2
WLD 271	WABO/ASME Testing I	6
WLD 295	Capstone	4
Department Electives		6
Approx. 6 quarters		105-107 CRs

AAS ACADEMIC CORE REQUIREMENTS

COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
CMST& 210	Interpersonal Communication	5
		15 CRs

AAS-T ACADEMIC CORE REQUIREMENTS

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math In Society	5
PSYC& 100	General Psychology	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the generally accepted transfer list.		5
		20 CRs

CERTIFICATE

Industrial Welding

First Year: Welding Technology

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
WLD 101	Welding Safety I	2
WLD 102	Welding Safety II	2
WLD 103	Hand and Power Tools	4
WLD 104	Career Opportunities for Welders	2
WLD 105	Thermal Cutting Processes	3
WLD 106	Print Reading I	2
WLD 107	Welding Leadership I	1
WLD 110	SMAW I	4

WLD 120	GMAW I	4
WLD 121	GMAW Aluminum I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	3
WLD 151	Aluminum Fabrication I	3

Second Year: Aluminum/Steel Fabrication & Aluminum Welding

WLD 206	Print Reading II	3
WLD 230	FCAW II	4
WLD 242	GTAW Aluminum II	5
WLD 252	Aluminum Fabrication II	5
Department Electives		4
WLD 208	Metallurgy	3
WLD 222	GMAW Aluminum II	4
WLD 254	Steel Fabricating II	5
WLD 270	Aluminum Testing	4
Department Electives		5

Second Year: Pipe & Structural Fabrication

WLD 206	Print Reading II	3
WLD 210	SMAW II	4
WLD 215	SMAW Pipe	4
WLD 254	Steel Fabricating II	5
WLD 256	Pipe Fitting I	5

Pipe Welding Track

WLD 208	Metallurgy	3
WLD 257	Pipe Fitting II	5
WLD 262	GTAW Pipe Welding	6
Department Electives		6

Structural Fabrication Track

WLD 208	Metallurgy	3
WLD 230	FCAW II 4	
WLD 261	Advanced Structural Steel Welding	6
Department Electives		6

Approx. 3 quarters **101-102 CRs**

CERTIFICATE

Basic Welding Skills

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
WLD 101	Welding Safety I	2
WLD 102	Welding Safety II	2
WLD 103	Hand and Power Tools	4
WLD 104	Career Opportunities for Welders	2
WLD 105	Thermal Cutting Processes	3
WLD 106	Print Reading I	2
WLD 107	Welding Leadership I	1
WLD 110	SMAW I	4
WLD 120	GMAW I	4
WLD 121	GMAW Aluminum I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	3
WLD 151	Aluminum Fabrication I	3

Approx. 2 quarters **40-61 CRs**

6

Course Descriptions



ACCOUNTING

ACCT 141
FINANCIAL ACCOUNTING I 5 CR
 Covers the accounting cycle through a study of a sole proprietorship and the use of accounts, the general journal, and the general ledger.
PREREQUISITES: Accuplacer Scores: 71 Reading, 50 Math or instructor permission

ACCT 242
FINANCIAL ACCOUNTING II 5 CR
 Theory and practice of computing and recording transactions relating to merchandise inventory, notes payable and receivable, depreciation, accounting principles, and reporting standards.
PREREQUISITES: ACCT 141 or instructor permission

ACCT 243
FINANCIAL ACCOUNTING III 5 CR
 Theory and practice relating to the formation and operations of partnerships and corporations, decision making, and statement analysis. Financial data is used to access the efficiency of current operations and determine profitability.
PREREQUISITES: ACCT 242 or instructor permission

ACCT 245
PAYROLL PROCEDURES 5 CR
 Covers complete payroll records and procedures. Students complete assignments about federal and state laws that affect compensation of employees.
PREREQUISITES: ACCT 141 or instructor permission

ACCT 246
COMPUTERIZED ACCOUNTING I 5 CR
 A study of computerized accounting systems in both service and merchandising environments. Uses the commercially popular QuickBooks software to demonstrate the use of fully integrated accounting systems. Prepares the student to use commercial accounting software products on-the-job.
PREREQUISITES: ACCT 141 or instructor permission

ACCT 254
MANAGERIAL ACCOUNTING 5 CR
 Introduces students to information needed by managers to carry out three essential functions in an organization: (1) planning operations, (2) controlling activities, and (3) making decisions. Course will show what kind of information is needed, where this information can be obtained, and how this information can be used by managers as they carry out their planning, control, and decision-making responsibilities.
PREREQUISITES: ACCT 141 or instructor permission

ACCT 270
INTERNSHIP 3 CR
 Students will arrange to work in an office and apply accounting skills and knowledge. It may be a paid or an unpaid work experience.
PREREQUISITES: Instructor permission

ACCT 273
INTERNSHIP 4 CR
 Students will arrange to work in an office where they will apply accounting skills and knowledge. The internship may be paid or unpaid work experience.
PREREQUISITES: Instructor permission

ADULT BASIC EDUCATION

ESL 011
ESL READING/WRITING 1 7 CR
 This course is designed for adults who have no proficiency in the English language. Emphasis is on functioning in situations related to immediate needs and tasks in which basic reading and writing communication skills are necessary. Progress in appropriate technology is expected.

ESL 012
ESL READING/WRITING 2 7 CR
 This course is designed for the adult who functions with difficulty in situations related to immediate needs such as providing personal information on simple forms. Emphasis is on reading simple material on familiar subjects; interpreting simple directions, schedules, signs, and maps; and conveying ideas in simple notes and messages using present verb tenses. Progress in appropriate technology is expected.

ESL 013
ESL READING/WRITING 3 7 CR
 This course is designed for adults who can understand simple learned phrases, interpret simple directions, schedules, signs and maps; can fill out simple forms; can handle routine entry level jobs that involve some written or oral English communication. Emphasis is on reading simple material on familiar topics with understanding; following specific written direction; using context to determine meaning; writing and editing simple paragraphs; and completing basic forms and job applications. Progress in appropriate technology is expected.

ESL 014
ESL READING/WRITING 4 7 CR
 This course is designed for adults who can meet basic survival and social needs, follow simple oral and written instruction, and who have some ability to write and edit paragraphs related to basic needs. Emphasis is on understanding descriptive narratives and responding appropriately; reading inferences, comparisons and contrasts; writing and editing descriptions and essays on familiar topics. Progress in appropriate technology is expected.

ESL 015
ESL READING/WRITING 5 7 CR
 This course is designed for adults who can read, write, and edit simple descriptions on familiar topics and handle grammar and writing mechanics with few errors. Emphasis is on reading real-life materials on everyday subjects, and using meaning-making strategies with unfamiliar reading materials; writing and editing multi-paragraph essays that include introductions and conclusions and filling out multiple real-life forms. Progress in appropriate technology is expected.

ESL 016
ESL READING/WRITING 6 7 CR
 This course is designed for adults who can participate in everyday conversations in English, who have mastered a high level of reading proficiency and can participate in complex conversations in English. Emphasis is on applying critical thinking skills and analyzing complex grammar patterns in listening; making oral presentations; conducting research using electronic sources; summarizing, and making inferences when reading authentic and unfamiliar texts.

ESL 021
ESL LISTENING/SPEAKING 1 7 CR
 This course is designed for adults who have no proficiency in the English language. Emphasis is on functioning in situations related to immediate needs and tasks in which basic oral communication skills can be demonstrated.

ESL 022
ESL LISTENING/SPEAKING 2 7 CR
 This course is designed for the adult who functions with difficulty in situations related to immediate needs and in limited social situations and has some simple oral communication abilities using simple learned and often repeated phrases. Emphasis is on listening actively to understand simple learned phrases containing familiar vocabulary and responding to verbal and non-verbal communication, and speaking so others can understand, expressing basic survival needs.

ESL 023
ESL LISTENING/SPEAKING 3 7 CR
 This course is designed for adults who can understand simple learned phrases, interpret simple directions, and can handle routine entry level jobs that involve some oral English communication. Emphasis is on mastering basic survival social needs, which includes listening actively to understand learned and new phrases containing familiar vocabulary, responding appropriately to verbal and non-verbal communication, and using the telephone.

ESL 024
ESL LISTENING/SPEAKING 4 7 CR
 This course is designed for adults who can meet basic survival and social needs, follow simple oral and written instruction, and who have some ability to communicate on the telephone. Emphasis is on understanding spoken narratives and responding appropriately, speaking clearly on many everyday subjects, requesting, clarifying and confirming basic information on familiar topics.

ESL 025
ESL LISTENING/SPEAKING 5 7 CR
 This course is designed for adults who can converse on many everyday subjects. Emphasis is on listening and speaking to effectively and independently participate in everyday survival, work, and social situations, face-to-face or on the telephone.

ESL 026

ESL LISTENING/SPEAKING 6 7 CR

This course is designed for adults who can participate in everyday conversations in English and understand materials on common subjects. Emphasis is on applying critical thinking skills and analyzing complex grammar patterns in listening, making oral presentations, conducting research using electronic sources, summarizing, analyzing, and making inferences.

ESL 019

ESL CIVICS 7 CR

ESL students in levels 3-6 will develop literacy skills while learning about community resources, the rights and responsibilities of citizenship, naturalization procedures, civics participation, and U. S. history and government. Students will use local resources and computers to learn about local services in the areas of health care, transportation, library, housing, citizenship, government, education, childcare, or employment. Students will develop and practice their English skills through reading, discussions, guest speakers, field trips and reports. Class projects may include volunteering, accessing community resources and helping others find information.

BAS 065

STUDY SKILLS 2 CR

Intended for students who are enrolled or on waiting lists in occupational programs who need help with study skills. The course covers learning styles, time management, organization, reading, writing, and math strategies, memorization, test preparation, and test-taking strategies.

BAS 020

COMPUTER BASICS 3 CR

In this course, students learn the basic functions of the computer while improving their reading, writing, speaking, and listening skills. Included are Microsoft Windows navigation, word processing with Microsoft Word, and the use of common software for spreadsheets and multimedia presentations. E-mail and Internet skills are also taught.

BAS 060

BASIC ACADEMIC SKILLS 7 CR

This course includes refresher skills in math and communications necessary for success in occupational programs. Specific content will be based on individual needs.

ABE 050

BASIC MATH 6 CR

Designed for students needing to pass their GED math test or Accuplacer arithmetic tests. This course is intended to reinforce and extend students' knowledge of basic mathematics and to build the foundation for success in beginning algebra. Topics covered include basic operations with whole numbers, decimals and fractions, the understanding and application of ratio, proportion and percent, elements of geometry, problem solving, and signed numbers, and solving simple equations. The class will use interactive software accompanied by personalized on-demand help. *PREREQUISITE: CASAS Math score 211*

ABE 041

BEGINNING MATH 7 CR

This course covers Levels 1 and 2 of the Washington State Learning Standards for Math. It includes operations with whole numbers, plus applications such as averaging, rounding and factoring. Emphasis is placed on reasoning and problem solving through real life and workplace applications.

ABE 042

INTERMEDIATE MATH 7 CR

This course covers Levels 3 and 4 of the Washington State Learning Standards for Math. Course includes operations with fractions and decimals, converting fractions into decimals and decimals into fractions, ratio, proportion, percent, perimeter, area, volume and conversions with standard measures. Emphasis is placed on formulas to solve real world problems, computational skills are integrated and used in problem solving situations, introduction to interpretation of charts and graphs, and reasoning and problem solving through real life and workplace applications.

ABE 045

BEGINNING READING/Writing 7 CR

This course provides instruction in reading and writing at Levels 1 and 2 of the Washington State Learning Standards. It includes determining the purpose for reading and/or writing, symbol/sound correspondences, division of words by syllables, sentence differences and decoding by context. Emphasis is on strategies to assist with comprehension and integration of new information, practice in reading and writing for survival needs and personal communication. The instruction helps the student to summarize main ideas and supporting details, and to write topic sentences with supporting details.

ABE 046

INTERMEDIATE READING/Writing 7 CR

This course provides instruction in reading and writing at Levels 3 & 4 of the Washington State Learning Standards for Reading and Writing. This includes instruction in selecting appropriate reading materials for particular purposes and in expanding choices of texts/genres. Using diverse strategies (format, skimming, context clues) and skills (transition words, inferences, point of view) to comprehend, analyze, evaluate and draw meaning from text, and applying reading to real life needs and goals, as well as academic purposes. Students gain competence in writing through organizing a paragraph using topic sentences and supporting details as well as a 5 paragraph essay format and writing simple and complex sentences showing minimal errors in mechanics and grammar.

GED 040

GED PREPARATION 7 CR

This course includes instruction in grade levels 9-12 in reading, writing, and math as well as in the content areas of social studies, science, and arts and literature. Emphasis is placed on GED test taking skills, reasoning skills, and critical thinking skills.

BAS 030

EDUCATIONAL INTERVIEWING 1 CR

This course provides orientation for prospective students in the Basic Academic Skills program, which includes Adult Basic Education (ABE), GED, English as a Second Language (ESL), and Integrated Basic Education Skills Training (IBEST). It also covers introductions to BTC Student Services and community services, basic skill assessment (CASAS), learning styles assessment, barrier identification, goal-setting, and career planning.

AUTO COLLISION REPAIR

ACRT 101

INTRODUCTION TO AUTO COLLISION REPAIR 4 CR

This course covers personal, tool, and equipment safety, workplace ethics, and hazardous materials.

ACRT 105

NON-STRUCTURAL WELDING 8 CR

This course covers the differences between various metal joining processes, selection of the correct process for different types of jobs, and the advantages of MIG welding, plasma cutting, spot welding, and gas welding and cutting.

ACRT 110

REFINISHING SAFETY 2 CR

This course covers the basic knowledge and skills needed to follow personal and environmental safety procedures pertaining to a spray gun and related equipment operation, surface preparation, and various refinishing operations used on vehicles.

ACRT 115

NON-STRUCTURAL REPAIR 2 CR

This course addresses basic personal safety, vehicle safety, equipment, product knowledge, and basic knowledge required to perform non-structural analysis and damage repair.

ACRT 123

NON-STRUCTURAL METAL FINISHING 7 CR

This course covers the correct mixing and application of body fillers that will increase the quality of a repair. Instruction in safety, environmental awareness, basic fundamentals of metal straightening, and proper selection of metal straightening tools is also included.

ACRT 125

REFINISHING SURFACE PREPARATION 7 CR

This course covers how to determine the condition of a vehicle's finish and plan the steps to be used in refinishing the vehicle. Safety and environmental awareness is also included.

ACRT 130

DAMAGE ANALYSIS 3 CR

This course covers the procedure for analyzing vehicle damage and estimating repair costs using manual and computerized estimating systems.

2010-2012 Course Descriptions

ACRT 133

PAINT MATCHING AND BLENDING 7 CR

This course addresses mixing all types of refinishing materials, the theory of matching refinishing materials, painting and blending techniques, and paint application.

ACRT 135

REFINISH PAINT DEFECTS 3 CR

This course covers how to identify paint film defects, the causes of paint film defects, and appropriate corrective methods. It also covers how to identify surface defects and corrective methods to repair them.

ACRT 138

RESTORING CORROSION PROTECTION 3 CR

This course covers corrosion and its effect on vehicles, how to restore corrosion protection to collision damaged areas, and how to work safely with chemicals. Students plan effective and correct corrosion protection treatment for welded areas and exposed seams, interior seams, exposed surfaces, trim and accessories during repairs.

ACRT 140

DRIVE TRAIN, FUEL, BRAKES, HVAC 2 CR

This course covers repair of a vehicle involved in a collision, including removal of mechanical parts, such as drive train and engine parts. This course also covers servicing heating and a/c systems of a vehicle involved in a collision.

ACRT 141

OUTER BODY PANEL REPAIR 4 CR

This course covers replacement and adjustment of outer body panels, selection of alignment tools, and understanding how to use panel replacement and alignment tools. Instruction in safety, environmental awareness, human relations and work ethics are taught as an integral part of this course.

ACRT 142

SHOP PRACTICUM I 3 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

ACRT 143

SHOP PRACTICUM II 6 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

ACRT 251

STRUCTURAL WELDING 4 CR

This course addresses welding safety, setup, and uses of a MIG welder for aluminum and steel. Students learn how to weld different types of metals. To complete this course students must pass all welding tests based on I-CAR standards.

ACRT 253

MOVEABLE GLASS AND HARDWARE 2 CR

This course covers removal, installation, and adjustment of moveable glass and its hardware. Students identify causes of door glass problems and learn how to correct air and water leaks.

ACRT 254

STRUCTURAL FIXED GLASS 2 CR

This course emphasizes the role glass plays in the structural integrity of the vehicle and includes information about automobile glass and methods for removal and installation.

ACRT 255

SUSPENSION AND STEERING 4 CR

This course covers identification and diagnosis of tire and wheel steering, rack and pinion steering, power steering suspension, strut type, and steering and suspension system problems.

ACRT 256

UNIBODY INSPECTION 4 CR

This course covers inspection, diagnosis, measurement, and repair of steel and aluminum unibody vehicles.

ACRT 260

SHOP PRACTICUM III 6 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

ACRT 262

FRAME INSPECTION AND REPAIR 4 CR

This course covers inspection, diagnosis, measurement, and repair of steel framed vehicles.

ACRT 263

RESTRAINT SYSTEMS 2 CR

This course covers diagnosis and inspection of restraint and SRS systems.

ACRT 264

PLASTICS AND ADHESIVES 4 CR

This course covers the different types of plastic used in today's automobiles, and how to identify and repair them.

ACRT 266

ELECTRICAL SYSTEM REPAIR 3 CR

This course covers diagnosis and repair of electrical system problems.

ACRT 268

REFINISHING FINAL DETAIL 3 CR

This course addresses basic theory and practical applications of color sanding, buffing, and polishing after refinishing. This course also covers vehicle cleanup before the vehicle is delivered to the customer.

ACRT 270

SHOP PRACTICUM IV 10 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

ACRT 275

INTERNSHIP 7 CR

The student will gain hands-on work experience with an auto collision repair employer.

AUTOMOTIVE

AUTO 103

ENGINES 8 CR

An introductory look at the 4 stroke gasoline engine followed by indepth study and practice of industry standard service procedures including diagnosis and repair of internal engine systems.

AUTO 107

BRAKES 6 CR

Extensive training on the operation, diagnosis and repair of typical disc and drum brake systems including ABS operation and repair.

AUTO 122

BASIC DRIVE TRAIN 4 CR

This course will focus on the basic fundamentals of drive train systems found in the modern automobile and includes axles and axle bearings.

AUTO 141

ENGINE PERFORMANCE 1 2 CR

This course will focus on the basic fundamentals of fuel, ignition and computer-controlled engine management systems.

AUTO 151

ELECTRICITY/ELECTRONICS 1 10 CR

This course provides a comprehensive and thorough introduction to electrical theory as applied to the automobile, focusing on electrical behavior in automotive circuits, understanding and using wiring schematics, and basic troubleshooting procedures on simple automotive circuits. An introduction to starting/charging system operation and diagnosis will also be included.

AUTO 161

STEERING AND SUSPENSION 6 CR

This course will focus on the fundamentals of suspension and steering including four-wheel laser alignment.

AUTO 213

HVAC 4 CR

This course covers the operation, diagnosis and repair of climate control systems found on the modern automobile. There will be extensive training on proper handling of refrigerants.

AUTO 219

APPLIED AUTOMOTIVE CONCEPTS I 12 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student will normally work with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

AUTO 229

APPLIED AUTOMOTIVE CONCEPTS II 4 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

AUTO 250

AUTOMATIC TRANSMISSION/TRANSAXLE 7 CR

This course will focus on theory, description and operation of automatic drive systems. This will include diagnosis and troubleshooting hydraulic, electrical/electronic controls and mechanical systems and practicing proper R&R techniques.

AUTO 255

ELECTRICITY/ELECTRONICS 2 7 CR

This course provides an introduction to various electronic systems found on a modern vehicle and a more in-depth study of starting/charging systems. This course will also cover body and chassis control systems such as ABS, body control computers, low tire pressure warning and airbags.

AUTO 259

APPLIED AUTOMOTIVE CONCEPTS III 4 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

AUTO 260

MANUAL TRANSMISSION/DRIVE TRAIN 3 CR

This course will focus on theory, description and operation of manual drive train systems. This course will include clutches, transfer cases and differentials.

AUTO 265

ENGINE PERFORMANCE 2 3 CR

This course covers computerized engine management systems including OBD2 and diagnostic trouble code interpretation.

AUTO 275

ENGINE PERFORMANCE 3 10 CR

This course offers instruction in the operation, diagnosis, and repair of fuel systems, ignition systems and emission control systems including exhaust gas analysis. In addition, there will be more in-depth study of the OBD2 system and how it relates to other systems on the vehicle. This course also includes an introduction to alternative fuel vehicles.

AUTO 279

APPLIED AUTOMOTIVE CONCEPTS IV 4 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

BIOLOGY

BIO 105

ESSENTIALS OF ANATOMY & PHYSIOLOGY 5 CR

The student will develop a basic knowledge of the structure and function of the various body systems. The course emphasizes the essential structure and function of the normal human body, which will serve as a foundation of general understanding for future study in health occupations. Integration of each system to other systems and the whole organism, as well as application of key concepts to health and disease, are emphasized.

BIO 127

DISEASES OF THE HUMAN BODY 4 CR

Introduction to the effects of system diseases on the human body. Course includes discussions of selected diseases, including causes and treatments. Course also includes an overview of principles of pharmacology and description/purposes of selected laboratory tests.

BIOL& 160

GENERAL BIOLOGY WITH LAB 5 CR

This course provides introduction to basic concepts of biology, with an emphasis on the cells as the fundamental unit of life. Topics include cell structure, basic chemical and biochemical concepts, metabolism, cell division, principles of genetics, biological diversity, and methods of scientific inquiry and critical thinking. Course establishes foundation necessary for continued biology study, especially in human anatomy and physiology. Lab included.

PREREQUISITES: Accuplacer score of 86 or higher on sentence skills and 85 or higher on reading

BIOL& 241

HUMAN A & P 1 5 CR

This course emphasizes the structure and function of the normal human body, which will serve as a foundation for future study in allied health fields. Lecture, group discussion, literature and internet research, and laboratory exercises are included. Acquisition of basic knowledge, application, and integration of concepts are emphasized. BIOL& 241 covers anatomical terminology, tissues, and integumentary, skeletal, muscular, nervous, and endocrine systems.

PREREQUISITES: BIOL 160 with a C or above or equivalent

BIOL& 242

HUMAN A & P 2 5 CR

This course emphasizes the structure and function of the normal human body, which will serve as a foundation for future study in allied health fields. Lecture, group discussion, literature and internet research, and laboratory exercises are included. Acquisition of basic knowledge, application, and integration of concepts are emphasized. BIOL& 242 covers circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems. *PREREQUISITES: BIOL& 241 with a "C" or above or equivalent*

BIOL& 260

MICROBIOLOGY 5 CR

Exploration of microbial world with a focus on medical microbiology for students in the health field. Areas of study include classification of microbes, life cycle, metabolism, control, and common infectious diseases of the human body. Laboratory component will demonstrate procedures to identify and control microbes.

PREREQUISITES: CHEM& 121 with a "C" or above or equivalent

BUILDING CONSTRUCTION

BCT 111

CAREER OPPORTUNITIES AND INDUSTRIAL SAFETY 1 CR

This course focuses on the career opportunities available to individuals in the carpentry trade and industrial safety. Topics covered include, career specialties, primary employability skills, work site safety, and responsibilities of both employers and employees.

BCT 112

CONSTRUCTION MATERIALS AND APPLICATION 2 CR

This course focuses on the material used in building construction and application techniques. Topics covered include, wood as a building material, engineered lumber products, and engineered panel products.

BCT 113

HAND TOOL USE AND OPERATIONS 2 CR

This course focuses on the hand tools used by carpenters in building construction. Topics covered include, measuring and marking tools, cutting and shaping tools and tools for assembling and disassembling.

BCT 114

PORTABLE POWER TOOLS USE AND OPERATIONS 4 CR

This course focuses on the proper use of the common portable power tools used by carpenters in building construction. Topics covered include, portable circular saws, drills, routers, surfacing tools, and tool safety

2010-2012 Course Descriptions

BCT 115
STATIONARY POWER TOOL USE AND OPERATIONS 4 CR

This course focuses on the proper use of stationary power tools used by carpenters in building construction. Topics covered include, table saws, miter saws, dado saws, jointers, planers, and tool safety.

BCT 116
BUILDING LAYOUT 3 CR

This course focuses on the knowledge, skills and techniques required to properly layout a building on a site. Topics covered include, basic site layout, types of surveying instruments, setting up batter boards, making square corners, establishing elevations, estimating soil excavations.

BCT 117
CONCRETE & CONCRETE FORMING 2 CR

This course focuses on the knowledge, skills and techniques required to form concrete. Topics covered include, concrete as a building material, concrete ingredients, concrete mixing and reinforcing, and footing and foundation wall forming.

BCT 121
BLUEPRINT READING 4 CR

This course is designed to help the student gain proficiency at reading and interpreting blueprints. Topics covered include, building codes, drawing measurements, notations, and conventions.

BCT 122
FRAMING METHODS - FLOOR FRAMING 4 CR

This course is designed to help the student gain proficiency in the methods used to frame floor structures in light frame construction. Topics covered include, stresses on framing, live loads, dead loads, span tables, balloon-framing, platform-framing, framing for natural hazards, installing post and girders, laying out for and installing plates and joist, laying sub floors, special framing, and material estimation.

BCT 123
FRAMING METHODS - WALL FRAMING 4 CR

This course is designed to help the student gain proficiency in the methods used to frame wall structures in light frame construction. Topics covered include, blueprint reading, interior and exterior walls, layout, assemble, erection, special framing, and material estimation.

BCT 124
FRAMING METHODS - CEILING FRAMING 4 CR

This course focuses on the processes and skills necessary to construct the most common residential roof styles in use in Whatcom County today. Topics covered include roof styles, basic framing, laying out a basic roof frame, the ridge, common rafters, hip and valley rafters, jack rafters, and special framing.

BCT 125
TRUSS ROOF FRAMING 4 CR

This course is designed to help the student gain proficiency in the methods used to frame truss roof structures in light frame construction. Topics covered include roof truss basics, roof truss types and design, handling and installation.

BCT 130
ROOF FRAMING 6 CR

This course focuses on the processes and skills necessary to construct the most common residential roof styles in use in Whatcom County today. Topics covered include roof styles, basic framing, laying out a basic roof frame, the ridge, common rafters, hip and valley rafters, jack rafters, and special framing.

BCT 132
STAIR FRAMING 1 CR

This course focuses on the processes and skills necessary to construct basic stairways. Topics covered include stairway basics, design requirements, layout and installation.

BCT 134
EXTERIOR WALLS AND ROOF COVERINGS 2 CR

This course focuses on the processes and skills necessary to install exterior wall coverings. Topics covered include, siding types, preventing moisture problems, beveled wood siding installation, wood shingle installation and material estimation.

BCT 135
INTERIOR WALL COVERINGS - INSULATION AND TRIM 4 CR

This course focuses on the processes and skills necessary to install exterior wall coverings. Topics covered include, siding types, preventing moisture problems, beveled wood siding installation, wood shingle installation and material estimation.

BCT 136
INTRO TO HOUSE WIRING AND PLUMBING 2 CR

This course is intended to give the student a basic knowledge of the residential electrical system. Topics covered include, replacing an outlet, replacing a switch and replacing a light fixture. This also introduces the students to the basic layout and fixtures for residential dwellings.

BCT 137
ROOF SHEATHING, AND COVERINGS 1 CR

This course focuses on the processes and skills necessary to sheath, cover, and finish out the most common residential roof styles in use today. Topics covered include sheathing methods, roof coverings, flashing, and roof edge details.

BCT 138
EXTERIOR DOORS, WINDOWS AND SKYLIGHTS 3 CR

This course focuses on the processes and skills necessary to install exterior doors. Topics covered include door types and construction, hardware, storage and handling, exterior and interior doors and installation.

BCT 241
CAD DRAFTING FUNDAMENTALS 8 CR

This course introduces the student to computer aided drafting. Topics covered include, CAD drafting, drafting fundamentals, scaling, symbology and conventions.

BCT 242
BUILDING PLAN DRAFTING 8 CR

This course introduces the student to drafting building plans. Topics covered include drawing site plans, floor plans, elevations, building sections and details.

BCT 243
ESTIMATING MATERIALS AND LABOR 5 CR

This course introduces the student to estimating labor requirements from construction documents. Topics covered include square foot costing and unit costing.

BCT 245
PROJECT MANAGEMENT 2 CR

This course introduces the student to the process of project progress tracking. Topics covered include work progression, scheduling, and Gant charting.

BCT 251
INTERNSHIP - BUILDING CONSTRUCTION 9 CR

This course is designed to give the student an opportunity to gain experience working in the construction industry.

BUSINESS & SUPERVISION

BUS 100
ELECTRONIC MATH APPLICATIONS 3 CR

Focuses on the application of the electronic calculator to business transactions and accounting activities. Students will develop speed on the 10-key by touch method.

PREREQUISITES: Accuplacer Score: 50 Math

BUS 125
RECORDS MANAGEMENT AND DATA ENTRY 5 CR

This course is designed to help students learn the key filing rules and best records management practices. This course is also designed to help students learn proper data entry skills and improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement.

PREREQUISITES: CAP 106 or instructor permission

BUS 140
SUPERVISION & MANAGEMENT 3 CR

An introduction to supervision. Course focuses on basic skills in communication, time management, planning, delegation, improving productivity, and the legal aspects of supervision. Practice sessions in communication, interviewing, merit reviews, and termination will be provided.

BUS 141

TOTAL QUALITY MANAGEMENT 2 CR

Total Quality Management, or TQM, is a strategic, integrated management system for achieving customer satisfaction. Course will examine the process, and students will be challenged in devising a plan strategy of how to implement the TQM approach in a variety of organizations.

BUS 150

MATHEMATICS FOR BUSINESS 5 CR

Apply math concepts to business applications such as commissions, banking, payroll, trade and cash discounts, markups, simple interest, taxes, insurance, stocks, bonds, compound interest, depreciation, present value, annuities, and graphs.

PREREQUISITES: Accuplacer Score: 50 Math

BUS 171

TECHNICAL COMMUNICATIONS 5 CR

Course introduces students to effective written and oral business communication through application and study of text. Students will learn to compose effective business writings including letters, memos, research reports, resumes, technical manuals, email, and newsletters. They will also learn to evaluate formatting, grammar, graphics, and general appearance. Students will learn effective presentation and job interviewing skills.

PREREQUISITES: CAP 106 or instructor permission

BUS 184

CUSTOMER SERVICE 3 CR

Excellence in customer service can be the determining factor, no matter the type of service or product, to the success or failure of an organization. Course discusses the basics of customer service, bias in providing quality service, finding the right person, the level of expected service, and defining "who is the customer" when dealing in business relations.

BUS 188

BUSINESS ENGLISH 5 CR

Business English focuses on the improvement of basic grammar and proofreading skills needed to effectively compose and edit written business documents. Standard English grammar rules and proofreading exercises are presented in order of increasing difficulty.

PREREQUISITES: Accuplacer Scores: 71 Reading, 50 Sentence Skills

BUS 200

BUSINESS LAW 5 CR

Demonstrate knowledge of laws affecting businesses. Introduces students to principles underlying the legal environment of business through lectures, classroom activities, and study of text. Students will be exposed to basic information relating to contracts, sales, consumer protection, real property, personal property, and computer laws. *PREREQUISITES: Accuplacer Score: 71 Reading*

BUS 223

INTERNSHIP 3 CR

Internship appropriate to course of study.

PREREQUISITES: Program Advisor permission

BUS 225

INTERNSHIP 6 CR

Students will work in an office-related job receiving pay or volunteering.

PREREQUISITES: Instructor permission

BUS 230

MEDICAL OFFICE PROCEDURES 5 CR

The aim of this course is to educate the student in administrative duties in the medical office. This course teaches computerized medical office procedure as well as exercises in judgment, independent action, and coping with interruptions. In addition to computerized appointment scheduling and billing, the student will learn about the major insurances with ICDA and CPT coding.

BUS 232

OFFICE PROCEDURES 5 CR

Prepares the student for the role of an Office or Administrative Assistant and the broader role as a professional member of the management team. Class exposes the student to the growing influence of information technology, the expanding global marketplace, and the changes in the organizational structure of modern business.

PREREQUISITES: CAP 106 or instructor permission

BUS 280

ASSESSMENT 1 CR

Students will create a portfolio appropriate to their certificate or degree and complete an exit interview with their advisor. Assessments required for a completion certificate or degree will be assigned relative to their certificate or degree.

PREREQUISITES: Instructor permission

CAP 154

COMPUTERIZED ACCOUNTING LEVEL A USING QUICKBOOKS 3 CR

Learn how to use QuickBooks to manage the finances of a small business. Topics include general ledger, accounts receivable, accounts payable, and payroll.

PREREQUISITES: Knowledge of Windows and double entry bookkeeping/accounting

CAP 155

COMPUTERIZED ACCOUNTING LEVEL B USING QUICKBOOKS 3 CR

Students will continue to expand upon their knowledge of accounting principles using QuickBooks, while completing five projects. Projects will consist of common practical applications used in almost any business: inventory control, inventory control using partial piecework, setting up the budget, cost accounting (sample will cover the construction industry using time tracking), and QuickBooks problem solving.

PREREQUISITES: Knowledge of Windows and double entry bookkeeping/accounting

GBUS 110

BUSINESS COMMUNICATIONS 5 CR

Course includes reading, writing, and listening skills, leading effective meetings, use of email as a communication tool, making presentations, and expressing oneself clearly when communicating.

MGMT 100

BUSINESS & PROFESSIONAL ETHICS 3 CR

Current events have brought the concepts of ethics, both in the individual person as well as company practices, to the foreground. This course will discuss and examine, through critical analysis, the concepts and differences in subjects of interest including: secrecy and confidentiality, honesty, interpretation of ethics policies and rules.

CHEMISTRY

CHEM& 121

INTRO TO CHEMISTRY 5 CR

Introductory course for non-science majors, nursing, and environmental science students. Includes basic concepts of inorganic and organic chemistry, the nature of atoms, molecules and chemical bonds, chemical notation, chemistry of solutions, scientific reasoning, and problem-solving in the study of the theory and application of chemistry. Lab work is included.

PREREQUISITES: Prerequisites: MATH 98 - Elementary Algebra with a "C" or above or equivalent

CHEM& 122

INTRODUCTION TO ORGANIC CHEMISTRY 5 CR

This course is a continuation of CHEM& 121 and uses those concepts learned to understand the molecular nature of organic molecules. This survey will include the structure, nomenclature, physical and chemical properties, and the chemical reactions involving aliphatic hydrocarbons, alcohols, ethers, aldehydes, ketones, carboxylic acids and amines. Lab activities compliment theoretical concepts.

PREREQUISITE: CHEM& 121 - Intro to Chemistry with a "C" or above or equivalent

CHILD DEVELOPMENT

ECED 112

BASICS IN CHILD CARE 2 CR

This course provides people beginning their work with young children a basic core knowledge of the child care based on the guidebook, *An Adult Guide to Child Sized Environments*. Topics covered include child growth and development, child guidance, health and safety, communication, business practices for family child care providers, and professionalism. Required for child care directors, site supervisors, lead teachers in center settings, and licensed family child care providers and their assistants.

2010-2012 Course Descriptions

ECED 120

CDA ESSENTIALS 1: INTRO TO ECE/ HEALTH, SAFETY & NUTRITION 4 CR

The first of three courses leading to the Child Development Associates credential (CDA), this course focuses on strategies for teachers in creating and maintaining a wholesome and safe learning environment for children. Each of the CDA courses provides the required skills and knowledge to become a professional teacher of young children and offers guidance for students wishing to apply for the CDA National Credentialing Program for center or home-based settings. Fieldwork is required in addition to coursework and observation/mentoring by the instructor is included. Information gathered in the course can be utilized for creating a portfolio and /or CDA resource file.

PREREQUISITES: Currently working in an early childhood setting (volunteer or paid)

ECED 121

CDA ESSENTIALS 2: CHILD DEVELOPMENT/LEARNING ENVIRONMENTS 4 CR

This course is one of three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course two include children's social and emotional development, physical and intellectual competence, and curriculum development. Fieldwork is required in addition to coursework and observation/mentoring by the instructor is included. Information gathered in the course can be utilized for creating a portfolio and/or CDA resource file.

PREREQUISITES: Currently working in an early childhood setting (volunteer or paid)

ECED 122

CDA ESSENTIALS 3: WORKING WITH FAMILIES/PROFESSIONALISM 4 CR

This course is one of three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course three include family relationships, early childhood professionalism, and curriculum and portfolio development. Fieldwork is required in addition to coursework and observation/mentoring by the instructor is included. Information gathered in the course can be utilized for creating a portfolio and/or CDA resource file.

PREREQUISITES: Currently working in an early childhood setting (volunteer or paid)

ECED 123

PREP FOR CHILD DEVELOPMENT ASSOCIATES (CDA) ASSESSMENT 1 CR

This course will provide detailed information about the assessment processes for center-based family childcare, and home visitor personnel who meet the education and experience requirements for the Child Development Associate credential. Participants will finalize and organize their work in relation to the six CDA Competency Standards and the thirteen Functional Areas.

PREREQUISITES: Currently working in an early childhood setting (volunteer or paid)

ECED 130

THE DEVELOPING INFANT 1.5 CR

Adults and young infants attend this course together in an instructional program that focuses on infant development. Adults and young infants in-

teract together in class. Topics include infant development, play, sleep, nutrition, and health and illness and safety.

ECED 131

APPROACHING TODDLERHOOD 1.5 CR

Adults and older infants attend this class together in an instructional program that focuses on children's development. Developmentally appropriate activities are planned for the adult and older infants to interact together in class. Topics include child development, play, sleep, weaning, discipline, emerging language, health and illness, and safety.

ECED 135-136-137

ADULT/CHILD 1 YR DEVELOPMENT 2 CR

Adults and children attend this course together in an instructional program that focuses on one year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 140-141-142

ADULT/CHILD 2 YR DEVELOPMENT 2 CR

Adults and children attend this course together in an instructional program that focuses on two year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 145-146-147

3 & 4 YR DEVELOPMENT 1.5 CR

Adults and children attend this course together in an instructional program that focuses on preschooler's development. Developmentally appropriate activities are planned for adults and preschoolers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 150-151-152

ADULT/CHILD 4-5 YR DEVELOPMENT 1.5 CR

Adults and children attend this course together in an instructional program that focuses on pre-kindergarten children's development. Developmentally appropriate activities are planned for adults and preschoolers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, health and safety, and school readiness.

ECED 155-156-157

ADULT/CHILD TODDLER DEVELOPMENT 2 CR

Adults and children attend this course together in an instructional program that focuses on caring for and teaching more than one child's development. Developmentally appropriate activities are planned for adults and children from birth to toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 160

POSITIVE DISCIPLINE 1.5 CR

Positive discipline is an interactive class for parents and teachers who want more cooperative, respectful, and joyful relationships with their children and students. Topics include ways to discipline (teach) with kindness and firmness at the same time, to help children achieve self-discipline and problem solving skills, to create an atmosphere of cooperation and mutual respect in the home and classroom, and to reduce power struggles.

ECED 161

EARLY CHILDHOOD STEP 1 CR

Early Childhood STEP is an interactive class for parents & teachers to help develop skills to guide and encourage children as they grow. Topics include information on understanding young children and their behavior, building self-esteem, effective communication, cooperation, discipline techniques, and emotional and social development are discussed.

ECED 162

HOW TO TALK SO KIDS WILL LISTEN 1.5 CR

How To Talk So Kids Will Listen is an interactive class designed to help parents and teachers of toddlers through teens communicate more effectively with children. During this seven week course, specific topics of communication, cooperation, alternatives to punishment, self-image, love and respect.

ECED 170

LOVE & LOGIC PARENTING 1 CR

Based on the highly acclaimed Love and Logic philosophy developed by Jim Fay and Foster Cline, this class unlocks the secrets of successful parenting. Participants in this class will learn the specific "how-to's" of successful parenting, not just theoretical concepts. The discussions and readings will provide parents with specific, tangible skills to use and a mind-set that allows them to develop a loving relationship while setting limits and boundaries.

COMMUNICATIONS

COM 170

ORAL & WRITTEN COMMUNICATIONS 5 CR

This course focuses on the workplace communication skills employees need to send, receive, and process oral and written information. Following a review of writing fundamentals, learners will use principles of communication in occupational and general contexts. Reading, writing, and speaking skills are emphasized. This course meets the communications requirement for AAS degrees and one-year certificates at BTC. Word processing, email, and Internet knowledge required. Text required.

PREREQUISITES: Accuplacer Reading Score of 71 or higher and Sentence Skills Score of 71 or higher or a "C" grade in Engl 092

RDG 085

READING SKILLS 5 CR

This course focuses on developing technical/college-level reading skills, including comprehension, vocabulary in context, locating main ideas, making inferences, outlining, and summarizing content. Students who successfully complete RDG 085 will have met the Accuplacer reading requirement for professional technical program enrollment. Required texts are available at the campus bookstore. Bring texts to first class meeting.

PREREQUISITE: Accuplacer Score of 50 or higher on Reading Comprehension and Sentence Skills score of 50 or higher

CMST& 210

INTERPERSONAL COMMUNICATION 5 CR

Designed to introduce students to the application of basic interpersonal communication theory with a focus on achieving success in the workplace. Topics explored include self-awareness, self-disclosure, conversation skills, relationship development and maintenance, assertiveness, teamwork and group dynamics, conflict management strategies, and diversity issues.

PREREQUISITES: Accuplacer Reading score of 71 or higher and Sentence Skills of 71 or higher

COMPUTERS

CAP 101

INTRODUCTION TO COMPUTERS 5 CR

Introduces use of the personal computer while working in a Microsoft Windows environment. Includes a basic introduction to Excel, Word, and PowerPoint. Students will become familiar with the basic computer hardware components, Internet use, and Windows use. This course will help prepare students for the IC3 certification exam. CAP 199 may be accepted in place of CAP 101.

PREREQUISITES: Accuplacer Score: 71 Reading or instructor permission

CAP 105

COMPUTERIZED TOUCH KEYBOARDING 2 CR

A touch typing course for beginners as well as those needing to brush up on their keyboarding skills. Course covers learning to type alphabetical keys by touch using proper technique.

CAP 106

FORMATTING WITH MS WORD 4 CR

Provides skillbuilding, production typing, and Microsoft Word fundamentals at the beginning or review level. Students use MS Word to format letters, memos, reports, and tables.

PREREQUISITES: CAP 105 or instructor permission

CAP 107

COMPUTERIZED KEYBOARDING/SKILL BUILDING 3 CR

Designed to help students improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement.

PREREQUISITES: CAP 106 or instructor permission

CAP 109

COMPUTERIZED KEYBOARDING SKILLBUILDING II 3 CR

Designed to help students to further improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement.

PREREQUISITES: CAP 107 or instructor permission

CAP 138

MS WORD 5 CR

Students receive hands-on instruction using the commands and features of MS Word to create simple to complex business documents.

PREREQUISITES: CAP 101

CAP 142

MS EXCEL 5 CR

This course provides a practical hands-on approach to developing the skills to use the powerful spreadsheet application, MS Excel. Students will use Excel to organize and analyze data, perform numerical calculations, and illustrate relationships in numerical data by displaying charts.

PREREQUISITES: Accuplacer Scores: 50 Math, CAP 101 or CAP 199, BUS 100 or BUS 150 or instructor permission

CAP 146

MS ACCESS 5 CR

Table design, relationships, filters, queries, forms, and reports will be introduced. Students will apply skills to database projects.

PREREQUISITES: CAP 101

CAP 148

MS POWERPOINT 3 CR

Presents an overview of a presentation graphics program. Students will create and present a slide show projected from their computer.

PREREQUISITES: CAP 101

CAP 150

PROJECT LEVEL 1 1 CR

Using Project 2007 you will create a project plan file and enter task information, create a work breakdown structure, assign project resources, and finalize the project plan file.

CAP 151

PROJECT LEVEL 2 1 CR

Using Project 2007, you will exchange and update project plan data with other applications, create custom reports, reuse project plan information, and collaborate on project plans with other students.

CAP 200

INTEGRATED COMPUTER APPLICATIONS 5 CR

Students will apply their skills learned in the previous courses to produce professional-looking documents by integrating word processing, spreadsheet, database, and presentation graphics programs. Students will prepare a professional portfolio for use in future job search opportunities.

PREREQUISITES: CAP 138, CAP 142, CAP 146 & CAP 148 or instructor permission

CIS 145

WEBSITE DEVELOPMENT 5 CR

An introduction to HTML, graphics, and other programming languages for use in web pages. Students will learn the use of programming editors, preparation of graphics, content development, and page layout.

PREREQUISITES: CAP 101, or CAP 199 or instructor permission

CIS 160

COMPUTER USER SUPPORT I 5 CR

Course provides an overview of topics relevant to working at a help desk. Students will learn computer user support skills and strategies, including problem solving, customer service, and call tracking.

PREREQUISITES: CAP 101 or CAP 199

CIS 251

SCRIPT PROGRAMMING 5 CR

Course provides computer script design and development. Various introductory script programming concepts and techniques will be taught.

PREREQUISITES: CAP 101 or CAP 199

CIS 276

INTERNSHIP 6 CR

Students will arrange to work in an office, solving computer software, hardware or operating system problems for users. It may be paid or unpaid 180 hours of work experience.

PREREQUISITES: Instructor permission

IT 102

IT ETHICS AND CAREERS 5 CR

Ethics issues and career options for computer professionals will be explored through research and simulated IT enterprises. Topics include intellectual property rights, respecting privacy, avoiding harm to others, IT career paths, and IT workplace environments.

PREREQUISITES: CAP 101 and either IT 160, IT 140, or IT 141

IT 112

PC HARDWARE A+ 8 CR

This course prepares the student to understand, install, configure, upgrade, troubleshoot, and repair PC hardware components. Course material parallels the CompTIA A+ Essentials certification objectives for hardware.

PREREQUISITES: CO-REQUISITE CAP 101 or instructor permission

IT 121

INTRODUCTION TO PROGRAMMING 5 CR

This course introduces students to the fundamentals of good program design, coding, testing, and documentation. Students will learn to employ good user interface design, standardization and variable naming, decision operators, looping mechanisms, subroutines and error handling as they build their own programs.

PREREQUISITES: CO-REQUISITE CAP 101 or instructor permission

2010-2012 Course Descriptions

IT 140

COMMAND LINE OPERATING SYSTEMS 5 CR

This course is designed to give students a solid understanding of the basic functions of operating systems by learning the Windows and Unix command line. Students will learn navigation, file manipulation, and redirection commands so that they can build useful batch scripts by the end of the course.

PREREQUISITES: CO-REQUISITE CAP 101 or instructor permission

IT 141

OPERATING SYSTEMS A+ 8 CR

This course prepares the student to install, maintain, and troubleshoot Windows operating systems. Course material parallels the CompTIA A+ IT Technician certification objectives for operating systems.

PREREQUISITES: CO-REQUISITE CAP 101 or instructor permission

IT 142

CLIENT/DESKTOP OPERATING SYSTEMS II 10 CR

Designed to facilitate in-depth study of a Client computer operating system found commonly in the business environment. Areas of study include installation, configuration, troubleshooting, deployment, and networking.

PREREQUISITES: CAP 101 and either IT 140, IT 141, or IT 160

IT 160

NETWORKING TECHNOLOGIES 8 CR

The goal of this course is to provide students with a background in networking technologies and prepare students to pass CompTIA's broad-based, vendor-independent networking certification exam, Network+. This course covers a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. It not only introduces a variety of concepts, but also discusses in-depth the most significant aspects of networking, such as the TCP/IP protocol suite.

PREREQUISITES: CO-REQUISITE CAP 101 or instructor permission

IT 210

NETWORK SECURITY FUNDAMENTALS 10 CR

This course provides a comprehensive overview of network security through lecture, extensive hands-on, and research projects. Topics covered include general security concepts, communication security, infrastructure security, cryptography, access control, authentication, external attack, and operational and organizational security.

PREREQUISITES: IT 160, IT 112, IT 140

IT 220

NETWORK COMMUNICATION INFRASTRUCTURE 5 CR

In this hands-on practicum students learn the components of structured data communications cabling systems; OSI Layers 1, 2 and 3 hardware components; and how to install and configure them.

PREREQUISITES: IT 160

IT 240

UNIX ADMINISTRATION & CONFIGURATION 10 CR

This course introduces students to system administration fundamentals of the Unix operating system. Using Linux, students learn to install and configure the O/S using system text files, use the common GUIs, configure networking, administer user accounts and permissions, define the user environment, and monitor system resources, processes and usage.

PREREQUISITES: IT 140 and IT 141 or IT 142

IT 242

WINDOWS SERVER ADMINISTRATION 5 CR

Covers installation, configuration, and system administration of Windows server. Topics include managing accounts, groups, folders, and files; object security; Active Directory; DFS; Disk quotas; server monitoring and optimization; and troubleshooting.

PREREQUISITES: IT 160

IT 243

WINDOWS SERVER NETWORK INFRASTRUCTURE 5 CR

This course covers managing and maintaining a Windows Server network infrastructure. Students will learn how to install, configure, and troubleshoot TCP/IP, DHCP, DNS, routing and remote access, and VPNs. Students will also learn to monitor traffic, troubleshoot connectivity, implement secure network administration procedures and resolve service issues on a Windows Server.

PREREQUISITES: IT 242

IT 261

ADVANCED TOPICS IN NETWORKING I 5 CR

This course allows for specialized or in-depth study of an advanced computer networking topic. Example topics may include: Microsoft SQL Server, Apache Web Server, Internet Information Server, Microsoft Exchange Server, computer forensics.

PREREQUISITES: IT 240 and IT 242

IT 262

ADVANCED TOPICS IN NETWORKING II 5 CR

This course allows for specialized or in-depth study of an advanced computer networking topic. Example topics may include: Microsoft SQL Server, Apache Web Server, Internet Information Server, Microsoft Exchange Server, computer forensics.

PREREQUISITES: IT 240 and IT 242

IT 270

INTERNSHIP 9 CR

Students will work in their new career field applying the new skills and being mentored and evaluated by industry professionals. The internship will provide exposure to a typical work environment, opportunities for customer interaction skill development and an opportunity to make connections with professionals already working in the field.

PREREQUISITES: CO-REQUISITE: IT 261 or IT 262 and instructor permission

IT 272

CAPSTONE PROJECT 5 CR

Students will complete a capstone project integrating skills developed throughout the program. The student will make a written proposal for the project, stating milestones and deliverables and upon completion, will demonstrate the project in an oral presentation, as well as provide written documentation about the project.

PREREQUISITES: CO-REQUISITE: IT 261 or IT 262 and instructor permission

CONSTRUCTION MANAGEMENT

CONST 100

COMPUTERS IN CONSTRUCTION 3 CR

This course provides an overview of Microsoft Office 2007 and how it can be used in the field of Construction Management. You will learn how to create and modify Word documents, use formulas and charts in Excel, develop and maintain Access databases, run reports with Access, and produce a professional presentation using PowerPoint. (Note: CAP 101 Introduction to Computers may be substituted for CONST 100.)

CONST 120

BUILDING GREEN 3 CR

Introduction to "green building". This course will provide an overview of the definitions, purposes, and components of existing programs and standards. course will present and compare the specific individual elements of green construction site development, building design, construction methods and materials, project management, quality assurance, certification and compliance, and the "integrated design" concepts and approaches of several recognized certification programs. special attention will be directed to changing and emerging technical skills and job opportunities being created by green building.

CONST 141

BLUEPRINT READING 3 CR

This course provides an introduction to reading and interpreting architectural drawings, layout, terminology, graphic standards and drafting fundamentals. Students learn how to locate information and cross reference with details, schedules, and specifications for clarification.

CONST 200

BASIC ESTIMATING 3 CR

This course introduces students to the world of construction estimating and bidding including basic concepts, procedures, and terminology. Students will learn quantity take-off and pricing techniques, along with scope of work issues and costs associated with the major components of a construction project.

CONST 201

CONTRACTS AND CONSTRUCTION LAW 3 CR

This course provides an introduction to construction law specific to the residential and small commercial construction industry. The course focuses on contracts and subcontracts, business law basics, and construction law fundamentals.

**CONST 220
PROJECT PLANNING
AND SCHEDULING 3 CR**

Students will use the critical path method (CPM) for planning and scheduling a construction project. They will develop and manipulate a computerized schedule for a construction project using the Microsoft Project software application.

**CONST 250
SAFETY AND
ACCIDENT PREVENTION 3 CR**

Important WISHA/OSHA regulations that pertain to the construction industry will be covered along with accident prevention. Students will learn how to recognize hazards, implement safe work practices, create work rules, communicate expectations, and make job-site safety inspections.

**CONST 251
SAFETY PLAN ADMINISTRATION 3 CR**

This course will focus on job-site safety and potential liability for general contractors. Students will learn about management systems, procedures, and documentation that address WISHA requirements. Students will also learn how to provide a safe working environment. The effective integration of safety into management systems will be stressed.

PREREQUISITES: CONST 250 or instructor's permission

**CONST 260
CONSTRUCTION PROJECT
MANAGEMENT 3 CR**

Students will learn about management concepts and techniques relevant to construction project organization, supervision, and inspection. The course will cover communication systems, contract documents, record keeping, dispute resolution, quality assurance, and schedule management.

**CONST 280
BUILDING CODES 3 CR**

This course provides an introduction to the International Building Code and applicable parts of the IRC including content, format, and application of building codes. In addition students will learn about definitions, administration, general requirements, occupancy classification, types of construction, and fire and safety requirements.

CULINARY ARTS**CUL 110
SANITATION 3 CR**

This course provides students with understanding and practice of the principles of sanitation in order to maintain a safe and healthy environment for the consumer in the food service industry. Laws and regulations related to current FDA food code and adherence to them in the food service operation are addressed. ServeSafe course text and national certification examination are required.

**CUL 112
INTRODUCTION TO THE
HOSPITALITY INDUSTRY 4 CR**

This course provides a background and history of the hospitality industry and introduces the student to the broad spectrum of hospitality/food service organizations and career opportunities, cooking equipment, and hand tools utilized in the culinary arts industry. Safety Laws, regulations, and sound safety practices in the food service operation are addressed. Students must demonstrate safe equipment knowledge and operation. Introduction to weights and measures, their use in recipes, and recipe conversions are covered as well.

**CUL 114
CULINARY SKILL DEVELOPMENT I 7 CR**

This course focuses on the foundational cooking techniques utilized in the culinary industry. Topics of study include basic *mise en place* skill development, foundational cooking methods, related terminology and additional foundational cooking preparations. Theory and lab topics include focus on meat cookery; the preparation of stocks, classical and contemporary mother sauces and derivative sauces, and the application of herbs, spices, and flavorings used in the professional kitchen today. Weekly labs provide students time to practice these foundational skills.

PREREQUISITES: CO-REQUISITE CUL 110 and CUL 112

**CUL 116
MEAT IDENTIFICATION
AND FABRICATION 4 CR**

This course provides an introduction to basic identification and use of hand of tools and equipment in meat and fish fabrication. Activities include composition, skeletal structures, muscle types and fabrication of meats, poultry, and seafood. Students will apply basic yield analysis, portion cost calculations, purchasing and receiving, basic cooking methods, inspection and USDA regulations, sanitation, and hygiene.

PREREQUISITES: CO-REQUISITE CUL 110 and CUL 112

**CUL 120
INTERNATIONAL CUISINE 5 CR**

This course provides students with practical experience in the preparation and service of foods from international countries and regions. Emphasis is placed on eating habits, ethnic influences, indigenous foods and customs, cooking methods used, traditional equipment, and each region's overall influence on today's restaurant market. Weekly participation in theme buffet production enhances students' technical skills.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, and CO-REQUISITE CUL 124

**CUL 122
CULINARY SKILL DEVELOPMENT II 7 CR**

This course is a continuation of Culinary Skill Development I, with study and practice focused on soups, salads, salad dressings, nuts, fruits, potatoes, grains, dry legumes, pasta preparations, sandwiches, cheese and dairy products, eggs and breakfast cookery and vegetarian cookery. Theory topics include common market forms, yield study and costing analysis, purchasing, receiving, han-

dling and storage of these foundational food products. Through weekly labs students will practice applying foundational cooking methods to these food products.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116

**CUL 124
BANQUET AND CATERING
MANAGEMENT 3 CR**

In Banquet and Catering Management students will learn the fundamentals skills and knowledge needed to set-up and run banquet and catering events. Theory subjects include plated and buffet banquet menus, buffet layout and design, catering contracts, event planning, organization, staffing, home meal replacement, private and personal chef industry, optional services and pricing formats. Weekly buffets provide hands on experience setting up and managing a full service banquet event.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116 and CO-REQUISITE CUL 120

**CUL 140
GARDE MANGER 6 CR**

In the Garde Manger course students plan, prepare, execute, and present cold foods and culinary salon work while applying fundamental cooking and garnishing methods. Production includes refined techniques such as canapés, hors d'oeuvres, amuse bouche, curing, smoking, pickling, cold foods, salt dough sculpture, ice sculpture, and tall sculptures.

PREREQUISITES: CUL 122, CUL 124

**CUL 142
NUTRITION 3 CR**

This course provides students with an introduction to nutrition, cultural food pyramids, including nutritive value of foods, factors influencing body food requirements, their importance in promoting health and preventing disease, and the body processes and their relation to total nutrition. We will examine nutritional requirements throughout the human life cycle with attention to retaining nutritive values through the cooking process.

PREREQUISITES: CUL 112

**CUL 144
INTRODUCTION TO À LA CARTE
COOKERY 5 CR**

This course provides a practical introduction to the à la carte kitchen. Theory and lab practice topics include station set-up and organization, food preparation planning sheets, portion control, timing, temperature control, teamwork, communication, productivity skills, and sanitary production skills. Weekly participation as a commis in an à la carte restaurant provides students with the opportunity to refine fundamental culinary skills and develop a la minute production skills.

PREREQUISITES: CUL 120, CUL 122

2010-2012 Course Descriptions

CUL 150

CULINARY ARTS INTERNSHIP 9 CR

Students may elect to work in a pre-designated professional kitchen where they will successfully apply cooking skills and knowledge.

PREREQUISITES: CUL 120, CUL 140, CUL 142, and CUL 144

CUL 152

CULINARY ARTS TEAM COMPETITION 9 CR

Students may compete for one of five positions to represent Bellingham Technical College's Culinary Arts program in the Washington State American Culinary Federation student team competition.

PREREQUISITES: CUL 120, CUL 140, CUL 142, and CUL 144

CUL 212

BREADS, COOKIES, TARTS, AND PUFF PASTRY 7 CR

Students learn the theory of chemically-leavened products such as quick breads and cookies; yeast-leavened products such as breads and laminated doughs; and steam-leavened products such as puff dough, choux pastry, and decorative tarts. Students' quick bread production will include muffins, scones, and biscuits. Cookie production will include bar, rolled, cut, piped, tuille, florentine, and snap. Bread and laminated dough products will include European yeast breads, flat breads, crackers, ciabatta, focaccia, croissants, danish, and brioché. In addition, students will produce French pastry including puff pastry (pâté feuilletée), choux pastry, tarts, fruit strudels, and phyllo dough.

CUL 214

PIES, CAKES, AND RESTAURANT DESSERTS 7 CR

Students learn the theory of creating pies, cakes, petit fours, and individual restaurant desserts. Students' pie production will include fruit, cream, chiffon and custard, using different doughs and fillings. Cake production will focus on two-stage, sponge, and meringue-based methods to create a variety of filled and decorated cakes such as multi-layered tortes and charlottes. In addition, students will produce restaurant desserts to order, while learning about organization, assembly, component development, decoration, and menu creation.

CUL 216

INTRODUCTION TO CHOCOLATES AND SUGAR WORK 3 CR

Students learn about chocolate and its wonderful use in the pastry world. Upon completion, they will be able to temper chocolate couverture, use tempered chocolate for dipping and molding, produce a variety of chocolate decorations, and make chocolate truffles. In addition, students will explore the proper methods for working with sugar and create basic decorative sugar work such as spun sugar, sugar cages, caramels, brittles, and Italian meringue displays.

CUL 220

RESTAURANT MANAGEMENT 7 CR

In this course students apply advanced issues related to business and operations management. They plan and develop menus, kitchen design,

dining room lay-out, point-of-sale operations, and business projections, while utilizing a variety of computer programs.

PREREQUISITES: CAP 101, COM 170, CUL 112, CUL 124, MATH 100

CUL 222

HOSPITALITY SUPERVISION 4 CR

In this course students gain an overview of specific concepts necessary to successfully utilize human resources in a food service environment. Lectures on selected topics, student projects, and assignments related to workplace activities form the majority of the material presented.

PREREQUISITES: COM 170 or CO-REQUISITE CMSI 210

CUL 224

FOOD AND BEVERAGE SERVICE 3 CR

This course is based on dining room operations and table settings to meet a wide variety of service styles. Students learn the principles of front-of-the-house operations, point-of-sale systems, and guest relations, along with foundational information about wine including the history of wine, production characteristics, laws, and purchasing and storage requirements. Types, styles, service and state laws regarding alcoholic and non-alcoholic beverages service will also be discussed. Upon completion, students will be able to determine which wines compliment various cuisines and particular tastes.

PREREQUISITES: Successful completion of first 5 quarters of the Culinary Arts curriculum, CUL 120, CUL 150 or 152, CUL 212, CUL 214, CUL 216

CUL 230

AMERICAN REGIONAL A LA CARTE COOKERY 9 CR

This course provides students with an opportunity to apply the vast majority of the culinary arts curriculum as they rotate through several stations in the à la carte restaurant kitchen. They become familiar with the theory and lab responsibilities involved in setting up and running an à la carte restaurant station including food preparation, planning sheets, organization, portion control, timing, temperature control, teamwork, communication, productivity and sanitary production skills. In addition students supervise first year student commis, practice expeditor skills including coordinating and controlling the flow of finished menu items from the station chefs, while working closely with student service staff and maitre d'positions.

PREREQUISITES: Successful completion of first 5 quarters of the Culinary Arts curriculum, CUL 120, CUL 150 or CUL 152, CUL 212, CUL 214, CUL 216

CUL 232

FOOD AND BEVERAGE SERVICE LAB 4 CR

In this course students apply service skills, knowledge, guest relations, table side cookery, point-of-sale operations, cash handling, reservations, seating, and greeting, in Café Culinaire. The students are responsible for excellent customer service under all conditions. Students work in various dining room positions at Bellingham Technical College's

Café Culinaire such as; maitre d', front server, and back server.

PREREQUISITES: Successful completion of first 5 quarters of the Culinary Arts curriculum, CUL 120, CUL 150, CUL 212, CUL 214, CUL 216 and CO-REQUISITE: CUL 224

CUL 234

CAPSTONE PROJECT AND PRACTICAL EXAM 3 CR

This course, which includes a formal written examination, is designed to review the student's overall knowledge and skill level at the completion of all course requirements. There are two major elements--theory and practice. Students complete a five-course gastronomie for service tasting and formal menu presentation, while employing costing, planning and leadership throughout.

PREREQUISITES: Successful completion of first 5 quarters of the Culinary Arts curriculum, CUL 120, CUL 150, CUL 212, CUL 214, CUL 216

DENTAL ASSISTING

DEN 100

INTRODUCTION TO DENTAL ASSISTING 1 CR

This course orients the student to the College and Program policies, procedures, standards, materials and resources. The student will be introduced to the role of dental assisting within the field of dentistry and to the historical, legal, and ethical issues relating to dental assisting.

DEN 105

HEAD AND NECK ANATOMY 2 CR

This course provides an introduction to the structure of the head and neck region. Emphasis on anatomical structures of the skeletal, muscular, nervous, cardiovascular, and digestive systems as it pertains to the head and neck. Also includes an overview of microbiology and disease.

DEN 110

DENTAL FOUNDATIONS 5 CR

This course provides the students with the foundation necessary to enter into the Bellingham Technical College Dental Clinic. The student will gain knowledge and skills required to maintain a safe dental environment. Also included are federal and state regulations regarding chemical use and infection control in the dental office. This course introduces basic concepts of radiology. Students learn how to evaluate need for x-rays including: exposing, processing and mounting intraoral radiographs.

DEN 112

CHAIRSIDE ASSISTING 7 CR

This course provides the students with the knowledge and skills needed to operate and maintain typical equipment found in a dental operator. The student will gain an understanding of the design, function and maintenance of hand pieces, dental instruments and the dental unit water/vacuum line. This course will also focus on the theory and delivery of basic dental assisting skills, such as dental ergonomics, principles of team positioning, instrument transfer, and oral evacuation.

DEN 114

DENTAL SCIENCES**4 CR**

This course focuses on related biomedical sciences that are the foundation of the Dental Assisting curriculum. Course content includes basic oral embryology and histology and tooth morphology. Concepts of oral pathology and oral inspection will be introduced.

DEN 115

DENTAL CLINIC PRACTICUM I**6 CR**

This clinical practicum course provides a clinical introduction for the student. Students will be assigned to a variety of weekly clinical responsibilities. They will begin their duties with a mentor and eventually move to independent competencies. Students will gain hands-on experience in front office, clinical coordination, darkroom techniques, bitewing x-ray exposure, patient management, and sterilization.

DEN 120

PATIENT ASSESSMENT**8 CR**

This course provides the student with the level of knowledge and skills required for the Dental Assistant to accurately collect and assess patient data. The student will have the opportunity to learn and practice the skills associated with collecting a health history, obtaining vital signs, assisting with medical emergencies, and assisting the Dentist in the diagnostic stages of dental treatment. Pharmacology and anesthesia will be presented as it relates to dentistry and oral health. This course also includes an introduction on dental office administration, concentrating on specific job duties in the Bellingham Technical College Dental Clinic.

DEN 122

CHAIRSIDE ASSISTING II**6 CR**

This course provides the student with appropriate skills to perform routine dental procedures. Instruction will include the use and manipulation of dental instrument setups, restorative materials, isolation techniques and how to effectively transfer instruments when assisting in a dental procedure.

DEN 124

RADIOGRAPHY**3 CR**

This course is intended to introduce basic concepts of radiography and build on those skills and theoretical knowledge. Students will learn to correctly and safely evaluate need for x-rays, and expose, process, and mount intraoral and extraoral radiographs utilizing a variety of techniques and with a variety of patient situations including pedodontics, edentulous, and extraoral situations.

DEN 125

DENTAL CLINIC PRACTICUM II**4 CR**

This clinical practicum course is intended to provide the student with actual patient care experience in the on-campus clinic for the purpose of implementation of the course clinical competencies. Students will be assigned to a variety of clinical responsibilities weekly. The course will identify the clinic competencies that must be successfully demonstrated in order for the student to advance to DEN 135. Actual hands-on experience in front office, clinical coordination, and assisting func-

tions with the clinic Dentist and Dental Hygienist will be facilitated by the instructional staff in the Bellingham Technical College Dental Clinic.

DEN 130

PREVENTIVE DENTISTRY**3 CR**

This clinical practicum course is intended to provide the student with actual patient care experience in the on-campus clinic for the purpose of implementation of the course clinical competencies. Students will be assigned to a variety of clinical responsibilities weekly. The course will identify the clinic competencies that must be successfully demonstrated in order for the student to advance to DEN 135. Actual hands-on experience in front office, clinical coordination, and assisting functions with the Clinic Dentist and Dental Hygienist will be facilitated by the instructional staff in the Bellingham Technical College Dental Clinic.

DEN 132

DENTAL SPECIALTIES**1 CR**

This course provides the student with the knowledge and skills of the dental specialties; Prosthodontics, Oral Surgery, Orthodontics, and Pedodontics. This course will also instruct the student on the expanded duty of polishing restorations.

DEN 134

LABORATORY PROCEDURES**2 CR**

This course enables students to develop skills in the use and manipulation of dental materials and lab equipment. Taking, pouring, separating, trimming, and finishing study models and preparing custom trays and bleach trays will be included in this course.

DEN 135

DENTAL CLINIC PRACTICUM III**4 CR**

This clinical practicum course is a continuation of DEN 125. It provides hands-on experience required for front office, clinic coordination, and assisting functions with the Clinic Dentist and Dental Hygienist. The student must successfully demonstrate the advanced clinic competencies in order to be eligible to participate in the extramural experience.

DEN 137

EXTRAMURAL PRACTICUM**8 CR**

This course allows students to apply knowledge, skills, and professionalism gained in the Dental Assistant Program. Expected behaviors regarding office policies, record keeping, and evaluation procedures, as an employee and team member, are explored. Ethical and legal concerns are also addressed. Students are then placed in a variety of local dental offices where they apply skills related to basic chairside, oral hygiene, and operative dentistry.

DENTAL HYGIENE

DHYG 112

DENTAL HYGIENE**CLINICAL PRACTICE I****5 CR**

First of six sequential courses designed to provide clinical skills essential for the practice of dental hygiene. Skill development of patient appraisal, basic instrumentation, infection control and individualized preventive care is emphasized.

DHYG 113

RESTORATIVE DENTISTRY I**4 CR**

A study of materials used in dentistry including practical applications and chairside assisting. Study includes general properties, composition, and manipulation of common dental materials. Ethical situations pertaining to treatment planning and the use of dental materials by dental hygienists.

DHYG 114

PRINCIPLES OF DENTAL HYGIENE I**3 CR**

First of seven sequential courses providing theoretical background and skill development for the clinical practice of dental hygiene. Problem solving and critical thinking related to patient assessment and management. Communication skills and professionalism emphasized.

DHYG 115

ORAL & DENTAL ANATOMY**4 CR**

Integrated anatomy, histology, and physiology of the head and neck region. Crown anatomy, root morphology and tooth development as applied to clinical situations.

DHYG 116

ORAL RADIOLOGY I**4 CR**

Theoretical background and practical application of dental radiography. Exposure techniques, processing, mounting, and evaluation of dental radiographs; principles of production; use of x-radiation; radiation safety procedures; and patient education.

DHYG 122

DENTAL HYGIENE CLINICAL PRACTICE II**5 CR**

Theoretical background and practical application of dental radiography. Exposure techniques, processing, mounting, and evaluation of dental radiographs; principles of production; use of x-radiation, radiation safety procedures; and patient education.

DHYG 123

RESTORATIVE DENTISTRY II**4 CR**

Properties of restorative dental materials. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts.

DHYG 124

PRINCIPLES OF DENTAL HYGIENE II**3 CR**

Sequential course providing theoretical background for the practice of dental hygiene. Problem solving and critical thinking related to patient assessment and management.

DHYG 125

GENERAL PATHOLOGY**4 CR**

Reaction of the human body to injury from physical, chemical, and biological agents. Inflammation, necrosis, cellular degeneration, disturbances of growth, circulation, and neoplasia. Selected diseases manifesting typical symptomology.

2010-2012 Course Descriptions

DHYG 126

ORAL RADIOLOGY II 2 CR

Oral radiographic techniques for patients with special needs: extroral and occlusal projections. Interpretation of potential pathology and recognition of common dental restorative materials. Refinement of exposure techniques and evaluation. Coordinates with DHYG 122.

DHYG 127

PHARMACOLOGY 3 CR

The action of selected pharmaceutical agents. Emphasis on drug interactions, routes of administration, and effects on body systems. Recognition of potential impact on dental hygiene practice.

DHYG 132

DENTAL HYGIENE CLINICAL PRACTICE III 6 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

DHYG 133

RESTORATIVE DENTISTRY III 2 CR

Properties of restorative dental materials and case studies for student clinic preparation. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts and clinic patients.

DHYG 134

PRINCIPLES OF DENTAL HYGIENE III 3 CR

Sequential course providing theoretical background for the clinical practice of dental hygiene. Emphasis on patient education and treatment planning related to patients' age and stage. Nutrition and relationship to oral diseases.

DHYG 138

PERIODONTOLOGY 3 CR

Study of the periodontium emphasizing periodontal diseases, their classifications, and the etiological factors involved. Preventive measures within the scope and responsibility of the Dental Hygienist are correlated with basic sciences and clinical aspects of periodontal diseases.

DHYG 142

DENTAL HYGIENE CLINICAL PRACTICE IV 6 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

DHYG 143

RESTORATIVE DENTISTRY IV 2 CR

Properties of restorative dental materials and case studies for student clinic preparation. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts and clinic patients.

DHYG 144

PRINCIPLES OF DENTAL HYGIENE IV 3 CR

Sequential course providing theoretical background of dental hygiene skills. Literature review and research reports, oral cancer, and tobacco cessation emphasized.

DHYG 145

COMMUNITY ORAL HEALTH I 4 CR

A systematic approach to developing community oral health programs. surveillance systems, epidemiology charts, and Health People 2010. Team work activities, water fluoridation, sealants, fluoride rinse programs, varnish, and mouthguards. Lesson plans. Steps in program planning. Health education theories.

DHYG 146

MEDICAL & DENTAL EMERGENCIES 3 CR

Equipment, drugs, signs and symptoms of medical emergencies that may occur in dental offices. Individual and team practice in carrying out emergency procedures in timed simulations: pulse, respiration, blood pressure, emergency drug setup, oxygen, rescue CPR, and AED.

DHYG 149

PAIN MANAGEMENT 4 CR

Exploration of pain control methods including local anesthesia and nitrous oxygen analgesia. Health history evaluation, local and systemic complications, anesthetic solutions, vasoconstrictors and drug interactions is learned. Techniques of local anesthesia, including block and infiltration techniques are practiced. Administration of nitrous oxide is also practiced.

DHYG 212

DENTAL HYGIENE CLINICAL PRACTICE V 8 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

DHYG 213

RESTORATIVE DENTISTRY V 1 CR

Properties of restorative dental materials and case studies for student clinic preparation. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts and clinic patients.

DHYG 214

PRINCIPLES OF DENTAL HYGIENE V 3 CR

Sequential course providing theoretical background of dental hygiene skills. Quality assurance, advanced instrumentation theory, periodontal files, planning dental hygiene treatment for special needs patients. Research paper, case studies.

DHYG 215

COMMUNITY ORAL HEALTH II 4 CR

Assessment indices, dental hygiene diagnosis. Program planning, funding and budgets, and legislation. Cultural issues in public health.

DHYG 219

ORAL PATHOLOGY 3 CR

A study of oral diseases and manifestations of systemic diseases. Utilizes independent learning and internet resources.

DHYG 222

DENTAL HYGIENE CLINICAL PRACTICE VI 8 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

DHYG 223

RESTORATIVE DENTISTRY VI 2 CR

Properties of restorative dental materials and case studies for student clinic preparation. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts and clinic patients.

DHYG 224

PRINCIPLES OF DENTAL HYGIENE VI 3 CR

Sequential course providing theoretical background of dental hygiene skills. Ethics and jurisprudence, current therapeutic trends, insurance coding, scheduling and patient recall, hygiene assisting, and record keeping.

DHYG 225

COMMUNITY ORAL HEALTH III 2 CR

Implementation of community program. Evaluation of program, workforce issues, and statistics. Board review.

DHYG 228

ORAL THERAPY 3 CR

Philosophy and theoretical background of advanced periodontal therapy. Soft tissue management planning. Periodontal surgery techniques. Management of other oral conditions such as implants and supportive perio therapy.

DHYG 229

DENTAL HYGIENE SEMINAR 1 CR

Review and practice for the National Dental Hygiene Board Examination.

DHYG 232

DENTAL HYGIENE CLINICAL PRACTICE VII 7 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

DHYG 233

RESTORATIVE DENTISTRY VII 1 CR

Properties of restorative dental materials and case studies for student clinic preparation. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts and clinic patients.

DHYG 234

PRINCIPLES OF DENTAL HYGIENE VI 3 CR

Sequential course providing theoretical background of dental hygiene skills. Focus is to meet needs of graduating dental hygiene students: current therapeutic trends, research, career opportunities, job search strategies financial planning, guest speakers, dental practice act, licensure requirements, and application for board examinations. Specialized clinical skills.

DENTAL: EXPANDED FUNCTION AUXILIARY

EFDA 100

DENTAL ANATOMY 1 CR

This course will provide students with terminology and features of the dentition and oral cavity. Emphasis will be on detailed study of each permanent and primary tooth in order to prepare students for restoring harmonious function and form.

PREREQUISITES: Admission to the EFDA program

EFDA 101

RESTORATIVE DENTISTRY I 3 CR

This course covers foundational knowledge in dental materials science. These principles will be specifically applied to amalgam and composite restorations. This course will be intense to allow us to begin placing restorations in the companion lab course EFDA 102 as soon as possible.

PREREQUISITES: Admission to the EFDA program

EFDA 102

RESTORATIVE DENTISTRY II 2 CR

This course will introduce students to the manipulations and placement of restorative materials. Students will apply concepts from dental anatomy and materials science to restorative procedures.

PREREQUISITES: Admission to the EFDA program

EFDA 110

PRINCIPLES OF DENTAL ASSISTING 2 CR

This course will provide students with the knowledge and skills to perform certain EFDA procedures under general supervision. Students will be familiar with legal and ethical aspects of dental practice and be versed in common medical conditions and pharmacology.

PREREQUISITES: EFDA 100

EFDA 111

RESTORATIVE DENTISTRY I 2 CR

This course is a continuation of EFDA 110. Materials and procedures associated with restorative dentistry including adhesion, liners and bases, and occlusion.

PREREQUISITES: EFDA 101.

EFDA 112

RESTORATIVE LAB I 2 CR

This course is a continuation of EFDA 102. Students will continue to practice skills placing amalgam and composite restorations on typodonts. Students will also practice skills discussed in the concurrent lecture EFDA 110.

PREREQUISITES: EFDA 102

EFDA 120

FINAL IMPRESSIONS 1 CR

Theory and practice of preliminary and final impressions as well as bite registration. Computer assisted design will be included.

PREREQUISITES: EFDA 110.

EFDA 122

RESTORATIVE LAB III 2 CR

This course will focus on preparing students for the restorative wrebexam. Class II composites and amalgams will be emphasized. Students will participate in a mock exam. Students will also place final impressions on a typodont concurrent with EFDA 120

PREREQUISITES: EFDA 111.

EFDA 123

RESTORATIVE CLINICAL PRACTICE 3 CR

This clinical course provides practice in EFDA skills. Emphasis will be on the placement of amalgam and composite restorations on patients. Patient care will be provided in both on-campus clinics and off-campus extern sites.

PREREQUISITES: EFDA 112

DIESEL EQUIPMENT

DET 104

HYDRAULIC BRAKES 2 CR

Hands-on and theory of operation of hydraulic braking systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission.

DET 106

ELECTRICAL/ELECTRONICS I 4 CR

Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on diesel engine systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 116

ELECTRICAL/ELECTRONICS II 4 CR

Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on hydraulic systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 126

ELECTRICAL/ELECTRONICS III 4 CR

Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on brake, drive train and suspension/steering systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 129

APPLIED DIESEL CONCEPTS I 12 CR

Students will be required to gain employment or volunteer in an authorized repair/maintenance facility. The student will be under the guidance of the shop in addition to being in contact with the instructor. The repair facility then becomes a "real world" extension of the classroom. These quarters may be required to have the following assigned hours for NATEF certification: Diesel Engines 15, Electrical/Electronics 45, and PM 5. Students from

TRANS 101, 102, 103 MUST meet with the instructor to discuss DET 129 requirements.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103, COM 170, MATH 100, CMST& 210 with a grade of "C" (2.0) or better

If two of the related instruction classes are successfully completed, the student may be enrolled concurrently in the third class; with instructor's permission

DET 139

APPLIED DIESEL CONCEPTS II 12 CR

Students will be required to gain employment or volunteer in an authorized repair/maintenance facility. The student will be under the guidance of the shop in addition to contact with the instructor. The repair facility then becomes a "real world" extension of the classroom. These quarters may be required to have the following assigned hours for NATEF certification: Diesel Engines 15, Electrical/Electronics 45, and PM 5. Students from TRANS 101, 102, 103 MUST meet with the instructor to discuss DET 139 requirements.

PREREQUISITES: TRANS 101, 102, 103 or instructor permission

DET 201

HYDRAULICS 8 CR

Hands-on and theory of operation of hydraulic systems. This course will deal primarily with mobile hydraulic systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 202

DIESEL ENGINES 13 CR

Hands-on and theory of the operation, troubleshooting and repair of diesel engines, with an emphasis on electronic diesel engine controls and preventive maintenance.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 203

DRIVE TRAIN 3 CR

Hands-on and theory of operation of drive train systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission.

DET 204

AIR BRAKES 5 CR

Hands-on and theory of operation of air brake systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 205

SUSPENSION/STEERING 5 CR

Hands-on and theory of operation of suspension/steering systems.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

DET 208

PREVENTIVE MAINTENANCE 6 CR

Hands-on experience in preventive maintenance for equipment. Fleet management practices are included in this class.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103 or instructor permission

2010-2012 Course Descriptions

DET 239

APPLIED DIESEL CONCEPTS III 13 CR

Students will be required to gain employment or volunteer in an authorized repair/maintenance facility. The student will be under the guidance of the shop in addition to contact with the instructor. The repair facility then becomes a "real world" extension of the classroom. These quarters may be required to have the following assigned hours for NATEF certification: Diesel Engines 15, Electrical/Electronics 45, and PM 5. Students from TRANS 101, 102, 103 MUST meet with the instructor to discuss DET 239 requirements.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103, COM 170, Math 100, CMST& 210 with a grade of "C" (2.0) or better.

DET 240

CURRENT DIESEL INDUSTRY TOPICS I 6 CR

In consultation with the instructor, the student will design an individualized project to increase his or her knowledge and skills in specific areas of current diesel technology.

DET 242

CURRENT DIESEL INDUSTRY TOPICS II 6 CR

In consultation with the instructor, the student will design an individualized project to increase his or her knowledge and skills in specific areas of current diesel technology.

ECONOMICS

ECON 103

INDUSTRIAL ECONOMICS 5 CR

Students will learn the basic concepts of micro-economics including the examination of the profitability factors of plant operations, personal and business strategies, objectives, and operating profitability. They will perform a cost benefit analysis of different maintenance operations strategies. Students will be able to summarize plant operations from a business perspective; explain the impact of operation of profitability; and interpret stock market factors and annual reports.

EDUCATION

EDUC 175

ACHIEVING INFORMATION LITERACY 1 CR

This course is designed to improve the research skills of professional-technical instructors and to help these instructors integrate information literacy into their curricula. The classes are designed to be a combination of demonstration and practice, with emphasis on practice. Additionally, these professional-technical instructors will develop a plan for integrating information-literacy skills into classes that they teach.

EDUC 199

PROFESSIONAL TECHNICAL SPECIALIZATION 12 CR

This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document their professional skills and experiences which they ac-

quired prior to or while serving in their position as an instructor. Completion of the coursework project will enhance the instructor's ability to accurately assess their present skills against the Washington State Skill Standards for Professional Technical Educators and complete an initial Professional Development Plan.

EDUC 200

INTRODUCTION TO TEACHING PROFESSIONAL TECHNICAL EDUCATION 3 CR

This course provides students with an introductory foundation to the Washington State Professional-Technical Teacher Skill Standards; thus facilitating entrance into specific skill standard training in subsequent courses. Subject areas include an introduction to performance-based education, including technical education philosophies and fundamentals of competency-based education models. Additionally, it provides the opportunity for students to observe fully-qualified professional-technical instructors.

EDUC 207

TEACHING & FACILITATING LEARNING: LEVEL I 3 CR

As an introduction to vocational teaching, college instructors begin or expand their training as a skilled educator. Instructor-learners learn about "successful beginnings," being a positive role model, and developing effective lessons based on identified student learning outcomes and competencies. New instructor-learners practice implementing a variety of instructional strategies and student assessments and learn ways to evaluate the progress of diverse learners to meet course objectives. Focus is on four primary modes of instruction: lecture, discussion, demonstration, and small group work, as well as ways in which instructors act as facilitators of learning in their classrooms.

EDUC 209

TEACHING & FACILITATING LEARNING: LEVEL II 3 CR

This course guides instructors through the process of moving from a teacher-centered classroom to a student-centered learning environment and prepares instructor-learners to assist students to become a productive part of a learning community. Instructor-learners further examine and fine-tune multiple modes of instruction beyond those in Level I including class discussion, case studies, role-plays and student self-assessment. Using the universal cycle of learning with the four essential elements of preparation, presentation, practice, and performance, instructor-learners develop model lessons and instructional models as well as develop model facilitation practices for establishing learning communities within the classroom. This course is particularly helpful to experienced instructor-learners who wish to hone and apply their facilitation and instructional delivery skills.

EDUC 211

PLANNING FOR INSTRUCTION 3 CR

Instructor-learners plan for the delivery of adult instruction by creating instructional materials appropriate for students of diverse backgrounds and learning styles. Instructor-learners develop the skills required to create, evaluate or modify a

course through the construction of lesson plans and course syllabi. This course assists instructor-learners in ways to plan lessons and units of instruction, and to identify textbooks, instructional media and resources. Emphasis is on lesson planning and syllabus development, particularly as they relate to higher order thinking skills such as Bloom's Taxonomy and domains of learning.

EDUC 216

ASSESSMENT FOR LEARNING 3 CR

Research in learning assessment has transformed the way educators approach the task of teaching. When developing and designing curriculum, instructors need to understand the paradigm shift between traditional, teacher-centered learning where the emphasis is placed on the one-way delivery of content, and active, student centered learning where the emphasis shifts to the collaborative, integrated learning process facilitated by the teacher. In this course, instructor-learners will demonstrate assessment literacy and will design and develop assessments to be integrated into the learning process, including performance-based and portfolio assessments. These assessments—prior assessment, formative assessment, summative assessment—will be linked directly to clearly developed learning outcomes and will inform the process of curriculum evaluation and revision. Effective testing and evaluation linked to course outcomes and grading policies will also be discussed.

EDUC 221

LEADERSHIP DEVELOPMENT 3 CR

This course focuses on methods that implement leadership development as an integral component of a professional technical program. Instruction will stress skills in organizing groups to action, decision making, and human relations.

EDUC 226

LEARNING STYLES 3 CR

This course is geared to professional-technical instructors, introducing them to the theories of learning styles, multiple intelligences, learning types and environmental effects on learning. Instructor learners will identify their own learning attitudes, environment preferences, learning styles and intelligences and begin to identify the learning profiles of their students. This course will facilitate instructors to create learning environments that are most conducive to optimal learning and to implement teaching/learning strategies that engage a variety of learning styles for instructional success.

EDUC 231

LEARNING ENVIRONMENT MANAGEMENT 3 CR

To effectively instruct students, a professional-technical instructor must have all required equipment, systems, tools, supplies, and materials available and set up prior to beginning the class. This course is designed to help instructor-learners develop management plans for determining, obtain-

ing, and maintaining instructional equipment, tools, supplies, and materials. Faculty members will be equipped with the knowledge and direction needed to develop and implement safety plans for their learning environment so that equipment, systems, tools, supplies, and materials will be managed and maintained in an appropriate and safe manner. Emphasis is on shop, laboratory, and classroom safety practices.

EDUC 236
OCCUPATIONAL ANALYSIS 3 CR
This course will familiarize the professional technical instructor with the process of occupational analysis, the steps of DATA and DACUM process, and advisory committees and their role in professional technical curriculum development.

EDUC 241
LEARNING & ADAPTING NEW TECHNOLOGIES 3 CR
In this course the instructor-learner will identify, evaluate and implement new and emerging technologies according to industry needs per their needs as instructors. Instructor-learners will develop new ways of communication and develop online materials and websites. Working with their program advisory committee, the instructor-learner will maintain current knowledge of technology in the field and focus on how to integrate this new technology into their curriculum, their current methods of delivering student instruction, and into effective ways of assessing student learning by integrating new technology into student assignments. The instructor-learner will develop the skills required to research, organize and maintain information about certification requirements for program-specific technology.

EDUC 246
THE ADULT LEARNER 3 CR
To effectively instruct adults, it is essential that the instructor has a basic understanding of the adult-learner. By understanding the adult-learner and how one learns, the instructor can teach more effectively and can motivate and improve retention rates with students. In this course, instructor-learners will identify learning principles and adult characteristics, learning styles, demographics and motivation. They will also learn to modify curriculum and instruction based on the needs of the adult-learners in their classroom.

EDUC 251
TEACHING PRACTICUM 1 12 CR
This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the student instructor will implement core learning strategies and techniques on teaching and facilitating learning from coursework and research.

EDUC 252
TEACHING PRACTICUM 2 12 CR
This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the student instructor will establish and implement learning outcomes focused on assessment, new technologies such as distance learning, hybrid courses, electronic instruction.

EDUC 256
PROGRAM MANAGEMENT, PROMOTION, AND RECRUITMENT 3 CR
In this course, instructor-learners develop a record keeping system that can be used in the tracking of student affairs, including program enrollment, student grades, student financial aid and scholarship eligibility. In addition, instructor-learners develop a budgeting system to determine program financial needs and the tracking of allocated funds. They take part in departmental and college committees to insure the interests of their program and to participate in college wide conversations and decisions regarding enrollment, recruitment and community relations.

EDUC 257
CURRENT TOPICS FOR PROFESSIONAL TECHNICAL EDUCATORS 5 CR
This course is designed to provide opportunities for post-secondary faculty members teaching professional-technical coursework to document and receive credit for research/learning acquired at professional conferences.

EDUC 261
INDUSTRY BASED PROFESSIONAL DEVELOPMENT 3 CR
This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document and receive credit for skills-enhancement activities conducted during "Back-to-Industry" or "Return-to-Industry" endeavors.

EDUC 262
ADVANCED INDUSTRY BASED PROFESSIONAL DEVELOPMENT 6 CR
This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document and receive credit for skills-enhancement activities conducted during "Back-to-Industry" or "Return-to-Industry" endeavors.

EDUC 299
PROFESSIONAL TECHNICAL EDUCATION CAPSTONE 5 CR
This course is a capstone project designed to provide opportunities for instructors to document their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor, in accordance with Washington State Skill Standards for Professional-Technical

Educators. This course is the final required course for an AAS-T degree in Professional-Technical Education.

ELECTRICIAN

ELCN 101
DC CIRCUITS 3 CR
Prepares the electrician with the knowledge and skills to diagnose and repair electrical circuits. Emphasizes DC Electrical theory, structure of matter, electron theory and Ohm's law. Uses interactive software, dynamic lecture and discussion. Students will apply their basic skills of algebra during this course.
PREREQUISITES: Math 100 or concurrent

ELCN 102
AC CIRCUITS 3 CR
Prepares the electrician to diagnose and repair AC electrical circuits. Instruction emphasizes AC electrical theory, phase relationships with inductance, capacitance and resistance. Utilizes interactive software, dynamic lecture and discussion to develop knowledge and skills.
PREREQUISITES: ELCN 101

ELCN 103
ELECTRICAL DRAWINGS AND BLUEPRINTS 2 CR
Introduction to and discussion of various types of electrical drawings including wiring, schematic, line, and construction diagrams.
PREREQUISITES: ELCN 101 or concurrent

ELCN 104
GROUNDING AND BONDING 2 CR
Standards, theory, and application of grounding and bonding applied to electrical systems.
PREREQUISITES: ELCN 102 & ELCN 112

ELCN 105
TRANSFORMERS, MOTORS AND GENERATORS 3 CR
Theory and operation of rotating electrical machines and transformers.
PREREQUISITES: ELCN 102

ELCN 112
BASIC NEC CALCULATIONS 3 CR
Wire, conduit, and box size requirements of the National Electrical Code. Beginning branch circuit calculations.

ELCN 113
ADVANCED NEC CALCULATIONS 3 CR
National Electrical Code required calculations for occupancy loads, transformer and motor circuits, services and feeders.
PREREQUISITES: ELCN 112

ELCN 131
DC CIRCUIT LAB 3 CR
Emphasizing DC Electrical theory and Ohm's law. Series and parallel circuits are analyzed at the test bench with hands-on experiments and standard test equipment.
PREREQUISITES: EMTEC 105, ELCN 101, ELCN 103 or concurrent

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ELCN 132
AC CIRCUIT LAB 3 CR
AC electrical theory is examined and verified with hands-on experiments utilizing standard test equipment.
PREREQUISITES: ELCN 102 & ELCN 131 or concurrent

ELCN 142
RESIDENTIAL WIRING PROJECTS 6 CR
Project based lab. student crews complete electrical construction projects including a model house wiring installation.
PREREQUISITES: EMTEC 125, ELCN 101, ELCN 103 or concurrent

ELCN 143
ELECTRICAL DISTRIBUTION 3 CR
Electrical lab installation of services, panelboards, switches, and feeders.
PREREQUISITES: ELCN 104, ELCN 105, ELCN 113 or concurrent

ELCN 151
COMMERCIAL WIRING METHODS AND MATERIALS 6 CR
Installation of basic commercial electrical components and systems to meet recognized industry standards utilizing appropriate tools, wiring methods and materials.
PREREQUISITES: ELCN 103 & ELCN 142

ELCN 201
ELECTRONICS FOR ELECTRICIANS 4 CR
Diagnose and repair of industrial control devices emphasizing electronic theory and industrial solid state devices.
PREREQUISITES: ELCN 102 & ELCN 103

ELCN 202
MACHINE CONTROL FUNDAMENTALS 4 CR
Diagnose and repair of industrial control devices emphasizing motor control theory, system wiring and diagrams.
PREREQUISITES: ELCN 103, ELCN 105

ELCN 203
PLCS AND VFDS 4 CR
In depth study of programmable logic controllers including configuring hardware and software for controlling devices that drive industrial machinery.
PREREQUISITES: ELCN 201 & ELCN 202

ELCN 214
SPECIAL OCCUPANCIES, EQUIPMENT & CONDITIONS 4 CR
National Electrical Code requirements and limitations for specialized circumstances.
PREREQUISITES: ELCN 113

ELCN 251
COMMERCIAL WIRING PROJECTS 6 CR
Project based lab. Student crews complete commercial electrical construction projects.
PREREQUISITES: ELCN 151

ELCN 261
INDUSTRIAL WIRING METHODS AND MATERIALS 5 CR
Hands-on lab exploring design and construction of motor control enclosures, control relays, sensors & systems.
PREREQUISITES: ELCN 151

ELCN 262
INDUSTRIAL WIRING PROJECTS 6 CR
Project based lab. Student crews complete industrial electrical construction and maintenance projects.
PREREQUISITES: ELCN 214, ELCN 251, ELCN 261 or concurrent

ELCN 263
CONTROL PROJECTS 5 CR
Hands-on lab integrating motor controls, programmable logic controllers, variable frequency drives and industrial wiring distribution.
PREREQUISITES: ELCN 203, ELCN 261 or concurrent

ELCN 280
ALTERNATIVE ELECTRICAL SOURCES 3 CR
Explores new alternative electrical power sources from a design and build point of view with an emphasis on the NEC requirements.
PREREQUISITES: ELCN 103, ELCN 105

ELCN 281
ELECTRICAL ESTIMATING AND DESIGN 3 CR
Designing and estimating material and labor costs for a variety of electrical projects using catalog, the internet, and estimating software.
PREREQUISITES: ELCN 113, ELCN 151

ELECTRO MECHANICAL

EMTEC 103
ELECTRICAL CIRCUITS 5 CR
The student will continue DC electrical theory and Analysis including Kirchhoff's laws. Wiring diagrams and other circuits will be examined in detail. AC theory, vectors, capacitance, inductance and vector analysis is examined. Generators, motors and common motors will be discussed. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.
PREREQUISITES: ELCN 101 & EMTEC 105.

EMTEC 105
TRADE SAFETY 2 CR
The topics will be on health and safety core rules, Material Safety Data Sheets, fall protection, confined spaces, Lock out/Tag out requirements, ladder, scaffolding and portable power tools as well as navigating the Washington State Labor and Industries website. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry.

EMTEC 121
FUNDAMENTALS OF HYDRAULIC & PNEUMATICS 5 CR
This is the first course in a series designed to prepare the industrial Millwright, Eelectrician and Maintenance Technician with the knowledge and skills necessary to maintain, diagnose, and repair hydraulic and pneumatic systems. Instructional material is computer online with selected modules emphasizing hydraulic pumps, safety, compressed air basics and types of gauges.

EMTEC 123
HYDRAULICS AND PNEUMATICS CIRCUITS 5 CR
This course covers principles and operating characteristics of hydraulic and pneumatic systems, and components. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for the fluid power industry. Text and basic tools required.
PREREQUISITES: EMTEC 121

EMTEC 125
APPLIED MECHANICS 4 CR
Studies introduce material strengths relating to forces such as tension, shear and torque. Students develop knowledge and skills through application of pulley ratios and levers. Instruction also covers properties of materials such as solids, liquids and gasses. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.
PREREQUISITES: EMTEC 105

EMTEC 126
ENGINEERING GRAPHICS 3 CR
The student will discover print reading format and dimension with types and symbols. A study of thread specifications and building drawings will be presented. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 131
RIGGING 3 CR
The student will study and apply industry standard principals to safely plan and facilitate controlled lifting of equipment. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 133
INTRODUCTION TO MACHINERY SKILLS 4 CR
Studies introduce shop safety and guidelines, the use of measuring tools, basic shop equipment and a study of vertical milling machines and lathes. Supervised hands on project will be produced by the student. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.
PREREQUISITES: EMTEC 126

EMTEC 175

EMTEC ADVANCED WELDING 2 CR

This course builds upon EMTEC Basic Welding, including SMAW, GMAW, GTAW, FCAW, and Oxy/Fuel and Plasma Cutting, and basic fabricating principles. This course offers preparation for WABO certification.

PREREQUISITES: WLD 173

EMTEC 201

AC COMPONENTS AND MEASUREMENTS 5 CR

In this course the student will continue to study AC power factors. A more in depth study of motors and their connections will be discussed. Basic motor controls and Programmable Logic Controllers will be introduced, electronic measurement. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

PREREQUISITES: EMTEC 103

EMTEC 205

PROGRAMMABLE LOGIC CONTROLLERS 4 CR

This course is an introductory study of Programmable Logic Controllers, including configuring hardware and software, general construction and operation as well as programming.

PREREQUISITES: EMTEC 211

EMTEC 211

ELECTRICAL CONTROLS I 5 CR

This course introduces the student to the components used in today's control systems. Control schematics are introduced with hands-on use of various multi meters in troubleshooting relay logic circuits. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

PREREQUISITES: EMTEC 201

EMTEC 217

INSTRUMENTATION & CONTROLS 5 CR

This course introduces the student to sensor indicators and transmitters. Measurement, gages, flow sensors and other industrial sensing devices will be studied in this class. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

PREREQUISITES: EMTEC 212

EMTEC 218

INTRODUCTION TO NATIONAL ELECTRICAL CODE 3 CR

The student is introduced to some of the common industrial applications of the National Electrical Codes such as grounding, bonding, wire sizing, conduit selection, junction box selection, motor overload protection and current protection selection. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge

and skills for careers in industry. Text and basic tools required.

PREREQUISITES: EMTEC 201

EMTEC 231

BEARINGS AND DRIVES 5 CR

The student will learn the application and theory of bearing technology with emphasis on storing, installing, and maintenance. The course will include an examination of different drive types with emphasis on theory, maintenance and repair. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 232

DRIVE ALIGNMENT-CONVEYORS AND MACHINING SYSTEMS 5 CR

Principals and devices used for joining and aligning shafts are presented in this course. Conveying equipment and other automatic transfer machinery will be discussed. Troubleshooting and repair of drives and conveyors will be covered. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 234

VALVES, PUMPS AND TRAPS 5 CR

The student will examine the principals of pumps, valves, and steam traps. Students will apply mechanical skills in the rebuilding of basic pump types along with diagnosing problems. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

PREREQUISITES: EMTEC 121

EMTEC 235

BOILERS AND COMBUSTION TECHNOLOGY 5 CR

This course prepares the student with the knowledge to repair, operate and maintain boilers. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 237

COMPUTERIZED MAINTENANCE AND MANAGEMENT SYSTEMS 5 CR

In this course the student will examine the tools of predictive maintenance, vibration analysis, oil analysis, thermography and ultrasonic's will be covered. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 250

CAPSTONE PROJECT 9 CR

This course is designed as a practicum in the industrial maintenance field to allow the student to get hands on experience in the maintenance profession. This practical experience can be in various trades such as electrical, millwright, power plant, general plant maintenance or specific industrial/commercial maintenance in the student's workplace.

PREREQUISITES: Assigned by Instructor

ELECTRONICS

CTE 290

JOB SEARCH 4 CR

Students will improve their skills in resume development, interview preparation, and job search techniques. These skills will be assessed through simulated job application processes such as mock interviews and resume reviews.

CTE 292

CAREER SEARCH 2 CR

Students will improve their career search skills including resume development and interview preparation. These skills will be assessed using simulated job application processes such as mock interviews and resume critiques.

ELTR 100

DC 1 4 CR

A thorough introduction for the new student to the fundamental properties and applications of electricity. This course opens the doors to a wide array of career opportunities in computer servicing, biomedical equipment servicing, manufacturing technology, telecommunications, and home entertainment equipment servicing. In addition, safety procedures are emphasized. Students learn how to make good solder connections and recognize and repair bad solder connections. Students learn how to select and clean soldering tools. This course continues with the basics of current, voltage and resistance. The application of Ohm's Law, Joule's Law, Kirchoff's Current and Voltage Law, and the construction of circuits to verify electronic theory provide the knowledge necessary to build the foundation for a thorough understanding of electronics.

ELTR 105

DC 2 4 CR

The development of a working knowledge of the basic principles of DC electronics. The purpose and operation of such devices as resistors, capacitors, inductors and meters are covered in labs and theory.

PREREQUISITES: ELTR 100

ELTR 110

AC 1 4 CR

An introduction and examination of the principles and applications of alternating current, including frequency, reactance, impedance, and resonance.

PREREQUISITES: Admission and ELTR 105

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ELTR 115
AC 2 **4 CR**
Students continue their exploration of AC with transformers and filter circuits (low-pass, high-pass, band-stop and band-pass), with theory, lab-work, and projects.
PREREQUISITES: ELTR 110

ELTR 120
SEMICONDUCTORS 1 **5 CR**
Students learn how discrete semiconductor devices are constructed, how to handle them, how diodes, bipolar transistors, FETS, and thyristors operate and how to use them in practical circuits. ACDC power supply circuits introduced as well.
PREREQUISITES: ELTR 115

ELTR 125
SEMICONDUCTORS 2 **5 CR**
This course introduces the student to various "building block" circuits including amplifiers, oscillators, and power supply circuits, through theory, lab work, and projects.
PREREQUISITES: ELTR 120

ELTR 130
OP-AMPS 1 **3 CR**
Explores the design and operation of basic operational amplifier circuits through theory and lab-work to illustrate and confirm the design and operation of linear amplifiers, voltage and current converters, comparators and precision rectifiers.
PREREQUISITES: ELTR 125

ELTR 135
OP-AMPS 2 **3 CR**
Oscillators, active filters and single power-supply circuits and other applications of op-amps are covered in theory, practical labs, and projects.
PREREQUISITES: ELTR 130

ELTR 140
DIGITAL 1 **5 CR**
A comprehensive focus on the concepts, terminology, components and circuits that combine to form basic digital systems with labwork and projects.
PREREQUISITES: ELTR 135

ELTR 145
DIGITAL 2 **5 CR**
Flip-flops, Sequential Logic, Combination Logic, Semiconductor Memory, Data Conversion and Digital Troubleshooting theory and practical labs help the student understand digital circuits and techniques.
PREREQUISITES: ELTR 140

ETEC 150
ELECTRONIC COMMUNICATIONS **8 CR**
This course provides a comprehensive introduction to electronic communication fundamentals and applications including modulation, transmitters, receivers, antennas, RF, digital communication, multiplexing, cellular and PCS.

ETEC 212
MICROPROCESSORS **6 CR**
This course offers students a combination of lecture and lab instruction to provide them with a basic understanding of microprocessor functions and operation.

ETEC 214
NANO TECHNOLOGY **5 CR**
NANO Technology is impacting our lives through biomedical uses, manufacturing technology, computer systems, communications devices and many other fields. This course is an introduction to this vast, "small" topic. A NANO particle is about 75,000 times smaller than the diameter of a human hair. How can something that small have an impact on life or economy? How can something that small be manufactured? What are the uses of NANO technology? Buckyballs, nanotubes, Micro-Electrical Mechanical Systems (MEMS) and many more topics are covered in the study of this cutting edge technology.

ETEC 236
PHOTONICS 1 **5 CR**
This course offers an introduction to the fundamentals and applications of optical principles with fiber optics.
PREREQUISITES: ELTR 145

ETEC 241
PHOTONICS 2 **5 CR**
Concepts and physics are taught along with characteristics needed to understand and repair electronic devices that incorporate lasers.
PREREQUISITES: ETEC 236

ETEC 245
MECHATRONICS **6 CR**
Students will gain a working knowledge of sensors, transducers, control circuits, electronic signals, measurement, interfaces, amplifiers, and AD & DA converters is developed through theory and lab exercises.
PREREQUISITES: ELTR 145

ETEC 250
PRINCIPLES OF TELECOMMUNICATION **6 CR**
The effects of combining signals, multiple frequencies, harmonic distortion and electrical properties of transducers are among the topics covered by experiments and other material in this telecommunications course.
PREREQUISITES: ELTR 145

ETEC 281
ROBOT TECHNOLOGY **5 CR**
Teaches students the basic concepts of robot technology, including major elements in a robotic system, understanding a robot's linkages and joint-spherical geometry and motion transfer from axis motors plus programming robot motion.
PREREQUISITES: ELTR 145

ETEC 282
CERTIFIED ELECTRONICS TECHNICIAN TEST PREP **3 CR**
This course prepares students for the nationally recognized Certified Electronics Technician (CET) test.

ETEC 294
WORK BASED LEARNING **3 CR**
Gives the student hands-on work experience with electronics' employer. To be assigned to this part of the course will depend upon employer availability and student willingness for this experience and near completion of the course.

ETEC 295
WORK BASED LEARNING **6 CR**
Gives the student hands-on work experience with an electronics employer. To be assigned to this part of the course will depend upon employer availability and student willingness for this experience and near completion of the course.

ENGINEERING

ENGT 121
DRAFTING I **6 CR**
An introduction to engineering drawing and graphics technology. Topics include sketching and drafting techniques, drafting concepts and terminology, methods for improving visualization skills, standards for object views and drawing sizes, and proper usage of drafting equipment to construct geometric shapes and mechanical drawings.

ENGT 122
CAD I: BASICS **6 CR**
An introduction to CAD (Computer Aided Drafting), utilizing a step-by-step or "cookbook" approach to instruction. Students have immediate hands-on computer usage while applying basic command concepts and terminology. These include basic drawing and editing techniques, and are reinforced with exercises and practice tests designed to help students reach an in-depth understanding.

ENGT 123
DESCRIPTIVE GEOMETRY **6 CR**
This course is a practical step-by-step approach to develop and enhance students' visualization skills. Coursework includes the application of such techniques toward various engineering disciplines including manufacturing, piping, civil, structural, HVAC, and architectural.
PREREQUISITES: ENGT 121, ENGT 122

ENGT 125
DRAFTING II: ADVANCED CONCEPT & STANDARDS **8 CR**
A continuation of the mechanical engineering drawing and graphic technology foundation, utilizing advanced drawing techniques. Instruction includes the purpose and proper application of section and auxiliary views, various manufacturing processes and their relationship to dimensioning and design, and practical drawing applications using ANSI standards for dimensioning, tolerancing, and drawing formats.
PREREQUISITES: ENGT 123

ENGT 126

CAD II: INTERMEDIATE APPLICATIONS 7 CR

A continuation of CAD I, utilizing intermediate drawing and editing tools. Coursework includes engineering applications using intermediate CAD functions. Topics include prototype drawing setup, implementation of ANSI drawing standards, and plotting techniques.

PREREQUISITES: ENGT 122

ENGT 128

CIVIL/SURVEY CAD 2 7 CR

Courses in Civil Engineering and Survey industry-specific Computer Aided Drafting. The course focuses on the use of CAD software with Civil/Survey specific applications.

PREREQUISITES: ENGT 122

ENGT 132

MS OFFICE APPLICATIONS 5 CR

Continues instruction in Windows-based computer applications, focusing primarily on word processing and spreadsheet skills development and techniques for using applications together. Also provides lab time for the completion of assignments from COM 170 or ENGL 101.

PREREQUISITES: CAP 101

ENGT 152

ESTIMATING AND SCHEDULING 5 CR

An introduction to the construction process, project scheduling, and estimation of concrete, rebar, and earthwork quantities.

PREREQUISITES: ENGT 128

ENGT 153

INTERMEDIATE GIS 7 CR

An introduction to desktop mapping, focusing on the use of ArcView software in Geographic Information Systems applications.

PREREQUISITES: SURV 140

ENGT 156

EARTHMOVING FUNDAMENTALS 5 CR

An introduction to earthmoving production fundamentals of construction equipment. The production of heavy equipment, including excavators, scrapers, trucks, bulldozers, and front end loaders is examined from a production prospective. In addition, earthwork conversions to and from loose cubic yards, bank cubic yards, and compacted cubic yards is introduced.

ENGT 210

CAD III: ADVANCED APPLICATIONS 6 CR

A continuation in the series of CAD courses, coursework involves utilizing advanced drawing, editing, and customization techniques. Topics include LISP enhancements, macros, creating CAD layouts, creating user defined settings, and techniques for automating repetitive operations.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 211

PROJECT DESIGN 1 4 CR

A project-oriented design course in which students create working drawings of an existing assembly or of one of their own designs. Each student is required to prepare a portfolio including

sketches, detail and assembly drawings in accordance with ANSI standards.

PREREQUISITES: ENGT 125, ENGT 126, CO-REQUISITE: ENGT 220

ENGT 212

PROJECT DESIGN 2 3 CR

A project-oriented design course in which students enhance their skills in 3D solid modeling and explore more complex features of the design software. Each student will create a solid model of a mechanical assembly and use it to prepare a set of working drawings. A portfolio consisting of solid model renderings, sketches, detail drawings, and assembly drawings, will be submitted by each student according to ANSI standards.

PREREQUISITES: ENGT 125, ENGT 126, ENGT 220, CO-REQUISITE: ENGT 224

ENGT 213

PROJECT DESIGN 3 4 CR

A project-oriented design course in which students create a 3D model of an existing assembly and use it as a visual and design aid for developing engineering detail and assembly drawings. Students will enhance their 3D solid modeling skills and apply these skills as an aid for visualization, assembly, interference checking, and design verification of 2D engineering drawings.

PREREQUISITES: ENGT 125, ENGT 126, ENGT 220

ENGT 215

STATICS 10 CR

An introduction to physics concepts, including the determination and analysis of "static" (non-moving) loads and forces in engineering structures and machines.

PREREQUISITES: MATH 142

ENGT 216

STRENGTH OF MATERIALS 7 CR

Involves the application of static's analysis to determine minimum structural shape and size requirements. Topics will include the importance of physical characteristics (size, shape, length) and mechanical properties of various engineering materials (metals, wood, concrete). Lecture will focus on materials testing and composition, manufacturing processes and standards, and how each impacts materials selection.

PREREQUISITES: ENGT 215

ENGT 220

PARAMETRIC MODELING 7 CR

Instruction in the use of parametric modeling CAD applications and the introduction to 3D drawing and solid modeling. Topics include wireframe models, 3D faces or work planes, rendering, and editing solid models.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 223

STRUCTURAL DETAILING 6 CR

Instruction in the areas of structural drafting and design. Includes drafting and design of bolted and welded connections, specifications for structural members, and standard design concepts.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 224

PROCESS PIPE DRAFTING 9 CR

An introduction to process pipe drafting and design. Piping concepts and terminology will focus on pipe and fitting specifications, valves and instrumentation, piping equipment, and symbols. In addition, students will utilize piping drafting standards and concepts to create plans and elevations, as well as isometric and spool drawings.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 251

AUTOCAD CIVIL 3D I 8 CR

Study and use of the Civil Engineering and Survey industry-specific CAD overlay software for computer aided drafting. Focuses on the use of Land Development Desktop with AutoCAD on Civil/Survey specific applications.

PREREQUISITES: ENGT 128

ENGT 252

AUTOCAD CIVIL 3D II 8 CR

Study and use of the Civil Engineering and Survey industry specific CAD overlay software for computer aided drafting. Focuses on the use of Land Development Desktop with AutoCAD on Civil/Survey specific applications.

PREREQUISITES: ENGT 251 and SURV 205

ENGT 256

STANDARDS, SPECIFICATIONS, AND CODES 3 CR

This course provides an introduction to the as-built process and current civil improvement inspection practice. The course focuses on field measurements and inspection during and after construction of sewer, water, storm, and roadway civil improvements.

PREREQUISITES: ENGT 128

ENGT 258

CONSTRUCTION MATERIALS 7 CR

An introduction to the engineering properties and testing requirements of construction materials. Focuses on aggregates, asphalt, and Portland cement concrete as construction materials.

ENGLISH

ENGL 092

FUNDAMENTALS OF ENGLISH 5 CR

This course focuses on the fundamentals of college-level standard written English. Coursework includes a study of the conventional grammatical rules of English in the construction of effective sentences and paragraphs, leading to the essay. Critical readings of paragraphs and short essays, and applying these principles to the student's own writing, is also part of the curriculum.

PREREQUISITE: Accuplacer score of 71 or higher on Reading Comprehension

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ENGL 175

TECHNICAL COMMUNICATIONS 5 CR

This course stresses accurate and effective writing in formal reports and other professional communications forms and includes presenting and interpreting technical data and reports.

ENGL& 101

ENGLISH COMPOSITION I 5 CR

A composition course in which students read, analyze, and write essays using a variety of rhetorical strategies, as well as develop and verbally express ideas clearly and effectively. The critical reading of essays will provide a basis for the student's own critical writing, which will reflect a command of college-level literacy standards. Attention to writing fundamentals and stylistic techniques will also be included. Word processing, email and internet knowledge required.

PREREQUISITES: Accuplacer score of 86 or higher on Sentence Skills and 85 or higher on Reading Skills or a B grade in ENGL 092 or a C grade in COM 170

FISHERIES

FISH 100

INTRODUCTION TO SAFETY 2 CR

Proper safety precautions in the workplace will be emphasized. Safety is taught in all courses as it applies to the task or work area.

FISH 105

WATER QUALITY 1 CR

This course looks at the importance of water quality and how it is monitored. Students will monitor water quality at the hatchery and net pens to gain experience in this course.

FISH 111

SALMON ID BIOLOGY 3 CR

Identification of salmon and trout, life cycles and the characteristics of each of the species will be examined in this course.

FISH 125

SAMPLING TECHNIQUES 3 CR

Students will identify and use methods of sampling fish for numbers, age, and disease.

FISH 133

HATCHERY OPERATIONS I 5 CR

By working in hatcheries, students gain experience with brood stock, eggs, and hatchery equipment.

FISH 136

SPAWNING TECHNIQUES I 6 CR

Students will learn proper fish spawning techniques as utilized by state, federal, and private hatcheries. They will spawn fish at the College hatchery and other local hatcheries to become proficient in these skills.

FISH 146

FISH AND SHELLFISH BIOLOGY 3 CR

Fish and shellfish biology, basics of respiration, organs, life cycles, and basic requirements will be covered. Dissections will be performed.

FISH 155

ENVIRONMENTAL AWARENESS 3 CR

Awareness of the impact that people, industry, and development have on the environment related to the fisheries' industry will be covered. Included will be awareness of proper use and disposal of materials hazardous to the environment. Students will learn how other industries can affect the fisheries industry and environment.

FISH 161

AQUACULTURE TECHNIQUES 6 CR

Students will be introduced to the skills required to culture shellfish, work at a salmon net pen farm, or culture other food or nonfood species.

FISH 170

HATCHERY OPERATIONS II 4 CR

Course will teach students the required skills to work in a hatchery. This course will emphasize hands-on skills. Students will work in hatcheries to gain experience with eggs, incubators, and hatchery equipment.

FISH 186

HATCHERY OPERATIONS III 10 CR

Students will work in hatcheries to gain experience by rearing fingerlings in ponds and net pens. Other hatchery equipment will be utilized.

FISH 194

FISHERIES CURRENT TOPICS 4 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

FISH 195

FISHERIES INTERNSHIP 6 CR

This course provides practical application through work experience for students in a field of their choice with employees in industry. Students will be able to demonstrate their skills and work habits to prospective employers.

FISH 196

FISHERIES CURRENT TOPICS 4 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

FISH 197

FISHERIES CURRENT TOPICS 4 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

FISH 198

FISHERIES CURRENT TOPICS 8 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

FISH 236

SPAWNING TECHNIQUES II 6 CR

Students will employ proper fish spawning techniques according to state, federal, and private hatchery procedures. They will transport eggs and milt, sterilize eggs, and use a moist air incubation unit to eye eggs and mark otoliths.

FTEC 200

APPLIED CONCEPTS I 10 CR

The student will focus on one of five specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 205

FIELD PROJECTS I 4 CR

The student will do an internship in one of the following specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

FTEC 250

APPLIED CONCEPTS II 10 CR

The student will focus on one of five specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 255

FIELD PROJECTS II 4 CR

The student will do an internship in one of the following specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

HEALTH & SAFETY

HLTH 103

CPR: ADULT HEARTSAVER .5 CR

This three hour course includes one person CPR, obstructed airway techniques, and risk factors of heart disease. Skills completion and written exam are required for card, which is good for two years. Pocket mask required.

HLTH 131

HIV/AIDS FOR COUNSELORS .5 CR

This workshop is designed for counselors and other health professionals needing four hours of HIV/AIDS education for licensure or professional update. The program meets Washington State certification requirements.

HLTH 133

**HIV/AIDS:
HEALTHCARE PROFESSIONAL 1 CR**

This workshop is designed for the professional needing seven hours of HIV/AIDS education for licensure or professional update. The program utilizes a multi-media approach and meets Washington State certification requirements.

HLTH 150

FIRST AID INDUSTRIAL 1 CR

This 12-hour First Aid course is in compliance with WAC 296-800-15010 of the State of Washington and meets OSHA/WISHA requirements with emphasis on job-related accidents, injuries, and prevention of same. Course includes practical experience and Adult Heartsaver CPR. A written and skills verification of CPR is required by AHA. Both First Aid and CPR cards are good for two years.

HLTH 155

FIRST AID FUNDAMENTALS 1 CR

This 8-hour first aid course is in compliance with WAC 296-24 of the State of Washington and meets OSHA/WISHA requirements for first aid training. This course teaches the fundamentals of first aid in order to gain access to the EMS system, render emergency care in a low-risk occupational environment, and teaches adult CPR and Obstructed Airway techniques. CPR and First Aid cards are good for two years.

HO 127

HEALTHCARE PROVIDER CPR .5 CR

This 6 hour basic life support course is designed for healthcare providers and includes adult one- and two-rescuer CPR, pediatric one-rescuer CPR, and barrier devices. Successful written and mannequin skill evaluation and attendance at all sessions is required to receive card. Course now includes an introduction to automatic external defibrillation.

HEALTH OCCUPATIONS

HO 105

PHARMACOLOGY 2 CR

This course is designed to assist the surgical technologist to provide safe and effective care to surgical patients by participating in activities that help to identify, manage, and apply general terminology to medications and solutions used in operating room settings.

PREREQUISITES: Acceptance into the Surgical Technology Program

HT 120

MEDICAL INSURANCE BILLING 5 CR

This course focuses on insurance billing procedures, billing requirements in relation to insurance companies, clinics, and physicians' offices; and insurance coding to include CPT and ICD-9-CM codes. Students will learn skills that will enable them to process insurance claims. Other subjects include basic health office duties as related to medical insurance, accounts receivable, and collection techniques.

PREREQUISITES: BIO 105, BIO 127, HT 126 (or HT 129) and typing speed of 45 wpm

HT 126

**FUNDAMENTALS OF MEDICAL
TERMINOLOGY 5 CR**

The student will gain a basic knowledge of medical word building. The course will address root words, prefixes and suffixes, and terms that are used in diagnostic, operative, and symptoms relating to the various systems of the body. Emphasis is on correct spelling and pronunciation of selected common eponyms.

HT 129

**COMPREHENSIVE MEDICAL
TERMINOLOGY I 5 CR**

This course is a comprehensive systems approach to the study of selected roots, prefixes, and suffixes; principles of word building; study of diagnostic, operative, and symptomatic terms of the various systems of the body. There is an emphasis on accurate spelling and pronunciation of all selected eponyms, clinical laboratory procedures and radiology procedures with associated terminology for each system. This course can be taken in place of HT 126.

HT 135

**PHARMACOLOGY FOR THE
MEDICAL OFFICE 2 CR**

This course will introduce students to the various forms of medications, drug classifications, administration routes and how they work. Students will also learn the terminology associated with each, for those medications are commonly prescribed in the medical office setting.

PREREQUISITES: HT 126 (or HT 129) and BIO105

HT 230

MEDICAL CODING ICD-9 3 CR

Learn to assign codes in medical/health records to ensure accurate and complete reimbursement documentation. The focus will be on ICD-9 codes with some discussion of CPT codes.

PREREQUISITES: BIO 105, BIO 127, and HT 126 (or HT 129)

HT 240

MEDICAL CODING CPT 4 CR

Learn to assign physician's Current Procedural Terminology (CPT) codes in medical/health records to ensure accurate and complete reimbursement documentation.

PREREQUISITES: BIO 105, BIO 127, and HT 126 (or HT 129)

HT 242

MEDICAL CODING APPLICATIONS 3 CR

This course builds on coding skills developed in HT 230 and 240 and includes practical experience coding medical records, as well as specific case study reviews.

PREREQUISITES: HT 250 or HT 265

HT 250

ADVANCED MEDICAL CODING 5 CR

A continuation of the procedures and practices of HT 230 and 240, and helps prepare the student for certification testing.

PREREQUISITES: HT 230 and HT 240

HT 262

MEDICAL CODING INTERNSHIP 2 CR

Students will complete a medical coding work experience.

PREREQUISITES: Program Advisor permission

HT 265

**MEDICAL CODING & BILLING
PRACTICUM 5 CR**

This course uses the information learned in medical insurance billing and coding, and demonstrates proficiency in billing and coding procedures. Students, using simulated patient records and various insurance forms, will practice patient account statements and records. Medical ethics and laws as they pertain to patient information will also be addressed.

PREREQUISITES: HT 230 and HT 240

HT 270

EXCEL FOR THE MEDICAL OFFICE 3 CR

This course will teach the basics of MS Excel as it relates to functions commonly used in the medical office. Students will learn efficient use of a spreadsheet in order to create records pertinent to the medical office, such as patient and insurance information, operational and capital budgets, tracking quality indicators and productivity by person, and tracking delinquent and incomplete records by type.

NA 101

NURSING ASSISTANT ESSENTIALS 3 CR

Provides the student an opportunity to study the essential theoretical content necessary to meet the OBRA nursing assistant objectives. Fundamental caregiving skills are taught with an emphasis on safety and activities of daily living. While studying the care necessary for an individual of any age, a primary focus is placed on the care of the elderly, including rehabilitation and death and dying.

NA 102

NURSING ASSISTANT CLINICAL 2 CR

During the clinical practicum, the student is given the opportunity to put into practice those skills learned in the classroom and lab settings. The clinical experiences include orientation to the extended care facility and a clinical final exam, which is conducted in the college lab.

PREREQUISITES: NA 101, HLTH 103, and HLTH 133

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

CREF 122

**FUNDAMENTALS OF
REFRIGERATION 5 CR**

This course presents safety in the workplace, the fundamentals of vapor compression refrigeration, HVAC/R tools, equipment and refrigerants. Students prepare for certification under Section 608 of the EPA regulations. Lectures are supplemented by student's individual work on projects in the concurrent course.

2010-2012 Course Descriptions

CREF 123

FUNDAMENTALS LAB I 5 CR

This Course places emphasis on safe work practices during system assembly, diagnostics, troubleshooting procedures and refrigerant handling. Students will learn how to install a simple control system on a refrigeration trainer. The concurrent course, CREF 122 is supplemented by student's individual work on projects in this course.
PREREQUISITES: Concurrent Course CREF 122

CREF 126

BASIC ELECTRICITY FOR HVAC/R 5 CR

This course presents the fundamentals of controls, motors, electrical theory and applications. Emphasis is placed on proper diagnostic and troubleshooting procedures. Lectures and bookwork are supplemented by student's individual work on projects in concurrent course CREF 127. Proper electrical codes are observed in the coursework.
PREREQUISITES: CREF 122 & CREF 123

CREF 127

FUNDAMENTALS LAB II 5 CR

This course provides the opportunity to use the fundamentals of electricity, tools and equipment, controls, motors, electrical theory. Emphasis is placed on safe use of electricity while building electrical circuits on an electrical trainer and refrigeration trainer. Lectures in the concurrent course, CREF 126, are supplemented by student's individual work on projects in this course.
PREREQUISITES: CREF 122 & CREF 123

CREF 132

COMMERCIAL SELF CONTAINED SYSTEMS 5 CR

This course analyzes medium and low temperature refrigeration systems and components used in commercial applications. Lectures are supplemented by student's individual work on projects in concurrent course.
PREREQUISITES: Completion of CREF 120 series

CREF 133

COMMERCIAL SELF CONTAINED SYSTEMS LAB 5 CR

This course presents medium and low temperature refrigeration systems and equipment used in commercial applications. Emphasis is placed on trouble-shooting techniques on live equipment as installed in industry. The concurrent course, CREF 132 is supplemented by student's individual work on projects in this course.
PREREQUISITES: Completion of CREF 120 series

CREF 135

COMMERCIAL ICE SYSTEMS THEORY AND APPLICATIONS 3 CR

This course introduces the various types and makes of commercial ice production systems used in restaurants, institutions, and process applications. Wiring diagrams and sequence of operations are emphasized. Proper installation, maintenance and troubleshooting techniques are discussed.
PREREQUISITES: Completion of CREF 133, CMST& 210 or COM 170

CREF 137

COMMERCIAL ICE SYSTEMS LAB 4 CR

This course is applying concepts learned in CREF135 for commercial ice systems. The student will install, maintain, and diagnose problems on a variety of actual operating ice machines. Students will be exposed to different manufacturer's designs, as all are different. The student will verify proper production, learn how to build a wiring schematic, identify faults inserted by instructor and repair. Maintenance and proper cleaning and sanitation are also stressed in the coursework.
PREREQUISITES: Completion of CREF 133, CMST& 210 or COM 170

CREF 139

COMMERCIAL ICE SYSTEMS INTERACTIVE LEARNING 2 CR

This course utilizes the subject of commercial ice production for the student to research a particular commercial ice machine. The student will prepare and deliver a presentation to their peer group on one selected brand and model of ice machine, and essentially teach the peer group on the aspects of installation, wiring, sequence of operation and maintenance. Steps included in this lesson are; research, public speaking, audio visual aids, audience participation and self/peer-evaluation.
PREREQUISITES: Completion of CREF 133, CMST& 210 or COM 170

CREF 141

AIR PROPERTIES AND PSYCHOMETRICS 3 CR

This course prepares the student with information about air and its properties, moisture levels, enthalpy, volume, relative humidity and density. Air measurement techniques are also explored. Classroom discussion is aided by hands-on lab activities on operating equipment.
PREREQUISITES: CREF 132 -139 (minimum combined C grade in CREF 130 series), Math100, CMST& 210 or COM 170

CREF 143

HVAC SYSTEM DESIGN 3 CR

Understanding of the elements of proper HVAC system design is essential for the HVAC installer and service technician. This course focuses on Heat loss/Gain BTU requirements for buildings, ventilation rates, duct design and application, system selection and installation variables. The student will design a complete system using an existing structure or assigned blueprint plans.
PREREQUISITES: CREF 132-139, CREF 141, CMST& 210 or COM 170

CREF 145

DUCT LAYOUT AND FABRICATION 4 CR

This entry level fabrication course is to prepare students for the HVAC sheet metal installation industry. Parallel line, radial line and triangulation layout techniques are utilized to develop sheet metal patterns of common fittings used in the installation of HVAC systems. Students will apply these techniques in the lab and fabricate assigned fittings.
PREREQUISITES: CREF 132-139, CREF 143, CMST& 210 or COM 170

CREF 147

APPLIED AIR CONDITIONING SYSTEMS 4 CR

This course prepares the learner to install, start-up, troubleshoot and diagnose problems in comfort cooling air conditioning systems. Emphasis is given to wiring techniques, proper refrigeration piping, controls, start-up and maintenance.
PREREQUISITES: CREF 132-139, CREF 145, CMST& 210 or COM 170

CREF 149

APPLIED HEAT PUMP SYSTEMS 4 CR

This course prepares the learner to install, start-up, troubleshoot and diagnose problems in residential and commercial heat pump systems. Emphasis is given to wiring techniques, proper refrigeration piping, controls, start-up and maintenance. Integration of auxiliary heat components, balance point identification, cost analysis to other fuels, and geothermal systems are all introduced and applied in the lab.
PREREQUISITES: CREF 132-139, CREF 141-147, CMST& 210 or COM 170

CREF 221

ELECTRIC HEATING TECHNOLOGY 4 CR

This course introduces electricity as a heat source for stationary and forced air systems. Emphasis is placed on electrical safety, BTU calculations, and airflow calculations, cost analysis, wiring diagrams, and troubleshooting techniques. Classroom discussion and hands on lab activities are designed to enable students to quickly identify system problems and propose solutions.
PREREQUISITES: CREF 132-139, CMST& 210 or COM 170

CREF 223

GAS HEATING TECHNOLOGY 7 CR

This course provides hands-on theory and application of forced air and stationary gas heating systems used in residential and light commercial buildings. Natural gas (methane) and LPG systems are discussed and implemented. Emphasis is placed on diagnosis and troubleshooting techniques for service technicians.
PREREQUISITES: CREF 132-139, CREF 221, CMST& 210 or COM 170

CREF 225

FUEL OIL HEATING TECHNOLOGY 4 CR

This course provides hands-on theory and application of oil fired heating systems in homes and commercial buildings. Proper system installation, set-up, diagnosis and troubleshooting techniques are emphasized.
PREREQUISITES: CREF 132-139, CREF 221-223, CMST& 210 or COM 170

CREF 227

HYDRONIC HEATING TECHNOLOGY 5 CR

This course explores the use of hydronics to heat residential and commercial buildings. Students will apply proper tools and techniques to identify components, design, install, maintain and troubleshoot problems in hydronic heating systems for residential and commercial use. Radiant heat systems and most types of commercially available fuels are utilized.

PREREQUISITES: CREF 132-139, CREF 221-225, CMST& 210 or COM 170

CREF 231

COMMERCIAL/INDUSTRIAL REFRIGERATION APPLIED COMPONENTS 5 CR

This course expands on commercial refrigeration systems presented in CREF 132-139. Industrial systems such as chillers for RSW, supermarket refrigeration, commercial chillers for process control, industrial open drive compressors, and associated components are studied. Each ancillary component is analyzed for compatibility, proper selection, operation, need, energy savings and equipment reliability. Wiring diagrams are emphasized and diagnosis of failed components is also addressed. How the system operates as a whole is critical and students are encouraged to research new and innovative applications for these systems.

PREREQUISITES: CREF 227, CREF 149 (minimum combined C grade in CREF 140 and 220 series) CMST& 210 and COM 170

CREF 233

COMMERCIAL/INDUSTRIAL REFRIGERATION APPLIED COMPONENTS LAB 5 CR

Students apply the theory and application skills acquired in CREF231 to operating systems in the lab. A proper start-up technique, adjustments, wiring schematics and evaluation of the operation of the systems is emphasized. Students work in teams, and rotate shifts weekly, allowing each student the diversity to work with all team members. Safety is foremost as most of these systems are high voltage multi-phase systems. Students diagnose and solve instructor inserted problems into the systems, make repairs and invoice the instructor.

PREREQUISITES: Concurrent with CREF 231

CREF 236

COMMERCIAL AND INDUSTRIAL CHILLED WATER SYSTEMS 3 CR

Chilled water systems that are covered in depth include commercial/industrial applications of chilled water-cooling systems. Classroom activities are supplemented by student's individual and group work on lab projects including centrifugal and screw compressors, application of part winding start and 460 Volt Star Delta starter. Analyzing various systems for cost benefits, installation, service and proper annual maintenance procedures are emphasized.

PREREQUISITES: CREF 231 & CREF 233

CREF 237

COOLING TOWERS AND WATER TREATMENT 1 CR

This course presents a study of cooling towers and the treatment of the water used.

PREREQUISITES: CREF 236

CREF 238

CASCADE/TRANSPORT REFRIGERATION SYSTEMS 5 CR

Commercial systems that are covered in depth include ultra-low temp freezing systems and transport refrigeration systems. Classroom activities are supplemented by student's individual and group work on projects.

PREREQUISITES: CREF 237

CREF 239

ABSORPTION REFRIGERATION SYSTEMS 1 CR

This course presents a continuation of the course of study of refrigeration systems. Commercial systems that are covered in depth are three types of absorption refrigeration systems.

PREREQUISITES: CREF 238

CREF 241

CONTROL THEORY FOR HVAC AUTOMATION SYSTEMS 5 CR

This course presents basic control theory for energy management and control systems. Systems covered in depth include electric, electronic, distributed digital control, pneumatic, VAV and VVT. Classroom activities are supplemented by concurrent course CREF 242 Control Theory Lab.

PREREQUISITES: CREF 120 series, CREF, 130 series, CREF 140 series, CREF 220 series, CREF 230 series with minimum grade average of C for each series

CREF 242

CONTROL THEORY LAB 5 CR

This course presents the student with opportunities to apply knowledge gained in concurrent course 241 Control Theory. System start-up, proper operation, calibration and electrical safety and codes are emphasized. Students work individually and in teams on projects.

PREREQUISITES: CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series with minimum grade average of C for each series

CREF 245

COMMERCIAL AND INDUSTRIAL BOILERS 2 CR

This course presents commercial and industrial boilers and combustion controls, advanced flame safeguards, safety, code compliance and efficiency testing of gas and oil fired systems. Classroom activities are supplemented by the student's individual and group work on mocked-up and actual operating systems.

PREREQUISITES: CREF 242

CREF 246

HVAC SYSTEM DESIGN AND COMMISSIONING 2 CR

This course presents an opportunity to review the design and commissioning of various types of

building HVAC energy management and control systems, and how the LEED certification process is implemented and steps to arrive at LEED certification. Air balancing is introduced and the basic requirements and documentation are explored, as well as requirements to become a certified individual.

PREREQUISITES: CREF 120 series, CREF 130 series, 140 series, CREF 220 series, CREF 230 series with minimum grade average of C for each series

CREF 247

JOB PREP AND INTERNSHIP, NATIONAL TESTING PREP 5 CR

This course prepares students with the necessary skills to successfully create a professional resume and cover letter, practice interviewing for employment and research companies to work for. An internship opportunity to gain on the job experience is required as part of this course and often leads to a permanent position. Preparation and review for ARI national testing is also included as part of this course, and often leads to a permanent position.

PREREQUISITES: CREF 120 series, CREF 130 series, CREF 140, CREF series 220, CREF 230 series with minimum grade average of C for each series

HUMAN RESOURCE MANAGEMENT

HRM 110

HUMAN RESOURCE MANAGEMENT 5 CR

Introduces the functional areas of human resource management and laws. Students discuss job analysis, recruitment, testing, interviewing, selection, placement, training, wage and salary administration, performance, evaluation and labor management.

HRM 201

MANAGEMENT OF HUMAN RESOURCES: AN OVERVIEW 3 CR

This course is an overview of the role and responsibilities of Human Resource management within an organization. It will cover basic employment law, basic components of human resource management, the role of human resource workers, and human resource information systems. Course work involves the practical application of concepts to the workplace.

HRM 205

RECRUITMENT & STAFFING POLICIES & PRACTICES 3 CR

This course provides an exploration of the key issues in recruitment, selection, and staffing of employees at all levels. Human resources planning, job descriptions and specifications, recruitment, the selection process, testing, employment interviews, and the evaluation of the selection process are discussed. Compliance with issues such as EEO, affirmative action, and the Americans with Disabilities Act (ADA) are addressed. Emphasis is on establishing procedures that ensure high quality candidates and employees.

PREREQUISITES: HRM 201 or Program Advisor permission

HRM 207

FUNDAMENTALS OF EMPLOYEE BENEFITS & COMPENSATION 3 CR

An overview of base pay compensation and benefits. Topics include principles of pay systems, the relationship of pay systems on an organization's needs, cost of benefits, statutory coverages, retirement plans, defined benefit approaches and contribution plans, profit sharing, life, dental, disability, and health plans. Health and safety issues are also addressed.

PREREQUISITES: HRM 201 or Program Advisor permission

HRM 210

EMPLOYMENT LAW & LABOR RELATIONS 3 CR

This course provides a legal and practical overview of employee relations and labor relations in both union and nonunion environments. Communication styles, facilitation, grievances and discipline handling, crisis interventions, conflict resolution, labor relations, and the role of government in human resources management are addressed. It also emphasizes compliance issues, including OSHA, employee assistance harassment, and substance abuse.

PREREQUISITES: HRM 201 or Program Advisor permission

HRM 220

TRAINING & STAFF DEVELOPMENT 3 CR

Training and staff development from a human resource perspective will be addressed. Employee orientation, career planning and development, cross training, management development, and succession planning are covered. This course also addresses learning styles, technical needs assessment, choosing instructors and programs, and program evaluation and modification.

PREREQUISITES: HRM 201 or Program Advisor permission

HRM 235

HUMAN RESOURCE INFO SYSTEMS 2 CR

This course explores how technologies are transforming the workplace, the workforce, and the work of the HR practitioner. Considerations in evaluating appropriate software will be shared, as well as researching the pros and cons of several software applications.

HRM 240

RISK MANAGEMENT & SAFETY 3 CR

Risk management is the decision-making process involving considerations of political, social, economic, and engineering factors with relevant risk assessments relating to a potential hazard so as to develop, analyze and compare regulatory options and to select the optimal regulatory response for safety from that hazard. Essentially risk management is the combination of three steps: risk evaluation, emission and exposure control, and risk monitoring.

HRM 245

DIVERSITY IN THE WORKPLACE 1 CR

This course is designed to examine the various elements that create differences within society and the workplace. Also to be examined will be the

current legalities regarding diversity in the workplace, and how to interface with employers that will enable them to work effectively in a diverse world.

HRM 255

STRATEGIC HUMAN RESOURCES 3 CR

This course covers how the human resource professional assists in the managerial process of forming a strategic vision, setting objectives, crafting a strategy, implementing and executing the strategy.

PREREQUISITES: HRM 201 or Program Advisor permission

HRM 260

CONDUCTING INTERNAL INVESTIGATIONS 1 CR

Overview of the methodology and investigatory skills necessary for internal investigation in the workplace. Through readings, discussion and presentations, participants will learn the basic methodology of internal investigation, as well as the necessary interviewing skills to conduct an effective investigation. Topics include interviewing, what to look for during an investigation, how to conduct an investigation, and the various situations that require a formal and informal investigation.

HYPNOTHERAPY

HYPN 101

BASIC HYPNOSIS 5 CR

This course teaches basic hypnosis/self-hypnosis, and is the first in a three part series. It may be taken for personal growth, as well as a pre-requisite for the study of professional hypnotherapy. It is approved by the National Society of Clinical Hypnotherapists, as well as other professional hypnosis associations.

HYPN 102

INTERMEDIATE HYPNOTHERAPY 5 CR

This course is the second in a 3-part series that is designed to teach the serious student of hypnosis how to apply hypnotherapy techniques for motivation and goal achievement.

PREREQUISITES: HYPN 101

HYPN 103

ADVANCED HYPNOTHERAPY 5 CR

This course, the third in a series, is for the serious student wishing to use hypnotherapy as a career, or to supplement an existing healthcare field and practice. Upon completion, the student is eligible to apply for State Registration through the Department of Health.

PREREQUISITES: HYPN 102

INSTRUMENTATION

INST 200

INTRO TO INSTRUMENTATION PROFESSION 2 CR

This course introduces you to the trade, terminology, and basic principles of instrumentation. It is a preparatory course for any one of three sections within the second year of Instrumentation: measurement, control, and systems, enabling you to begin your second year of Instrumentation at the start of Fall, Winter, or Spring quarter.

INST 205

JOB PREPARATION I 1 CR

Preparation for employment, including resume preparation, cover letter writing, job search engine use, and interviewing skills.

INST 206

JOB PREPARATION II 1 CR

This course teaches you how to get the jobs that are not listed in classified ads or job search engines. You will learn how to professionally network, research employers for job potential, conduct informational interviews, and otherwise take an active approach in securing employment within your professional field.

INST 230

MOTOR CONTROLS 3 CR

In this course, you will learn the theory of electric motor operation and the practice of wiring and configuring electric motor control circuits. coverage of dc and three-phase ac electric motor controls as well as variable-frequency ac motor drives is included in this course.

INST 231

PLC PROGRAMMING 3 CR

This course is an introduction to the basics of DCS, their applications, programming, and troubleshooting.

PREREQUISITES: INST 209

INST 232

PLC SYSTEMS 3 CR

In this course, you will apply programmable logic controllers (PLCX) to the control of real processes, as well as learn to effectively test and troubleshoot plc-controlled systems.

INST 240

PRESSURE AND LEVEL MEASUREMENT 6 CR

In this course you will learn how to precisely measure both fluid pressure and fluid solids level in a variety of applications, as well as accurately calibrate and efficiently troubleshoot pressure and level measurement systems.

INST 241

TEMPERATURE AND FLOW MEASUREMENT 6 CR

In this course you will learn how to precisely measure both temperature and fluid flow in a variety of applications, as well as accurately calibrate and efficiently troubleshoot temperature and flow measurement systems.

INST 242
ANALYTICAL MEASUREMENT 5 CR
 This course teaches the basic principles of process analysis including pH, electrical conductivity, turbidity, and chemical constituency. A review of INST 240 (Pressure and Level Measurement) and INST 241 (Temperature and Flow Measurement) is also included in this course.

INST 250
FINAL CONTROL ELEMENTS 5 CR
 In this course you will learn how to precisely control energy in process systems using fluid valves, motors, and other actuating devices. You will also learn how fluid power systems work and how to efficiently troubleshoot final control elements.

INST 251
PID CONTROL 5 CR
 This course teaches you how the most basic and widely-used control algorithm works: proportional-integral-derivative (PID). In this course you will see how the PID algorithm is implemented in pneumatic as well as electronic controllers, and also how to tune a PID controller for stability.

INST 252
LOOP TUNING 4 CR
 This course teaches more advanced loop tuning techniques as well as advanced process control strategies including cascade, feed forward, ratio, and model-based control algorithms. You will also explore common types of controlled processes found in industry to see how these algorithms are practically applied. A review of INST 250 (final control elements) and INST 251 (PID controllers and tuning) is included in this course.

INST 260
DATA ACQUISITION SYSTEMS 4 CR
 This course reviews digital communication and analog/digital conversion theory learned in the first year (Core Electronics) courses, building upon that foundation to explore industrial data buses (including Ethernet) and indicating, data logging, and SCADA systems.

INST 262
DCS AND FIELDBUS 5 CR
 This course teaches the basic principles of distributed instrumentation, including both distributed control systems (DCS) and Field/bus instruments. Safety instrumented system (SIS) concepts and components are also covered here. A review of INST 260 (Data Acquisition Systems) and INST 261 (Programmable Logic Controllers) is included in this course.

INST 263
CONTROL STRATEGIES 5 CR
 This course teaches the theory and practical application of process control strategies including cascade, feedforward, selector, and override controls. You will also explore common types of controlled processes found in industry to see how these algorithms are practically applied. A review of INST 260 (Data Acquisition Systems) and INST 262 (DCS and field/bus) is included in this course.

INST 290
INTERNSHIP 5 CR
 The optional elective course provides work experience in related industry refining technical and workplace skills in a work environment. The specific student performance skills will be developed for each individual student internship. Clock hours are variable and may be repeated for clock hour credit.
PREREQUISITES: Instructor permission.

LEGAL

LGL 127
LEGAL OFFICE PROCEDURES 5 CR
 Designed to introduce students who have little or no background in the legal field to the terminology, background, and knowledge of the legal procedures required to work in a law office. It presents basic legal concepts, the various fields of law, and outlines the preparation of documents commonly used in those fields. Student projects give the students practice in various areas of law.
PREREQUISITES: CAP 106

LGL 132
LEGAL TERMINOLOGY/TRANSCRIPTION 5 CR
 Designed to help students learn the legal terminology, English skills, legal formatting skills, and transcription guidelines needed to transcribe accurate legal documents in a law office.
PREREQUISITES: LGL 127

LGL 211
LEGAL DOCUMENT PROCESSING 5 CR
 Course makes use of a self-contained comprehensive job simulation designed to give the student practice on the types of activities most often performed in legal office settings. Gain a hands-on exposure to the various types of law while formatting documents. Word processing functions are incorporated into the course.
PREREQUISITES: LGL 132

LGL 225
INTERNSHIP 3 CR
 Students will work in a legal related job receiving pay or volunteering.
PREREQUISITES: Instructor permission

LGL 226
INTERNSHIP 6 CR
 Students will work in a legal office-related job receiving pay or volunteering.
PREREQUISITES: Instructor permission

PRECISION MACHINING

MACH 100
INTRODUCTION TO TRADE/OCCUPATIONAL SAFETY 1 CR
 Overview of the Program, College policies and procedures, student equipment requirements, machine occupations, and material safety data.

MACH 101
MACHINE TECHNOLOGY I 2 CR
 Basic machine tool operation and safety on grinders, lathes, mills, and drills.

MACH 102
MACHINE TECHNOLOGY II 2 CR
 Covers saws and sawing, machine speeds, feeds, setup, and secondary drilling operations.
PREREQUISITES: MACH 100, MACH 101, and MACH 121

MACH 111
BENCH WORK/HAND TOOLS 2 CR
 The safe uses and selection of hand tools for holding, striking, assembly, and cutting.

MACH 113
MACHINERY HANDBOOK 1 CR
 Introduction to the use of Machinery's Handbook, how to research, identify, and find basic information.

MACH 119
MACHINE FUNDAMENTALS IA 5 CR
 This is the first in a two part series. This course provides for basic experience using pedestal grinders, lathes, hand tools, mills and material identification. This course is taken in conjunction with MACH 101 and provides students an opportunity to practice entry level machining skills.

MACH 120
MACHINE FUNDAMENTALS IB 5 CR
 This is the second course in a two part series that provides for basic experience using pedestal grinders, lathes, hand tools, mills and material identification. This course is taken in conjunction with MACH 101 and provides students an opportunity to practice entry level machining skills.

MACH 122
MACHINE FUNDAMENTALS II 10 CR
 A continuation of MACH 120, lathes, mills, drilling, setup, and secondary operations.
PREREQUISITES: MACH 120

MACH 123
MACHINE FUNDAMENTALS III 8 CR
 Includes advanced machine operation on a lathe and mills, machine accessories, job planning, and production methods.
PREREQUISITES: MACH 122

MACH 125
QUALITY CONTROL 2 CR
 The use of visual and precision instrument techniques for quality control. Surface finish and quality problem solving.

MACH 131
BLUEPRINT READING I 4 CR
 Provides instruction for development in print reading using basic sketching techniques, lettering, dimensioning, lines, and makeup of a print as a form of communication.

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MACH 132
BLUEPRINT READING II 4 CR
Covers the use of sectional views, thread specifications, dimensioning auxiliary views, geometric tolerance gearing, welding symbols, processes and skill development in reading prints by using sketching techniques.
PREREQUISITES: MACH 131

MACH 162
APPLIED MATH I 5 CR
Study of basic algebra, ratio and proportion, plane geometry, and applying the principles learned to practical shop problems.
PREREQUISITES: MACH 100

MACH 192
JOB PREPARATION 1 CR
Focuses on skills to seek and keep a job.
PREREQUISITES: COM 170

MACH 201
ADVANCED MANUFACTURING TECHNOLOGIES 2 CR
Covers precision measuring tools, metal cutting technology, carbide cutting tools, and advanced grinding operations.
PREREQUISITES: MACH 103

MACH 202
CNC MACHINE THEORY 2 CR
Advanced milling machine setups and operations, speeds, feeds, and gear cutting. Includes indexing head calculations and the theory for using the rotary table.

MACH 212
METALLURGY & HEAT TREATMENT 3 CR
Basic information about the manufacture of steels, the composition of selected metals, and the heat treating and hardness testing of steels.
PREREQUISITES: Completion of third quarter requirements and MACH 201

MACH 213
APPLIED MACHINERY'S HANDBOOK 1 CR
An introduction to the use of information in the Machinery's Handbook to solve shop-related problems.

MACH 214
TOOL AND CUTTER GRINDING 3 CR
Provides cutting tool nomenclature and the reconditioning of worn or dull cutting tools.

MACH 215
HYDRAULICS 1 CR
Designed to promote hydraulic principles, fundamental system components, and hydraulic oils.
PREREQUISITES: Completion of three quarters in program

MACH 221
MACHINE FUNDAMENTALS IV 4 CR
This course includes advanced machining techniques using computer aided machining practices. In addition, machining methods used for CNC programming and operation are emphasized.

MACH 222
MACHINE FUNDAMENTALS V 10 CR
Includes advanced instruction of turning, milling, and grinding machines. The selection and use of carbide cutting tools will be emphasized.

MACH 241
INTRODUCTION TO CNC MACHINING 8 CR
Introduction to the machine controls of the CNC milling machine and lathe. Also taught is the basic rapid and linear "G" codes needed for machine operation.

MACH 242
CNC PROGRAMMING/OPERATION 9 CR
Teaches manual programming and operation of the CNC milling and lathe machines and basic G&M commands.
PREREQUISITES: Completion of all theory, blueprint reading, and mathematics related to the program

MACH 244
CNC/CAM PROGRAMMING & OPERATIONS A 6 CR
This is the first course in a two part series which focuses on advanced programming related to CNC, including macros, subroutines, and computer-aided programming using the Master CAM programming system. Course introduces students to 2D CAM Geometry.

MACH 245
CNC/CAM PROGRAM & OPERATIONS B 6 CR
This is the second course in a two part series which focuses on advanced programming related to CNC, including macros, subroutines and computer-aided programming using the Master CAM programming system. This course introduces students to 3D Design and Solids.

MACH 262
APPLIED MATHEMATICS II 5 CR
Covers trigonometry and its function, working with right triangles and how they apply to the machining of parts. Also covers oblique triangles and the use of the law of sines and cosines.
PREREQUISITES: MACH 162

MANAGEMENT

MGMT 101
CONFLICT MANAGEMENT 1 CR
Conflict is described as a disagreement among two or more individuals. Managing the periodic incidence can prove to be challenging as well as stressful. This course will give the student the tools to understand the reasons that conflict exists, and how to stimulate conflict in a healthy and competitive way in order to increase performance, control conflict, and resolve and eliminate conflict.

MGMT 102
THE LEADERSHIP PROCESS 3 CR
What makes a good "leader"? Leadership in individuals, whether they seem to have been born

with certain "traits," or have developed various leadership behaviors, is an area that has been studied for a long time. This course will examine the attributes of leadership, how it develops, the behaviors that need to be encouraged, those that need to be modified, as well as how to manage the leadership process.

MGMT 104
DEFINING & MANAGING QUALITY CUSTOMER SERVICE 3 CR
As a general rule customers go where they are wanted and stay where they are appreciated. Organizations, private or public, are judged on the level of service they deliver to the customer. This course will identify the barriers that employees have in delivering quality service, strategies for development, team building techniques, customer service management, and feedback.

MGMT 152
SMALL BUSINESS MANAGEMENT 3 CR
Covers business structures, planning and organizing a business, purchasing an existing business or franchise, legal structure, cash flow, marketing, and changes businesses will encounter in the next five to ten years.

MGMT 210
SUPERVISION FOR THE OFFICE 5 CR
Demonstrates knowledge of appropriate office supervisory skills. Introduces students to the fundamentals of supervisory management. Through lectures, text, case studies, projects, and simulations students will develop an understanding of principles to be used as guides for supervision in an office.

MARKETING

MKT 100
MARKETING FUNDAMENTALS 5 CR
This course will provide a comprehensive survey of fundamental marketing principles and skills. Students will learn how marketing professionals develop strategy, research consumer needs, and identify target markets. In addition to covering the importance of global marketing and e-commerce, students will learn how to satisfy market opportunities with the "Four Ps," product, pricing, promotion, and placement.

MATHEMATICS

MATH 090
PRE ALGEBRA 5 CR
A developmental math course to help students make the transition from arithmetic to algebra. Students will increase their math skills and gain the foundation for algebraic concepts and problem-solving. Student should have a working knowledge of arithmetic. Included are topics on fractions, sets of numbers, applied problem solving, use of variables, simplifying expressions, and setting up equations to solve.
PREREQUISITE: Accuplacer Arithmetic score of 38 or higher

MATH 098**ELEMENTARY ALGEBRA****5 CR**

This course will cover solving different forms of equations, manipulation of exponents and radicals as needed on the job, as well as factoring and graphing. It is equivalent to one year of high school algebra. This course is targeted for those students whose programs involve more algebra than included in BTC's occupational and technical math courses. This course will also serve as a prerequisite to Intermediate Algebra 099 or as a refresher for those students who have had algebra in the past.

PREREQUISITES: Accuplacer Arithmetic score of 75 or higher or Math 90 with a grade of "B-" or higher

MATH 099**INTERMEDIATE ALGEBRA****5 CR**

This course prepares students for entry into college level math courses. Topics include second degree equations and inequalities, relations and their graphs, exponential and logarithmic functions, and rational expressions. A graphing calculator is required.

PREREQUISITES: Math 098 with a grade of "C" or higher. Accuplacer algebra score of 75 or higher.

MATH 100**OCCUPATIONAL MATH****5 CR**

This course covers fractions, decimals, percents, ratios & proportions, English & metric measurement systems, geometry, and algebra. The contents will include relevant technical applications and the use of a calculator. Text required.

PREREQUISITES: Accuplacer Arithmetic score of 38 or higher or Math 090 with a grade of "B" or higher

MATH& 107**MATH IN SOCIETY****5 CR**

College level coverage of practical applications in many fields of study. Topics will include probability, statistics, finance, geometry, graphing, growth & decay, and right triangle trigonometry.

PREREQUISITES: Math 099 - Intermediate Algebra with a "C" or above or BTC College level math score of 32 or higher.

MATH& 141**PRECALCULUS I****5 CR**

The focus of this course will be functions. Students manipulate and graph linear, polynomial, rational, exponential, logarithmic, and quadratic functions. This course will also cover systems of equations, matrices/determinants, and their applications.

PREREQUISITES: MATH 099 Intermediate Algebra with a "C" or above or BTC College level math score of 32 or higher.

MATH& 142**PRECALCULUS II****5 CR**

The majority of this course will cover trigonometry. Students will explore trigonometry functions, right and oblique triangle trigonometry, graphing, trigonometry identities, laws of sine and cosine as

well as trigonometric application problems. This course will also cover vectors in the plane and in space, along with parametric equations, polar coordinates and graphs of polar equations.

PREREQUISITES: MATH& 141 with a "C" or above

NURSING**NUR 101****COMMON HEALTH NEEDS****15 CR**

This first course introduces the student to the concepts of health and wellness. A foundation for practice is established through the study of the history, legal parameters and ethics of nursing. Common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. An emphasis is placed on safety as it relates to nursing practice. Further emphasis is placed on the needs of the elderly, including the process of death and dying.

PREREQUISITES: Acceptance into the Practical Nursing Program

NUR 101A**COMMON HEALTH NEEDS 1A****8 CR**

The first course introduces the student to the concepts of health and wellness. A foundation for practice is established through the study of the history, legal parameters, and ethics of nursing. Common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. An emphasis is placed on safety as it relates to nursing practice and includes seven hours of HIV/AIDS for healthcare workers. Further emphasis is placed on the needs of the elderly, including the process of death and dying.

PREREQUISITES: Acceptance into the Practical Nursing Program

NUR 101B**COMMON HEALTH NEEDS 1B****7 CR**

This course is a continuation of NUR 101A whereby the student will integrate the concepts of health and wellness into the foundation of practice. Common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. An emphasis is placed on safety as it relates to nursing practice. Further emphasis is placed on the needs of the elderly, including the process of death and dying.

PREREQUISITES: NUR 101A, NUR 102A

NUR 102**NURSING PRACTICE 1****7 CR**

This course is concurrent with NUR 101, NUR 102, and provides the student with an opportunity to learn and practice basic nursing skills, including assessment techniques, non-parenteral medication administration, and the fundamental techniques of physical care, such as bathing, positioning, and the use of proper body mechanics. An

emphasis is placed on the care of the elderly and rehabilitation. Includes both college lab time, and clinical experiences in a long-term care facility.

PREREQUISITES: Acceptance into the Practical Nursing Program

NUR 102A**NURSING PRACTICE 1A****4 CR**

This course is concurrent with NUR 101A, NUR 102A, and provides the student with an opportunity to learn and practice basic nursing skills which includes fundamental techniques of physical care such as bathing, positioning and the use of proper body mechanics. An emphasis will be placed on care of the elderly and rehabilitation. This course includes both college lab time and clinical experiences in long term facilities.

PREREQUISITES: Acceptance into the Practical Nursing Program

NUR 102B**NURSING PRACTICE 1B****3 CR**

Concurrent with NUR 101B, NUR 102B provides the student with an opportunity to learn and practice basic nursing skills including assessment techniques and non-parenteral medication administration. An emphasis is placed on the care of the elderly and rehabilitation. This course includes both lab time and clinical experiences in long term facilities.

PREREQUISITES: NUR 101A, NUR 102A

NUR 105**PHARMACOLOGY FOR PN'S****2 CR**

An introduction to the basic concepts required by nurses to provide safe and effective pharmacotherapeutics. The metabolism and actions of drugs, with an emphasis on absorption, duration of action, distribution in the body, and methods of excretion will be studied. Also introduces the nursing implications, including the principles of safe drug administration, documentation, and client teaching. Students are expected to demonstrate competency in arithmetic computations, and to apply knowledge of related vocabulary and medical symbols.

PREREQUISITES: MATH 098 or MATH 099 and BIOL& 160 with a "C" or above or equivalent

NUR 121**COMMON HEALTH****DISTURBANCES 1****15 CR**

Prepares the student to assist people with common health disturbances in single or multiple systems. The systems studied include the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems. In addition, fluid and electrolyte disturbances, surgical asepsis, and perioperative care are addressed. All care is approached utilizing the nursing process. An emphasis is placed on young, middle, and elderly adults.

PREREQUISITES: All courses within NUR 010 or their equivalent

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NUR 121A

**COMMON HEALTH
DISTURBANCES 1A** **7 CR**

This course prepares the student to assist people with common health disturbances in single or multiple systems within the body. The systems studied include the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems. In addition, fluid and electrolyte disturbances, surgical asepsis, and preoperative care are addressed. All care is approached utilizing the nursing process. An emphasis is placed on young, middle, and elderly adults.
PREREQUISITES: NUR 101B, NUR 102B

NUR 121B

**COMMON HEALTH
DISTURBANCES 1B** **8 CR**

This course is a continuation of NUR 121A which includes the study of respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine and musculoskeletal systems, fluid and electrolyte disturbances, surgical asepsis and preoperative care. All care is approached utilizing the nursing process. An emphasis is placed on young, middle, and elderly adults.
PREREQUISITES: NUR 121A, NUR 122A

NUR 122

NURSING PRACTICE 2 **7 CR**

This course is concurrent with NUR 121, NUR 122, and provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems, or a fluid and electrolyte disturbance. Sterile technique is covered, as well as subcutaneous and intramuscular injection techniques. An opportunity to care for a client throughout the perioperative process is also provided. Includes college lab time, and clinical experiences in both acute and long-term care facilities.
PREREQUISITES: NUR 101, NUR 102

NUR 122A

NURSING PRACTICE 2A **4 CR**

This course is concurrent with NUR 121A, NUR 122A, and provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine and musculoskeletal systems, or a fluid and electrolyte disturbance. Sterile techniques are covered as well as subcutaneous and intramuscular injection techniques. An opportunity to care for a client throughout the perioperative process is also provided. Included is college lab time and clinical experiences in an acute care facility.
PREREQUISITES: NUR 101B, NUR 102B

NUR 122B

NURSING PRACTICE 2B **3 CR**

This course is concurrent with NUR 121B, NUR 122B, and provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine and

musculoskeletal systems, or a fluid and electrolyte disturbance. Sterile technique is covered as well as subcutaneous and intramuscular injection techniques. An opportunity to care for a client throughout the perioperative process is also provided. Included is lab time and clinical experiences in an acute care facility.

PREREQUISITES: NUR 121A, NUR 122A

NUR 131

**COMMON HEALTH
DISTURBANCES 2** **15 CR**

Prepares the student to assist people with common health disturbances in single or multiple systems. The systems studied include the neurological, immune, and integumentary systems. Additionally, students will study clients with mental health disturbances, common pediatric disturbances, and normal mother/infant care. Nursing in both the clinical and office setting will be introduced, as well as basic intravenous therapy. In preparation for entry into nursing practice, students will explore the various leadership skills required of a Licensed Practical Nurse (LPN).

PREREQUISITES: NUR 121, NUR 122

NUR 131A

**COMMON HEALTH
DISTURBANCES 2A** **12 CR**

This course prepares the student to assist people with common health disturbances in single or multiple systems within the body. The systems studied include neurological, immune and integumentary systems. In addition, students will study clients with mental health disturbances, common pediatric disturbances and normal mother/infant care. Nursing in both the clinical and office setting will be introduced, as well as basic intravenous therapy. In preparation for entry into nursing practice, students will explore the various leadership skills required of a Licensed Practical Nurse (LPN).

PREREQUISITES: NUR 121B, NUR 122B

NUR 131B

**COMMON HEALTH
DISTURBANCES 2B** **3 CR**

NUR 131B is a continuation of NUR 131A. The systems studied include the neurological, immune and integumentary systems. In addition, students will study clients with mental health disturbances and normal mother/infant care. Nursing in both the clinical and office setting will be introduced, as well as intravenous therapy. In preparation for entry into nursing practice, students will explore the various leadership skills required of a License Practical Nurse (LPN).

PREREQUISITES: NUR 131A

NUR 132

NURSING PRACTICE 3 **7 CR**

Concurrent with NUR 131, NUR 132 provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the neurological, immune, and integumentary systems. Additionally, students will experience working with clients with mental health disturbances. Common pediatric disturbances and normal mother/infant care experience will be provided. Skills, such as basic intravenous therapy, will be practiced in the

college lab, and clinical experiences will be provided in a variety of health care settings, culminating in a series of clinical days closely approximating employment in a health care facility as a practical nurse.

PREREQUISITES: All courses within NUR 020

NUR 211

NURSING DIMENSIONS I **7 CR**

This course focuses on the role transition and role differentiation between Licensed Practical Nurse (LPN) and Registered Nurse (RN). The student is introduced to critical thinking and leadership skills required for professional nursing. Content focuses on understanding human health patterns while supporting the physiological changes of the client in the role of the Registered Nurse. Primary topics include priority setting; delegation; NCLEX plan; conflict management; physical assessment; and alteration in mental health, fluid, electrolyte and acid base balance; cardiac, respiratory and renal systems across the life span (adult, aging, pediatric and pregnant mother). Integrated concepts are advocacy, cultural perspectives, communication, nutrition, pharmacology, and health education.

PREREQUISITES: Acceptance into the Registered Nursing Program

NUR 212

**CLIENT CARE MANAGEMENT
PRACTICE I** **4 CR**

Concurrent with NUR 211, NUR 212 provides the student with an opportunity to examine and evaluate current experience, determine clinical proficiencies, and through the process of portfolio development, expand clinical nursing expertise within the acute care setting (medical or surgical areas, pediatrics and mental health).

PREREQUISITES: Acceptance into the Registered Nursing Program

NUR 221

NURSING DIMENSIONS II **6 CR**

This course is a continuation of NUR 211 and focuses on health and developmental assessment through the life span (children, adult, pregnancy, and aging). Primary topics include ethical and legal issues; antepartum; intrapartum; and postnatal periods including the newborn; alteration in immune response; reproductive; and endocrine system; multi-system failure; and care of the client in intensive care. Integrated concepts are nursing process, advocacy, cultural perspectives, communication, nutrition, pharmacology, and health education.

PREREQUISITES: NUR 211, NUR 212

NUR 222

**CLIENT CARE MANAGEMENT
PRACTICE II** **4 CR**

This course is a continuation of NUR 212. The student has the opportunity to examine and evaluate current experience, determine clinical proficiencies, and through the process of portfolio development, expand clinical nursing expertise within the acute care setting (intensive care, pediatrics, and maternal/child).

PREREQUISITES: NUR 211, NUR 212

NUR 231
NURSING DIMENSIONS III 5 CR
 This course continues to focus on concepts of leadership such as quality and cost-effectiveness of care, interdisciplinary collaboration, and emerging care delivery models. Primary topics include alteration in integumentary, gastro-intestinal, musculoskeletal and sensory neuro across the life span (adult, aging, pediatric and pregnant mother). Integrated concepts are nursing process, advocacy, cultural perspectives, communication, nutrition, pharmacology, and health education.
PREREQUISITES: NUR 221, NUR 222

NUR 234
CAPSTONE CLINICAL 4 CR
 Concurrent with NUR 231, NUR 234 is an individual clinical assignment intended to strengthen the student's clinical skills and assist them to make the final transition from Licensed Practical Nurse (LPN) to Registered Nurse (RN). The clinical objectives will be determined by self assessment of clinical experience, further education within this program, and the Nurse Practice Act. Completion of portfolio will be presented as culmination of the student's experience.
PREREQUISITES: NUR 221, NUR 222

PERSONAL FITNESS TRAINER

PFT 100
FOUNDATIONS OF HEALTH & FITNESS 6 CR
 In this course you will study the structure of the human body and how it relates to exercise science. You will learn about nutrition and appropriate eating systems. In addition, we will cover the operation and set-up of exercise machinery, equipment repair and maintenance, facility safety, sports injury management and prevention, and gym etiquette. You will acquire the necessary skills to assess the needs of your future clients and design appropriate fitness programs for them.

PFT 110
PROGRAM DEVELOPMENT & TRAINING PRINCIPLES 6 CR
 This course focuses on smooth, cardiac, and skeletal muscle physiology, while investigating structure, function, and cellular adaptations with exercise. Using scientific principles we will create exercise programs ranging from beginning to advanced training development and implementation. We will cover muscle development, as well as the behavior and performance guidelines necessary to achieve prescribed results. Students also complete an internship during this course.
PREREQUISITES: PFT 100

PFT 120
FACILITY MANAGEMENT & MARKETING FOR A FITNESS TRAINER 6 CR
 In this course students will learn about the daily operations of a fitness facility including equipment maintenance, purchasing, and financial management. You will learn proven techniques to market a fitness facility and evaluate the success of

its programs. This course will help students identify a career direction and develop their talents to successfully market their services.
PREREQUISITES: PFT 110

PHYSICS

PHYS& 121
GENERAL PHYSICS I 5 CR
 Introduction to mechanics and physical reasoning strategies and investigation methods for students majoring in technically oriented fields not requiring a calculus based physics course. Newton's laws, work and energy, kinematics conservation principles will be explored. Computer interfaced laboratory investigations, technical writing, problem solving, mathematical reasoning and scientific method of inquiry skills will be emphasized.
PREREQUISITES: MATH& 141

PHYS& 122
GENERAL PHYSICS II 5 CR
 Second in a three-course survey of physics for allied health, building construction, biology, forestry, architecture, and other programs. Topics include fluids, heat, thermodynamics, electricity, and magnetism. Laboratory work is integral to the course.
PREREQUISITES: PHYS& 121

PROCESS TECHNOLOGY

PTEC 101
INTRODUCTION TO PROCESS TECHNOLOGY 5 CR
 In this course students will study various aspects of the Process Industry, including its history; roles, responsibilities, and expectations of the Process Technician; team dynamics; basic physics and chemistry; safety, and quality management. In addition, the course will cover basic components of the Process Industry environment, such as piping and valves; tanks, drums, and vessels; pumps and compressors; steam turbines; electricity and motors; heat exchangers; cooling towers and fans; furnaces and boilers; distillation columns; process control instrumentation; process utilities and auxiliary systems; and process print reading.

PTEC 102
PROCESS TECHNOLOGY I (EQUIPMENT) 6 CR
 The purpose of this course is to provide an overview of the equipment and tools used in the process industry, including piping, tubing, hoses and fittings; valves; pumps; compressors; turbines; motors and engines; power transmission and lubrication; heat exchangers; cooling towers; furnaces and boilers; filters and dryers; vessels; and process diagrams. Students will be introduced to many process related equipment concepts, such as purpose, components, operation, and the Process Technician's role for operating and troubleshooting the equipment.
PREREQUISITES: PTEC 101

PTEC 103
SAFETY, HEALTH AND EQUIPMENT I 5 CR
 In this course, students will study industrial hazards types, including physical, chemical, ergonomic, and biological. Within these four general types, specific agents, causative factors, and effects will be identified along with controls, alarms, and detection systems. The course will focus on hazardous chemicals found in the process industry.
PREREQUISITES: PTEC 101

PTEC 105
PROCESS TECHNOLOGY II (SYSTEMS) 5 CR
 In this course, students will study the interrelation of process equipment and process systems. Specifically, students will be able to arrange process equipment into basic systems, describe the purpose and function of specific process systems, explain how factors affecting process systems are controlled under normal conditions, and recognize abnormal process conditions. In addition, students are introduced to the concept of system and plant economics.
PREREQUISITES: PTEC 102

PTEC 110
PROCESS INSTRUMENTATION I 6 CR
 In this course, students will study process variables and the various instruments used to sense, measure, transmit, and control these variables. The course also introduces students to control loops and the elements that are found in different types of loops, such as controllers, regulators, and final control elements. The course concludes with a study of instrumentation drawings and diagrams along with a unit on troubleshooting instrumentation.
PREREQUISITES: PTEC 102

PTEC 190
FOOD PROCESSING 3 CR
 In this course, students will be introduced to the various methods and processes for producing foods. These will include the operations of heating, drying, reacting, mixing, separating, and granulating. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will also do a project related to food processing. This course may be either live, a hybrid, or online.

PTEC 191
PTEC LEADERSHIP 3 CR
 In this course, students will be introduced to the various skills and steps in finding a job in a Process Technology company. The course will cover resume writing, completion of applications, taking evaluation tests, portfolio preparation, and interviewing. Students will interview each other as well as be interviewed by panels of professionals. Students will also do a research project on a Process Technology company.

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PTEC 192

PULP & PAPER PROCESSING 3 CR

In this course, students will be introduced to the various methods and processes for producing pulp and paper. These will include the operations of feedstock preparation, digestion, bleaching, drying, reacting, mixing, separating, and pressing. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will also do a project related to pulp and paper processing. This course may be either live, a hybrid, or online.

PTEC 193

UPSTREAM PROCESS 3 CR

In this course, students will be introduced to the various methods and processes for locating and producing oil. In addition, the geology of the formation of oil deposits will be covered as well as an overview of the regulations for oil exploration. The methods and operations include exploration, drilling, and completion of the well. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will also do a project related to upstream processing. This course may be either live, a hybrid, or online.

PTEC 194

WASTEWATER TREATMENT 3 CR

In this course, students will be introduced to the various methods and processes for wastewater treatment. These will include the steps of preliminary, primary, secondary and tertiary treatment which involve the operations of sedimentation, biological and chemical reacting, thickening, drying, filtration, mixing, and disinfection. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will also do a project related to pulp and paper processing. This course may be either live, a hybrid, or online.

PREREQUISITES: Math 099

PTEC 195

BIODIESEL FUNDAMENTALS 3 CR

In this course, students will be introduced in the various methods and processes for producing biodiesel. These will include the operations of feedstock preparation, reaction, mixing separating, and washing. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will also prepare biodiesel in the laboratory and in a pilot plant. A project related to biodiesel production will also be required. This course may be either live, a hybrid, or online with access to the laboratory and pilot plant.

PTEC 196

GREEN ENERGY 3 CR

In this course, students will be introduced to the various methods and processes for producing green energy. These will include the production of renewable energy by wind, solar, hydroelectric, wave, and biofuels. The equipment necessary to

provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will also do a project related to green energy. This course may be either live, a hybrid, or online.

PTEC 197

COOPERATIVE EDUCATION 3 CR

In this course, students will be given credit for courses or portions of courses taken at other educational institutions. Examples of these include trips to other PTEC schools to operate special pieces of equipment or learn specialized topics. Students will be required to perform the required portion of coursework and to prepare a written and oral report.

PTEC 203

SAFETY, HEALTH AND ENVIRONMENT II 5 CR

Continued instruction in the application of concepts presented in Safety, Health, & Environment I with an emphasis on emergency response concepts. The student will demonstrate appropriate response to emergency situations; recognize hazardous situations for personnel, environment, and the community; and apply team skills in response to emergency situations.

PREREQUISITES: PTEC 103, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission.

PTEC 205

DYNAMIC PROCESS CONTROL 5 CR

Course will provide the student with a basic understanding of electronic process control systems typically utilized in the petroleum, petrochemical, power generation, and pulp & paper industries. Course will further provide the student with specific knowledge regarding the operation of typical hydrocarbon distillation systems and fired furnaces. Multiple dynamic process simulators operating in a PC Lab environment will be utilized as the foundational elements of the course learning activities. Computer simulations of fired heaters and distillation systems will be operated in normal, off-normal, emergency, start-up and shutdown modes. The course will be conducted as a "hands on" operating experience using both small-group and individual simulation activities, assignments and scenarios.

PREREQUISITES: PTEC 110, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission.

PTEC 207

QUALITY CONTROL 5 CR

The purpose of this course is to provide students with an overview of, or introduction to, the field of Quality Control within the Process Industry. In this course, students will be introduced to many Process Industry-related quality concepts, including operating consistency, continuous improvement, plant economics, team skills, and statistical process control (SPC).

PREREQUISITES: PTEC 105, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission

PTEC 210

PROCESS INSTRUMENTATION II 6 CR

In this course, students will be introduced to switches, relays, and enunciators systems; then will move on to discuss signal conversion and transmission. Controllers, control schemes, and advanced control schemes will be covered at a level appropriate for the Process Technician. The student will learn about digital control, programmable logic control, and distributed control systems. The course will conclude with a discussion of instrumentation power supplies, emergency shutdown systems, and instrumentation malfunctions.

PREREQUISITES: PTEC 110, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission.

PTEC 212

INDUSTRIAL PROCESSES AND EQUIPMENT 5 CR

Study of the industrial equipment utilized in petroleum refining, power generation, environmental management and chemical plant operations. The student will understand the construction, theory of operation, and typical uses of process industry equipment.

PREREQUISITES: PTEC 103, PTEC 105, PTEC 110, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission.

PTEC 215

PROCESS TECHNOLOGY III (OPERATIONS) 6 CR

Provides an overview of the field of operations within the Process Industry. Students will use existing knowledge of equipment, system, and instrumentation to understand the operation of an entire unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations as well as the Process Technician's role in performing the tasks associated with these concepts within an operating unit.

PREREQUISITES: PTEC 103, PTEC 105, PTEC 110, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission

PTEC 217

PROCESS TROUBLESHOOTING 5 CR

Course involves instruction in the different types of Process Technology troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collections and analysis, cause-effect relationships, and reasoning.

PREREQUISITES: PTEC 103, PTEC 105, PTEC 110, MATH 141, CHEM 121, PHYS& 121, PHYS& 122 must be completed before taking this class or need instructor permission

PTEC 270

PROCESS TECHNOLOGY PROJECT 5 CR

This is a culminating project assignment for an individual or a group of students. The instructor may assign a specific topic for the project or work with a local industry/plant to define a particular project topic from a real-life situation. The student or the group of students will define the problem and resources needed; postulate the hypothesis/solution; research the problem and possible solutions; visit the plant; interview/consult with instructor/engineers/technicians and other resources such as the internet; and develop a solution. The student or the group will then write the technical report defining the complete process from defining the problem, methodology applied, and their conclusion. This may also require building a piece of equipment, writing a software program, or writing safety or operational procedures.

PREREQUISITES: Instructor permission

PTEC 272

PROCESS TECHNOLOGY PROJECT II 5 CR

This may be a continuation or a separate project assignment as in the course PTEC 270. For the AAS degree, this is a culminating project assignment for an individual or a group of students. The instructor may assign a specific topic for the project or work with a local industry/plant to define a particular project topic from a real-life situation. The student or the group of students will define the problem and resources needed; postulate the hypothesis/solution; research the problem and possible solutions; visit the plant; interview/consult with instructor/engineers/technicians and other resources such as the internet; and develop a solution. The student or the group will then write the technical report defining the complete process from defining the problem, methodology applied, and their conclusion. This may also require building a piece of equipment, writing a software program, or writing safety or operational procedures.

PREREQUISITES: Instructor permission

PTEC 290

PROCESS TECHNOLOGY PRACTICUM/INTERNSHIP 5 CR

This elective course provides work experience in a Process Technology related environment so that students may expand their technical knowledge and skills. Specific performance skills and customized objectives will be developed for each student. Clock hours are available and may be repeated for clock hour credit.

PREREQUISITES: Instructor permission

PTEC 291

PROCESS TECHNOLOGY PRACTICUM/INTERNSHIP 5 CR

This elective course provides work experience in a Process Technology related environment so that students may expand their technical knowledge and skills. Specific performance skills and customized objectives will be developed for each student. Clock hours are available and may be repeated for clock hour credit.

PREREQUISITES: Instructor permission

PROJECT MANAGEMENT

PMP 100

PROJECT MANAGEMENT FUNDAMENTALS 1 CR

Learn effective methods for planning and sequencing projects such as Work Breakdown Structure, Network Logic Diagram, and the Critical Path for completing a project on schedule; listing the cost elements included in a project budget and discussing ethical strategies for controlling both budget and schedule deviations; and identifying communication methods and reporting tools that impact project objectives.

PMP 120

PROJECT MANAGEMENT PMP PREP 3 CR

This course offers you a standards-based approach to successful Project Management across application areas and industries. PMP PREP focuses on the Project Management standards recognized by the Project Management Institute and helps prepare you for the Project Management Professional Certification Exam. Topics covered include the project life cycle, criteria for successful management, common reasons for project failure, risk management plans, and project team-building.

PMP 130

PROJECT MANAGEMENT INTEGRATION PROJECT 1 CR

Integrated Project Management is a capstone course in the Project Management Certificate Program. You will complete a project plan of your choice that will utilize the knowledge, skills and methodologies that you learn in the Certificate Program. You will also team with other Project Managers to work through project simulations and case studies.

PREREQUISITES: PMP 120

PSYCHOLOGY

PSYC& 100

GENERAL PSYCHOLOGY 5 CR

An overview of the factors affecting behavior including topics related to theories of learning, the senses, perceptions, nervous system, emotions, personality theory, motivation, abnormal behavior and therapy, and social psychology.

PREREQUISITES: CPT score of 86 or higher on sentence skills and 85 or higher on reading; Word processing knowledge required

PSYC& 200

LIFESPAN PSYCHOLOGY 5 CR

A systematic study of the developmental processes in humans from conception to late adulthood. Special emphasis will be given to the topics of physical development, cognitive development, and personality/social development.

PREREQUISITES: PSYC& 100 with a "C" or above or equivalent

RADIOLOGY

RT 101

RADIOGRAPHIC POSITIONING I 5 CR

This course introduces the basic positioning techniques used in the radiography of the respiratory system, abdomen, and upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification, pathologies and an energized section using phantoms.

PREREQUISITES: Acceptance into Radiologic Technology Program

RT 102

RADIOGRAPHIC POSITIONING II 5 CR

This course introduces the basic positioning techniques used in the radiography of the bony thorax, spinal column, pelvic girdle and continuation of the upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification, pathologies, and an energized section using phantoms.

RT 103

RADIOGRAPHIC POSITIONING III 5 CR

This course introduces the basic positioning techniques used in the radiography of the digestive system, urinary system, and cranium. Lab sections include peer positioning, film critique, anatomical identification, pathologies, and an energized section using phantoms.

RT 108

MEDICAL INFORMATICS 4 CR

This course will investigate the integration of computer capabilities, information science, and health care. This course will include key elements that are driving our national health care system to electronic records and the complex issues that arise in this transition. Issues addressed include methods required to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine. Imaging informatics, PACS systems, RIS (Radiology Information Systems), and HIS (Hospital Information Systems) will be included in this course.

RT 112

PATIENT CARE IN RADIOLOGY 4 CR

This course provides the student with basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine patient care will be included, as well as infection control techniques, vital signs, safety and transfer positioning, medical emergencies, barium studies, oxygen therapy and catheters. Patient education and documentation will be addressed.

RT 114

LEADERSHIP SEMINAR 1 CR

This course is designed to encourage leadership principles in students including participation and project development for professional organizations.

RT 120
IMAGING AND PROCESSING 4 CR
 This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiologic images. Emphasis will be on filming and electronic imaging with related accessories. Topics to be included are basic radiographic production, imaging standards, radiographic density and contrast, recorded detail, distortion, exposure latitude, beam-limiting devices, beam filtration, technique formulation, exposure calculations, image receptors, and processing. Lab exercises will provide application of theories using energized equipment and test tools.

RT 121
RADIOGRAPHIC PHYSICS I 4 CR
 This course is designed to establish a knowledge base in atomic structure and terminology. Included are the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interactions with matter. An introduction to the principles of radiation protection is included. Lab activities will provide application for the course theories.

RT 122
QUALITY ASSURANCE 3 CR
 This course is designed to examine principles of radiology quality assurance. Principles related to quality assurance will include differentiation between quality improvement/management, quality assurance, and quality control with elements of a department Quality Assurance Program. Lab activities will provide application of theories presented in class.

RT 123
RADIOGRAPHIC PHYSICS II 4 CR
 This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. Content includes manual versus automatic exposure control, equipment calibration, beam restriction, and recognition of malfunctions.

RT 131
RADIOGRAPHIC CLINIC I 7 CR
 This course consists of two clinical assignments of eight-hour work shifts per week. Students are assigned clinical experience in a Radiology Department to complete clinical competencies correlating with academic coursework.

RT 132
RADIOGRAPHIC CLINIC II 7 CR
 This course consists of two clinical assignments of eight-hour work shifts per week. Students are assigned clinical experience in a radiology department to complete clinical competencies correlating with academic coursework.

RT 133
RADIOGRAPHIC CLINIC III 8 CR
 This course consists of clinical assignments correlating with current academic course work. Assignments will include rotations at hospitals, clinical, or doctor's offices in regional areas. Rotations may include day, evening or weekend schedules.

RT 201
ADV PATIENT PROCEDURES & PATHOLOGY I 4 CR
 This course includes applications of patient care, procedures and pathology related to trauma, surgical, pediatric, digestive, respiratory, urinary and skeletal/muscular systems. Students will present case studies incorporating patient history, care considerations, procedures, and pathology.

RT 202
ADV PATIENT PROCEDURES & PATHOLOGY II 4 CR
 This course includes applications of patient care, procedures and pathology related to reproductive, circulatory, lymphatic, endocrine, nervous and sensory organs. Students will present case studies incorporating patient history, care considerations, procedures, and pathology.

RT 205
RADIOLOGY PHARMACOLOGY 3 CR
 This course will provide basic concepts of pharmacology. Concepts included are pharmacokinetic and pharmacodynamic principles of drugs, categories specific to drugs, actions and side effects of select medications, and legal and ethical status of radiographer's role in drug administration.

RT 210
RADIATION BIOLOGY 4 CR
 This course provides an overview of the principles of the interaction of radiation with living systems. The factors that affect biological response, to include acute and chronic effects of radiation. Includes examination of standards, measurements, and requirements required by government guidelines.

RT 220
RADIOGRAPHIC PHYSICS III 4 CR
 This course is to provide advanced study of the topics included in RT 123, Physics II, selection and equipment purchase, equipment requirements, and design for advanced imaging modalities of mammography, cardiovascular and interventional, digital imaging, MRI and CT. Computer applications will be covered to include digital imaging, radiographic information systems, hospital information systems, and picture archiving communication systems.

RT 230
REGISTRY REVIEW & EMPLOYMENT READINESS 4 CR
 This course is designed to provide students with opportunities to prepare for registry review and employment readiness. Registry review will be provided utilizing presentations and computer applications. Students will prepare a professional portfolio for employment and practice interview skills.

RT 231
RADIOGRAPHIC CLINIC IV 10 CR
 This course consists of clinical assignments correlating with current academic course work. Assignments will include rotations at hospitals, clinics, or doctor's offices in regional areas. Rotations may include day, evening or weekend schedules.

RT 232
RADIOGRAPHIC CLINIC V 10 CR
 This course consists of three clinical assignments of eight-hour shifts per week. Students are assigned clinical experience in a radiology department to complete sixth quarter clinical competencies and select specialized rotations.

RT 233
RADIOGRAPHIC CLINIC VI 10 CR
 This course consists of clinical assignments correlating with current academic course work. Assignments will include rotations at hospitals, clinics or doctor's offices in regional areas. Rotations may include day, evening or weekend schedules.

RESIDENTIAL HOME INSPECTION

RHI 111
FUNDAMENTALS OF HOME INSPECTION 12 CR
 This course covers the fundamentals of residential home inspection, fulfills the education pre-licensing requirements of WA State, and prepares students for a career in home inspection. Students will receive instruction in state laws, rules, and communications; wood destroying organisms and conducive conditions; and various systems and components found at a home and how to inspect and report on them.

RHI 112
HOME INSPECTION FIELD TRAINING 3 CR
 This course will build on the information covered in the fundamentals of home inspection course by providing an additional forty hours of supervised field training. This field training will include supervised hands-on inspections at a minimum of five residences along with five completed student reports which are required to successfully meet Washington State standards. The report writing is in addition to the 40 hours of field training and will be completed off-side and out of class time by students.
PREREQUISITES: RHI 111

SURGERY TECHNOLOGY

SURG 120
SURGERY TECHNOLOGY I 10 CR
 An introduction to surgical technology where the student will gain theoretical and practical knowledge of general equipment, instrumentation, surgical team member roles, and health care facilities and their management. Includes physical, psychological, and ethical aspects of patient care; principles of aseptic technique, sterilization, and safety in the operating room.
PREREQUISITES: Acceptance into the Surgery Technology Program

SURG 125
SURGERY TECHNOLOGY LAB 10 CR
 Principles and techniques of operating room procedures. Includes surgical scrub techniques, gown-

ing and gloving, aseptic and sterile technique, creating and maintaining a sterile field and basic instrumentation usage. Hands on practice of scrub role functions.

PREREQUISITES: Acceptance into the Surgery Technology Program

SURG 133
SURGERY TECHNOLOGY II 10 CR

Surgical supplies, wound healing, anesthesia concepts and suture selection relating to the surgical patient. Includes additional intra-operative care techniques and the Technologists' role in case preparation and surgical procedures.

PREREQUISITES: SURG 120, SURG 125, and HO 105

SURG 136
SURGERY TECH CLINICAL PRACTICE I 12 CR

Lab and clinical practice with focus on development of entry level skills.

PREREQUISITES: SURG 120, SURG 125, and HO 105

SURG 143
SURGERY TECHNOLOGY III 6 CR

Focus on legal, personal and professional responsibilities of a Surgical Technologist and related accrediting agencies, as well as job seeking skills. Includes patient care emergencies and sciences for the operating room.

PREREQUISITES: SURG 133, SURG 136

SURG 145
SURGERY TECH CLINICAL PRACTICE II 10 CR

Continuation of clinical and lab practice with focus on developing advanced entry level skills.

PREREQUISITES: SURG 133, SURG 136

SURVEYING

SURV 102
FUNDAMENTALS OF SURVEYING I 7 CR

Emphasis is placed on familiarization with the different types of surveys and their purpose and teaches the student to be able to differentiate between "accuracy" and "precision." It teaches the student to measure distances in a vertical direction and relate these measurements to a datum plane or elevation from sea level. Course also teaches the student how to measure directions from known points to find or establish other points and will enable the student to gain necessary skills in operating surveying instruments.

PREREQUISITES: MATH 099 and Instructor's permission

SURV 103
FUNDAMENTALS OF SURVEYING II 5 CR

Emphasis on field work with the Total Station and Digital Level. A traverse will be run and adjusted and a topo made of the enclosed ground.

PREREQUISITES: SURV 102, MATH 099

SURV 104
CONSTRUCTION AND HIGHWAY SURVEYS 6 CR

Students will learn stakeout procedures for a variety of construction projects. In addition, the stu-

dents will develop techniques in the use of horizontal and vertical curves in the field and office to join tangent lines. The layout of a horizontal curve will also be done as a portfolio project.

PREREQUISITES: ENGT 122, SURV 102

SURV 112
PUBLIC LANDS SURVEY SYSTEM 5 CR

Course will familiarize the student with the public land system of the US and the subdivision of sections.

SURV 113
BOUNDARY/LEGAL PRINCIPALS 7 CR

Explores the importance of various laws dealing with the survey of land boundaries, and the state and federal laws about ownership and title.

PREREQUISITES: SURV 103 and Instructor permission

SURV 116
SURVEY DATA SYSTEMS 4 CR

A comprehensive study of transferring data between the data collector and the computer.

PREREQUISITES: SURV 103

SURV 140
FUNDAMENTALS OF GIS & GPS 4 CR

Students develop knowledge and designing skills in topology, features, attributes, relational operators, data capture, coverage editing, coordinate systems, and map projections.

PREREQUISITES: MATH 099

SURV 152
ZONING, PERMITTING AND PLATTING 4 CR

Introduction to Whatcom County and City of Bellingham zoning ordinances and an introduction to the various state, county, and city permits associated with construction and land use in Whatcom County.

PREREQUISITES: SURV 113

SURV 191
PROFESSIONAL DEVELOPMENT AND SAFETY 3 CR

Provides an introduction to the licensing and certification procedures for land surveyors and engineers in the State of Washington as well as the RCWs and WACs that apply. The course also provides an examination of safety hazards and accident awareness that is related to both professions.

SURV 201
ADVANCED SURVEY SEMINAR 7 CR

Offers opportunities for the second year student to study advanced techniques in GPS, GIS, data collection, research, and surveying/mapping software. The structure is self-motivated and supports transition from college structure to jobs in the Surveying and Mapping profession.

PREREQUISITES: SURV 103

SURV 202
GPS SYSTEMS 7 CR

Global Positioning System software will be used to adjust raw field data collected with Trimble 4000 SST receivers.

PREREQUISITES: SURV 204

SURV 204
ENVIRONMENTAL MAPPING 4 CR

Coursework includes current industry mapping techniques and equipment as it relates to environmental issues such as wetlands mapping and habitat restoration.

PREREQUISITES: SURV 116

SURV 205
ADVANCED GIS APPLICATIONS 7 CR

An advanced course in desktop mapping focusing on the use of the extensions in Geographic Information Systems applications.

PREREQUISITES: ENGT 153

TRANSPORTATION

TRANS 101
BASIC TRANS. SERVICE & SYSTEMS I 5 CR

This course provides an introduction to the Transportation Industry covering various aspects such as Occupational Health and Safety, Measuring, Fasteners, Tools and Equipment, and Service Information. Students acquire the skills needed for basic vehicle servicing while gaining an overview of all of the transportation systems.

PREREQUISITES: Program admission or instructor permission

TRANS 102
BASIC TRANS. SERVICE & SYSTEMS II 5 CR

This course provides an introduction to the Transportation Industry covering various aspects such as Shop Equipment Use, Brakes, Basic Vehicle Services, and Steering and Suspension Theory. Students acquire the skills needed for basic vehicle servicing while gaining an overview of all of the transportation systems.

PREREQUISITES: TRANS 101 or instructor permission

TRANS 103
BASIC TRANS. SERVICE & SYSTEMS III 5 CR

This course provides an introduction to the Transportation Industry covering various aspects such as Engine Fundamentals, Engine Performance, Transmissions, HVAC, and Electrical. Students acquire the skills needed for basic vehicle servicing while gaining an overview of all of the transportation systems.

PREREQUISITES: TRANS 102 or instructor permission.

VETERINARY ASSISTANT

VET 117

VETERINARY ASSISTING INTERNSHIP 2 CR

This course is for students, enrolled in the Veterinary Technician Program who choose the "early out" option and are pursuing a certificate in Veterinary Assistant. Students are to gain work experience as a Veterinary Assistant in an appropriate setting.

PREREQUISITES: VETT 120, VETT 101, VETT 102, VETT 103, VETT 104, VETT 106, VETT 107, VETT 108, VETT 109 with "C" grade or better

VET 120

VETERINARY MATH 2 CR

Content of this course will cover the necessary concepts involved in mathematics used in Veterinary Medicine. This will include: dosage calculations, English and metric conversions, percents, ratios, and other technical applications.

PREREQUISITES: Admission to Veterinary Technician Program

VETERINARY TECHNICIAN

VETT 101

VETERINARY NURSING I 5 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of the patient with minimum stress and maximum safety. Also, the Veterinary assistant and Veterinary Technician student will be able to carry out therapeutic techniques in order to achieve maximum health benefits for the patient.

VETT 102

VETERINARY ANATOMY & PHYSIOLOGY I 5 CR

Upon completion of this course, the Veterinary Assistant and Veterinary Technician student will be knowledgeable in: 1) the function of basic cell structure; 2) skeletal anatomy and physiology; 3) integument and muscular systems; 4) the respiratory and cardiovascular systems; 5) the hemolymphatic, gastrointestinal, endocrine, reproductive, urinary, and nervous systems.

VETT 103

VETERINARY MEDICAL TERMINOLOGY 3 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will: understand terms of anatomical topography; nursing records and pharmaceutical, emergency, surgical, medicine, and patient description terms. Students should also be comfortable and accurate with metric system conversion.

VETT 104

VETERINARY NUTRITION I 3 CR

Given the characteristics of the patient, the Veterinary Assistant and Veterinary Technician student will understand appropriate and inappropriate dietary components for various life stages to promote optimal health. Also, the Veterinary Assistant and Veterinary Technician student will be able to

explain nutritional recommendations to clients and reinforce owner compliance.

VETT 105

LEARNING FOR A LIFETIME 2 CR

The goals of this module are to enable the student to learn the materials of Veterinary Technician medicine in a logical, goal-oriented manner. The Veterinary Technician student should be empowered with critical thinking and problem-solving skills. The Veterinary Technician student should be able to utilize a variety of reference media and assess that material for quality of content. Finally, the Veterinary Technician student should be able to tailor study skills to address their personal strengths and weaknesses with the goal of maximizing retention of material learned during the Veterinary Technician Program and in continuing education pursuits throughout his or her career.

VETT 106

MICROBIOLOGY, VIROLOGY, & MYCOLOGY 3 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will be able to classify, collect, and culture bacteria. the Veterinary Assistant or Veterinary Technician student will also be knowledgeable in mycology and virology.

VETT 107

SMALL ANIMAL PARASITOLOGY 3 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will be able to: 1) identify and describe the life cycle of ecto- and endo-parasites; 2) understand the importance of parasites in veterinary and zoonotic disease; 3) understand the importance of and demonstrate proper diagnostic fecal techniques; 4) identify parasite ova, adults, and non-parasite artifacts; 5) review therapy and prevention of parasitic diseases.

VETT 108

RADIOLOGY I 5 CR

Given the characteristics of the patient and the radiographic study that has been requested, the Veterinary Assistant and Veterinary Technician student will be able to prepare the radiographic equipment, measure the animal using topographic landmarks and choose the appropriate radiographic technique to provide maximum diagnostic benefit in an appropriate and safe manner. The Veterinary Technician student will be able to assess the image quality and offer options to correct deficiencies.

VETT 109

LABORATORY SCIENCES 5 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will be able to properly handle and submit appropriate samples for diagnostic analysis to ensure maximum accuracy of results. The student will give the characteristics of the laboratory equipment and will determine proper maintenance and quality control procedures to ensure accurate results.

VETT 110

VETERINARY ANATOMY & PHYSIOLOGY II 3 CR

Upon completion of this module, the Veterinary Technician student will be knowledgeable in: 1) unique equine features: head and gastrointestinal tract and reproductive tract, 2) unique ruminant features: gastrointestinal tract and reproductive tract and foot, and 3) avian anatomy.

PREREQUISITES: VETT 102

VETT 111

SMALL ANIMAL MEDICINE I 4 CR

Upon completion of this module, the Veterinary Technician student will be knowledgeable in 1) the general approach to medical problems and systemic diseases; 2) respiratory and cardiac diseases; 3) gastrointestinal diseases; 4) urinary tract diseases; 5) liver and pancreas diseases; 6) endocrine diseases; 7) neurologic diseases; 8) erythrocytes, platelets, and coagulation.

VETT 112

VETERINARY NURSING II: SURGICAL 4 CR

Given the characteristics of the patient and the surgical procedure to be performed, the Veterinary Technician student will be able to: 1) assess the patient's pre-surgical status and tests and report to the Veterinarian, 2) verify the owner's consent to the procedure and its cost, 3) identify and apply appropriate surgical site preparation of hair clipping and decontamination, 4) position the patient appropriately for maximum surgical convenience and safety, and 5) maintain aseptic technique for surgical facility and equipment.

PREREQUISITES: VETT 101

VETT 113

IMMUNOLOGY & PHARMACOLOGY I 6 CR

Upon completion of this module, the Veterinary Technician student will be able to calculate the correct amount of medication in the prescribed form and administer it by the prescribed route as directed by a Veterinarian. the Veterinary Technician student shall also be able to differentiate between normal and abnormal responses to medications and communicate necessary information to clients in order to maximize safety and compliance for effective treatment. Finally, the Veterinary Technician student should be proficient at inventory control procedures, especially as applied to controlled substances.

VETT 114

DENTISTRY 4 CR

Upon completion of this module, the Veterinary Technician student will be knowledgeable of 1) dental anatomy and pathophysiology, 2) dental radiographs, 3) dental instruments and usage, 4) large animal dentistry (equine and swine), and 5) small mammal dentistry and avian beaks.

VETT 115

RADIOLOGY II**4 CR**

Given the characteristics of the patient and the radiographic study that has been requested, the Veterinary Assistant and Veterinary Technician student will be able to prepare the radiographic equipment, measure the animal using topographic landmarks and choose the appropriate radiographic technique to provide maximum diagnostic benefit in an appropriate and safe manner. The Veterinary Technician student will be able to assess the image quality and offer options to correct deficiencies. Also, given the characteristics of the patient and the non-radiographic imaging study requested, the Veterinary Technician student will properly prepare the imaging site and equipment as well as position the patient appropriately for the study.

PREREQUISITES: VETT 108

VETT 116

LARGE ANIMAL MEDICINE**3 CR**

Upon completion of this module, the Veterinary Technician student will be knowledgeable in: 1) equine preventative health care, gastrointestinal diseases, respiratory and cardiac diseases, lameness, and reproductive and neonate diseases; 2) bovine gastrointestinal and reproductive diseases; and 3) important diseases of sheep, goats, and llamas.

VETT 117

VETERINARY NURSING III: LARGE**4 CR**

Upon completion of this module, the Veterinary Technician student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of the patient with minimum stress and maximum safety. In addition, the Veterinary Assistant and Veterinary Technician student will be able to carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

PREREQUISITES: VETT 112

VETT 118

SMALL ANIMAL MEDICINE II**3 CR**

Upon completion of this module, the Veterinary Technician student will be knowledgeable with the following relative small animal medicine: 1) lymphatics, spleen, and bone marrow; 2) reproductive disorders; 3) trauma medicine; 4) transfusion medicine; 5) sepsis; 6) diabetes mellitus and diabetic ketoacidosis (dka); and 7) acute abdomen stabilization.

PREREQUISITES: VETT 111

VETT 119

ADVANCED CLINICAL LAB SCIENCE**4 CR**

Upon completion of this module, the Veterinary Technician student will be knowledgeable in the following advanced clinical laboratory sciences: 1) seology and antigen testing; 2) pulse oximetry, capnography, and blood gas analysis; 3) electrocardiogram (ekg); 4) arthrocentesis, csf tap, and bone marrow evaluation; 5) blood pressure evaluation; 6) thoracocentesis, abdominocentesis, and transtracheal wash; 7) blood collection for transfusion or blood culture; and 8) advanced hematology.

PREREQUISITES: VETT 109

VETT 120

ANESTHESIA**4 CR**

Given the characteristics of the anesthetic patient and the procedure, (assisted by the Veterinarian) the Veterinary Technician student will assess patient risk status and determine appropriate peri-anesthetic, anesthetic, and pain management protocols. Also (assisted by the Veterinarian), the Veterinary Technician student will choose appropriate monitoring equipment and techniques to maintain safe anesthesia, pain management and anesthesia recovery.

VETT 121

EXOTIC ANIMAL MEDICINE**3 CR**

Given the unique requirements for exotic species, the Veterinary Technician student will safely obtain subjective and objective data that will allow evaluation of these animals. The Veterinary Technician student will be able to identify husbandry issues and recognize normal from abnormal behaviors and vital signs.

VETT 122

VETERINARY NUTRITION II**2 CR**

Upon completion of this module, the Veterinary Student will be knowledgeable of: 1) nutrition and recovery care; 2) therapeutic nutrition; 3) small mammal and avian nutrition; 4) nutrition of lizards; snakes, and turtles.

PREREQUISITES: VETT 104.

VETT 123

VETERINARY NURSING IV**5 CR**

Upon completion of this module, the Veterinary Technician student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of the patient with minimum stress and maximum safety. Also, the Veterinary Assistant and Veterinary Technician student will be able to carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

PREREQUISITES: VETT 117

VETT 124

SPECIALTY MEDICINE**3 CR**

Upon completion of this module, the Veterinary Technician student will be knowledgeable of the following veterinary medicine specialties: 1) ophthalmology; 2) dermatology; 3) oncology; 4) alternative and complementary medicine; 5) physical therapy; 6) cardiology; 7) theriogenology; and 8) hospice care.

VETT 125

HUMANITY OF**VETERINARY MEDICINE****2 CR**

Upon completion of this module, the Veterinary Technician student will be able to effectively contribute to the professional and efficient operation of the veterinary facility in order to provide maximum benefits to clients, patients, and the facility. Also, the Veterinary Technician student will be able to effectively and accurately acquire and convey information to the client and to veterinary colleagues.

VETT 126

PHARMACOLOGY II**3 CR**

Upon completion of this module, the Veterinary Technician student will be knowledgeable of: 1) gastrointestinal drugs; 2) hormones; 3) anticonvulsant; 4) therapies for the following: hypertension, airway disease, allergic disease, heart disease, and behavior disorders.

PREREQUISITES: VETT 113

VETT 130

VETERINARY CLINICAL WORK EXPERIENCE**10 CR**

A cooperative effort between practicing veterinary facilities and Bellingham Technical College to provide hands-on training. Students will observe, assist, and perform tasks at selected facilities as directed by veterinary staff, using all knowledge gained during the program.

PREREQUISITES: VETT 205

VETT 201

MENTORSHIP LAB I**2 CR**

The Veterinary Technician Mentorship course is completed by the students each quarter. The skills are listed by quarter, as a guideline for completion based on the completed didactic material. These required skills are performed by the student both in the classroom lab as well as at veterinary clinical sites, and evaluated by a faculty member.

VETT 202

MENTORSHIP LAB II**2 CR**

This lab requires students, under the supervision of a mentor or the faculty, to demonstrate competency in an escalating list of skills in the lab and the clinical sites. Each quarter builds upon that quarter's didactic material as well as previous skill sets. Primary skills focus: advanced sampling techniques and beginning radiology.

PREREQUISITES: VETT 201

VETT 203

MENTORSHIP LAB III**2 CR**

This lab requires students, under the supervision of a mentor or the faculty, to demonstrate competency in an escalating list of skills in the lab and the clinical sites. Each quarter builds upon that quarter's didactic material as well as previous skill sets. Primary skills focus: surgical assisting and nursing, dressing and bandaging techniques, and dentistry.

PREREQUISITES: VETT 202

VETT 204

MENTORSHIP LAB IV**2 CR**

This lab requires students, under the supervision of a mentor or the faculty, to demonstrate competency in an escalating list of skills in the lab and the clinical sites. Each quarter builds upon that quarter's didactic material as well as previous skill sets. Primary skills focus: anesthesia, advanced diagnostics, and advanced radiology.

PREREQUISITES: VETT 203

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VETT 205

MENTORSHIP LAB V 2 CR

This lab requires students, under the supervision of a mentor or the faculty, to demonstrate competency in an escalating list of skills in the lab and the clinical sites. Each quarter builds upon that quarter's didactic material as well as previous skill sets. Primary skills focus: equine patient care, bovine patient care, and advanced nursing care.

PREREQUISITES: VETT 204

WELDING

WLD 101

WELDING SAFETY I 2 CR

Introduction to the general Welding Industry, shop safety and orientation to the metal shop environment. Also electrical and compressed gas cylinder safety and safe applications with grinders, band saws, and ironworkers.

WLD 102

WELDING SAFETY II 2 CR

In depth Welding & Fabricating Industry safety topics, including: general fabrication shop hazards; outside construction hazards; confined spaces, fire watch, fall protection hazard training and respirator/fresh air breathing apparatus training.

WLD 103

HAND AND POWER TOOLS 4 CR

This course introduces students to the safe and proper use of hand and power tools used in the aluminum welding and fabrication trade. The uses, set-up, trouble shooting, maintenance, and proper care will be covered.

WLD 104

CAREER OPPORTUNITIES FOR WELDERS 2 CR

Survey course introduces students to careers in the Welding & Fabricating Industry. Lecture topics will include code and non-code welding, fabricating, structural steel welding; aluminum welding; pipe welding & fitting; artistic, creative, and architectural welding; and local opportunities in the shop, refinery, and marine based industries. Guest speakers and tours of local industry will enhance the course to give students a broad-based view of the Industry.

WLD 105

THERMAL CUTTING PROCESSES 3 CR

This course will introduce the student to the basics of plasma arc cutting, oxy-fuel cutting processes, cutting safety, theory of gases, and hands-on lab practice cutting exercises. Compressed bottle handling and equipment safety, and orientation will be stressed.

WLD 106

PRINT READING I 2 CR

Students will learn to use prints and drawings used in the welding trade. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics, and sketching and drawing techniques. Students will create their own working drawing of existing object or a new project that is approved by instructor.

WLD 107

WELDING LEADERSHIP I 1 CR

Team and organizational skills are highlighted in this creative activity. Students will practice these skills by participating in the planning, organization, and execution of a multifaceted public performance event, the BTC Welding Rodeo, a two-day welding skills competition. Students will combine their accumulated knowledge and skills in proper welding, cutting, and fabricating techniques; safety; metallurgy; equipment set-up and troubleshooting; and material handling techniques. Students will also apply soft skills such as interpersonal relations in the workplace, event staging, advertising and promotion, creative thinking, team cooperation and leadership skills. Attendance during the two-day event (usually Friday & Saturday) is required.

WLD 110

SMAW I 4 CR

Students will learn applications of power sources, electrode identification, and basic steel metallurgy, while practicing lab techniques in E6010 Shield Metal Arc Welding Process in the 1F, 2F, and 3F positions, and E7018 in the 2F and 3F positions in the weld booth.

WLD 120

GMAW I 4 CR

Introduction to the gas metal arc welding process for mild steel. Power sources, techniques, shielding gases, metallurgy, and electrode identification will be covered. The student will learn the application of this process through lab practice in the weld booth.

WLD 121

GMAW ALUMINUM I 4 CR

This introduction to the gas metal arc welding process covers safety, power sources, metallurgy, gases, filler metals, and lab practice on aluminum.

WLD 130

FCAW I 4 CR

Course covers the flux core arc welding process, including dual shield and self-shielding processes. Lectures include process safety and applications, power sources, shielding gases, FCAW electrodes and metallurgy. Lab practice will be on mild steel in the weld booth.

WLD 140

GTAW I 4 CR

This Introduction to gas tungsten arc welding process covers safety, power sources, metallurgy, gases, filler metals and welding lab practice on mild steel in the weld booth.

WLD 141

GTAW ALUMINUM I 4 CR

This introduction to gas tungsten arc welding process covers safety, power sources, metallurgy, gases, filler metals, and lab practice on aluminum.

WLD 150

STEEL FABRICATING I 3 CR

Students will learn and apply basic layout and fabricating techniques, applying simple print reading concepts and cutting and welding techniques to produce simple fabricated small projects. GMAW and FCAW welding processes may be used, as well as Plasma and Oxy/Fuel Thermal Cutting processes and introduction to bevellers. The importance of accurate measuring; precision squares, angles, drilling and leveling; and attention to detail, neatness, and the finished product will be demonstrated in an approved small fabrication project.

PREREQUISITES: WLD 101, WLD 102, WLD 103, WLD 105, WLD 106

WLD 151

ALUMINUM FABRICATING I 3 CR

Weld joint theory & prep, fabricating aluminum and shapes, application of print reading basics will be learned. Storage and handling techniques, metal preparation for fitting and welding, fixture and jiggling tools and contamination and distortion control will be demonstrated and practiced. The importance of accurate measuring; precision squares, angles, drilling and leveling; attention to detail, neatness, and the finished product will be demonstrated in an approved small fabrication project.

PREREQUISITES: WLD 101, WLD 102, WLD 103, WLD 105, WLD 106

WLD 173

EMTEC BASIC WELDING 3 CR

This course covers basic industrial welding techniques and safety, from beginning competencies in SMAW and Oxy/Fuel cutting through GMAW and Plasma cutting processes. Basic fabricating principles will cover lap, fillet, and butt weld joint set-up.

WLD 206

PRINT READING II 3 CR

Students will learn to use prints and drawings used in the welding trade. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques.

PREREQUISITES: WLD 106

WLD 207

WELDING LEADERSHIP II 1 CR

Team and organizational skills are highlighted in this creative activity. Students will practice these skills by participating in the planning, organization, and execution of a multifaceted public performance event such as the BTC Welding Rodeo, a two-day welding skills competition. Students will combine their accumulated knowledge and skills in proper welding, cutting, and fabricating techniques; safety; metallurgy; equipment set-up and troubleshooting; and material handling techniques. Students will also apply soft skills such as interpersonal relations in the workplace, event

staging, advertising and promotion, creative thinking, team cooperation and leadership skills. Attendance during the two-day event (usually Friday & Saturday) is required.

WLD 208
METALLURGY **3 CR**
 Lecture examines theory and application of metallurgical principles as they are applied to design, formation, selection, heat treating and distortion, heat effects on crystalline structure, and welding of non-ferrous and ferrous metals and their alloys, and includes a comprehensive study of welding filler metals and ANSI/AAS designations.

WLD 209
CODES AND STANDARDS **2 CR**
 Lecture will cover discussion of commonly used destructive and non-destructive weld testing processes and techniques; visual weld inspection parameters and techniques; and industry accepted codes and welding standards, publications, and standardizing organizations, including AWS/ASME, ANSI, and WABO.

WLD 210
SMAW II **4 CR**
 Shield metal arc welding on steel in all positions using fillet and groove plates and structural shapes in the welding booth. Includes open-root groove welding on 3/8 plate; 2G, 3G, 4G.
PREREQUISITES: WLD 110

WLD 215
SMAW PIPE **4 CR**
 Shield metal arc welding of open root steel pipe in all positions in preparation for industrial applications and the WABO Structural Pipe Welding Certification Test (WABO testing is offered in-house). This pipe welding preparation mirrors the AWS/ASME VII, IX and ANSI B31.3 SMAW Pipe Welding Certification Standards for 2"XH and 6" & 8"XH pipe for pressure piping applications required by local refineries and affiliated industry.
PREREQUISITES: WLD 110

WLD 216
SMAW PRACTICES **3 CR**
 SMAW process in various positions with various electrodes for the beginner or advanced welder.

WLD 217
ADVANCED SMAW PRACTICES **6 CR**
 Lab exploring avenues for overcoming the difficulties of advanced SMA welding, confined space applications, and out of position welding.
PREREQUISITE: WLD 216 or Instructor permission

WLD 222
GMAW ALUMINUM II **4 CR**
 Continuation of GMAW with fillet and groove welds in all positions. Pulse processes, power sources, shielding gases and applications will be discussed.
PREREQUISITES: WLD 121

WLD 223
GMAW PRACTICES **2 CR**
 GMAW process in various positions on various thicknesses of material for the beginner or advanced welder.

WLD 224
ADVANCED GMAW PRACTICES **2 CR**
 GMAW welding practice on steel in all positions.
PREREQUISITE: WLD 120 or WLD 223

WLD 225
GMAW ALUMINUM PRACTICES **4 CR**
 GMAW welding practice in all positions.

WLD 226
ADVANCED ALUMINUM WELDING PRACTICES **6 CR**
 Guided & self-guided Instructor-approved practices in GMAW or GTAW on aluminum.
PREREQUISITES: WLD 222 or WLD 242 or Instructor permission

WLD 230
FCAW II **4 CR**
 Advanced FCA welding techniques in all positions in the weld booth and in work simulated difficult positions such as the welding module. Lab practice will include preparation for WABO certification testing.
PREREQUISITES: WLD 130

WLD 231
FCAW PRACTICES **2 CR**
 FCAW process in various positions for advanced welding techniques.
PREREQUISITES: WLD 120 or WLD 223

WLD 232
ADVANCED FCAW PRACTICES **6 CR**
 Advanced FCA welding techniques in all positions in preparation for WABO certification testing.
PREREQUISITE: WLD 230

WLD 242
GTAW ALUMINUM II **5 CR**
 This course focuses on GTAW with fillet and groove welds in all positions on aluminum.
PREREQUISITES: WLD 141

WLD 243
GTAW PRACTICES **2 CR**
 GTAW process in various positions on various materials for the beginner or advanced welder.

WLD 244
ALLOY PIPE WELDING **6 CR**
 SMAW & GTAW welding applications for alloy pipe, including medium carbon, chrome-moly, and stainless steel.
PREREQUISITE: WLD 215

WLD 245
ADVANCED GTAW PRACTICES **3 CR**
 Lab focuses on proper joint preparation, fit-up and welding of alloy plate, including stainless steel

GTAW welding, open root butt welds and various alloys and carbon steel.
PREREQUISITE: WLD 243

WLD 246
GTAW ALUMINUM PRACTICES **2 CR**
 GTAW aluminum welding practice in all positions.

WLD 247
ADVANCED GTAW ALUMINUM PRACTICES **3 CR**
 Advanced GTA welding of aluminum alloys in all positions and confined spaces.
PREREQUISITE: WLD 246

WLD 252
ALUMINUM FABRICATION II **5 CR**
 This course covers advanced fabricating techniques for the job site, including material handling practice and safety, crane & hoist operation & safety, confined spaces and fresh air training. In position welding utilizing GMAW and GTAW on fillet and groove welds in all positions, cutting and air carbon arc gouging, techniques in the Modular Training Facility, fall protection & scaffold safety, and use of large shop equipment (brake, shear, power rolls) are covered.
PREREQUISITES: WLD 151

WLD 254
STEEL FABRICATING II **5 CR**
 This course covers advanced fabricating techniques for the jobsite, including material handling practice and safety, crane & hoist operation & safety, confined spaces and fresh air training, In position welding utilizing proper SMAW, GTAW, and FCAW technique in all positions, and cutting and air carbon arc gouging techniques in the Modular Training Facility. Also includes fall protection & scaffold safety and use of large shop equipment (brake, shear, power rolls).
PREREQUISITES: WLD 150

WLD 256
PIPE FITTING I **5 CR**
 Theory and practicum, including basic trade math, measuring tools and techniques, pipe welding layout and fit-up techniques for large-bore and small-bore steel pipe; pipe materials and fittings; pipe fitting safety, tools and techniques; and preparation of beveled pipe joints for welding. Course will include theory and application of prefabrication and field fit-up of pipe and piping systems, and welding to WABO structural, AWS and ASME pressure pipe welding standards, and NCCER Pipefitting Levels 1-3.
PREREQUISITES: WLD 150.

WLD 257
PIPE FITTING II **5 CR**
 Theory and practicum based on Piping Industry codes and standards will include trade math and trigonometric functions in laying-out angles and offsets; pipefitting calculations; special pipefitting problems, including branch connections, headers; and fabrication piping systems involving reducers, offsets and rolling offsets. Also included will be special fit-up considerations for alloy pipe and pipe support systems; theory of fit-ups to pumps,

2010-2012 Course Descriptions

filters, pressure vessels; bolts, flanges, gaskets, bolt-up and blanking techniques; and rigging for piping installations in the Fabrication Module simulating real world conditions will be applied. This course will be based extensively on *The Pipe Fitter's Blue Book* by Graves and NCCER Pipefitting Levels 1-3.

PREREQUISITES: WLD 256

WLD 258

STEEL FABRICATION PROJECTS 6 CR

Guided and self-guided steel fabrication projects.

WLD 259

ADVANCED

STEEL FABRICATION PROJECTS 6 CR

Guided and self guided steel fabrication projects.

PREREQUISITE: WLD 254 or WLD 258

WLD 261

ADVANCED

STRUCTURAL STEEL WELDING 6 CR

Advanced welding techniques in simulated real-world conditions, in the Fabrication Shop or Lab Training Module, including out-of-position welding and mirror welding techniques in one or more processes using SMAW, GMAW, FCAW, or GTAW processes.

PREREQUISITES: WLD 210

WLD 262

GTAW PIPE WELDING 6 CR

GTAW open root welding on pipe (including carbon steel and alloy pipe welding techniques) will be discussed. Pipe fitting techniques for GTAW carbon and alloy pipe; back-gas purging techniques; heat treating for special alloys; GTAW remote amperage adjustment and scratch-arc techniques; welding in the booth and in the Fabrication Shop or Fabrication Module will be demonstrated.

PREREQUISITES: WLD 215

WLD 265

ALUMINUM FABRICATION PROJECTS 6 CR

Guided fabrication projects in aluminum.

WLD 266

ALUMINUM FABRICATION PROJECTS

ADVANCED 6 CR

Guided and self guided fabrication projects.

PREREQUISITE: WLD 265

WLD 270

ALUMINUM TESTING 4 CR

This course will introduce destructive and non-destructive testing of weld joints to aluminum welding standards and will prepare students for testing processes and techniques. This course will require a successful inhouse certification welding test GTAW and GMAW to WABO, Coast Guard, AWS, AAS, or ABS Standards.

WLD 271

WABO/ASME TESTING I 6 CR

This course requires successful completion of at least one WABO Certification Test (SMAW, FCAW, GMAW, GTAW) on 1" Plate, or 3/8" Plate; or WABO Certification Test on 8" Schedule 80 Pipe, or ASME Qualification Test on 2" x 5/8" wall pipe. Instructor permission required.

PREREQUISITES: WLD 230, WLD 210, or WLD 262

WLD 273

TESTING II 6 CR

Elective: Guided lab practice in preparation for WABO/ASME/ABS/in-house testing. Welder qualification and certification testing. Processes may include FCAW, SMAW, GTAW, or GMAW in all positions, including fit-up, and NDE principles.

PREREQUISITES: WLD 230, WLD 210, WLD 262, WLD 271 or equivalent; Instructor permission

WLD 295

CAPSTONE 4 CR

A culminating project consisting of a portfolio, resume and job search element, with a culminating fabrication project under the direction of staff.

PREREQUISITES: All WLD courses 270 & under

WLD 297

10, 30, 60 HR

WELDING UPGRADE 1, 2, 4 CR

Self-guided welding practice in the welding booth. A ten hour upgrade is one credit, thirty hour upgrade is two credits, and a sixty hour upgrade is four credits.

PREREQUISITES: Instructor permission

WLD 298

WELDING: SPECIAL PROJECTS 6 CR

Safety, specialized welding and cutting processes; fabrication and finishing techniques; aesthetics; connotations of materials; sculpture as metaphor; and collage of materials will be discussed. Materials supplied by student.

PREREQUISITE: Instructor permission

WLD 299

WELDING INTERNSHIP 5 CR

Industry on-the-job experience per individualized opportunities under guided practice.

PREREQUISITE: Instructor permission

REGISTRATION

7

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BA, Accounting, Western Washington University
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Patricia McKeown

Vice President of Instruction

Edd, Educational Leadership and Policy Studies in Higher Ed, University of Washington
MEd, Curriculum & Supervision, Central Washington University
BA, Vocational Home Economics, Central Washington University

Richard L. (Deacon) Meier

Vice President of Student Services

Edd, Educational Leadership, Seattle University
MEd, College Student Personnel Administration, Western Washington University
BA, Psychology, Linfield College

Administrators

Sharon Carpenter

Dean, Professional Technical Education

MEd, Curriculum and Instruction, University of New Orleans
BS, Education, University of Oklahoma

Robert Costello

Dean, Professional Technical Education

BA, Telecommunication, Michigan State University
Washington State Master Electrician
WA Professional Technical Certification

Mary Humphries

Executive Director of College Advancement

BA, University of Toronto

Carol Lager

Dean, Professional Technical Education

MEd, Business Education, Western Washington University
BA Business Education, Western Washington University
Microsoft Office User Specialist Certification in Word, Access, and PowerPoint 2000
WA Professional Technical Certification

Full Time Faculty

Don Anderson

Welding Technology

BFA, Painting/Printmaking, University of Kansas
AA, Painting, Johnson County Community College
AAS-T Professional Technical Education, Bellingham Technical College
ASME/ANSI Certified Journeyman Alloy Pipewelder
AWS-Certified Welder Inspector (CWI)
Certified Welding Educator (CWE)
WABO-Certified Pipe Welder, Certified Weld Examiner
Navy Certified Journeyman Alloy Pipewelder
WA Professional Technical Certification

Paublo Baca

Building Construction Technology

MA, Elementary Education, University of New Mexico, Albuquerque
BS, Education with Distinction, University of New Mexico, Albuquerque
K-8 Elementary License, State of New Mexico
WA Professional Technical Certification

Tracy Bailey

Radiologic Technology

AHS, Radiologic Technology, Trident Technical College
Certificate, Diagnostic Medical Sonography, Trident Technical College
ARRT
ARDMS
WA Professional Technical Certification

Michael Baldwin

Culinary Arts

WA Professional Technical Certification

Daniel Beeson

Automotive Technology

ASE Master Technician
ASE L-1 Certified
Certified Journeyman Automotive Technician
WA Professional Technical Certification

Ruby Butterworth

IBEST ESL

MEd, Western Washington University
BA, Ed, Western Washington University
Certificate of Instructional Design, Western Washington University

Thomas Carleson

Process Technology

PhD, Chemical Engineering, University of Washington
MS, Chemical Engineering, University of Idaho
MA, English as a Second Language, University of Idaho
BS, Chemistry, Oregon State University
WA Professional Technical Certification

Sam Cheung

Electronics

MEd, Continuing & College Education, Western Washington University
MS, Electrical Engineering, University of Vermont
BS, Electrical / Engineering, California State University
EIT, State of California
WA Professional Technical Certification

Liz Cunningham

Mathematics

MEd, Adult Education Administration, Western Washington University
BA, Education/Math, State University College at New Paltz

Mary Curran

Nursing

MN, Nursing, University of Washington
BS, Nursing, University of Washington
ATA, Nursing, Skagit Valley College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Jeff Curtis

Diesel Equipment Technology

ASE Master M/H Truck Technician
ASE L-2 Certified
Journey Level Mechanic
WA Professional Technical Certification

Connie Daugherty

ESL

MA, Art History, San Diego State University
BA, English, Pacific Lutheran University

Jere Donnelly*Welding Technology*

Washington Association of Building Officials (WABO)
Certified Welder
WA Professional Technical Certification

Lisa Dzyban*Veterinary Technology*

Doctor of Veterinary Medicine, University of
Minnesota, St. Paul
BS, Veterinary Science, University of Minnesota, St.
Paul
WA Professional Technical Certification

Darlene Edwards*Business & CIS Technology*

MEd, Business, Western Washington University
MBA, Western Washington University
BA, Accounting, Western Washington University
AA, Liberal Arts, Peninsula Community College
Technical Communications Certificate, Western
Washington University
WA Professional Technical Certification

Bruce Evenstad*Auto Collision Repair Technology*

Auto Body Certificate, Bellingham Technical College
PPG Certified Technician Master Level
I-CAR Certified Instructor
Certified Refinish Technician for PPG Level Three
Certified Journeyman
WA Professional Technical Certification

Lee Falta*Computer Network Technology*

MS, Computer Science, University of Alabama in
Huntsville
BS, Computer Engineering, Auburn University
Microsoft Certified Systems Administrator
Windows 2000 CompTIA Security+ Certification
Microsoft Certified Systems Engineer
Network+ Certified Professional
Certified Novell Administrator
WA Professional Technical Certification

Kathy Follman*Nursing*

MN, Nursing, University of Washington
Nurse Educator Specialist Training Certificate
BS, Nursing, University of Washington
AAS, Nursing, Everett Community College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Carol Gavareski*Sciences*

MS, Forest Resources, University of Washington
BA, Biology, Whitman College
WA Professional Technical Certification

Paula Girouard*Basic Academic Skills*

BA, Mathematics, Birmingham-Southern College
Mathematics Secondary Teaching Certificate

Rhonda Gray*Nursing*

MS, Nursing, University of Washington
BS, Nursing, Seattle Pacific University
ATA, Nursing, Skagit Valley College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Ronald Grubb*Process Technology*

AS, Administrative Management Studies, Excelsior
College
WA Professional Technical Certification

Christine Harwood*Dental Hygiene Program Coordinator*

MS, Education, Portland State University
BS, Dental Hygiene, Oregon Institute of Technology
Dental Hygiene Certificate, Oregon Health & Science
University
AAS, Dental Assisting Technology, Oregon Technical
Institute
Registered Dental Hygienist, Oregon
Dental Hygiene Interim License, Washington
WA Professional Technical Certification

Hilde Hettegger-Korsmo*Pastry*

Apprenticeship Degree, Chef de Cuisine & Chef
de Rang, Salzburg School of Hotel and Restaurant
Management
WA Professional Technical Certification

Cindy Hollinsworth*Director of Nursing*

MS, Nursing, University of Washington
BS, Nursing, University of Washington
ATA, Nursing, Skagit Valley College
Practical Nursing Certificate, Bellingham Vocational
Technical Institute
Registered Nurse License, State of Washington
Certified Gerontological Nurse
Nurse Educator Specialist Training Certificate
WA Professional Technical Certification

Mark Hubner*Communications/English*

MA, Teaching, Grand Canyon University, Phoenix,
Arizona
BA, English Education, Western Washington
University

Joan Humen*Nursing*

BS, Nursing, Washington State University
LPN Certificate, Bellingham Technical College
Registered Nurse License, State of Washington
CHPN, Certification in Hospice and Palliative Care
WA Professional Technical Certificate

Russell Jones*Welding Technology*

Washington Association of Building Officials (WABO)
Special Inspector License
WABO-Certified Welding Examiner
AWS-Certified Welder Inspector (CWI)
WA Professional Technical Certification

Christine Kahlbaum*Nursing*

MS, Nursing, University of Colorado Health Sciences
Center
BS, Nursing, Linfield College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Holly Kennedy*Nursing*

MN, Nursing, University of Washington
BS, Nursing, University of Victoria
BS, Industrial Technology, Central Connecticut State
University
Diploma Vancouver General Hospital School of
Nursing
Nurse Educator Specialist Training Certificate
Registered Nurse License, State of Washington
WA Professional Technical Certification

Deidre Kent*Accounting and Business*

Certified Public Accountant License, State of
Washington
BA, Accounting/Business, Western Washington
University
WA Professional Technical Certification

Susan Kerrick-Degnan*Counselor*

MS, Education: Guidance and Personnel, Eastern
Montana College
BA, Communication Arts, Eastern Montana College
AA, Special Education, Eastern Montana College
Agency Affiliated Counselor, State of Washington

Mary Kuebelbeck*Welding Technology*

AAS, Welding Technology, Bellingham Technical
College
Career & Technical Education Certificate, Bellingham
Technical College
WABO Welding Certification
WA Professional Technical Certification

Tony Kuphaldt*Instrumentation & Control Technology*

AAS, Electronic Engineering Technology, Skagit
Valley College
Instrumentation & Industrial Electronics Certificate,
J.M. Perry Technical Institute
Journey Level Status Instrument Technician-Primary
Metals Industry
WA Professional Technical Certification

Jim Lee*Electrician*

BS, Electrical Engineering, Texas A&M University
Certified Journeyman Electrician, State of Washington
WA Professional Technical Certification

Marcia Leister*Basic Academic Skills*

MEd, Western Washington University
BA, Psychology, Western Washington University
Endorsements: Psychology & Social Studies
Secondary Teaching Certificate

Jane Lowe-Webster*Counselor*

EdS, Counselor Education, University of Florida
MEd, Counselor Education, University of Florida
BA, Psychology, University of West Florida
Qualified Chemical Dependency Counselor (QCDC)
Agency Affiliated Counselor, State of Washington

Niki Mantas*IBEST ESL*

MEd, Secondary Education, Western Washington University
BA, French, University of Wisconsin
TESL Certification, Seattle University

Dave Maricle*HVAC & Commercial/Industrial Refrigeration*

Certified HVAC/R Electrician
WA Professional Technical Certification

Janell Massey*Business & CIS Technology*

MEd, Business Education, Western Washington University
BA, Business Education, Western Washington University
Microsoft Certified Application Specialist in Access, Excel, and Word 2007
WA Professional Technical Certification

Mike Massey*Computer Network Technology*

BA, Business Administration/Computer Science, Western Washington University
Microsoft Certified Systems Engineer
CompTIA A+ Certified
CompTIA Network+ Certified
WA Professional Technical Certification

Brian McDonald*Culinary Arts*

AOS, Culinary Institute of America
Certified Culinary Educator, American Culinary Assoc.
Certified Executive Chef, American Culinary Assoc.
Secusafe Certification, National Restaurant Assoc.
WA Professional Technical Certification

Karen McGuinn*Dental Assisting*

AAS-T, Professional Technical Education, Bellingham Technical College
Dental Assisting Certificate, Bellingham Vocational Technical Institute
Certified Dental Assistant
WA Professional Technical Certification

Vicky Moyle*Mathematics*

MA, Counseling Psychology, University of Colorado
MAT, Mathematics, Indiana University
BS, Mathematics and Statistics, Mesa State College
BA, Fairhaven Interdisciplinary Concentration, Western Washington University
Licensed Professional Counselor, State of Colorado
Licensed Mental Health Counselor, State of Washington

Steve Mudd*Psychology*

MA, Counseling Psychology, National University
BS, Applied Science in Industrial Technology, Western Illinois University
Registered Counselor, State of Washington

Carl Oekerman*Psychology*

MS, Counseling and Mental Health, California State University, Hayward
BA, Liberal Studies, University of California, Santa Barbara

Andrea Olah*Biological Sciences*

MS, Environmental Science, Western Washington University
BS, Biology, Whitworth University
WA Professional Technical Certification

Gregory Rehm*Computer Network Technology*

BS, Community Health Ed, Western Washington University
Certified Netware Administrator
Microsoft Certified Professional
A+ Certified Professional
Network+ Certified Professional
Linux+ Certified
WA Professional Technical Certification

Scott Reiss*Mechanical Engineering*

MS, Mechanical Engineering, Rensselaer Polytechnic Institute
BS, Mechanical Engineering, University of Vermont
EIT, State of Vermont
WA Professional Technical Certification

Frances Simmons*Business & CIS*

MA, Education: Organizational Learning and Instructional Technology, University of New Mexico
BA, Communications, University of Washington
Training Specialist Certificate, University of Washington
Editing Certificate, University of Washington
WA Professional Technical Certification

Rosalind Spitzer*Basic Academic Skills*

MA, English, University of Washington
BA, Education, Pacific Lutheran University

Dave Starkovich*Instrumentation & Control Technology*

MS, Technical Education, Western Washington University
BS, Electronics Technology, Western Washington University
AS, Electronics Technology, Everett Community College
Instrumentation Certificate, Perry Technical Institute
WA Professional Technical Certification

Earl Steele*Fisheries Technology*

BS, Fisheries, University of Washington
WA Professional Technical Certification

Timothy Stettler*Civil Engineering*

BS, Civil Engineering, Washington State University
AAS, Civil Engineering, Spokane Community College
WA Professional Technical Certification

Jim Swartos*Electronics*

AAS, General Studies, Whatcom Community College
AA, Business Administration, Whatcom Community College
General Class FCC License
WA Professional Technical Certification

Roxanne Telling*Nursing*

BN, Nursing, University of Dundee
ATA, Nursing, Skagit Valley College
Practical Nursing Certificate, Bellingham Vocational Technical Institute
Registered Nurse License, State of Washington
WA Professional Technical Certification

Marty Vande Kamp*HVAC & Commercial/Industrial Refrigeration*

Refrigeration Service Engineers Society Certification in Proper Refrigerant Usage
WA Professional Technical Certification

Paul Wallace*Automotive Technology/Diesel Equipment Technology*

BA, Industrial Arts, California State University Fresno
ASE Master M/H Truck Technician
AA, Liberal Arts, Fresno City College
ASE Master Automotive Technician
WA Professional Technical Certification

Lowell Wester*Sciences*

BA, Chemistry/Secondary Education, Trinity College
DC, Palmer College of Chiropractic
WA Professional Technical Certification

Judi Wise*Basic Academic Skills/ESL*

BA, French, University of Central Oklahoma

Jack Wollens*Business & CIS Technology*

MBA, Technology Management, University of Phoenix
BSBA, Walla Walla College
Microsoft Certified Systems Engineer
Microsoft Certified Professional
Microsoft Office Specialist
Certified Novell Administrator
CompTIA A+ Certified Professional
WA Professional Technical Certification

Sandra Woodfield*Radiologic Technology*

MPA, Public Administration, University of North Carolina at Wilmington
BA, Biology, University of North Carolina at Wilmington
Radiologic Technology Certificate, University of North Carolina at Chapel Hill
ARRT
ARRT Special Certification, Mammography
WA Professional Technical Certification

Jeanne Young

Instrumentation & Control Technology

BS, Electrical Engineering, Washington State
University

WA Professional Technical Certification

Lorrie Zwiers

Surgery Technology

AA, Nursing, Everett Community College
LPN Nursing, Bellingham Vocational Technical
Institute

Registered Nurse License, State of Washington
CNOR Certified

WA Professional Technical Certification

8

Campus Code of Conduct



CAMPUS CODE OF CONDUCT

CHAPTER 495B 20

Conduct on Campus Code — Prohibited conduct

In order to assure those rights to all members of the college community and to maintain a peaceful atmosphere in which the college may continue to make its special contribution to society, the following types of conduct are hereby prohibited on or in property either owned, controlled, or operated by the college that is used or set aside for college purposes, hereinafter referred to as the campus.

1. Conduct that intentionally and/or substantially obstructs or disrupts teaching or freedom of movement or other lawful activities on the campus
2. Physical abuse of any person or conduct that is intended unlawfully to threaten imminent bodily harm or to endanger the health or safety of any person on the campus
3. Malicious damage to or malicious misuse of college property or the property of any person where such property is located on the campus
4. Refusal to comply with any lawful order to leave the campus or any portion thereof
5. Carrying, exhibiting, displaying, or drawing any weapon (e.g., firearm, club, dagger, sword, knife, or other cutting or stabbing instrument), or incendiary device or explosive, or any facsimile weapon, or any other weapon apparently capable of producing bodily harm and/or property damage is prohibited on or in college-owned or operated facilities and premises and/or during college-sponsored events.
 - a. Legal defense sprays are exempt from this section.
 - b. The aforementioned regulations shall not apply to equipment or materials owned, used, or maintained by the college; nor will they apply to law enforcement officers acting in the legitimate performance of their lawful duties.
6. Unlawful possession of, use or being demonstrably under the influence of, manufacture or distribution of alcohol or controlled substances (as defined in RCW 69.50) on the campus or during college-sponsored activities, with the exception of sanctioned events where consumption of alcohol is approved by the president or a designee and in compliance with state law. All groups qualifying for use of alcoholic beverages must adhere to the rules and regulations set forth by the Washington State Liquor Control Board and the Bellingham Technical College Board of Trustees.
7. Intentionally inciting others to engage immediately in any of the conduct prohibited herein, which incitement leads directly to such conduct. (Inciting is that advocacy that prepares the group addressed for imminent action and steels it to the conduct prohibited herein.)

WAC 495B 120 010

Definitions

The definitions set forth in this section apply throughout this chapter.

1. "Board" means the board of trustees of Bellingham Technical College.
2. "College" means Bellingham Technical College.
3. "Alcohol" or "alcoholic beverages" means the definition of liquor as contained within RCW 66.04.010.
4. "Drugs" means a narcotic drug as defined in RCW 69.50.101, a controlled substance as defined in RCW 69.50.101 through 69.50.212, or a legend drug as defined in RCW 69.41.010.
5. "College facilities" means the real property controlled or operated by the college and includes all buildings and appurtenances affixed thereon or attached thereto.
6. "President" means the chief executive officer of the college appointed by the board of trustees.

7. "Disciplinary officials" means the disciplinary committee as denominated in WAC 495B 120 170, the vice president of student services, the vice president of instruction, and the president.
8. "Student" means a person who is enrolled at the college.
9. "Disciplinary action" means the reprimand, disciplinary warning, probation, summary suspension, suspension, or expulsion of a student under WAC 495B 120 120 for the violation of a rule adopted in this chapter.

WAC 495B 120 020

Statement of Purpose

1. Bellingham Technical College is maintained by the state of Washington for the provision of programs of instruction in higher education and related community services. Like any other institution having its own special purposes, the college must maintain conditions conducive to the effective performance of its functions. Consequently, it has special expectations regarding the conduct of the various participants in the college community.
2. Admission to the college carries with it the prescription that the student will conduct himself or herself as a responsible member of the college community. This includes an expectation that the student will obey appropriate laws, will comply with the rules of the college and its departments, and will maintain a high standard of integrity and honesty.
3. Sanctions for violations of college rules or conduct that interferes with the operation of college affairs will be dealt with by the college, and the college may impose sanctions independently of any action taken by civil or criminal authorities. In the case of minors, misconduct may be referred to parents or legal guardians.
4. The rules and regulations prescribed in this Title 495B shall be observed by guests and visitors while on campus, at all college functions and events, and on or within any other college-controlled or owned property.

Guests and visitors who willfully refuse to obey college security or other duly designated college authorities to desist from conduct prohibited by such rules and regulations may be ejected from the premises. Refusal to obey such an order may subject the person to arrest under the provisions of Washington criminal trespass law, in addition to such other sanctions as may be applicable.

WAC 495B 120 030

Jurisdiction

All rules in this chapter concerning student conduct and discipline apply to every student enrolled at the college whenever the student is on campus or is engaged in or present at a college related activity, whether occurring on or off college facilities.

WAC 495B 120 035

Hazing

1. Bellingham Technical College prohibits college-sponsored organizations or associations and their members from engaging individually or collectively in hazing activities.
2. Hazing is defined as any method of initiation into a student organization or association or any pastime or amusement engaged in with respect to such an organization or association that causes or is likely to cause, bodily danger or physical harm or serious mental or emotional harm to any student or other person attending any institution of higher education or postsecondary institution. "Hazing" does not include customary athletic events or other similar contests or competitions.
3. Penalties.
 - a. Any organization or association that knowingly permits hazing shall
 - 1) be liable for harm caused to persons or property resulting from hazing; and
 - 2) be denied recognition by Bellingham Technical College as an official organization or association on the Bellingham Technical College campus. If the

organization or association is a corporation, whether for profit or nonprofit, the individual directors of the corporation may be held individually liable for damages.

- b. The campus code of conduct sections WAC 495-120-040 through 495-120-150 may be applicable to hazing violations.
- c. Members of student organizations or associations who participate in or conspire to participate in hazing activities will be subject to appropriate college disciplinary actions in accordance with the campus code of conduct.
- d. Other disciplinary actions for individuals of student organizations or associations participating in hazing activities may include forfeiture of any entitlement to state-funded grants, scholarships, or awards for a period of time determined by the college.
- e. Hazing violations are also misdemeanors, punishable under state criminal law according to RCW 9A.20.021.
 - 1) Impermissible conduct associated with initiation into a student organization or association or any pastime or amusement engaged in with respect to the organization or association will not be tolerated.
 - 2) Impermissible conduct that does not amount to hazing may include conduct that causes embarrassment, sleep deprivation, or personal humiliation, or may include ridicule or unprotected speech amounting to verbal abuse.
 - 3) Impermissible conduct not amounting to hazing is subject to any sanctions available under the campus code of conduct sections WAC 495-120-040 through 495-120-150, depending upon the seriousness of the violation.

WAC 495B 120 040

Student Misconduct

Disciplinary action may be taken for a violation of any provision of this campus code of conduct, for a violation of other college rules that may from time to time be properly adopted, or for any of the following types of misconduct, including by not limited to:

1. Smoking inside any building or within twenty-five (25) feet of any building entrance, exit, windows that open, and ventilation intakes (70.160 RCW)
2. The possession, use, being demonstrably under the influence of, sale, or distribution of any alcoholic beverage or illegal drug on the college campus and/or the use of any alcoholic beverage or illegal drug while attending a college-sponsored event on or off campus. Alcoholic beverages may be permissible, however, at sanctioned events where consumption of alcohol is approved by the president or a designee in compliance with state law.
3. Engaging in lewd, indecent, or obscene behavior
4. Presenting an imminent danger to staff, other students, or community members in college facilities on or off campus or while attending a college-sponsored event on or off campus
5. Engaging in academic dishonesty, including not limited to cheating, plagiarism, or knowingly furnishing false information to the college
6. Willful failure or demonstrated inability to comply with school standards regarding academic progress and attendance as set forth in the application for enrollment
7. Intentionally making false statements or filing false charges against the college and/or members of the college community
8. Forgery, alteration, or misuse of college documents, records, funds, or instruments of identification with the intent to defraud
9. Theft from or damage to college premises or property, or theft of or damage to property of a member of the college community or college premises
10. Failing to comply with the direction of college officials acting in the legitimate performance of their duties
11. Carrying, exhibiting, displaying, or drawing any weapon (e.g., firearm, club, dagger, sword, knife, or other cutting or stabbing instrument), or incendiary device or explosive, or any facsimile weapon, or any other weapon apparently capable of producing bodily harm and/or property damage is prohibited on or in college-owned or operated facilities and premises and/or during college-

sponsored events.

12. Computer, telephone, or electronic technology violation. Conduct that violates the college-published acceptable use rules on computer, telephone, or electronic technology use, including electronic mail and the Internet
13. Engaging in unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature where such behavior offends the recipient, causes discomfort or humiliation, or interferes with job or school performance
14. Assault, reckless endangerment, intimidation, or interference upon another person
15. Disorderly, abusive, or bothersome conduct. Disorderly or abusive behavior that interferes with the rights of others or obstructs or disrupts teaching, research, or administrative functions
16. Failure to follow instructions. Inattentiveness, inability, or failure to follow instructions of a college official, thereby infringing upon the rights and privileges of others
17. Malicious harassment. Malicious harassment involves intimidation or bothersome behavior directed toward another person because of or related to that person's race, color, religion, gender, sexual orientation, ancestry, national origin, or mental, physical, or sensory disability.
18. Theft and robbery. Theft of the property of the college or of another as defined in the RCW 9A.56.010–9A.56.050 and 9A.56.100 as now law or hereafter amended. Includes theft of the property of the college or of another; actual or attempted theft of property or services belonging to the college, any member of its community or any campus visitor; or knowingly possessing stolen property.
19. Damage to any college facility or equipment. Intentional or negligent damage to or destruction of any college facility, equipment, or other public or private real or personal property
20. Criminal law violation, illegal behavior, other unlawful violations. Students can be reported to proper authorities for acts that constitute violations to applicable local, state, and federal laws.
21. Violation of other published college policies, rules, or regulations

WAC 495B 120 045

Loss of Eligibility in College Sponsored Activities

Any student found to have violated chapter 69.41 RCW, legend drugs, by virtue of a criminal conviction or by final decision of the college president shall, in lieu of or in addition to any other disciplinary action that may be imposed, be disqualified from participation in any college sponsored events or activities.

WAC 495B 120 050

Civil Disturbances

In accordance with provisions contained in RCW 28B.10.571 and 28B.10.572,

1. it shall be unlawful for any person, singly or in concert with others, to interfere by force or violence with any administrator, faculty member or student of the college who is in the peaceful discharge or conduct of his duties or studies; and
2. it shall be unlawful for any person, singly or in concert with others, to intimidate by threat of force or violence any administrator, faculty member, or student of the college who is in the peaceful discharge of his duties or studies.
3. The crimes described in RCW 28B.10.571 and 28B.10.572 shall not apply to any administrator or faculty member who is engaged in the reasonable exercise of their disciplinary authority,
4. Any person or persons who violate the provisions of paragraphs 1 and 2 above will be subject to disciplinary action and referred to the authorities for prosecution.

WAC 495B 120 060

Free Movement on Campus

The president is authorized to prohibit the entry of or withdraw the privileges of any person or group of persons to enter onto or remain upon any portion of the college

campus if he/she deems that an individual or a group of individuals disrupts the ingress or egress of others from the college facilities. The president may act through the vice president of student services or any other person he/she may designate.

WAC 495B 120 070

Right to Demand Identification

For the purpose of determining whether probable cause exists for the application of any section of this code to any person on the college campus or at a college-sponsored event off campus, any college personnel or other authorized personnel may demand that any person on the college campus or at a college-sponsored event off campus produce evidence of student enrollment at the college.

WAC 495B 120 080

Academic Dishonesty/Classroom Conduct

1. Academic dishonesty. Honest assessment of student performance is of crucial importance to all members of the academic community. Acts of dishonesty are serious breaches of honor and shall be dealt with in the following manner.
 - a. Any student who, for the purpose of fulfilling any assignment or task required by a faculty member as part of the student's program of instruction, shall knowingly tender any work product that the student fraudulently represents to the faculty member as the student's own work product, shall be deemed to have committed an act of academic dishonesty. Acts of academic dishonesty shall be cause for disciplinary action.
 - b. Any student who aids or abets the accomplishment of an act of academic dishonesty, as described in subparagraph a above, shall be subject to disciplinary action.
 - c. This section shall not be construed as preventing an instructor from taking immediate disciplinary action when the instructor is required to act upon such breach of academic dishonesty in order to preserve order and prevent disruptive conduct in the classroom. This section shall also not be construed as preventing an instructor from adjusting the student's grade on a particular project, paper, test, or class grade for academic dishonesty.
2. Classroom conduct. Instructors have the authority to take whatever summary actions may be necessary to maintain order and proper conduct in the classroom and to maintain the effective cooperation of the class in fulfilling the objectives of the course.
 - a. Any student who, by any act of misconduct, substantially disrupts any college class by engaging in conduct that renders it difficult or impossible to maintain the decorum of the faculty member's class shall be subject to disciplinary action.
 - b. The instructor of each course offered by the college is authorized to take such steps as may be necessary to preserve order and to maintain the effective cooperation of the class in fulfilling the objectives of the course, provided that a student shall have the right to appeal such disciplinary action through the discipline appeal procedure (WAC 495B-120-180 Discipline Appeal Procedure).

WAC 495B 120 090

Campus Speakers

1. Student organizations officially recognized by the college may invite speakers to the campus to address their own membership and other interested students and faculty if suitable space is available and there is no interference with the regularly scheduled program of the college. Although properly allowed by the college, the appearance of such speakers on the campus implies neither approval nor disapproval of them or their viewpoints. In case of speakers who are candidates for political office, equal opportunities shall be available to opposing candidates if desired by them. Speakers are subject to the normal considerations for law and order and to the specific limitations imposed by the state constitution regarding religious worship, exercise, or instruction on state property.

2. In order to ensure an atmosphere of open exchange and to ensure that the educational objectives of the college are not obscured, the president, in a case attended by strong emotional feeling, may prescribe conditions for the conduct of the meeting, including but not limited to the time, the manner, and the place for the conduct of such a meeting. Likewise, the president may require permission for comments and questions from the floor and/or may encourage the appearance of one or more additional speakers at a meeting or at a subsequent meeting so that other points of view may be expressed.
3. A free speech area shall be designated by the college president and can be reserved by student groups and student organizations through the office of the vice president of student services.

WAC 495B 120 100

Distribution of Information

1. Handbills, leaflets, newspapers, and similar materials may be distributed free of charge by any student or students, or by members of recognized student organizations at locations specifically designated by the vice president of student services, provided such distribution does not interfere with the ingress or egress of persons or interfere with the instructional process or the free flow of vehicular or pedestrian traffic.
2. Such handbills, leaflets, newspapers, and related matter must bear identification as to the publishing agency and distributing organization or individual.
3. All non-students shall register with the vice president of student services prior to the distribution of any handbills, leaflets, newspapers, or related matter. Such distribution must not interfere with the instructional process or the free flow of vehicular or pedestrian traffic.
4. Any person or persons who violate provisions of paragraphs 1 and 2 above will be subject to disciplinary action.

WAC 495B 120 110

Commercial Activities

1. College facilities will not be used for commercial solicitation, advertising, or promotional activities, except when such activities clearly serve educational objectives—including but not limited to display of books of interest to the academic community or the display or demonstration of technical or research equipment—and when such commercial activities relate to educational objectives and are conducted under the sponsorship or at the request of the college or the student association, if such solicitation does not interfere with or operate to the detriment of the conduct of college affairs or the free flow of vehicular or pedestrian traffic.
2. For the purpose of this regulation, the term "commercial activities" does not include handbills, leaflets, newspapers, and similarly related materials as regulated in WAC 495B 120 100.

WAC 495B 120 120

Disciplinary Process

1. Any infractions of college rules may be referred by any college faculty or staff member to the vice president of student services or a designee. That official shall then follow the appropriate procedures for any disciplinary action he/she deems necessary relative to the alleged misconduct. In addition, a student may appeal disciplinary action taken pursuant to the provisions in WAC 495B 120 180.
2. The disciplinary official may take whatever action deemed appropriate within the framework of the disciplinary rules as defined in WAC 495B-120-130. If the student concludes that any sanction or sanctions imposed are inappropriate, the student may appeal the sanction pursuant to the provision in WAC 495G-120-180.

WAC 495B 120 130

Disciplinary Terms

The definitions set forth in this section apply throughout WAC 495B 120 135 through 495B 120 200.

1. "Disciplinary warning" means oral notice of violation of college rules.
2. "Reprimand" means formal action after censuring a student for violation of college rules for failure to satisfy the college's expectations regarding conduct. Reprimands are made in writing to the student by the disciplinary official. A reprimand indicates to the student that continuation or repetition of the specific conduct involved or other misconduct will result in one or more serious disciplinary actions described below.
3. "Disciplinary probation" means formal action placing conditions upon the student's continued attendance because of violation of college rules or failure to satisfy the college's expectations regarding conduct. The disciplinary official placing the student on probation will specify, in writing, the period of probation and the conditions. Disciplinary probation warns the student that any further misconduct will automatically raise the question of dismissal from the college. Disciplinary probation may be for a specified term or for an indefinite period that may extend to graduation or other termination of the student's enrollment in the college.
4. "Summary suspension" means temporary dismissal from the college and temporary termination of a student's status for a period of time not to exceed ten days that occurs prior to invocation of the formal hearing procedures specified in these rules due to a necessity to take immediate disciplinary action, where a student presents an imminent danger to the college property, or to himself or herself, or to other students or persons in college facilities on or off campus, or to the educational process of the college. (Procedure is described in detail in WAC 945B-120-160.)
5. "Suspension" means temporary dismissal from the college and temporary termination of student status for violation of college rules or for failure to meet college standards of conduct.
6. "Expulsion" means dismissal from the college and termination of student status for an indefinite period of time or permanently for violation of college rules or for failure to meet the college standards of conduct.

WAC 495B 120 135

Refunds and Access

1. Refund of fees for the quarter in which disciplinary action is taken shall be in accordance with the college's refund policy.
2. A student suspended on the basis of conduct that disrupted the orderly operation of the campus or any facility of the college may be denied access to all or any part of the campus or other college facility.

WAC 495B 120 140

Readmission after Suspension or Expulsion

Any student suspended from the college for disciplinary reasons will normally be readmitted upon expiration of the time period for which the suspension was issued. If the student has been expelled or feels that circumstances warrant reconsideration of a temporary suspension prior to its expiration, or if the student was suspended with conditions imposed for readmission, the student may be readmitted following approval of a written petition submitted to the vice president of student services. Such petition must state reasons that support a reconsideration of the matter. Before readmission may be granted, such petition must be reviewed and approved by the college president or a designee.

WAC 495B 120 150

Reestablishment of Academic Standing

Students who have been suspended pursuant to disciplinary procedures set forth in

WAC 495B 120 120 and 495B 120 130 and whose suspension, upon appeal, has been overturned pursuant to the appeals process set forth in WAC 495B-120-180 shall be provided the opportunity to re-establish their academic and student standing to the extent possible within the abilities of the college, including an opportunity to retake examinations or otherwise complete course offerings missed by reason of such action.

WAC 495B 120 160

Disciplinary Authority of the Vice President of Student Services

1. The vice president of student services or a designee is responsible for initiating disciplinary proceedings for infractions of rules. The vice president of student services may delegate this responsibility to his/her staff and/or establish committees or other hearing bodies to advise or act for him/her in disciplinary matters.
2. In order that any informality in disciplinary proceedings not mislead a student as to the seriousness of the matter under consideration, the student involved shall be informed at the initial meeting or hearing of the several sanctions that may be involved for the misconduct.
3. After considering the evidence in a case and interviewing the student or students involved, the vice president of student services or a designee may take any of the following actions:
 - a. Terminate the proceedings, exonerating the student or students
 - b. Dismiss the case after whatever counseling and advice may be appropriate
 - c. Impose disciplinary sanctions directly, subject to the student's right of appeal pursuant to WAC 495B-120-180. The student shall be notified in writing of the action taken, except where the disciplinary warning is given verbally.
 - d. Refer the matter to the student disciplinary committee for appropriate action (WAC 495B-120-170). The student shall be notified in writing that the matter has been referred to the committee.
4. This section shall not be construed as preventing the appropriate official, as set forth in paragraph 1 of this section, from summarily suspending a student. In the event of summary suspension, the student will be given oral or written notice of the charges, an explanation of the evidence, and an informal opportunity to present his/her side of the matter. The student may elect, as well, to utilize the appeal procedures pursuant to WAC 495B-120-180.

WAC 495 120 165

Summary Suspension

The vice president of student services or a designee may summarily suspend any student from the college if the vice president has reason to believe that the student presents a danger either to self or to others on the college campus, threatens campus safety, or severely disrupts the educational process. The summary suspension procedure provides an emergency method of suspension for purposes of investigation, reviewing the impact on the campus community due to serious infraction of student behavior standards, or removing a threat to the safety and well-being of the college community.

1. Initial summary suspension proceedings. If the vice president of student services believes it is necessary to exercise the authority to summarily suspend a student, the vice president shall notify the student of the alleged misconduct and violation(s) of the code of student conduct.
 - a. This notification may initially be given orally, but written notification shall be sent by certified and regular mail to the student's last known address or shall be personally served.
 - b. The notice shall be entitled "Notice of Summary Suspension Proceedings" and shall state
 - 1) the charges against the student, including the reference to the law and/or code of conduct;
 - 2) the specified date, time, and location that the student must appear before the vice president of student services for a hearing, which shall be held as soon as practical after the summary suspension;

- 3) a warning that the student shall be considered trespassing and that the police will be called if the student enters the college campus other than to meet with the vice president of student services or to attend the disciplinary hearing described in subsection 3 below.
2. Emergency procedure. The summary suspension procedure shall not prevent faculty members or college officials from taking reasonable summary action to maintain order if they have reason to believe that such action is necessary for the physical safety and well-being of the student or the safety and protection of other students or of college property or where the student's conduct seriously disrupts the educational process. The faculty member or college official should immediately bring the matter to the attention of the vice president of student services for appropriate disciplinary action.
 3. Procedures of summary suspension hearing.
 - a. The summary suspension hearing shall be considered an informal hearing. The hearing must be conducted as soon as possible and the vice president of student services will preside over the meeting.
 - b. The vice president of student services shall, at a summary suspension proceeding, determine whether there is probable cause to believe that continued suspension is necessary and/or whether some other disciplinary action is appropriate.
 4. Decision by the vice president of student services. The vice president of student services may continue to enforce the suspension of the student from the college and may impose any other disciplinary action that is appropriate if the vice president finds probable cause to believe that
 - a. the student against whom specific violations are alleged has actually committed one or more such violations; and
 - b. summary suspension of the student is necessary for the safety of the student, other students, or persons on college facilities, the educational process of the institution, or to restore order to the campus; and
 - c. the violation or violations constitute grounds for disciplinary action.

The vice president of student services is authorized to enforce the suspension in the event the student has been served according to the notice requirement and fails to appear at the time designated for the summary suspension proceeding.

WAC 495B 120 170

Student Disciplinary Committee

1. The student disciplinary committee, convened for that purpose, will hear, de novo, and make recommendations on all disciplinary cases referred to it by the appropriate authority or appealed to it by students. The committee will be appointed by the president of the college or a designee and shall be composed of one (1) administrator, two (2) members of the faculty, two (2) representatives from the student council, and one (1) counselor.
2. None of the above named persons shall sit on any case in which he or she is a complainant or witness, in which he or she has a direct or personal interest, or in which he or she has acted previously in an advisory or official capacity. Decisions in this regard, including the selection of alternates, shall be made by the college president or a designee. The disciplinary committee chairperson will be elected by the members of the disciplinary committee.
3. After conducting its investigation, the disciplinary committee will recommend to the proper authority that the student in question
 - a. be given a disciplinary warning; or
 - b. be given a reprimand; or
 - c. be placed on disciplinary probation; or
 - d. be given a suspension; or
 - e. be expelled; or
 - f. be exonerated with all proceedings terminated and with no sanctions imposed; and/or
 - g. be disqualified from participation in any college sponsored activities.

WAC 495B 120 180

Discipline Appeal Procedure

Any disciplinary action taken resulting from the Student Disciplinary Committee's recommendations as described in WAC 495B-120-170 may be appealed following the process outline below.

1. The student may file an appeal using the appropriate forms. (An appointment must be made with the vice president of student services or a designee to obtain the necessary forms and information.)
2. Appeals must be filed with the vice president of student service or a designee.
3. Appeals must be filed within ten (10) calendar days of the college giving notice of the disciplinary action. The date of notification shall be deemed to be the date the notice is mailed by the college to the student.
4. The vice president of student services or a designee will monitor the appeal process.
5. The student will receive acknowledgement of the filing of a formal appeal. The student may withdraw the appeal at any point during the formal procedure. The vice president of student services or a designee will notify all parties involved.
6. An appeal committee will be appointed annually by the president and will consist of five (5) individuals representing the various college constituencies. The committee will be made up of one (1) administrator, two (2) faculty members, and two (2) support staff members. The complainant may request student representation on the committee. If requested, the president may select two (2) students to substitute for a like number of existing members of the committee. Members of the committee will remove themselves from the process if they deem themselves biased or personally interested in the outcome of the appeal.
7. The committee will review the appeal and all other documentation related to the incident and the resulting discipline. They may request further investigation if facts warrant the need to do so. The vice president of student services or a designee will serve as the investigating officer.
8. If an investigation is ordered, the investigating officer will
 - a. meet with the student and the staff member(s) who initiated the discipline;
 - b. examine documentation and interview witnesses;
 - c. consult with the appropriate vice president or equivalent unit head and/or other appropriate administrator; and
 - d. prepare a written investigative report.
9. After a full review, the committee's decision will be limited to one of the following statements:
 - a. "Based on the evidence presented to us, we find probable cause for believing that an improper or unfair disciplinary decision or act has been committed"; or
 - b. "Based on the evidence presented, we find no probable cause for believing that an improper or unfair disciplinary decision or act has been committed."

The committee will make its report in writing to the vice president of student services or a designee. The deliberations of the committee will not be disclosed to anyone except the vice president of student services or a designee who will hold them confidential.
10. If no probable cause is found, the matter will be considered concluded. However, the student may submit a written appeal to the president within ten (10) calendar days from the date the decision is made. The appeal must specify in detail what findings, recommendations, or other aspects of the decision were not acceptable. The appeal should also include what corrective action the student desires after consideration of the appeal by the president. The president may uphold the decision of the committee, and at that point no further appeals within the college will be considered. Or, the president may instruct the committee to go forward with an appeal hearing.
11. If probable cause is found, a hearing will be held.
 - a. The committee will select a chair. The chair of the committee will establish a date for the hearing. A notice establishing the date, time, and place of the hearing will be provided to all involved parties.

- b. The hearing will be held within thirty (30) calendar days from the date of the hearing notice. The date of notification shall be deemed to be the date the notice is mailed by the college to the student.
 - c. The student will have the privilege to challenge one member of the committee without cause (stated reason). Unlimited challenges may be issued if it is felt that a member of the committee is biased. In the case of a challenge for bias, a majority of the committee members must be satisfied that a challenged member cannot hear the case impartially before the member can be disqualified. In the case of removal of a member through the challenge process, the president will restore the committee to full membership.
 - d. The hearing will be conducted as expeditiously as possible and on successive days, if possible.
 - e. The student and any others the committee deems necessary to the proceedings will make themselves available to appear at the proceeding unless the individual can verify to the committee that their absence is unavoidable.
 - f. The student will be permitted to have with him/her a party of his/her own choosing to act as advisor and counsel. The hearing may be monitored by the assistant attorney general assigned to the college.
 - g. The hearing will be closed to all except those persons directly involved in the case as determined by the committee. Statements, testimony, and all other evidence given at the hearing will be confidential and will not be released to anyone and may be used by the committee only for the purpose of making its findings and recommendations to the president.
 - h. The chair of the committee will convene and regulate the proceeding. The student, identified staff, and the members of the hearing panel must be present during the proceeding unless excused by the chair for good cause. Repeated failure, without reasonable explanation, of either the student or identified staff to appear will be grounds for defaulting that party's case. The student will have the burden of presenting the case, and staff will have the burden of challenging the evidence presented.
 - 1) All parties will have the opportunity to present evidence, respond to evidence presented, and examine and cross examine witnesses.
 - 2) The hearing committee will be empowered to examine witnesses and receive evidence; exclude any person(s) felt to be unreasonably disruptive of the proceedings; hold conferences for the settlement of the issues involved; make decisions or proposals for decisions; and take any other actions authorized by the rule consistent with this procedure.
 - 3) No individual will be compelled to divulge information in any form that he/she could not be compelled to divulge in, or in connection with, court proceedings.
 - i. Any legal opinion or interpretation given to the committee by the parties may be shared with all parties to the case.
 - j. The committee will file its findings and recommendations with the president, the vice president of student services, the student, and involved staff after the conclusion of the hearing. If the findings and recommendations of the committee are acceptable to the student, the president may direct implementation of the recommendations.
12. If the student objects to the findings and recommendations and wishes to appeal, a written appeal may be submitted to the president within ten (10) calendar days from the date the finding is issued. The appeal must specify in detail the findings, recommendations, or other aspects of the report or decision that are not acceptable. The appeal should also include what corrective action the student desires after consideration of the appeal by the president.
13. After considering an appeal, the president will issue a written decision to the parties involved. The decision of the president will be final and no further appeals within the college will be considered.

WAC 495B 120 200

Reporting

Records of all disciplinary cases shall be kept by the disciplinary official taking or initiating the action. Except in proceedings where the student is exonerated, all documentary or other physical evidence produced or considered in disciplinary proceedings and all recorded testimony shall be preserved, insofar as is reasonably possible, for five years. No other records of proceedings wherein the student is exonerated, other than the fact of exonerated, shall be maintained in the student's file or other college repository after the date of the student's graduation or not more than five years.

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