



Bellingham
TECHNICAL
COLLEGE

CATALOG

2012
2014

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CATALOG



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

Effective Fall 2012

MESSAGE FROM THE PRESIDENT



Welcome to Bellingham Technical College.

On behalf of the Board of Trustees, faculty, and the staff at Bellingham Technical College, I want to welcome you to our college and campus.

BTC is a leading educational institution and offers high-quality education in a supportive, student-first environment. BTC can help you prepare for a high wage, high demand career in just two years. With 33 associate degrees and 55 certificates, we prepare students for careers in fields ranging from Advanced Manufacturing to Accounting; Process Technology to Precision Machining; Registered Nursing to Radiologic Technology. Our mission is to help you achieve your educational and career goals.

BTC continues to deliver student centered, high quality professional technical education for today's needs and tomorrow's opportunities. More than ever before, BTC is expanding transfer opportunities so our students can seek a baccalaureate degree. The college is part of several State initiatives to address the growing aerospace workforce needs as well as our regional advanced manufacturing and healthcare sectors. We have a large cadre of healthcare programs that are continually updating their curriculum and delivery to meet the changing workforce needs. Our industrial and technical programs are well known for high quality, not only in Washington State but nationally. It is exciting to know the interest in employers for our graduates; our job placement rate is strong, remaining above 80%.

We look forward to helping you fulfill your educational potential and goals for a new career. Thank you for considering us and we look forward to seeing you in one of our classrooms soon!

A handwritten signature in black ink that reads "Patricia L. McKeown". The signature is written in a cursive, flowing style.

Patricia McKeown, Ed.D.
President

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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 2010 – 2011 academic year, the College served over 7,289 students. In fall of 2011, the student body was 52% female, 48% male, with 20% minority students. The average student age was 35 years old. BTC served over 2,264 full-time equivalent students during the 2010 – 2010 academic year.

Accreditation Status

Bellingham Technical College is accredited by Northwest Commission on Colleges and Universities, 8060 165th Avenue N.E., 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 and 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 knowledge and skills that are in demand in the workforce.

An advisory committee representing each specific professional technical field meets regularly with 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

Bellingham Technical College provides equal opportunity and access in education and employment and, does not exclude, deny benefits to, or otherwise discriminate against any person on the basis of race, ethnicity, creed, color, sex, gender, citizenship status, national origin, age, marital status, religious preference, the presence of any sensory, mental, or physical disability, reliance on public assistance, sexual orientation, veteran status, political opinions or affiliations, or genetic information under any of its programs, activities, and services. The College complies with all Washington State anti-discrimination 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, the Age Discrimination Act of 1975, and the Americans with Disabilities Act (ADA) of 1990.

The following person has been designated to handle inquiries regarding non-discrimination, equal opportunity, affirmative action, or the ADA policies: Associate Director of Human Resources, 3028 Lindbergh Avenue, Bellingham, WA 98225, 360-752-8354, 360-752-8515/TTY. For Title IX/504 compliance, contact: Vice President of Student Services, 3028 Lindbergh Avenue, Bellingham, WA 98225, 360-752-8440; 360-752-8515/TTY.

BTC publications are available in alternate formats upon request by contacting the Disability Support Services Office at 360-752-8367. Director: 360-752-8396.



STRATEGIC PLAN

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.

MISSION

To deliver superior professional technical education for today's needs and tomorrow's opportunities.

GOALS

EXCELLENCE AND INNOVATION

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

ACCESS

BTC will increase student access to seamless, educational pathways.

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 we 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.

MARKETING AND RESOURCE DEVELOPMENT

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

**BTC is developing its 2012-2017 Strategic Plan. Please visit www.btc.ctc.edu, beginning in Fall 2013, to view the updated Plan.*

BELLINGHAM TECHNICAL COLLEGE FOUNDATION

The Bellingham Technical College Foundation's mission is to enhance student success by securing gifts that support scholarships, faculty and staff development, and capital projects or campaigns. The Foundation Board of Directors and staff forward this mission through fundraising and special events that actively involve individuals, businesses, alumni, grant-making institutions, and other community organizations.

Established in 1987 as a nonprofit, tax-exempt organization, the Bellingham Technical College Foundation is governed by a volunteer board of directors. Early on, the Foundation's primary function was to serve as a conduit for scholarship awards and gifts of in-kind equipment. Since the first staff was hired in 1997, the BTC Foundation has played an increasingly important role in enhancing student success and helping Bellingham Technical College reach its goals.

The Foundation Board has set ambitious three-year goals, including the commitment to raise:

- \$600,000 to support annual scholarships for BTC students
- \$1,000,000 for the endowed scholarship fund at BTC
- \$410,000 to support BTC's Fund for Student Excellence

If you or someone you know would like to support the BTC Foundation's mission, you may do so online at www.btcfound.org, or by calling us at 360-752-8684. Our staff is happy to assist you in any way possible.

The Foundation also accepts gifts of stock and other assets, and offers the flexibility of making pledged gifts over time. If you are interested in making a bequest to the College or setting up a charitable remainder trust, 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. You are welcome to come by and visit us on the second floor of the Morse Center Building.

Bellingham Technical College Foundation
3028 Lindbergh Ave
Bellingham, WA. 98225
360-752-8684
www.btcfound.org

COLLEGE CALENDAR 2012-2014

SUMMER QUARTER 2012

College Navigation.....	August 15th
Campus Tours	August 15th
Summer Quarter Last Day to Withdraw or Change Schedule - 9 week course.....	August 16th
Weekly Assessment Testing	Weekly
Fall Quarter Tuition & Fees Due.....	August 23rd
Summer WAOL Class Instruction Ends.....	August 29th
Summer Quarter Ends - 9 week course.....	August 31st
Labor Day Holiday	September 3rd
Summer Quarter Grades Posted to Student Transcripts - 9 week course.....	September 6th

FALL QUARTER 2012

Fall WAOL Classrooms Open	September 13th
Fall Quarter Begins - First Day of Classes	September 18th
Fall WAOL Class Instruction Begins	September 20th
Fall Quarter Last Day for a 100% Refund	September 24th
Fall Quarter Last Day for a 50% Refund.....	October 8th
Faculty Inservice (no daytime program classes).....	October 29th
Winter Quarter Continuing Program Student Registration Access Times & Program Course Offerings Posted Online.....	November 5th
Veterans Day Holiday.....	November 12th
Winter Quarter Continuing Program Student Registration Access Begins.....	November 13th
Fall Quarter Last Day to Withdraw or Change Schedule (if class has not ended)	November 15th
Non-Instructional Days – Campus Closed.....	November 19th - 21st
Thanksgiving Holiday	November 22nd - 23rd
Winter Quarter New Program Student Registration Access Begins.....	November 26th
Winter Quarter Tuition & Fees Due.....	November 28th
Fall WAOL Class Instruction Ends.....	November 28th
Winter Quarterly Schedule available	December 3rd
Winter Quarter General Registration begins 8:00 am.....	December 3rd
Fall Quarter Ends.....	December 12th

WINTER QUARTER 2013

Fall Quarter Grades Posted to Student Transcripts.....	December 17th
BTC Closed for holiday.....	December 24th - 25th
New Year's Day Holiday	January 1st
Winter Break	December 13th – January 2nd
Winter Quarter BTC Classes Begin	January 3rd
Winter WAOL Class Instruction Begins	January 3rd

Winter Quarter Last Day for a 100% Refund.....	January 9th
Martin Luther King, Jr. Day Holiday.....	January 21st
Winter Quarter Last Day for a 50% Refund	January 23rd
Spring Quarter Continuing Program Student Registration Access Times & Program Course Offerings Posted Online.....	February 5th
Spring Continuing Program Student Registration Access begins.....	February 12th
Presidents' Day Holiday.....	February 18th
Spring New Program Student Registration Access begins.....	February 19th
Winter Last Day to Withdraw or Change Schedule	February 28th
Spring Quarter General Registration begins 8:00 am.....	March 4th
Spring Quarterly Schedule Available.....	March 4th
Winter WAOL Class Instruction Ends.....	March 13th
Spring Quarter Tuition & Fees Due.....	March 14th
Winter Quarter ends	March 21st
Spring WAOL Classrooms Open	March 21st
SPRING QUARTER 2013 Winter Quarter Grades Posted to Student Transcripts	March 26th
Spring WAOL Class Instruction Begins	March 28th
Spring Break.....	March 22nd - April 1st
Spring Quarter BTC Classes Begin	April 2nd
Spring Last Day for a 100% Refund.....	April 8th
Spring Last Day for a 50% Refund for Full Quarter Length Classes	April 22nd
Summer & Fall Continuing Program Student Registration Access Times & Program Course Offerings Posted Online	May 6th
Summer & Fall Quarters Continuing Program Student Registration Access Begins.....	May 13th
Summer & Fall Quarters New Program Student Registration Access Begins.....	May 20th
Memorial Day Holiday	May 27th
Spring Quarter Last Day to Withdraw or Change Schedule.....	May 30th
Summer Quarterly Schedule Available	June 3rd
Summer Quarter General Registration begins 8:00 am.....	June 3rd
Spring WAOL Class Instruction Ends.....	June 5th
Summer Quarter Tuition & Fees Due	June 12th
Spring Quarter Ends.....	June 19th
Graduation	June 19th

SUMMER QUARTER 2013

Spring Quarter Grades Posted to Student Transcripts.....	June 24th
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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.

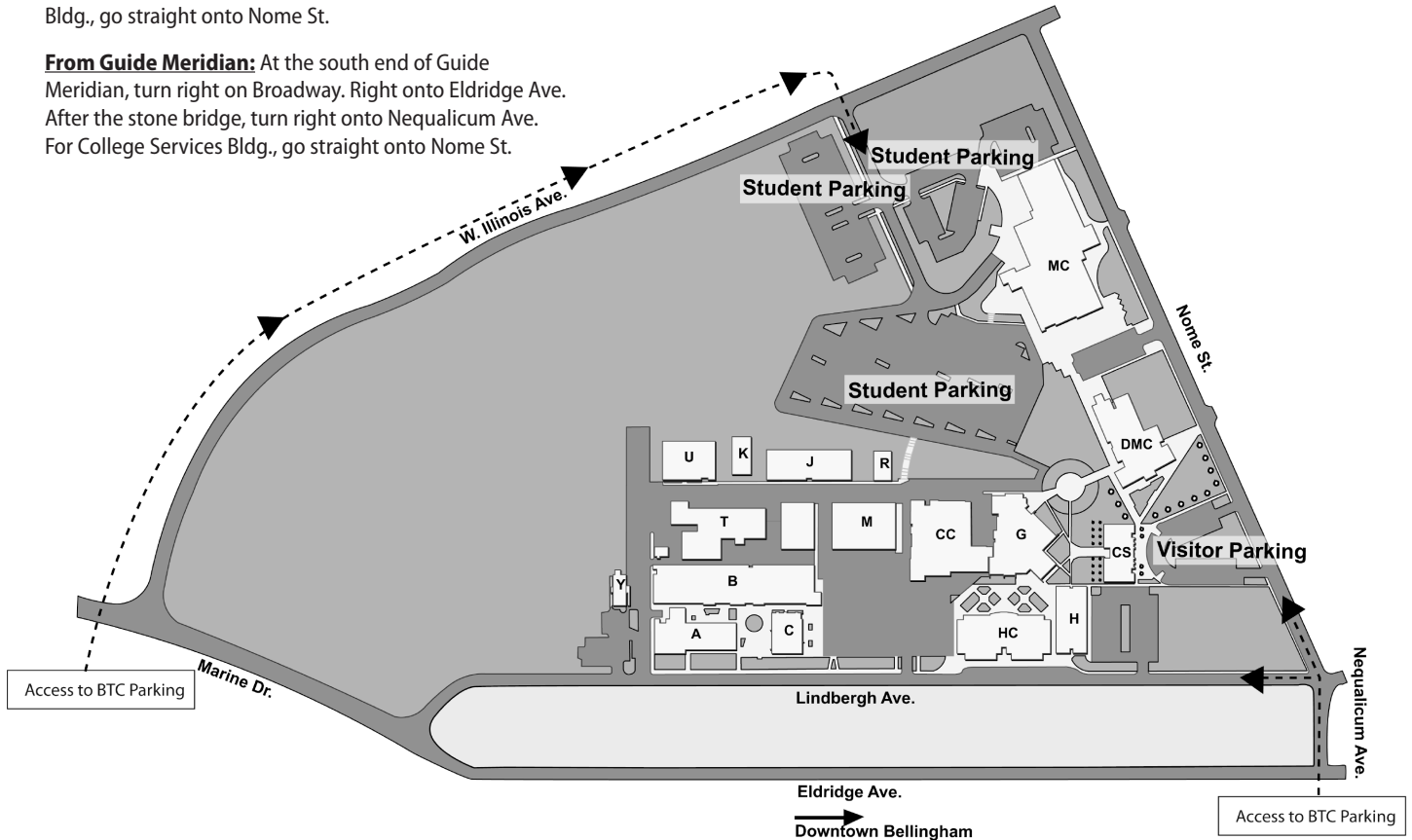
BTC Map & Directions to Campus

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	Human Resources	HC	Haskell Center Nursing, Radiologic Technology, Surgery Technology
B	Electrician, Precision Machining, Electro Mechanical	J	Engineering, Surveying & Mapping
C	Dental Assisting & Dental Hygiene, Dental Clinic	K	Facilities
CC	<u>Campus Center</u> Bookstore, Business Courses, Cafe Culinaire, Culinary Arts, Computer Networking, Coffee Shop, Library	M	Automotive Technology
CS	<u>College Services Bldg</u> Student Services, Administration	MC	<u>Morse Center</u> Welding, Auto Collision, Assessment Center (temporary location)
DMC	<u>Desmond McArdle Center</u> Instrumentation, Process Technology, Electronics, Basic Academic Skills, Veterinary Technician (temporary location)	T	Diesel Equipment
G	Cafeteria	U	HVAC
H	Health Occupations, Practical Nursing, Continuing Ed, Tutoring Center	Y	Family Learning Center

Instructional sites are easily accessible to students using wheelchairs or crutches. Building M is 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.



ADMISSION AND ENROLLMENT

College Services Building, 102
Email: admissions@btc.ctc.edu Phone: 360-752-8345

Prospective 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 or certificate may only be offered in certain quarters. Students should consult a BTC counselor, advisor, or faculty advisor to assist in determining the best schedule option to meet their needs.

Full-time program students typically enroll in 18 – 21 credits per quarter. Full-time students generally attend class six hours per day, five days per week. To qualify as a full-time student, students must enroll in at least 12 credits of program-related coursework. Part-time program students typically enroll in 6 – 11 credits. 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 Child Development, Hypnotherapy, Personal Fitness Trainer, Professional Technical Education, and Residential Home Inspection. Students seeking enrollment in these programs at Bellingham Technical College should use the Course Registration Procedure.

ASSESSMENTS & TESTING

PLACEMENT TESTING

Because student success in individual degree/certificate programs and in subsequent employment is closely related to the ability to read and compute, acceptance into specific degree/certificate programs is determined in part by students' demonstration of reading and mathematics competency 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. The Accuplacer testing requirement may be waived upon evaluation of official transcripts from a regionally accredited college or university. Accuplacer waiver requests should be made to Admissions and Advising.

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. The \$20 Accuplacer test fee includes one retest in each subject area per 12-month period. Test scores are valid for a period of five years. Students must present picture identification when they report for testing.

GED TESTING

GED testing is conducted at scheduled times in the Assessment Center. Visit the BTC website for current test fee information. Please contact Admissions and Advising at 360-752-8345 for more information, or to schedule testing. Students must present a state or federally 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. Prior to taking any tests in the GED battery, 100% of the GED testing fee will be refunded upon written request. Once a student has taken any test in the battery, no refunds are offered for remaining tests. A retesting fee must be paid prior to retaking any individual test. The GED Transcript can only be requested in person or in writing. See the BTC website for more details on ordering GED transcripts for instructions on ordering GED transcripts.

Persons needing testing accommodations should meet in advance with BTC Disability Support Services. Call 360-752-8367 for information. Persons interested in preparation for GED testing should contact Basic Academic Skills at 360-752-8341.

ENROLLMENT SERVICES

PROGRAM ADMISSION PROCEDURE

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. If you need assistance deciding on a program, contact the Counseling and Career Services at 360-752-8450 to meet with a counselor.

1. Complete an application for BTC programs through the Washington State Web Admissions Center at: www.btc.ctc.edu/applyonline. Applications for program admission are accepted at any time. The application will be kept on file for a period of one year after the date of application. Applicants will need to reapply after one year of inactivity. 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.
2. Take the Accuplacer assessment test or equivalent placement test, and achieve required scores for the specific program or college coursework as defined below. If the assessment 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 (3) 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 regionally

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 101), such as Practical Nursing, must test into the course or complete preparatory coursework, such as Fundamentals of English (ENGL 092) and Reading Skills (RDG 085), or Oral and Written Communications (COM 170) prior to acceptance.
 - Students interested in programs that require Precalculus I (MATH 141), such as Mechanical Engineering or Instrumentation and Electronics, 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

Please view program description pages for additional details.

Applicants seeking advanced placement admission should follow the procedures listed on page 30 in chapter four under "Transferring and Earning Credits."

ADMISSION AND 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 18 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.

LOCAL ENROLLMENT OPTION

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

1. Are 16 years of age or older.
2. Meet the requirements of Section 1 and Section 2 above.
3. Are not currently enrolled in high school, or if currently enrolled high school students, have written approval (if required) from their sending high school to enroll, and agree to pay all regular tuition and fees.

(See Underage Admission or Enrollment Appeal listed below.)

ADMISSION AND 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 minimum the reasons that support reconsideration of the application or the policy. Any appeal to the Admission and 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 (16) 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 the student:

1. Is competent at an appropriate academic level and/or technical skill level.
2. Demonstrates the ability to participate in an adult learning environment.

(Also see Local Enrollment Option listed above.)

RUNNING START APPLICATION PROCESS

Running Start is a statewide program that allows qualified high school juniors and seniors to receive a maximum of 15 college credits per quarter—tuition free—while completing high school. Students are enrolled simultaneously in high school and college classes (or just college classes), and are awarded dual credits by their high school and the college.

At BTC, Running Start students apply to a professional technical program and enroll in courses directly required for 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 receiving a "CR" on their transcript. The Running Start program is not available during Summer Quarter; however, students interested in attending summer may elect to self-pay tuition and fees.

All Running Start students (including Homeschool) must obtain a completed Running Start Enrollment Verification Form from their High School counselor each quarter. Submitted forms must be complete and signed by their High School counselor/District Office, BTC Running Start Advisor, the student, and a parent/guardian. Students must register in person and pay Class and Program Fees by the quarter due dates published at www.btc.ctc.edu/calendar. A waiver form for the administrative and technology fee charges is available for low-income Running Start students at the Registration Department or from the BTC Running Start Advisor. 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.

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.

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 he or she 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. Complete the Admissions Application form online through the Washington State Web Admissions Center at www.btc.ctc.edu/applyonline.
3. Attend the mandatory First Things First New Student Orientation.
4. Take the Accuplacer assessment test, offered several times per week by appointment on the BTC campus, or at the student's high school, if applicable. Running Start 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.
5. Receive a registration access time. Submit a signed Running Start Verification Form and a BTC registration form at the assigned time for registration, and pay all class and program fees by the due date indicated.

DEGREE/CERTIFICATE PROGRAM RE-ADMISSION POLICY

Students seeking re-admission to degree/certificate programs may return one time only to the same program at priority placement for a negotiated re-entry date. 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 assessment 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 access time in the order they applied.

NEW STUDENT ORIENTATION

All new BTC program students will complete two orientation steps prior to the first day of classes – **First Things First** and then **Get Ready!**

Each orientation step requires a separate sign-up process. Plan ahead and complete each step as soon as possible!

First Things First is an informational session completed either before or after Accuplacer testing but prior to registering for classes.

First Things First will show you how to:

- Finance your education
- Enroll in classes
- Choose a program of study (as necessary)
- Access numerous support services
- And more!

Complete First Things First online or face-to-face. Start online now or sign up for a session at www.btc.ctc.edu/orientation.

Get Ready!

Get Ready! is a hands-on technology session offered just prior to the quarter start, to teach students various computer-based services and classroom components

Register for the Get Ready! course (CDEV 103). Check the online schedule for specific dates, times, and locations for this session.

TECH PREP

Tech Prep is a college preparatory program offering high school students the 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 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 with the \$25.00 Tech Prep fee. Registration instructions are available in the career and counseling centers at each area high school. All high school Tech Prep courses accepted for college 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 Higher Education institutions. For more information, contact the 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

Bellingham Technical College issues the M-1 and F-1 certificates of eligibility for technical professional program students. Before international students can be admitted into Bellingham Technical College or issued a Certificate of Eligibility Form I-20 for Student Visa, the following admissions requirements and steps must be completed:

General International Student Requirements:

- Age Restriction: Applicants must be 16 years of age before enrollment.
- Admissions Application: Applicants must complete and submit the "International Admissions Application" indicating their program intent.
- Assessment Testing: International applicants must demonstrate competency in English and math **before** they are considered program ready. Applicants may take the BTC Accuplacer assessment test to accomplish English and math score requirements. BTC also accepts equivalent college placement scores, the TOEFL (minimum score of 470 for reading only), or certain college coursework for test waiver. International students may make arrangements to complete testing through the U.S. consulate or embassy in their country. Bellingham Technical College cannot issue an I-20 Student Visa for applicants to come to the college for assessment testing.

- **Other Requirements:** Some programs have prerequisite requirements, such as advanced math, science, or computer courses, that must be met before applicants will be considered program ready or placed on the program wait list. Prerequisite requirements for each program are listed on the BTC web page at www.btc.ctc.edu, or contact Admissions and Advising for program information.

When the admissions process is complete and space is available, applicants are accepted into their program of study. Once a start date is confirmed and a registration access time is received, international program students must make an appointment with the International advisor to be issued an I-20 to begin the Visa application process. BTC cannot issue the Certificate of Eligibility Form I-20 to students who have not completed all admissions requirements for their program of study.

I-20 Issuance Requirements:

- **Confirmation of acceptance and start date:** Applicants must receive confirmation that they have been admitted into a BTC program of study and given confirmation of when they will be allowed to begin their full-time program of study.
- **Financial Responsibility:** Applicants must provide evidence of ability to finance their educational and living costs while in attendance. Bank verification showing the availability of funds meeting or exceeding annual program costs will be required.
- **Student Agreement:** Applicants are required to read, sign and adhere to the "International Student Agreement."

An official transcript must accompany any request for acceptance of transfer credit, prerequisite credit, or test waiver from the college or university attended. If the college or university is located outside the United States, the class and credits must be evaluated to the US grading/credit system by an independent credit evaluation agency. Several of these services are listed below.

INDEPENDENT CREDIT EVALUATION SERVICES:

World Education Services
www.wes.org

Foundation for International Services
www.fis-web.com

American Association of Collegiate Registrars
www.aacrao.org

COURSE REGISTRATION PROCEDURE

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

REGISTRATION

A student is considered officially enrolled in a course or program after registering and paying all tuition and fees by specific due dates. The student has the responsibility of completing the registration form, reviewing the accuracy of the Student Schedule, and paying tuition and fees each quarter. Registration access times for new and continuing degree/certificate program students are assigned by cumulative credit earned at BTC. Students are notified by email to check their online registration access time prior to each

registration period. All degree/certificate program tuition and fees must be paid on the due dates specified on the college calendar, located at www.btc.ctc.edu/calendar. Students may be dropped from a course or program if the student fails to attend or contact their instructor by the second day of class, or if tuition and fees are not paid in full when due.

CLASS WAITLISTS

As a courtesy to students, class waitlists are available for many classes. Students are responsible for their class schedule, choosing to place themselves on the class waitlist and removing themselves from a class waitlist if they no longer wish to take the class. Refunds will not be granted if a student registered into a class from a class waitlist and did not drop the class.

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.

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 (5) instructional days of the quarter (three (3) days in summer quarter) to change their schedule. Adding a class will depend on space available. If there is a class waitlist, priority will be given to students based on their class waitlist position. If space is available and students have met all prerequisite requirements of the course, they may enroll. If the class is full, students may enroll in the class by obtaining written permission from the instructor.

Refer to the online College Calendar at www.btc.ctc.edu/calendar for quarterly registration, withdrawal, and schedule change dates.

WITHDRAWAL PROCEDURE

1. Students should meet with their instructor to discuss plans for withdrawal and potential plans for return. If appropriate, the student may also meet with a counselor to develop a plan for future enrollment.
2. Students receiving financial aid should contact the Financial Aid Office to give notification of intent to withdraw and to determine the impact on their financial aid status of withdrawing.
3. To officially withdraw from a course, students must submit the Add/Drop Form in person or online by the quarterly withdrawal deadline. Refer to the online College Calendar for specific dates 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.
4. If eligible, 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.
5. Refund amounts are based on prior full payment of tuition and fees. If payment has not been paid in full, a balance may still be owed if a student withdrew from a class during a partial refund period.

TUITION AND 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. All applicants should go to www.btc.ctc.edu/StuServices/TuitionFees.asp to obtain a current tuition and fee schedule at the time of application and before payment is due.

Program and Course Fees are in addition to tuition, and address distinct and specified costs such as lab assistants, supplies, materials, equipment, rentals, software licensing, replacement and upgrade, maintenance, and other operation costs.

RUNNING START

Students must pay administrative, technology, and program fees, and submit a signed Running Start Verification Form when registering each quarter. A waiver form for 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.

Other Fees

Application Fee (health program exception; see below)	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	\$5.00
Official BTC Transcript (per copy)	\$5.00
Online Transcript Ordering (No cost for unofficial transcript; available for student access on website)	\$7.25
Replacement Degree/Certificate (per copy)	\$5.00

REFUND POLICY

State Funded Credit Class Refund Policy

- 100% refund if a student withdraws from a class through the fifth instructional day of the quarter.
- 50% refund if a student withdraws after the fifth instructional day through the 20th calendar day of the quarter.

Classes with start and end dates other than the start and end of the quarter:

- o Refunds for state supported classes which start before or after the regular quarter begins will be processed in proportion to the tuition and fee refund percentages above. Refund deadlines may differ for classes with different start dates, including Washington Online classes and classes which start mid-quarter.

- o Refunds for state supported classes which are shorter than the full quarter and begin any time during the quarter will be processed in proportion to the tuition and fee refund percentages above.
- o State Supported classes which meet only once must be dropped prior to the class meeting time to be refund eligible.
- *Instructional Days are defined as days the College is in session, not including weekends or scheduled holidays.*
- *Calendar Days are defined as all days the College is in session, including weekends and scheduled holidays.*

Self Support Class and Child & Family Studies Class Refund Policy

- 100% refund if drop is submitted by midnight two calendar days prior to the start date of the class.
- There are NO refunds after midnight two calendar days prior to start date of the class. A signed Add/Drop form is required to drop/withdraw after midnight two calendar days prior to the start date.

Canceled Class Refunds

- A 100% refund will be made when Bellingham Technical College cancels a class.

Refund Information

How to drop, withdraw, petition

- Students are usually able to drop classes online during the 100% refund period or submit an Add/Drop form to the Registration office for assistance. After that time, an Official Withdrawal is required.
- 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.
- Petitions for exceptions to the refund policy must be submitted in writing to the Director of Registration and Enrollment for determination. Required documentation for consideration includes an Add/Drop form, a Hardship Withdrawal Form, and supporting documentation. Circumstances warranting an exception are medical reasons or for those called into military service of the United States.

Payment of Refunds

- 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.

- Refund amounts are based on prior full payment of tuition and fees. If you have not paid in full, you may still owe a balance if you withdraw from your class during a partial refund period.

***State Funded Courses** – supported with State funds.

****Self Support Courses** – supported by student fees.

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 on the existing Hope Credit, can be claimed for tuition and certain fees you pay for higher education in 2011 and 2012. It is a tax credit of up to \$2,500 (a \$700 increase from the Hope Credit) of the cost of qualified tuition and related expenses paid during the taxable year, and can be claimed for expenses for the first four years of post-secondary education. The term "qualified tuition and related expenses" was 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. You will be able to reduce your tax liability by one dollar for each dollar of credit for which you're eligible. If the amount of the American Opportunity Tax Credit for which you're eligible is more than your tax liability, the amount of the credit that is more than your tax liability is refundable to you, up to a maximum refund of 40 percent of the amount of the credit for which you're 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 be mailed a 1098T form from BTC. This form can also be viewed online at www.btc.ctc.edu. 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 2011 and 2012 only. You 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 2012-2014 are located online at www.btc.ctc.edu, under Student Resources>Registration>Tuition and Fees.

PAYING FOR COLLEGE

Financial Aid
BTC Federal School Code: 016227
101 College Services Building
360-752-8351

To help finance your education, you must become familiar with 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 your educational efforts.

Financial aid is available for eligible students who enroll in certificate or degree programs; however, not all programs are eligible for financial aid. Students and their families need not be low-income to qualify for some types of financial aid. Applying for financial aid as early as possible and meeting the institutional priority date gives students the best chance of being reviewed before the beginning of each quarter, and 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; it is your passport to financial aid. Information you provide on the FAFSA determines your eligibility for grants, scholarships, work-study, and low-interest loans.

FINANCIAL AID PROGRAMS

FINANCIAL AID APPLICATION 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 Contribution (EFC), which 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 necessary forms 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 1 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. U.S. citizens or eligible non-citizens.
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. High school graduates, have a GED, or have completed homeschooling as defined by State law.

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 email. Awarding begins in May.

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 on their own while waiting for the committee's decision.

How 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. Student will be notified when they approach excessive credits, which is approximately 125% of their program. Students who change programs may run out of eligibility before completing a new program. Contact the financial aid office for details. There is a 12 quarter enrollment limit for financial aid. Visit our website for details.

FEDERAL FINANCIAL AID REFUND POLICY

Students who receive federal financial aid are subject to the federal Return to Title IV Funds regulations. Under these regulations, aid eligibility for students receiving federal aid must be recalculated under most circumstances if a student withdraws from classes early or ceases to attend during the quarter. If they do not complete 60% of the quarter, some students may owe a repayment to federal and/or state aid programs, including Pell Grant, FSEOG, student loans, SNG, and other funds. Financial aid funds are governed by regulations, and any 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 free monetary assistance for educational expenses. Students who have earned a bachelor's degree are no longer eligible. Like other grants, the Pell Grant is adjusted for less than full-time enrollment.

FEDERAL SEOG GRANT

The Supplemental Educational Opportunity 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

The State Need Grant is available for Washington residents only. It 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 the BTC Foundation, organizations associated with the college, and by outside agencies. For a current list of resources, please visit our website.

STUDENT WORK STUDY

Work Study is part-time employment funded by federal or state financial aid funds. Interested students should contact the Financial Aid Office. State Work Study is available only to Washington state residents. Students may work up to 19 hours a week. Students must be enrolled at least half time. Most all placements are on campus.

STAFFORD AND PLUS STUDENT LOANS

The federal Stafford student loan is guaranteed by the federal government; students do not need established credit to qualify. Repayment begins up to 6 months after you leave school or drop below half time. The Parent Plus Loan is available for eligible students. If approved, parents may borrow up to the cost of the student's budget, minus any other aid.

VETERANS BENEFITS

Veterans or dependents of veterans who are eligible for education benefits must apply for admission to the college. Contact the college Veteran Assistance coordinator as early as possible before enrolling. All certificate and degree programs are eligible for veteran education benefits. Call 360-752-8450 for an appointment with the coordinator.

WORKFORCE FUNDING & STUDENT SUPPORT

Workforce Funding & Student Support, a program within Student Financial Resources (College Services Building, 101), oversees some additional student funding resources. Students may be eligible for funding beyond their FAFSA financial aid package (see Financial Aid section).

- 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 to students below 200% 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, Electrician, Instrumentation, Engineering, HVAC, Electronics, Process Technology, Automotive Technology, Diesel Mechanics, Surgery Technology, LPN, Radiology 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 dislocated 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) currently receive or are eligible to receive unemployment benefits, 3) have exhausted unemployment benefits within the last two years, 4) are a displaced homemaker, 5) were self-employed but closed the business due to economic conditions in the community, 6) are a veteran having been honorably discharged within the past 2 years.

Bellingham Technical College can typically financially assist eligible students for one quarter when FAFSA aid has not been awarded, to bridge a gap in funding at any point in a program of study. This is usually the first quarter. In addition to potential funding for a quarter, Worker Retraining offers assistance in a variety of other arenas, including program wait-list priority for some programs, and 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 (BFET)

BFET is another funding source to help students get on and stay on their educational path. Students may be eligible if they receive or are eligible for federal Basic Food Assistance (food stamps) and do not receive TANF (Temporary Assistance to Needy Families). BFET can help with college and other support services. BFET at BTC facilitates child care subsidy eligibility through the Department of Social and Health Services (DSHS). Enrolling in the BFET program also keeps Basic Food recipients in good standing with DSHS so their food benefits will continue while they attend college. Call 360-752-8492 for more information.

- WorkFirst

WorkFirst is part of the Washington State Welfare-to-Work program. WorkFirst provides tuition, books, and fees for qualified students as funding permits. This program at BTC can financially assist WorkFirst parents who are receiving a TANF cash grant, and do not have other financial aid sufficient to pay for tuition, books, and fees. Other support services are provided as well. Students in this program are required to work closely with the WorkFirst staff at BTC, even when other funding is paying for college. To apply, contact your Case Manager or Social Worker at DSHS. Eligible students have a career plan that includes development of basic skills, better employability skills, or a new career, in order to progress in a pathway toward employment. Contact WorkFirst staff at 360-752-8467 or 360-752-8461.



STUDENT SUPPORT RESOURCES

ADVISING

College Services Building 102
Email: admissions@btc.ctc.edu Phone: 360-752-8345

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

Advising services include:

- New student orientation
- College and course placement testing
- Degree/certificate program information and planning
- Running Start facilitation
- Weekly walk-in advising hours
- Campus tours
- Program information sessions (limited)

COUNSELING SERVICES

College Services Building 106
Email: careerctr@btc.ctc.edu Phone: 360752-8450

Counseling services are available to students, including 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, and referrals to community resources.

CAREER SERVICES

College Services Building 106
Email: careerctr@btc.ctc.edu Phone: 360-752-8450

Career and employment services are available to prospective and current students, as well as graduates of Bellingham Technical College. Services include workplace skill identification, resume and cover letter development and critique, mock interviews, and job searching. Career and employment services are provided by appointment. Workshops are also conducted throughout the year within BTC degree and certificate programs.

Career and vocational assessments are administered by Career Services staff. Students should make an appointment by calling the phone number above for appointments. Career Services also coordinates targeted-industry career and employment fairs throughout the year. Check BTC's website for upcoming events and dates. For additional information and resources, visit the Career Services website at www.btc.ctc.edu/CareerServices.

Career services include:

- Career and occupational resources
- Career and vocational assessments
- Job search assistance, including resume, cover letter, and interview preparation

REGISTRATION

College Services Building
Email: registration@btc.ctc.edu Phone: 360-752-8350

Registration provides support to students to meet their education and career goals. Our goal is to educate and empower students to successfully navigate the registration process to program completion. Services provided by Registration include: processing class registration and class changes (adds/drop/withdrawals), enrollment verifications, processing official transcript requests, maintaining student records, notifying students who do not meet satisfactory progress, and verifying program course requirements at the time of completion.

DISABILITY SUPPORT SERVICES

College Services Building 106
Email: DSS@btc.ctc.edu Phone: 360-752-8450

Disability Support Services (DSS) assists in creating an accessible college community, where students with disabilities have an equal opportunity to fully participate in all aspects of the educational environment. No student shall, on the basis of his or her disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any college program or activity. We cooperate through partnerships with students, faculty, staff, and outside agencies to promote students' independence and to ensure recognition of their abilities, as well as their disability challenges. Additionally, DSS maintains compliance with the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, and State of Washington Laws of 1994, Chapter 105.

To receive academic adjustments, students are responsible for formally requesting accommodations in writing, as well as providing clinical documentation that describes the nature and extent of their disability. For complete documentation guidelines, please visit our website at www.btc.ctc.edu/DSS.

An initial intake is required to access accommodations through BTC's DSS Office. Accommodation requests need to be made each quarter of attendance, at least six weeks prior to the quarter start date. Late requests may result in a lack of accommodations on the first day of the quarter. Call for more information.

DIVERSITY/MULTICULTURAL SUPPORT SERVICES

College Services Building 106
Email: diversity@btc.ctc.edu
Phone: Director of Multicultural and Student Support Services 360-752-8377

Diversity/Multicultural Support Services assists students with diverse cultural and ethnic backgrounds, abilities, genders, 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, 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.

BTC continuously 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 seeking new careers, immigrants, GED holders, and ESL and first-time college students. Regardless of motivation, all seek an education, and share a 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

College Services Building 124

Email: bas@btc.ctc.edu Phone: 360-752-8494

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.

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 seeking Basic Academic Skills classes should contact the Basic Academic Skills office for information. Basic Academic Skills hours are Monday through Friday from 8:00 am to 11:00 am and noon to 4:00 pm. Most classes are offered in the morning (8:00 am – 11:00 am), afternoon (12:00 pm – 3:00 pm), and evening (6:00 pm – 9:00 pm). See the Quarterly Schedule for details.

The Basic Academic Skills program is open to adults who meet the following requirements:

- Completion of basic academic skills assessment (CASAS)
- Participation in orientation sessions
- Commitment to regular attendance
- Ability to participate positively in an adult learning environment
- 16 years or older and not enrolled in a K-12 school

Sixteen- to eighteen-year-olds must submit a Request for Approval to Test Form signed by a high school representative.

REFUGEE ESL

The Refugee ESL program (Limited English Proficiency) is a specially funded class for recent immigrant adults referred through DSHS. ESL Levels 1 through 4 are taught in this program.

ASSOCIATED STUDENT GOVERNMENT

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 further promote student development 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 BTC students

- Promote the educational, cultural, and social welfare of BTC students
- 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 Senate should contact the ASBTC at <https://sharepoint.btc.ctc.edu/Programs/ASBTC> or 360-752-8357.

PHI THETA KAPPA

College Services Building 2nd Floor

Email: pmconnell@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, the international honor society of two-year colleges, aims 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. Phi Theta Kappa meets weekly on campus and all members are encouraged to participate and get involved!

Information on Phi Theta Kappa is available in the Counseling and Career Center office in the College Services Building.

LIBRARY

Campus Center Building, 3rd Floor

Email: library@btc.ctc.edu Phone: 360-752-8383

The Bellingham Technical College Library, located on the third floor of the new Campus Center Building, encourages individual research and the exploration of ideas by connecting students, staff, faculty, and the community with information for teaching and learning, and by providing instruction to enhance information access and understanding. Books, DVDs, journals, eBooks, 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 the BTC Library's catalog and digital resources is available through the library website: www.btc.ctc.edu/library.

Library users are encouraged to ask for help. Library staff can give you individual assistance and instruction from the Information Desk. The library offers course-related library instruction. If you need information that is not available at BTC, we can help you borrow material from other libraries through interlibrary loan.

The BTC Library features the Information Commons, plus the campus open computer lab. There are 48 computers, plus an Information and Digital Literacy classroom with an additional 24 computers and 40+ types of software, including one computer station equipped with DSS support software. 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. To facilitate both quiet and group study, eight group study rooms, three scanners, media viewing stations, a copier, tables, and casual lounge furniture are available. The eLearning and Media/Copy Services Departments are also located in the BTC Library.

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

CAMPUS STORE

Campus Center Building
Phone: 360-752-8342

The BTC Campus Store is located on the ground floor of the Campus Center building. There you can find required texts, materials, and supplies to purchase for degree/certificate programs and courses. Bring your printed class schedule and the staff will help find your required items. Text lists can be found at www.btc-store.com. Printed copies of the lists are also available to use inside the store. You may purchase a copy of any list for ten cents per copy.

Student ID cards are available for \$7.50. The Campus Store also carries office supplies, software, flash drives, calculators, book bags, BTC apparel, emblem gifts, coffee, soda, pastries, candy, and other snacks. Services include outgoing fax service, outgoing package shipping, stamp sales, bus pass sales, 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 Campus Store does not cash financial aid or other two-party checks. The store accepts cash, VISA, MasterCard, most debit cards, and personal checks with identification.

FOOD SERVICES

G Building and Campus Center Building main floor
Phone: 360-752-8471

Food service is available in the Cafeteria in Building G and at the Espresso Bar in the Campus Center building. The Cafeteria serves a selection of hot entrees, and a large variety of hot and cold sandwiches. It features pizza, a salad bar, and other favorites. The Espresso Bar (in the south foyer of the Campus Center) serves breakfast and lunch items, espresso, coffee, and fresh baked goods. Both locations operate Monday through Friday. The Food Services Department also provides catering for meetings and college events.

Conference and meeting rooms are available. For booking information, please call the Facilities Rental department at 360-752-8588.

The Culinary Arts program operates the Café Culinaire restaurant in the Campus Center building and the Culinaire Express window in the Cafeteria (G Building). Both are open to the public at selected times throughout the year. Please visit www.btc.ctc.edu/Culinary/CafeCulinaire.asp for more information.

Vending machines are located in the Campus Center building, Building C, Building G, Building J, Building U, Haskell Center, McArdle Center, and Morse Center. The Campus Store, located in the Campus Center building, also sells a variety of snacks and beverages.

INSURANCE

The college does not provide students with medical or accident insurance. We encourage students who lack personal accident insurance to purchase it if they are enrolled in any degree/certificate program that involves working with machinery.

Bellingham Technical College students may purchase voluntary student accident and health insurance. Insurance forms are available in the Counseling and Career Center office in the College Services Building 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

Primary visitor parking is located in front of the College Services Building, at the east end of campus off Nome Street. Free general 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, special program, and ADA parking. Parking is monitored, and tickets with fines are issued if valid permits are not visible in vehicles parked in permitted spaces.

ADA parking is available in the MC, DMC, CS, H, Y, and West parking lots. Parking in ADA-designated spaces requires an approved ADA parking permit, available through the Whatcom County Auditor's office. Please contact the Whatcom County Auditor at 360-676-6740 for information on obtaining either a long-term or short-term ADA permit. For information regarding specific accommodations at BTC, please contact the Disability Support Services team, located in the College Services building, at 360-752-8450.

Vehicles will be subject to towing at the owner's expense in the following situations:

- When the third Parking Violation ticket is issued for the same vehicle
- When parked in a fire lane
- When parked in ADA parking without an ADA parking permit (also subject to a citation by the Bellingham Police Department)

Vehicles left overnight or through the weekend on College property may be subject to towing. Towing company fees can be as high as \$160 per hour for towing and \$45 per day for storage.

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.

For information regarding various aspects of parking, permits, and enforcement, please call Facilities Administration at 360-752-8489. Parking lot maps are available at the Visitor's Desk in the College Services Building.

TUTORING SERVICES

Email: tutoring@btc.ctc.edu Phone: 360-752-8499

Bellingham Technical College provides free drop-in tutoring to students enrolled in tuition and fee bearing courses all year when classes are in session. Tutors are recruited in all subjects where tutoring assistance is requested. To request tutoring assistance, contact the Tutoring Center to complete a Request Form. The current drop-in tutoring schedule is available at www.btc.ctc.edu/tutoring. If students request tutoring in an area not currently offered on the schedule, staff will do their best to locate a tutor in that subject.

PROGRAM SERVICES FOR THE PUBLIC

Some 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 without negatively impacting 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 from September through June. Dental care is provided by a licensed dentist from the community, and 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. For an appointment, contact the clinic at 360-752-8349.

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 transferrable general education course work in English, math, psychology, and 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 (HS) 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 Department.

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 (4) 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.

In determining if the requirements for graduation have been met, the College provides assistance through faculty advisors, counselors, and the college catalog. 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 academic core 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 the Programs of Study pages.
2. Complete the BTC Graduation Application for each degree or certificate requested and submit application 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% 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 writing, human relations, and mathematics.

These requirements will be satisfied by completing COM 170 Oral and Written Communications (5 credits) or ENGL& 101 English Composition (5 credits); and PSYC& 100 General Psychology (5 credits) or CMST& 210 Interpersonal Communications (formerly PSYC 111 Interpersonal & Organizational Psychology) (5 credits); and MATH 100 Occupational Math (5 credits), MATH& 107 Math in Society (5 credits), MATH& 146 Intro to Statistics (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 no later than the first week of the quarter. 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 following letter grading symbols:

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.

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- **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**
Failed to progress toward minimum competencies and performed at exceptionally low level of skill. Student 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 and suppresses the lowest grade on an official transcript.

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/Prior Learning Assessment (PLA) learning
I	Incomplete
NP	No Pass
P	Pass
R	Repeat (after a letter grade)
T	Transfer (valid grade prior to Summer Quarter 2009)
V	Unofficial Withdrawal (valid grade prior to Fall 2010)
W	Official 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 course requirements. No credit will be awarded for Audit classes. The student must pay regular tuition and fees.
- **CR - Credit for Prior Experiential Learning/Prior Learning Assessment (PLA)**
Prior experiential learning is credit granted toward the award of a degree or certificate for prior learning experiences, demonstrated 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 by the end of the quarter. For a student to receive a letter grade, a "contract" for completing the competencies must be established with the instructor, and all work completed according to the contract, within one year from the date the I grade was received. Failure to achieve satisfactory completion by the deadline will result in the grade changing from an I to an F.

- **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, work-based 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, work-based 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 (valid grade prior to Fall 2010)**
The student discontinued course and has not officially withdrawn.
- **W – Official Withdrawal**
A system-awarded grade for students who officially withdraw from a course or program prior to the end of the quarter, or the designation of an 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 right away. Instructors can submit grade changes due to an error not more than four quarters from the time the grade was awarded.

Course Repeat

Students who will be repeating a course must fill out a Course Repeat form at the time of registration. If registering online, they should fill out a Course Repeat form before the course is complete. Students are not allowed to repeat a course for the purpose of obtaining a better grade if the course minimum competency has been achieved.

Courses can be repeated no more than twice in order to improve a grade (defined as two repeats in addition to the original enrollment). This limit may not apply to all pre-college level courses (numbered less than 100).

Students receiving financial aid or veteran's benefits should consult the respective office(s) prior to repeating a course, as benefits or eligibility may be reduced or canceled as a result of the repeat.

GRADES AND TRANSCRIPTS

Quarterly grades for all graded programs and courses are available online within three working days following the end of the quarter through the College website, under Online Services. Students must have their Student ID number (see Student Identification Numbers under Student Rights and Responsibilities section for more information about SIDs) and a personal identification number (PIN) to access grades on their unofficial transcript. PINS are available at www.btc.ctc.edu, under 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 the appropriate transcript fee.

An unofficial transcript is an unsigned and unsealed copy of the student's record, and is available online. There is no charge for unofficial transcript copies. It is the student's responsibility to review their transcript for accuracy.

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 or certificate program of 90 credits or more 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. Certificate of merit will be awarded one per full time program faculty per academic year per cohort of graduates. It is awarded at the discretion of the program faculty, only upon completion.

ACADEMIC STANDARDS AND PROGRESS

ACADEMIC PROGRESS

The primary objective of Bellingham Technical College is to prepare an educated workforce. In educating students, BTC 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, BTC 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 quarterly 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:

1. All students will 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. All students will demonstrate satisfactory progress toward meeting program objectives. This standard is defined as maintaining a quarterly grade point average minimum of 2.0* and completing a minimum of 66.6% of the enrolled quarterly course work 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 and 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.

ATTENDANCE

Regular attendance is required to maintain satisfactory academic progress. This standard is reflected in the grading policy with each degree/certificate program. BTC believes that attendance is a critical workplace competency and is important to overall student success. It is important that students attend all scheduled classes or notify their instructor of any absences.

STUDENT RECORDS

NOTIFICATION OF RIGHTS UNDER FERPA PRIVACY OF RECORDS/RELEASING OF INFORMATION

Bellingham Technical College 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:

1. The right to inspect and review the student's education records within forty-five (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 shall advise the student of the College official to whom the request should be addressed. At the time of viewing, the student shall present a 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 or 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 U.S. Department of Education concerning alleged failures of the College to comply with the requirements of FERPA.

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, 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 U.S. Armed Forces 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

In an emergency, information can be released to law enforcement personnel, emergency personnel, and College officials 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" is 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, Higher One, 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, U.S. 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 seeking to use BTC faculty or staff as a reference for employment are required to complete the Student Release for Reference or Recommendation form. Students may obtain this form from their faculty.

Possible Federal and State Data Collection and Use

As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records — including your Social Security Number, grades, or other private information — may be accessed without your consent.

First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

STUDENT RIGHTS & RESPONSIBILITIES

HARASSMENT

Bellingham Technical, 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 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 and Career Services and the Office of the Vice President of Student Services, are distributed to new students at New Student Orientation, and are 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.

2012-2014 Policies, Requirements & Records

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 PROCEDURE

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 (4) 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 (20) 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 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 (10) 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 (30) 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 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.
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 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.
 - 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.
 - f. If the student or staff member objects to the findings, a written appeal may be submitted to the President with ten (10) working days from the date the finding is issued. The appeal should also include what corrective action the student or staff member desires after consideration of the appeal by the President.
 - g. After considering an appeal, the President will issue a 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 students' academic records. This law is intended to add additional protection to students' identity, records, and privacy.

Although a student's 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, American Opportunity Tax Credit (formerly known as Hope Credit) 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 provided to students at New Student Orientation. It is also available in the Counseling and Career Center, and at Registration. The annual campus security report can also be reviewed 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 is granted for course work that matches in content a course required for a BTC program. 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. Transfer credit may not exceed fifty percent (50%) of the total credits required for the degree or certificate.

BTC does not release or certify copies of transcripts from other institutions. Transcripts reflecting a student's previous secondary and college education, which have been submitted to BTC as part of the official file, will not be returned to the student. Students who need transcripts of work completed elsewhere must order transcripts directly from the institution where the work was completed.

CREDIT EVALUATION PROCEDURES

The College will maintain a Transfer Credit Advising Guide 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 transcripts from the sending institution, received electronically or in a sealed, unopened envelope, 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

Students 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 be consulted to 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

Students who have completed college-level (Advanced Placement) courses in high school and have taken the Advanced Placement (AP) exams administered by the College Board may receive college credit in selected courses at BTC. AP scores may also be used to waive portions of the Accuplacer Admissions exam. To receive credit consideration for the AP exam score, students must submit the Evaluation Request form and have one of these two situations occur:

- The AP Testing Service of the College Board sends an official score report directly to the Admissions and Advising Office at BTC.
- An official high school transcript is sent to the Admissions and Advising Office at BTC, documenting AP exam scores identified and recorded on the high school transcript

AP credit will be awarded according to the Advanced Placement Credit Chart, which outlines the minimum scores and corresponding courses, available online at: <http://www.btc.ctc.edu/StuServices/TransferOptions/AP.asp>.

CREDIT FOR PRIOR EXPERIENTIAL LEARNING CREDIT/ PRIOR LEARNING ASSESSMENT (PLA)

Credit for Prior Experiential Learning allows students to receive credit for courses in which the student demonstrates knowledge and expertise that meets the outcomes of each course. Credit for prior experiences must be shown through various means of assessment to be equivalent to learning gained through formal collegiate instruction, and then credit will be granted toward the award of a degree or certificate. Prior experiences include industry certifications, work experiences, and military credit.

Credit for prior experiential learning will be granted only to currently enrolled program students. 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. Credit for Prior Experiential Learning cannot duplicate credit granted by transfer or previously graded course work, and may not exceed twenty-five percent (25%) of the total credits required for the degree or certificate.

Prior learning credit is available only for certain program courses. Approved programs include, but are not limited to Automotive, BCIS, Civil Engineering, Culinary, Diesel, EMTEC, HIV/AIDS for Healthcare Workers, Instrumentation, Pastry, Precision Machining, and Welding.

Prior experiential learning credit will not be awarded in lieu of general education courses, including but not limited to MATH 100, MATH &107, MATH &141, MATH &146, PSYC &100, CMST &210 (formerly PSYC 111), ENGL &101, COM 170, and other academic support courses.

Questions regarding the Prior Learning Assessment procedure should be directed to the Director of Registration and Enrollment.

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 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 the student is notified of his or her 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 CERTIFICATE PROGRAM TRANSFER

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 transferrable to the degree/certificate program.

The following programs are eligible for priority/advanced placement program transfer:

- Automotive Technology and Diesel Equipment Technology
- Instrumentation and Electronics
- Electrician and Electromechanical
- Civil Engineering and Surveying & Mapping Technology
- Business programs

Procedure

1. Student obtains an unofficial transcript (grade report) from the BTC website, under 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. Transferring Running Start students 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 "&" in a BTC course suffix designates Washington State Community and Technical College Common Course Numbering (CCN). Common Course Numbering identifies those courses common within the 34 community and technical colleges in Washington State, and to make course transfer between and among those institutions, and to four-year colleges and universities, as easy as possible for students, advisors, and receiving institutions.

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.

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 determine if BTC credits are transferable to other colleges, contact the Registrar at the receiving college.

A large, bold, black stylized number '5' that serves as a background for the text. The '5' has a thick, rounded top bar that curves slightly to the right, a vertical stem, and a large, rounded bottom curve.

PROGRAMS OF STUDY

ACCOUNTING

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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:

- Graduates of Accounting will be able to demonstrate with 73% 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% accuracy, graduates will demonstrate effective ten-key calculator skills. With a three-error limit, graduates will demonstrate basic keyboarding at 35 wpm.

APPLICATION AND 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, have prerequisites, and/or may only be offered once a year. A schedule of course offerings can be obtained from program advisors. It is estimated a full-time student can complete Accounting Assistant in three quarters and an Accounting degree in five to seven 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, 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 Computer Applications, 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 IN APPLIED SCIENCE

Accounting

AAS Academic Core Requirements

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

Program Requirements

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 273	Internship	3
BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
BUS& 201	Business Law	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 142	MS Excel	5
MGMT 154	Creating and Managing a Small Business	5
Departmental Electives		5
Departmental Electives		14

Approx. 6 quarters **101 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math In Society	5

PLUS

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferable Courses generally accepted transfer list.

Approx. 3 quarters **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 Computer Applications	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 IN APPLIED SCIENCE
Administrative Assistant

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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% 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 AND 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.

AAS Academic Core Requirements

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

Program Requirements

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 Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 109	Computerized Keyboard 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		10
Departmental Electives		5
Departmental Electives		5

Approx. 5 quarters **105 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

Approx. 3 quarters **20 CRs**

ANAEROBIC DIGESTER TECHNICIAN

CERTIFICATE

Students earning a certificate in Anaerobic Digester Technology will be prepared to enter the field as an entry-level AD technician in various occupational settings, including the agricultural, food processing, fisheries, bio-fuel, and agricultural industries, as well as the municipal wastewater and solid waste departments of city and county governments. This certificate program is currently offered only to graduates who have earned an AAS degree in Diesel Technology. The certificate program builds upon student knowledge by emphasizing the development of appropriate work habits and attitudes, interpersonal communication and teamwork skills, and the technical skills necessary for employment. Classroom instruction and practicum/lab instruction provide opportunities for students to achieve the competencies they need to comply with state and federal regulations, conduct and follow industry or company standard operating procedures, prepare for and facilitate agency regulator site visits, and safely operate and maintain existing anaerobic digesters.

PROGRAM OUTCOMES:

Successful program graduates will:

- Review, interpret, and create written, verbal, and graphic information to communicate effectively with co-workers, management, customers, and regulatory compliance agencies.
- Observe, record, and adjust system elements, as well as analyze, troubleshoot, and diagnose basic process problems through the application of basic anaerobic digester theory fundamentals.
- Read, interpret, and apply a variety of written and graphic information from a variety of sources to maintain anaerobic digester facilities equipment; troubleshoot and repair common problems using appropriate testing equipment, procedures, and information systems.
- Ensure safe work practices through compliance with national, state, and local regulations and industry standards, as well as exhibit professional and personal conduct and appearance appropriate to the workplace.

APPLICATION AND REGISTRATION: Students may begin work on the Anaerobic Digester Certificate in any quarter coursework is offered.

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

DEGREE REQUIREMENTS: The certificate will be conferred upon completion of the Diesel Technology degree program and by completing the Graduation Application form. For more information, see Admissions.

CERTIFICATE

Anaerobic Digester Technician

ADTEC 126	Basic Electricity	5
ADTEC 200	Anaerobic Digestion Essentials	4
ADTEC 237	Cool Towers/Water Treatment	1
ADTEC 245	Commercial/Industrial Boilers	2
Approx. 3 quarters		12 CRs

AUTOMOTIVE COLLISION REPAIR

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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 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 AND 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, 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 IN APPLIED SCIENCE

Automotive Collision Repair

AAS Academic Core Requirements

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

Program Requirements

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 and 1 summer 131 CRs

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH& 141	Precalculus I	5
MATH& 107	Math In Society PLUS	5
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		

Approx. 3 quarters 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	Paint Matching and Blending	7
ACRT 135	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 69 CRs

AUTOMOTIVE TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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 meet most to all requirements needed to qualify for ASE testing.
- Graduates will review, interpret, and convey written, verbal, and graphic information to communicate effectively with co-workers, management, and customers.
- Graduates 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 AND 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 year.

SEQUENCE AND SCHEDULE: First quarter students enroll in TRANS 101, 102, and 103 PLUS at least one General Education class (MATH 100, COM 170, 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.

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AUTOMOTIVE TECHNOLOGY

(CONTINUED)

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. 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 IN APPLIED SCIENCE Automotive Technology

AAS Academic Core Requirements

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

Program Requirements

AUTO 103	Engines	12
AUTO 107	Brakes	6
AUTO 122	Basic Drive Train	4
AUTO 141	Engine Performance 1	2
AUTO 151	Electricity/Electronics 1	6
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 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	5

Approx. 7 quarters **124 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math In Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

Approx. 3 quarters **20 CRs**

CERTIFICATE

General Automotive Repair

AUTO 103	Engines	12
AUTO 107	Brakes	6
AUTO 122	Basic Drive Train	4
AUTO 141	Engine Performance 1	2
AUTO 151	Electricity/Electronics 1	6
AUTO 161	Steering And Suspension	6
AUTO 213	HVAC	4
General Education		5
TRANS 101	Basic Trans. Service & Systems 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	5
General Education		5
Approx. 4 quarters		70 CRs

CERTIFICATE

Vehicle Service Technician

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

CHILD DEVELOPMENT ESSENTIALS (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 regularly with young children either in a paid or volunteer position to fulfill their coursework requirements.

PROGRAM OUTCOMES:

All program completers will:

- 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 AND REGISTRATION: Prerequisite: Students must be working regularly with young children either in a paid or volunteer position to fulfill the 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 in winter or spring, as well. Students should have good basic academic skills, or enroll in basic skills courses to work on improving their reading, writing, and math skills. Before taking 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.

SEQUENCE AND SCHEDULE: This Program consists of three required courses that are offered either fully online or face-to face. 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 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. Throughout the Program, students will use some online tools and resources in the group classes. Students should be confident about their computer and study skills before taking these online courses. 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 IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

The Civil Engineering Technology Program prepares students for opportunities in diverse professions, including Civil Drafting/Design 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), and field engineering. In addition, the Program includes Survey and Mapping Technology coursework to prepare the graduate for a profession that integrates with the surveying profession. Graduates will be prepared for jobs such as Desktop Mapping (Geographic Information, Systems-GIS), Construction Materials Testing, Construction Estimating and Inspection, and Surveying, which can be found at the Department of Transportation, County and City Public Works, various private civil engineering and surveying firms, and civil construction companies. Students learn Computer Aided Drafting (CAD) lab skills and how to take field measurements with surveying instruments in classroom lectures. 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 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 AND 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 Computer Applications and MATH 098 Elementary Algebra (or placement into MATH 099 Intermediate Algebra) are required prerequisites for students to enroll in this Program. Students may test out of CAP 101 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.

SEQUENCE AND SCHEDULE: The Civil Engineering Technology student will complete a specific course requirement sequence and must maintain a minimum grade of C– in each course to continue in the program. Students will be advised by the program instructor regarding sequence and schedule of classes. Generally, only a full-time student will be enrolled in the program. 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 IN APPLIED SCIENCE

Civil Engineering Technology

AAS Academic Core Requirements

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

Program Requirements

CTE 108	Job Skills	1
ENGT 115	Fundamentals of Engineering and Surveying	5
ENGT 122	CAD I: Basics	6
ENGT 132	Engineering Applications Using MS Office	5
ENGT 152	Estimating And Scheduling	5
ENGT 153	Intermediate GIS	7
ENGT 156	Earthmoving Fundamentals	5
ENGT 251	AutoCAD Civil 3D I	7
ENGT 252	AutoCAD Civil 3D II	7
ENGT 253	AutoCAD Civil 3D III	7
ENGT 256	Standards, Specifications, and Codes	3
ENGT 258	Construction Materials	7
SURV 102	Fundamentals of Surveying I	7
SURV 104	Construction and Highway Surveys	6
SURV 116	Survey Data Systems	2
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. 7 quarters

113 CRs

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses

generally accepted transfer list.

5

Approx. 3 quarters

20 CRs

COMPUTER NETWORKING

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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:

- Install, configure, and administer an advanced application server.
- Install, configure, and administer a Microsoft Windows Network.
- Design, develop, implement, and document a complex project.
- Demonstrate the ability to apply technical and interpersonal knowledge and skills in a professional setting.
- Design and implement a group project.
- Networking concepts: students will demonstrate knowledge in fundamental concepts used by computer networking professionals.

APPLICATION AND REGISTRATION: Students are typically offered enrollment in the Computer Network Technology Program three times a year on a space available basis. CAP 101 Introduction to Computer Applications is a required prerequisite for students to enroll in this program. Students may test out of CAP 101 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.

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, 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 some of the required courses and electives are also offered online.

ASSOCIATE IN APPLIED SCIENCE

Computer Networking

AAS Academic Core Requirements

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

Program Requirements

CTE 108	Job Skills	1
IT 102	IT Ethics And Careers	5
IT 112	PC Hardware A+	8
IT 121	Introduction To Programming	5
IT 140	Linux Command Line Operating Systems	5
IT 141	Operating Systems A+	8
IT 142	Client/Desktop Operating Systems II	10
IT 160	Networking Technologies	8
IT 210	Network Security Fundamentals	10
IT 220	Network Communication Infrastructure	5
IT 230	Windows Powershell	5
IT 240	Advanced Linux Administration & Configuration	5
IT 242	Windows Server Administration	5
IT 243	Windows Server Network Infrastructure	5
IT 261	Advanced Topics I	5
IT 262	Advanced Topics II	5
IT 270	Applied IT Career Skills	8
IT 272	Capstone Project	5

Approx. 6 quarters **123 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math In Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

Approx. 3 quarters **20 CRs**

CERTIFICATE

Computer Network Support

Academic Core

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

Program Requirements

IT 102	IT Ethics And Careers	5
IT 112	PC Hardware A+	8
IT 121	Introduction To Programming	5
IT 140	Linux Command Line Operating Systems	5
IT 141	Operating Systems A+	8
IT 142	Client/Desktop Operating Systems II	10
IT 160	Networking Technologies	8

Approx. 4 quarters **64 CRs**

COMPUTER SOFTWARE SUPPORT

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – COMPUTER APPLICATIONS SPECIALIST

The Computer Software Support 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, fundamental office and customer service skills, and specialized computer skills and knowledge, as 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 AND 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 and 11:00 am, 12:00 pm and 3:00 pm, and 3:15 pm and 6:15 pm. Degree-seeking students may need to attend several quarters between 3:15 pm and 6:15 pm. Certificate students may need to attend at least one quarter between 3:15 pm and 6:15 pm. 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, 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 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 IN APPLIED SCIENCE

Computer Software Support

AAS Academic Core Requirements

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

Program Requirements

CAP 101	Introduction to Computer Applications	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 276	Internship	6
IT 112	PC Hardware A+	8
IT 121	Introduction To Programming	5
IT 141	Operating Systems A+	8
IT 160	Networking Technologies	8
Departmental Electives		15

Approx. 6 quarters **104 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.

Approx. 3 quarters **20 CRs**

CERTIFICATE

Computer Applications Specialist

BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
CAP 101	Introduction to Computer Applications	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
CMST& 210	Interpersonal Communication	5
Choose one of the following:		
IT 112	PC Hardware A+	8
IT 141	Operating Systems A+	8
IT 160	Networking Technologies	8
PLUS		
Departmental Electives		5

Approx. 3-4 quarters **62 CRs**

CULINARY ARTS

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – CULINARY ARTS

CERTIFICATE – PASTRY

The Culinary Arts Program is taught by award-winning faculty and designed to provide students with the skills and knowledge necessary to successfully perform as professionals 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 Arts Program as an Exemplary Program, symbolizing the highest educational standards recognized by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC).

PROGRAM OUTCOMES:

All program completers will:

- Safely store perishable and non-perishable foods, from delivery through preparation and service.
- Conform and comply with health standards based on U.S. 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, and 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, menu design, labor costs, fixed costs, variable costs, marketing plan, and projected profit and loss statements in a restaurant setting.
- Plan, organize, and execute á la carte, buffet, and plated banquet menus.

APPLICATION AND REGISTRATION: Students are typically offered enrollment in the Culinary Arts Program once a year on a space available basis. CAP 101 Introduction to Computer Applications is a required pre-requisite for students to enroll in this Program. Students may test out of CAP 101 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.

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, an Associate of Applied Science-Transfer degree, or a certificate upon completion and verification of all requirements and standards. Students must have a minimum grade of C- in all Culinary Arts classes to meet graduation requirements.

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 IN APPLIED SCIENCE Culinary Arts

AAS Academic Core Requirements

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

Program Requirements

CUL 110	Sanitation & Safety	3
CUL 112	Introduction to the Hospitality Industry	3
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 120	International Cuisine	6
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	American Regional a' la carte Cookery	6
CUL 150	Culinary Arts Internship	9
OR		
CUL 152	Culinary Competition Fundamentals	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	Northwest a' la carte Cookery	8
CUL 232	Food and Beverage Service Lab	4
CUL 234	Capstone Project and Practical Exam	3

Approx. 7 quarters **118 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH& 141	Precalculus I	5
MATH& 107	Math In Society	5
PLUS		

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list. 5

Approx. 3 quarters **20 CRs**

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CULINARY ARTS

(CONTINUED)

CERTIFICATE

Culinary Arts

COM 170	Oral & Written Communications	5
CUL 110	Sanitation & Safety	3
CUL 112	Introduction to the Hospitality Industry	3
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 120	International Cuisine	6
CUL 122	Culinary Skill Development II	7
CUL 124	Banquet and Catering Management	3
CUL 142	Nutrition	3
CUL 144	American Regional a' la carte Cookery	6
CUL 212	Breads Cookies, Tarts, and Puff Pastry	7
CMST& 210	Interpersonal Communication	5
MATH 100	Occupational Math	5
Approx. 3 quarters		64 CRs

CERTIFICATE

Pastry

CUL 110	Sanitation & Safety	3
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
Approx. 3 quarters		20 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 AND 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 Computer Applications	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
		42 CRs

DENTAL ASSISTING

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – DENTAL ASSISTING

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.

GAINFUL EMPLOYMENT DISCLOSURE

- Program length: 5 quarters
- Tuition and fees: Based on 21 credits per quarter: \$1,618 (2010-2011)
- Books and supplies: \$1,750-\$3,485 (2009-2010 estimates)
- Job placement rates: 98% (Reflects completers from 2005-2006 through 2007-2008.)
- On-time graduation rate: 77% (Excludes quarters when students were not enrolled in classes.)
- Number of annual completers: 22 (2009-2010)
- Median loan debt: \$6412

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 AND 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 including all prerequisites for general education courses successfully completed with a grade of 2.0 or above. General education courses/prerequisites (excluding DEN 100 and DEN 105) are offered every 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 (6 hour).

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 to 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 seeking transferable credits may replace BIO 105 with the following three courses: BIOL& 160, BIOL& 241, and BIOL& 242.

ASSOCIATE IN APPLIED SCIENCE Dental Assisting

Prerequisites for Dental Assisting Application Packet Submission

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
COM 170	Oral & Written Communications	5
OR		
ENGL& 101	English Composition I	5
AND		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
MATH 100	Occupational Math (or higher)	5
BIO 105	Essentials of Anatomy & Physiology	5

Quarters 1, 2, 3 for Dental Assisting Degree

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

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DENTAL ASSISTING

(CONTINUED)

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 **90.5 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science Courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following College Level Math Courses:		
MATH& 107	Math in Society	5
MATH& 141	Precalculus I	5
MATH& 146	Intro to Statistics	5
AND		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

20 CRs

CERTIFICATE Dental Assisting

Prerequisites for Dental Assisting Application Packet Submission

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
COM 170	Oral & Written Communications	5
OR		
ENGL& 101	English Composition I	5
AND		
CMST& 210	Interpersonal Communication	5
OR		
PSYC& 100	General Psychology	5
AND		
MATH 100	Occupational Math (or higher)	5
BIO 105	Essentials of Anatomy & Physiology	5

Quarters 1, 2, 3 for Dental Assisting Certificate

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 **85.5 CRs**

DENTAL: EXPANDED FUNCTIONS 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 Functions 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 EFDAs for such duties as placing and contouring restorations, final impressions, and performing certain dental assisting procedures under general supervision.

PROGRAM OUTCOMES:

- 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 AND 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 Functions 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.
- 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 (6 hour).
- Evidence of experience working as a Dental Assistant or Dental Hygienist within the last 5 years for at least 3500 hours. A letter on company letterhead, signed by a supervisor or HR staff, verifying the above details including dates of employment is sufficient evidence.
- Evidence that you have a Dentist willing to sponsor you as a mentor and provide clinical experience.

- 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.
- 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 Functions 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

Approx. 3 quarters

18 CRs

DENTAL HYGIENE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

The Dental Hygiene Program is designed to prepare students to become Dental Hygienists and 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 full accreditation from the Commission on Dental Accreditation (CODA).

PROGRAM OUTCOMES:

- 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.
- Review medical and dental histories, take and record vital signs, intra and extra oral exams, hard and soft tissue exams.
- Analyze all assessment data to formulate a comprehensive dental hygiene care plan in collaboration with the patient and other health professionals.
- Provide preventive and therapeutic services that promote oral health according to the needs of the patient/client.
- Following initial therapy, the hygienist will review all data and determine need for additional therapy, referrals, or recare intervals.

APPLICATION AND 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) or Intro to Statistics (MATH& 146)
- Human A & P 1 (BIOL& 241)
- Human A & P 2 (BIOL& 242)

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DENTAL HYGIENE

(CONTINUED)

- Intro to Chemistry (CHEM& 121)
- Intro to Organic Chemistry (CHEM& 122)
- Microbiology (BIOL& 260)
- Nutrition (NUTR& 101)

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

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

AAS-T Dental Hygiene

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 128	Med & Dental Emergencies	3
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 135	General Pathology	4
DHYG 138	Periodontology	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 212	Dental Hygiene Clinical Practice V	8
DHYG 213	Restorative Dentistry V	1
DHYG 214	Principles of Dental Hygiene V	3
DHYG 216	Community Oral Health I	3
DHYG 219	Oral Pathology	3
DHYG 222	Dental Hygiene Clinical Practice VI	8
DHYG 223	Restorative Dentistry VI	3
DHYG 224	Principles of Dental Hygiene VI	3
DHYG 226	Community Oral Health II	4
DHYG 228	Oral Therapy	3
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 VII	3
DHYG 236	Community Oral Health III	2

Approx. 7 quarters

126 CRs

DIESEL TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – DIESEL DRIVE TRAIN/BRAKES/SUSPENSION/STEERING/
ELECTRICAL/ELECTRONIC SYSTEMS

CERTIFICATE – DIESEL ENGINE & ELECTRICAL/ELECTRONIC SYSTEMS

CERTIFICATE – VEHICLE SERVICE TECHNICIAN

CERTIFICATE – 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 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, and 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; 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.
- Graduates will research, train, and stay current with new and emerging heavy equipment technologies.
- Review, interpret, and convey written, verbal, and graphic information to communicate effectively with co-workers, management, and customers.
- Students will be required to lift at least 70 pounds and work in difficult positions.

APPLICATION AND REGISTRATION: Students are typically offered enrollment in the Diesel Technology 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" (2.0) 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 IN APPLIED SCIENCE Diesel Technology

AAS Academic Core Requirements

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

Program Requirements

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
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
OR		
DET 240	Current Diesel Industry Topics I	6
DET 242	Current Diesel Industry Topics II	6
OR		

Any other college-level electives totaling 12 credits, which may include:

TRANS 101	Basic Trans. Service & Systems 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	5

Approx. 7 quarters **121 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferable Courses generally accepted transfer list.		
		5

Approx. 3 quarters **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 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	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 I	13
TRANS 101	Basic Trans. Service & Systems 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	5

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

CERTIFICATE

Vehicle Service Technician

TRANS 101	Basic Trans. Service & Systems 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	5

Approx. 1 quarter **15 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 101	5
TRANS 102	Basic Trans. Service & Systems 102	5
TRANS 103	Basic Trans. Service & Systems 103	5

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

ELECTRICIAN

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – ELECTRICAL FUNDAMENTALS

CERTIFICATE – ELECTRICAL CONSTRUCTION

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 installed electrical systems, perform new electrical construction, and perform other electrical jobs. Graduates can be credited with up to 1472 supervised work experience hours per RCW 19.28.191 and WAC 296-46B-940. In order to receive the approved experience hours, students must have an electrical trainee card from L&I prior to enrolling in the program.

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 AND REGISTRATION: Students are typically offered enrollment in the Electrician Program once 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 IN APPLIED SCIENCE

Electrician

AAS Academic Core Requirements

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

Program Requirements

ELCN 100	Electrical Trade & Safety	2
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	4
ELCN 112	Introduction to National Electrical Code	4
ELCN 113	Advanced NEC Calculations	3
ELCN 125	Electrical Applied Mechanics	4
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	5
ELCN 201	Electronics for Electricians	2
ELCN 202	Machine Control Fundamentals	5
ELCN 203	PLCs and VFDs	5
ELCN 214	Special Occupancies, Equipment, and Conditions	3
ELCN 251	Commercial and Renewable Energy Projects	5
ELCN 261	Industrial Control Wiring Methods and Materials	6
ELCN 262	Specialty Industrial Wiring Projects	5
ELCN 263	Automated Control Projects	6
ELCN 280	Renewable Electrical Sources	4
ELCN 281	Electrical Estimating and Design	3

Approx. 5 quarters

106 CRs

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math In Society	5
PLUS		

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.

Approx. 3 quarters

20 CRs

CERTIFICATE

Electrical Fundamentals

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

Approx. 1 quarter

19 CRs

CERTIFICATE
Electrical Construction

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
ELCN 100	Electrical Trade & Safety	2
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	4
ELCN 112	Introduction to National Electrical Code	4
ELCN 113	Advanced NEC Calculations	3
ELCN 125	Electrical Applied Mechanics	4
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	5
MATH 100	Occupational Math	5
Approx. 3 quarters		62 CRs

ELECTRO MECHANICAL TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – ELECTRO MECHANICAL TECHNOLOGY

CERTIFICATE – MACHINE MAINTENANCE

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, utilities, and wastewater treatment facilities, as well as the opportunity to work 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 AND 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.

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ELECTRO MECHANICAL TECHNOLOGY

(CONTINUED)

DEGREE REQUIREMENTS: Students may apply for an Associate of Applied Science, 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 IN APPLIED SCIENCE Electro Mechanical Technology

AAS Academic Core Requirements

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

Program Requirements

ELCN 101	DC Circuits	3
ELCN 103	Electrical Drawings & 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 114 CRs

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math In Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

Approx. 3 quarters 20 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

CERTIFICATE Machine Maintenance

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
EMTEC 105	Trade Safety	2
EMTEC 121	Fundamentals of Hydraulic and Pneumatics	5
EMTEC 125	Applied Mechanics	4
EMTEC 126	Engineering Graphics	3
EMTEC 131	Rigging	3
EMTEC 231	Bearings and Drives	5
EMTEC 237	Computerized Maintenance and Management Systems	5
MATH 100	Occupational Math	5

Approx. 2 quarters 42 CRs

ELECTRONICS ENGINEERING TECHNICIAN

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

The Electronics Technology program prepares students with knowledge and skills, through advanced electronics principles and applications required for success as an Electronics Engineering Technician. This program is designed for students who want to expand the basic electronics principles into system level that includes system integration, programming simulation, optical, renewable, and communication systems. Each course's project includes design, build, and troubleshoot, plus a technical report that provides opportunities for students to put theory into action, involving parts assembly, programming, testing, measurement, and troubleshooting. These learning experiences can be easily adapted in a variety of industrial settings, including research and development labs, semiconductor manufacturing, communication, power and electronics systems, computers, fiber optic equipment, automation, and advanced manufacturing operations—particularly solar, fuel cell, and renewable energy.

PROGRAM OUTCOMES:

- Practice safety procedures and use protective equipment to safeguard against injury and workplace accidents.
- Assess and analyze a variety of active and passive electronic devices to determine operational efficiency and effectiveness.
- Implement design for serviceability, packaging, wiring, and technical reports.
- Utilize critical and logical thinking procedures/processes in troubleshooting and problem solving.
- Apply/implement practical procedures, techniques, and solutions to the troubleshooting and repair of electronic equipment and devices.
- Calibrate, align, and adjust electronic devices.

APPLICATION AND 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 IN APPLIED SCIENCE

Electronics Engineering Technician

AAS Academic Core Requirements

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

Program Requirements

CAP 101	Introduction to Computer Applications	5
CTE 292	Career Search	2
ELTR 100	Direct Current I	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current I	4
ELTR 115	Alternating Current II	4
ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	OP-AMPS I	3
ELTR 135	OP-AMPS II	3
ELTR 140	Digital I	5
ELTR 145	Digital II	5
EETC 150	Electronic Communications	6
EETC 212	Micro-Controller System I	6
EETC 213	Micro-Controller System II	6
EETC 281	Robotics	5
EETC 282	Certified Electronics Technician Test Prep	3
EETC 245	Mechatronics I	8
EETC 246	Mechatronics II	8
EETC 236	Photonics	5
EETC 250	Principles of Telecommunication	6
EETC 264	Emerging Technology	5
Optional:		
EETC 294	Work-Based Learning	3
EETC 295	Work-Based Learning	6

Approx. 6 quarters**122 – 131 CRs****AAS-T Academic Core Requirements**

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
MATH&141	Precalculus I	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

Approx. 3 quarters**20 CRs**

EMERGENCY MEDICAL TECHNICIAN

CERTIFICATE – EMERGENCY MEDICAL TECHNICIAN

The EMT program will train individuals to the EMT level, per National Standards Curriculum, and abiding by the laws of the State of Washington. Students will be able to recognize, at the Basic Life Support level, how to assess and treat medical and trauma related emergencies.

This intensive three-course program includes lectures and hands-on practice of techniques, including introduction to emergency care, bleeding and shock, soft tissue injuries, environmental emergencies, lifting and moving patients, emergency childbirth, and much more. At the end of the training, successful participants are qualified for the National Registry of EMTs examination. Courses are sequential and students must pass each course with a C (2.0 GPA) to be allowed to sit for the National Exam.

PROGRAM OUTCOMES: Upon completion of this program, the successful student will be able to:

- Apply knowledge of the EMS system, safety and well being of the EMT, and medical, legal, and ethical issues to the provision of emergency care.
- Apply fundamental knowledge of the anatomy and function of all human systems to the practice of EMS.
- Use foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals.
- Apply knowledge of the pathophysiology of respiration and life span development to patient assessment and management.
- Apply knowledge of the medications that the EMT may administer.
- Apply knowledge (fundamental depth, foundational breadth) of anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages, and apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide emergency management.
- Apply knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

APPLICATION AND REGISTRATION: Applications are processed through the Whatcom County EMS Council and can be found on their website: www.whatcomcountyems.com. Application requirements:

- Must be 17 years of age prior to the first day of the course. Students must be 18 by the end of the program.
- High school diploma or GED certificate.
- Current American Heart Association BLS CPR for Healthcare Providers or American Red Cross CPR for the Professional Rescuer Card.
- Current First Aid Card.
- 4-hour Infectious Disease Prevention for EMS Providers class, or 7 hours HIV/AIDS education.
- Physical strength adequate to perform the normal functions of an EMT, including the ability to lift and move objects weighing up to 125 lbs.
- Students must possess the aptitude and ability to perform critical thinking in the field. Students with poor reading comprehension may need to improve their abilities before enrolling in the EMT Program.
- Successfully pass a Washington State Patrol criminal background check.
- Current drivers license.

- Verification of health insurance, either personal or through an employer.
- Basic urine drug test.
- Documentation of two-step tuberculin skin test (TST).

If affiliated/sponsored:

- Application with attachments and signature from affiliated organization.

If non-affiliated/sponsored:

- Application with attachments and signature for non-affiliated applicants.

NOTE: Non-affiliated students have one year from the completion of the course to meet the affiliation requirements to be certified by the State of Washington. Affiliated status with a fire department or ambulance service must be attained before participants are eligible for State EMT Certification. Students must also submit BTC Placement test results.

Prior to entering the program, or before course three (EMS 123), students are encouraged to take a Hazardous Materials Awareness course. It is also recommended that students complete the IS 100.a and IS 700.a courses, available from the FEMA website, (<http://training.fema.gov/IS/>).

SEQUENCE AND SCHEDULE: The program runs approximately four months. Classes are scheduled Tuesday and Thursday evenings and all day Saturdays. The program is offered twice a year, beginning in Fall and Winter quarters. Students may not miss any mandatory classes. Attendance is weighted heavily, and no more than six missed hours per course are allowed.

DEGREE REQUIREMENTS: Students will receive a certificate of completion upon completion of all requirements and standards.

ONLINE LEARNING: Students must have access to a computer with high speed Internet, as many program components and testing are online.

CERTIFICATE		
Emergency Medical Technician		
EMS 121	EMT I Fundamentals	5
EMS 122	EMT II Medical Disorders	6
EMS 123	EMT III Emergencies	5
Approx. 2 Quarters		16 CRs

FISHERIES AND AQUACULTURE

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE – FISHERIES & AQUATIC SCIENCES

CERTIFICATE – FISHERIES RESOURCES

The Fisheries and Aquaculture Program prepares students for employment in a variety of fisheries occupations with an emphasis on fish culture and aquaculture. The Program offers an Associate of Applied Science degree or a certificate in Fisheries Resources. The Fisheries and Aquaculture Program operates the Whatcom Creek Hatchery at Maritime Heritage Park in Bellingham and Bellingham Trout Hatchery at Whatcom Falls Park. The hatcheries provide actual work sites for the instructional “laboratory,” and local shellfish beds are utilized for the shellfish aquaculture experience. These opportunities complement classroom theory and related instruction components. The Fisheries and Aquaculture 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 demonstrate competency in shellfish hatchery and aquaculture methods, and apply appropriate techniques to raise diatoms, spawn shellfish, set seed, plant seed, and culture and harvest shellfish.
- Graduates will show competency in habitat restoration methods, and apply techniques to improve and restore habitat, plant native vegetation, eliminate invasive species, and add woody debris and gravel to streams.
- Graduates will show competency in field research, stream surveys, tag studies, spawning assessments, and smolt trap projects.

APPLICATION AND REGISTRATION: Students are typically offered enrollment in the Fisheries and Aquaculture Program twice a year on a space available basis. CAP 101 Introduction to Computer Applications is a required prerequisite for students to enroll in this Program. Students may test out of CAP 101 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. 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.

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. For details, contact the instructor, Earl Steele.

ASSOCIATE IN APPLIED SCIENCE

Fisheries and Aquaculture

AAS Academic Core Requirements

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

Program Requirements

CTE 290	Job Search	4
FISH 100	Introduction to Safety	1
FISH 105	Water Quality	3
FISH 111	Salmonid Biology	3
FISH 125	Sampling Techniques I	3
FISH 133	Hatchery Operations I	5
FISH 136	Spawning Techniques I	6
FISH 146	Aquatic Invertebrate Biology	3
FISH 155	Environmental Awareness	3
FISH 161	Fish Aquaculture Techniques	6
FISH 163	Shellfish Aquaculture Techniques	5
FISH 170	Hatchery Operations II	4
FISH 186	Hatchery Operations III	5
FISH 195	Fisheries Internship	6
FISH 236	Spawning Techniques II	6
FISH 270	Sampling Techniques II	4
FTEC 200	Applied Concepts I	10
FTEC 205	Field Projects I	4
FTEC 250	Applied Concepts II	10
FTEC 255	Field Projects II	4
Fisheries Elective Courses		5
Fisheries Elective Courses		9

Elective Courses may include any of the following:

FISH 194	Fisheries Current Topics I	4
FISH 196	Fisheries Current Topics II	4
FISH 197	Fisheries Current Topics III	4
FISH 198	Fisheries Current Topics IV	8
FISH 296	Aquatic Ecology Current Topics I	4
FISH 297	Aquatic Ecology Current Topics II	4

OR
First Aid Fundamentals, Word Level I-III, Excel Level I-III, Access Level I-III, PowerPoint, Introduction to Welding, Creative Welding, Introduction to Maritime Piloting, Safety, Forklift Driver Certification

OR
Other Fisheries-related College Level courses

OR
Any other course approved from the Transfer Degree Track

Approx. 7 quarters **124 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5

PLUS
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.

Approx. 3 quarters **20 CRs**

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FISHERIES AND AQUACULTURE

(CONTINUED)

CERTIFICATE Fisheries Resources

General Education Requirements

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

Program Requirements

CTE 290	Job Search	4
FISH 100	Introduction to Safety	1
FISH 105	Water Quality	3
FISH 111	Salmonid Biology	3
FISH 125	Sampling Techniques I	3
FISH 133	Hatchery Operations I	5
FISH 136	Spawning Techniques I	6
FISH 146	Aquatic Invertebrate Biology	3
FISH 155	Environmental Awareness	3
FISH 161	Fish Aquaculture Techniques	6
FISH 163	Shellfish Aquaculture Techniques	5
FISH 170	Hatchery Operations II	4
FISH 186	Hatchery Operations III	5
FISH 195	Fisheries Internship	6
FISH 236	Spawning Techniques II	6

Approx. 5 quarters **78 CRs**

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

Fisheries and Aquatic Sciences (transferable to WWU & NWIC)

AQSCI 186	Rivers, Lakes, & Streams	5
AQSCI 211	Fundamentals of Fisheries Biology	5
AQSCI 225	Fisheries Techniques I	8
AQSCI 226	Fisheries Techniques II	8
AQSCI 266	Aquatic Habitat Assessment	4
CTE 290	Job Search	4
FISH 100	Introduction to Safety	1
FISH 105	Water Quality	3
FISH 111	Salmonid Biology	3
FISH 125	Sampling Techniques I	3
FISH 133	Hatchery Operations I	5
FISH 136	Spawning Techniques I	6
FISH 146	Aquatic Invertebrate Biology	3
FISH 155	Environmental Awareness	3
FISH 194	Fisheries Current Topics I	4
FISH 195	Fisheries Internship	6
FISH 296	Aquatic Ecology Current Topics I	4
FISH 297	Aquatic Ecology Current Topics II	4
FTEC 200	Applied Concepts I	10
FTEC 205	Field Projects I	4
FTEC 255	Field Projects II	4
MATH& 141	Precalculus I	5
OR		
MATH& 146	Intro To Statistics	5
Fisheries Elective Courses		2

Elective Courses may include any of the following:

FISH 197	Fisheries Current Topics III	4
FISH 198	Fisheries Current Topics IV	8

OR

First Aid Fundamentals, Word Level I-III, Excel Level I-III, Access Level I-III, PowerPoint, Introduction to Welding, Creative Welding,

Introduction to Maritime Piloting, Safety, Forklift Driver Certification
OR
Other Fisheries-related College Level courses
OR
Any other course approved from the Transfer Degree Track

Approx. 7 quarters **129 CRs**

AAS-T Academic Core Requirements (transferable to WWU & NWIC)

BIOL& 160	General Biology With Lab	5
CHEM& 121	Intro To Chemistry	5
CMST& 210	Interpersonal Communication	5
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 146	Intro To Statistics	5

AND
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.

Approx. 3 quarters **30 CRs**

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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 give students 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 can apply to the Department of Labor and Industries to become an HVAC/Refrigeration (06A) specialty electrician and are credited with 1,334 hours of supervised work experience per RCW 19.28.191 and WAC 296-46B-940. In order to receive the approved experience hours, students must have an electrical trainee card from L&I prior to enrolling in the program.

PROGRAM OUTCOMES: Graduates of this Program will:

- 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 life-long learning, accessing new information to remain current in industry trends.

APPLICATION AND 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 IN APPLIED SCIENCE

Heating, Ventilation, Air Conditioning & Refrigeration

AAS Academic Core Requirements

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

Program Requirements

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 **131 CRs**

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HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION

(CONTINUED)

AAS-T Academic Core Requirements

ENGL& 101 English Composition I	5
Choose one of the following Social Science courses:	
CMST& 210 Interpersonal Communication	5
PSYC& 100 General Psychology	5
Choose one of the following college level Math courses:	
MATH& 146 Intro to Statistics	5
MATH&141 Precalculus I	5
MATH& 107 Math In Society	5
PLUS	
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferable Courses generally accepted transfer list.	5
Approx. 3 quarters	20 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: Program graduates will 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 & REGISTRATION: Students begin by registering for HYPN 101 during Fall 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 plus one Saturday per quarter. Courses must be taken in sequence.

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

CERTIFICATE Hypnotherapy

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
Approx. 3 quarters	16 CRs

INSTRUMENTATION AND CONTROL TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

The Instrumentation and Control Program prepares students for employment to maintain, repair, and troubleshoot instrumentation and control systems, in industries such 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 and test equipment, individual instruments, multiple instrument control systems, and practical computer applications. BTC's Instrumentation and Control Program is an active member of the Industrial Instrumentation & Controls Technology Alliance (IICTA), 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 and 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: Successful Program graduates will:

- Communicate and express thoughts across a variety of mediums (verbal, written, visual) to effectively persuade, inform, and clarify ideas with colleagues.
- Demonstrate time management, arriving on time and prepared to work; budget time and meet deadlines when performing technical tasks and projects.
- Comply with national, state, and local safety regulations when repairing, calibrating, and installing instruments.
- Assess, diagnose, and repair faulty instruments in measurement and control systems, using logical procedures and appropriate test equipment.
- Build, configure, and install new instrument systems according to plans, applying industry construction standards and ensuring correct system operation when complete.
- Improve system functions by evaluating control system performance; implement strategies to tune and stabilize control systems.
- Assess instrument accuracy and correct inaccuracies, using appropriate calibration procedures and test equipment.
- Interpret and create technical documents (electronic schematics, loop diagrams, and P&IDs) according to industry (EIA, ISA) standards.
- Select and research relevant information sources to learn new principles, technologies, and techniques.
- Research and seek opportunities for promotion and job advancements in work and career settings.

APPLICATION AND 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 Alge-

bra (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 or 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 (including General Education) below “C-” (1.7) to earn the degree.

ASSOCIATE IN APPLIED SCIENCE Instrumentation and Control

AAS Academic Core Requirements

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

Program Requirements

ELTR 100	Direct Current I	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current I	4
ELTR 115	Alternating Current II	4
ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	OP-AMPS I	3
ELTR 135	OP-AMPS II	3
ELTR 140	Digital I	5
ELTR 145	Digital II	5
ENGT 122	CAD I: Basics	6
ETEC 150	Electronic Communications	6
INST 230	Motor Controls	3
INST 231	PLC Programming	3
INST 232	PLC Systems	3
INST 200	Introduction to Instrumentation	2
INST 205	Job Preparation I	1
INST 206	Job Preparation II	1
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
OPTIONAL		
INST 292	Internship	10
PTEC 107	Process Science	5

Approx. 7 quarters **132 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5

Choose one of the following college level Math courses:

MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferable Courses generally accepted transfer list.

Approx. 3 quarters **20 CRs**

LEGAL ADMINISTRATIVE ASSISTANT

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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 80 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 AND 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, 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.

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LEGAL ADMINISTRATIVE ASSISTANT

(CONTINUED)

ASSOCIATE IN APPLIED SCIENCE Legal Administrative Assistant

AAS Academic Core Requirements

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

Program Requirements

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 280	Assessment	1
BUS& 201	Business Law	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting With MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 109	Computerized Keyboard 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. 7 quarters		105 CRs

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferable Courses generally accepted transfer list.		
		5
Approx. 3 quarters		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 280	Assessment	1
BUS& 201	Business Law	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting With MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding I	3
CMST& 210	Interpersonal Communication	5

LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology/Transcription	5
LGL 211	Legal Document Processing	5
LGL 225	Internship	3
Departmental Electives		5
Approx. 3 quarters		68 CRs

MECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – MECHANICAL ENGINEERING DRAFTING

The Mechanical Engineering Technology Program is based in general and mechanical engineering theory with specialized applications in manufacturing, process piping, structural detailing, and engineering drawing and design. Coursework provides multi-level training in Computer Aided Drafting (CAD) and 3D solid modeling, using specialized 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 program graduates, including engineering contractors and consultants, manufacturers of industrial machinery and consumer products, structural engineering companies, architectural firms, commercial and residential construction firms, petroleum refineries, equipment wholesalers and distributors, and numerous other manufacturers in the electronics, automotive, marine, aircraft, industrial equipment, plastic products, and wood products industries.

PROGRAM OUTCOMES:

Graduates will:

- Create fully dimensioned orthographic and isometric CAD drawings that adhere to national standards (i.e. ANSI) and industry conventions.
- Interpret rough sketches, drawings, and actual parts, and transform into 2D CAD drawings according to ANSI and industry standards for the purpose of manufacture, fabrication, and/or assembly.
- Utilize parametric solid modeling software to generate 3D part models, 3D assembly models, and 2D detail/assembly drawings.
- Apply statics principles to evaluate forces in structural elements that comprise trusses, machines, and frames.
- Evaluate the stress, strain, and deflection levels of engineering components subjected to deformation, axial loads, and shear loads.
- Utilize MS Office products such as Word, Excel, and PowerPoint to generate engineering documents, reports, tables, charts, spreadsheets, and presentations.

APPLICATION AND REGISTRATION: Students are typically offered enrollment into the Mechanical Engineering program once a year on a space available basis. Part-time enrollment is available with Instructor approval. CAP 101 Introduction to Computer Applications 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 also a required prerequisite for enrollment in this Program.

SEQUENCE AND SCHEDULE: The Mechanical Engineering Technology student will complete a specific course requirement sequence. Program course work is structured so 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 6:00 pm.

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

ASSOCIATE IN APPLIED SCIENCE Mechanical Engineering Technology

AAS Academic Core Requirements

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

Program Requirements

CTE 108	Job Skills	1
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	Engineering Applications Using MS Office	5
ENGT 210	CAD III: Advanced Applications	6
ENGT 211	Project Design I	4
ENGT 212	Project Design II	4
ENGT 213	Project Design III	4
ENGT 215	Statics	9
ENGT 216	Strength of Materials	7
ENGT 220	Parametric Modeling	7
ENGT 223	Structural Detailing	6
ENGT 224	Process Pipe Drafting	8
SURV 191	Professional Development and Safety	3

Approx. 7 quarters **117 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
PSYC& 100	General Psychology	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5

PLUS
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list. 5

Approx. 3 quarters **25 CRs**

CERTIFICATE

Mechanical Engineering Drafting

Academic Core Requirements

COM 170	Oral & Written Communications	5
CMST& 210	Interpersonal Communication	5

Program Requirements

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	Engineering Applications Using MS Office	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
SURV 191	Professional Development and Safety	3

Approx. 3 quarters **61 CRs**

MEDICAL CODING & BILLING GENERALIST

CERTIFICATE

The Medical Coding & 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.

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 AND REGISTRATION: Students are typically offered enrollment in the Medical Coding & Billing Generalist Program full-time twice a year, or in the part-time program at the start of each quarter, on a space available basis. Because some required courses are only offered once a year, full-time students who do not begin Fall Quarter will not be able to complete the program in four quarters.

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 prior to taking any coding or billing courses. Electives must be in the business area. Full-time students can complete this Program in 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

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MEDICAL CODING & BILLING GENERALIST

(CONTINUED)

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
CAP 105	Computerized Touch Keyboarding	2
HT 120	Medical Insurance Billing	5
HT 230	Medical Coding ICD-9	3
HT 240	Medical Coding CPT	4
CAP 101	Introduction to Computer Applications	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 Business Electives (choose 7 credits below)

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 RECEPTIONIST

CERTIFICATE

The Medical Receptionist certificate Program 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 the Medical Receptionist Program with the skills and competencies to operate medical office software and perform daily office functions.

APPLICATION AND 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 Computer Applications	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	5

Approx. 2 quarters

41 CRs

NURSING ASSISTANT

CERTIFICATE

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

PROGRAM OUTCOMES: Upon program completion, graduates will be able to:

- Demonstrate basic technical skills, which facilitates an optimal level of functioning for the client, recognizing individual, cultural, and religious diversity.
- Demonstrate basic personal care skills.
- 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.
- Incorporate principles and skills of restorative nursing in providing nursing care in accordance with the Client's Rights and Promotion of Client's Independence.
- Demonstrate behavior that maintains and respects client's rights and promotes client's independence, regardless of race, religion, lifestyle, sexual preference, disease process, or ability to pay.

- Use communication skills effectively in order to function as a member of the nursing team.
- Use procedures and techniques to prevent the spread of microorganisms.
- Demonstrate the ability to identify and implement safety and emergency procedures.
- Demonstrate knowledge of and responsiveness to the laws and regulations that affect his or her practice, including, but not limited to, client abuse and neglect, client complaint procedures, Workers' Right to Know, and the Uniform Disciplinary Act.

APPLICATION AND REGISTRATION: Students are typically offered enrollment in the Nursing Assistant Program several times per quarter on a space available basis. To be eligible for admission to the Nursing Assistant Program, applicants must meet College admission requirements, including a completed criminal history background check verifying that there is no history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43. Any student interested in enrolling in the Nursing Assistant Program must submit the Nursing Assistant Application Completion form and all materials listed below:

- Admission application.
- Applicant Notification: Washington State Patrol Criminal History Background Check form.
- \$10 payment for the criminal background check processing fee.
- Documentation of two-step tuberculin skin test (TST).
- Satisfy placement score requirements for the math and reading subjects of Accuplacer test.
- CPR: Adult Heartsaver (HLTH 103)
- HIV/AIDS: Healthcare Professional (HLTH 133)

Submit application materials to:
 Bellingham Technical College
 ATTN: Nursing Assistant Admissions
 3028 Lindbergh Avenue
 Bellingham, WA 98225

Once your complete application is received and evaluated, your name will be added to a program ready wait list. Students will be admitted and invited to enroll in nursing assistant sections by appointment on a first-come, first-serve, space available basis. You will be required to bring your textbook to the first class. Clinical uniforms are required prior to the first clinical day.

SEQUENCE AND SCHEDULE: The Nursing Assistant certificate is a total of 117 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	5
NA 102	Nursing Assistant Clinical	2
Approx. 1 Quarter		7 CRs

OFFICE ASSISTANT/RECEPTIONIST

CERTIFICATE – RECEPTIONIST

CERTIFICATE – OFFICE ASSISTANT

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.
- Graduates will demonstrate 73 percent competency in word processing, written business communication, business math, effective oral communication skills, office skills and procedures, and MS Windows.

APPLICATION AND 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

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OFFICE ASSISTANT/RECEPTIONIST

(CONTINUED)

CAP 101	Introduction to Computer Applications	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 Computer Applications	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

Classes include:

- Childbirth preparation courses
- Parent/child courses, in which parents and young children attend class together
- Parenting discussion courses

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 AND REGISTRATION: Parenting Education: A variety of parent/child and adult-only parenting discussion 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, toddlers, and 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 12 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 estimated that it will take three years or more for students to complete this certificate.

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 prepares individuals for their dual role of parent and 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.

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

CERTIFICATE

Early Learning Certificate

Take 8-10 credits from the following coursework:

ECED 130	The Developing Infant	1.5
ECED 131	Approaching Toddlerhood	1.5
ECED 135	Adult/Child: 1 Year Development - A	2
ECED 136	Adult/Child: 1 Year Development - B	2
ECED 137	Adult/Child: 1 Year Development - C	2
ECED 140	Adult/Child: 2 Year Development - A	2
ECED 141	Adult/Child: 2 Year Development - B	2
ECED 142	Adult/Child: 2 Year Development - C	2
ECED 145	Three & Four Year Development - A	3
ECED 146	Three & Four Year Development - B	3
ECED 147	Three & Four Year Development -C	3
ECED 150	Adult/Child: Four & Five Year Development -A	1.5
ECED 151	Adult/Child: Four & Five Year Development -B	1.5
ECED 152	Adult/Child: Four & Five Year Development -C	1.5
ECED 155	Adult/Child: Toddler & Preschooler Dev. -A	2
ECED 156	Adult/Child: Toddler & Preschooler Dev.- B	2
ECED 157	Adult/Child: Toddler & Preschooler Dev. -C	2

2-3 credits of the following can be used towards the certificate:

ECED 160	Positive Discipline	1.5
ECED 161	Early Childhood Step	1
ECED 162	How To Talk So Kids Will Listen	1.5
ECED 163	School Age STEP Effective Parenting	1
ECED 170	Love & Logic Parenting	1

2-4 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

8 quarters **12 CRs**

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), a certifying agency that offers a career and employment placement program, with a nationwide network to assist successful candidates with job placement in the Fitness Industry.

PROGRAM OUTCOMES:

Program graduates will:

- Be prepared to successfully pass the NFPT Personal Fitness Trainer Certification test.
- Be prepared to effectively manage gym operations or training in a facility.
- Demonstrate proficient methods of developing and leading group exercise programs.
- Develop a complete personal guided training program.

APPLICATION AND REGISTRATION: Students may enroll in the Program on a space available basis.

SEQUENCE AND SCHEDULE: Classes meet two evenings per week 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.

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

Approx. 3 quarters **19 CRs**

PHLEBOTOMY

CERTIFICATE

The Phlebotomy program will provide the student a background in basic anatomy/physiology, medical terminology, medical office procedures, and phlebotomy skills. Students will complete an externship experience at a clinical facility where they must perform successful venipuncture and blood draws on at least 100 patients. Once completed, students are eligible to apply for State licensure as a Health Care Assistant, Level A. The certificate program can be taken full time in two quarters, or part time in three to four quarters. The Program is also a part of the Pathway to Health Careers for I-BEST.

PROGRAM OUTCOMES: Phlebotomist (Category A Health Care Assistant) shall:

- Perform venous and capillary invasive procedures for blood withdrawal.
- Demonstrate the knowledge and skills for entry level competency as a Category "A" Health Care Assistant, per guidelines outlined in WAC 246-826-130.
- Properly administer appropriate approved drugs per topical, rectal, optic, ophthalmic, and inhaled routes.

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

- Interpret the Washington State Health Care Assistant Law and how it applies to the phlebotomist with 80% accuracy.
- Describe the phlebotomist's role in a medical lab setting with 80% accuracy.
- State eight rules for safety within the laboratory with 100% accuracy.
- Explain the disease cycle of infectious pathogens with 80% accuracy.
- Select appropriate PPE (Personal Protection Equipment), and demonstrate proper hand washing technique and safe removal of contaminated gloves with 100% accuracy.
- Explain the purpose and mission of OSHA/WSAH and Universal Precautions, define "CLIA 88" as it applies to phlebotomists, and explain Material Safety Data Sheets (MSDS) with 80% accuracy.
- Define quality control and state the principle of quality assurance with 80% accuracy.
- Define the difference between arteries, veins and capillaries, and describe the different cells and components of blood and their functions, with at least 80% accuracy.
- Define the difference between serum and plasma with 100% accuracy.
- Identify the different supplies and equipment used in venipuncture and capillary collection with at least 80% accuracy.
- Demonstrate proper, safe, and successful venipuncture with at least 80% accuracy.
- List the most frequently encountered medical/physiological complications of venipuncture, and explain preventative measures and appropriate treatment for each with at least 80% accuracy.
- Explain the most common causes and remedies of a "short" draw, or no blood collected during venipuncture, list the four most common reasons for specimen rejection by the laboratory, and discuss preventative measures with at least 80% accuracy.

APPLICATION AND REGISTRATION: Students are typically offered enrollment into the Phlebotomy program twice a year on a space-available basis. A complete application packet is required in order to enroll in the HO 157 and HT 160 courses. Please read over packet materials and the directions very carefully. Prior to being admitted or enrolling into Intro to Phlebotomy (HO 157), students will be required to complete the following courses:

- BIO 105 Essentials of Anatomy & Physiology
- HT 126 Fundamentals of Medical Terminology
- BIO 127 Diseases of the Human Body (or BIOL& 160)
- BUS 230 Medical Office Procedures
- CAP 105 Computerized Touch Keyboarding (or equivalent)

CAP 105 can be satisfied by passing the Office Proficiency Assessment & Certification (OPAC) test with a score of 35 WPM. To pay for the examination, please submit the "Assessment Billing" form and \$5.00 payment to the BTC cashier. To schedule a testing appointment, please contact the BTC Assessment Center at assessment@btc.ctc.edu. Upon completion of testing, you will be given a score printout to be submitted with your Phlebotomy application packet.

- HLTH 133 HIV/AIDS 7-hour Workshop (or equivalent)
- HLTH 155 First Aid Fundamentals (or equivalent)

Students must also submit the following with the admissions packet:

- Washington State Patrol Criminal History Background Check form
- \$10.00 background processing fee (attach a check, money order, or receipt from the BTC cashier); an additional National Background check is also required by Lab Facility, cash is approximately \$40 and paid directly to the lab
- Essential Skills and Functional Abilities form
- Health Status Report
- Medical Policy Statement of Agreement
- Receipt of \$40.00 payment to PeaceHealth Labs for drug screen urinalysis
- (Optional) Evidence of completion of a regionally accredited LPN or RN training program

Once these courses are complete and other admissions requirements are met, students are eligible to enroll in the following courses for completion of the Phlebotomy certificate:

- HO 157 Intro to Phlebotomy
- HT 160 Phlebotomy Externship

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 Phlebotomy

Prerequisites

CAP 105	Computerized Touch Keyboarding	2
HLTH 133	HIV/AIDS: Healthcare Professional	1
HLTH 155	First Aid Fundamentals	1
BIO 105	Essentials of Anatomy & Physiology	5
HT 126	Fundamentals of Medical Terminology	5
BIO 127	Diseases of The Human Body	4
BUS 230	Medical Office Procedures	5
HO 157	Intro to Phlebotomy Skills	4
HT 160	Phlebotomy Externship	3

Approx. 3 quarters

26 CRs

PRACTICAL NURSING

CERTIFICATE – PRACTICAL NURSING - FT

CERTIFICATE – PRACTICAL NURSING - PT

*Note: Major program changes beginning Fall 2013; please see the web site for most current details.

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 life-long learning skills, which students develop while assisting clients in meeting their healthcare needs. Computer skills are required.

Gainful Employment Disclosure

- Program length: 6 quarters
- Tuition and fees: Based on 22 credits per quarter: \$1,555 (2010–2011)
- Books and supplies: \$717–\$938 (2009–2010 estimates)
- Job placement rates: 92% (Reflects completers from 2005–2006 through 2007–2008.)
- On time graduation rate: 89% (Excludes quarters when students were not enrolled in classes.)
- Number of annual completers: 73 (2009–2010)
- Median loan debt: \$6470

PROGRAM OUTCOMES: Graduates will be able to:

- Assist in implementing the nursing process.
- Communicate effectively with client, family, peer group, nursing team, and a multi-disciplinary team.
- Assist in the health teaching of clients.
- Share knowledge and skills with peers.
- 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.

- Demonstrate personal integrity and application of ethical and legal principles as they pertain to self, clients, and others.
- Demonstrate an understanding of own role in healthcare delivery system.

APPLICATION AND 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. 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

Students must also submit a completed Applicant Notification: Washington State Patrol Criminal History Background Check form. The criminal history background must verify that there is no 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, and prior to clinical, the student is required to:

- Submit a \$10.00 background check processing fee.
- 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 (3 hrs.).
- Be 18 years of age.
- Complete an 11-panel drug screen for prohibited substances.
- Provide proof of medical insurance.

SEQUENCE AND SCHEDULE: A student planning to apply to the Practical Nursing Program begins by completing the Program prerequisites listed under Application and Registration. Upon completion of these courses, the student must submit a completed Application Completion Form. Once students are admitted into the Nursing Program, they 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: Note: This program will be discontinued after Winter 2013. Generally, classes are held on campus between the hours of 8:00 am and 3:00 pm or 3:00 pm and 10:00 pm. The Lab/Clinical courses, Nursing Practice NUR 102, 122, and 132, are eight hours a day. Times vary, depending on the clinical location and the shift. Students must be able to accommodate the various clinical schedules.

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PRACTICAL NURSING

(CONTINUED)

Part-time Practical Nursing Program: Note: This part-time program option will be discontinued after Fall 2013. Hours vary depending on class schedules. Nursing Foundations courses are two or three days a week, generally between the hours of 8:00 am and 3:00 pm, on campus. The lab/clinical courses, Nursing Practice 102, 122, and 132, 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.

CERTIFICATE

Practical Nursing - FT

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

CERTIFICATE

Practical Nursing - PT

BIOL& 160	General Biology With Lab	5
BIOL& 241	Human A & P 1	5
BIOL& 242	Human A & P 2	5
ENGL& 101	English Composition I	5
HLTH 133	HIV/AIDS: Healthcare Professional	1
MATH 098	Elementary Algebra	5
PSYC& 100	General Psychology	5
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 105	Pharmacology for PN's	2
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 IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – PRINCIPLES OF PRECISION MACHINING

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. 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 AND REGISTRATION: Students are typically offered enrollment in the Precision Machining Program once a year on a space available basis.

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, 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.

ASSOCIATE IN APPLIED SCIENCE

Precision Machining

AAS Academic Core Requirements

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

Program Requirements

CTE 108	Job Skills	1
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 131	Blueprint Reading I	4
MACH 132	Blueprint Reading II	4
MACH 143	CAD for Machining	5
MACH 201	Advanced Manufacturing Technologies	2
MACH 202	CNC Machine Theory	2
MACH 213	Applied Machinery's Handbook	1
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 243	CNC/CAM Program and Operations A	10
MACH 244	CNC/CAM Programming and Operations A	6
MACH 245	CNC/CAM Program and Operations B	6
MACH 275	Current Topics	5

Approx. 6 quarters **129 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.

Approx. 3 quarters **20 CRs**

CERTIFICATE

Principles of Precision Machining

MACH 100	Introduction to Trade/Occupational Safety	1
MACH 101	Machine Technology I	2
MACH 119	Machine Fundamentals IA	5
MACH 120	Machine Fundamentals IB	5
MACH 122	Machine Fundamentals II	10
MACH 131	Blueprint Reading I	4
MACH 132	Blueprint Reading II	4
MACH 241	Introduction to CNC Machining	8
MATH 100	Occupational Math	5

Approx. 2 quarters **44 CRs**

PROCESS TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE

The Process Technology Program 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, and 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 learning opportunities 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 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). Examples: Worker-Right-to-Know, PSM, RMP, RCRA, and Clean Air Act.
- Be able to apply mathematics, physics, and chemistry in the Process Technology field. Graduates will obtain the ability to link their knowledge to applications such as the nature of heat, chemical reactions, boiling points, vapor pressure, and electrical currents.
- Demonstrate knowledge of the typical organizational structures, economics and quality controls, fundamentals of refining, and power generation processes.
- 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).
- Know the principles and typical operation of electronic control systems (DCS).
- Have the ability to effectively operate simulated DCS process control systems.

APPLICATION AND 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 Computer Applications) 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, Ex

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PROCESS TECHNOLOGY

(CONTINUED)

cel and PowerPoint). These tests require a fee and may be taken at BTC or any other CertiPort Testing Center.

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, an Associate of Applied Science-Transfer degree, or certificate upon completion and verification of all requirements and standards.

ASSOCIATE IN APPLIED SCIENCE

Process Technology

AAS Academic Core Requirements

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

Program Requirements

CTE 108	Job Skills	1
ECON 103	Industrial Economics	5

Take 6 credits in Special Topics, PLUS 10 credits in Projects/Practicums/Internships, and 9 credits in Electives (any class 100 level or higher)

ELECTIVE (See Quarterly Schedule) 3

ELECTIVE 3

ELECTIVE 3

PTEC 101 Introduction to Process Technology 5

PTEC 102 Process Technology I (Equipment) 5

PTEC 103 Safety, Health & Equipment I 5

PTEC 105 Process Technology II (Systems) 5

PTEC 107 Process Science 5

PTEC 110 Process Instrumentation 5

SPECIAL TOPICS PTEC 190 SERIES

PTEC 190 Food Processing 3

PTEC 191 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 198 Basic Mechanical Skills 3

PTEC 199 Power Generation 3

PTEC 203 Safety, Health & Environment II 5

PTEC 205 Dynamic Process Control (Simulators) 5

PTEC 207 Quality Control 5

PTEC 211 Advanced Process Control and Troubleshooting 5

PTEC 270 Process Technology Project I 5

OR

PTEC 290 Process Technology Practicum/Internship 5

PTEC 212 Industrial Processes & Equipment 5

PTEC 215 Process Technology III (Operations) 5

PTEC 272 Process Technology Project II 5

OR

PTEC 291 Process Technology Practicum/Internship 5

Approx. 7 quarters 106 CRs

AAS-T Academic Core Requirements

ENGL& 101 English Composition I 5

Choose one of the following Social Science courses:

CMST& 210 Interpersonal Communication 5

PSYC& 100 General Psychology 5

Choose one of the following college level Math courses:

MATH& 146 Intro to Statistics 5

MATH&141 Precalculus I 5

MATH& 107 Math in Society 5

PLUS

Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses

generally accepted transfer list. 5

Approx. 3 quarters 20 CRs

CERTIFICATE

Process Technology

CMST& 210 Interpersonal Communication 5

COM 170 Oral & Written Communications 5

MATH 100 Occupational Math 5

CTE 108 Job Skills 1

PTEC 101 Introduction to Process Technology 5

PTEC 102 Process Technology I (Equipment) 5

PTEC 103 Safety, Health & Equipment I 5

PTEC 105 Process Technology II (Systems) 5

PTEC 107 Process Science 5

PTEC 110 Process Instrumentation 5

Approx. 4 quarters 46 CRs

PROFESSIONAL TECHNICAL EDUCATION

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – CAREER AND TECHNICAL EDUCATION

The Professional Technical Education Program provides 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 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 Programs 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 AND REGISTRATION: Students may enroll in this Degree or Certificate Program at the start of each quarter. Admission is offered 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 IN APPLIED SCIENCE TRANSFER DEGREE Professional Technical Education

AAS Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following social science courses:		
CMST&210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level math courses:		
MATH& 107	Math in Society	5
MATH& 141	Precalculus I	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		5

Professional Technical CORE Education Coursework:

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
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):		
CAP 101	Introduction to Computer Applications	5
EDUC 199	Professional Technical Specialization	12
EDUC 221	Leadership Development	3
EDUC 226	Learning Styles	3
EDUC 236	Occupational Analysis	3
EDUC 241	Learning & Adapting New Technologies	3
EDUC 246	The Adult Learner	3
EDUC 252	Teaching Practicum 2	12

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PROFESSIONAL TECHNICAL EDUCATION

(CONTINUED)

EDUC 256	Program Management, Promotion, and Recruitment	3
EDUC 257	Current Topics for Professional Technical Educators	5
EDUC 261	Industry-Based Professional Development	3
EDUC 262	Advanced Industry-Based Professional Development	6

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

Approx. 6 quarters **70 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. The ability to demonstrate the 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 and 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 AND 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 IN APPLIED SCIENCE

ASSOCIATE IN 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® 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 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. Because the Technologist is required to communicate with patients, and maneuver patients and heavy equipment, the Technologist must have adequate use of limbs and speech. Every reasonable attempt will be made to accommodate disabilities.

PROGRAM OUTCOMES: Graduates of the Program 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 sub-optimal 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 AND 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:

- BTC admission application.
- Applicant Notification: Washington State Patrol Criminal History Background Check form. Criminal history background must verify that there is no history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43.
- 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:

1. English Composition (ENGL& 101), five credits or equivalent. (Minimum 2.0 GPA).
2. Introduction to Computer Applications (CAP 101), five credits or equivalent. Equivalent courses must include Windows, word processing, and spreadsheet. Students who do not have transcripts of formal computer training 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.
3. Intermediate Algebra (MATH 099), five credits or equivalent. (Minimum 2.7 GPA).
4. Medical Terminology (HT 126), five credits. (Minimum 2.0 GPA).
5. Human A&P 1 and Human A&P 2 (BIOL& 241 and BIOL& 242), five credits each or equivalent within the last three years. (Minimum 2.7 GPA).
6. General Psychology (PSYC& 100), five credits. (Minimum 2.0 GPA).
7. HIV/AIDS Education (HLTH 133).

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.

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

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

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

- Submit receipt of payment of \$10.00 for the background check processing fee.
- Within the six months preceding going to clinical, provide documentation of negative two-step PPD testing, negative chest x-ray, or appropriate treatment, as well as demonstrate satisfactory health status by a physical examination, including current immunizations. First clinical course will take place in January of the first year of the Program. Students will not be allowed to register for classes until this form has been accepted by the College.
- 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.

continued on next page

RADIOLOGIC TECHNOLOGY

(CONTINUED)

- 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.

General Education Requirements

ENGL& 101 English Composition I	5
PSYC& 100 General Psychology	5
Choose one of the following college level math courses:	
MATH& 107 Math In Society	5
MATH& 141 Precalculus I	5
MATH&146 Intro to Statistics	5
PLUS	
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.	5

Approx. 3 quarters **20 CRs**

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

Radiologic Technology

BIO 130 Sectional Anatomy	4
RT 101 Radiographic Positioning I	6
RT 102 Radiographic Positioning II	6
RT 103 Radiographic Positioning III	5
RT 108 Medical Informatics	4
RT 112 Patient Care In Radiology	4
RT 114 Leadership Seminar	2
RT 120 Imaging and Processing	4
RT 121 Radiographic Physics I	4
RT 123 Radiographic Physics II	4
RT 131 Radiographic Clinic I	7
RT 132 Radiographic Clinic II	7
RT 133 Radiographic Clinic III	8
RT 201 Adv Patient Procedures & Pathology I	4
RT 202 Adv Patient Procedures & Pathology II	4
RT 205 Radiology Pharmacology	3
RT 210 Radiation Biology	4
RT 220 Radiographic Physics III	4
RT 230 Registry Review & Employment Readiness	4
RT 231 Radiographic Clinic IV	10
RT 232 Radiographic Clinic V	10
RT 233 Radiographic Clinic VI	10

Approx. 7 quarters **118 CRs**

REGISTERED NURSING: LPN TO RN

ASSOCIATE IN APPLIED SCIENCE – LPN TO RN

Bellingham Technical College offers a program for nurses who have graduated from a Practical Nursing Program and have a current Washington State LPN license. The BTC Registered Nursing: LPN to RN Program 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: PeaceHealth St. Joseph Medical Center, St. Luke's Foundation, Whidbey General Hospital, Island Hospital, Skagit Valley Hospital, Alderwood Park Convalescent Center, Shuksan Health Care Center, St. Francis of Bellingham, Staffholt Good Samaritan Center, North Cascade Health and Rehabilitation Center, US Department of Labor, and Foundation of the National Student Nurses Association.

PROGRAM OUTCOMES: Graduates of the Program will:

- Practice competently and safely in a variety of healthcare settings, with clients of diverse socio-cultural identities across the life span.
- Demonstrate critical thinking and clinical judgment by integrating and building upon theoretical concepts from nursing and related fields.
- Implement the nursing process.
- Plan and coordinate care for an individual or group of clients with health care needs, by using established priorities.
- Demonstrate an understanding of own role in the health care delivery.
- Actively participate within the nursing profession.
- Seek opportunity for continued learning, self-development, leadership, and management skills.

APPLICATION AND 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:

- Current WA State LPN license number.
- Evidence of completion of at least 1,000 hours as a working LPN within the last five years.
- BTC admissions application.
- Applicant Notification: Washington State Patrol Criminal History Background Check form. Criminal history background must verify that there is no history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43.
- Official transcripts containing evidence of successful completion of the prerequisite courses with a 2.0 or above:
 1. BIOL&241 Human A & P 1, five credits.
 2. BIOL&242 Human A & P 2, five credits.
 3. ENGL&101 English Composition I, five credits.
 4. CHEM&121 Intro to Chemistry, five credits.

5. BIOL&260 Microbiology, five credits.
6. PSYC&100 General Psychology, five credits.
7. PSYC&200 Lifespan Psychology, five credits.
8. MATH&146 Intro to Statistics, five credits.

RN applicants must enroll in and complete MATH&146 in order to satisfy the BTC LPN-RN math prerequisite. Grandfather policy: RN applicants who are already on the program ready (wait) list and applicants who completed MATH&141 or MATH&107 prior to April 2011 have already satisfied the RN math prerequisite and will not be required to complete MATH&146.

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

Bellingham Technical College
 ATTN: Admissions, Registered Nursing
 3028 Lindbergh Avenue
 Bellingham, WA 98225-1599

When a program seat is available for you and prior to registration for Quarter 1, you will be required to:

- Submit a complete BTC Health Status Report (provided when you are offered a seat).
- Submit \$10 payment for the criminal background check processing fee.
- Complete an 11-panel drug screen (instructions will be provided when you are offered a seat).
- Submit evidence of current CPR training.
- Submit statement of medical insurance coverage.
- Submit a second current copy of LPN license, including expiration date.

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 DEGREE LPN To RN

Prerequisite Academic Core Requirements

MATH& 146	Intro to Statistics	5
ENGL& 101	English Composition I	5
PSYC& 200	Lifespan Psychology	5
CHEM& 121	Intro to Chemistry	5
BIOL& 260	Microbiology	5
Approx. 3 quarters		25 CRs

Program Requirements

NUR 211	Nursing Dimensions I	7
NUR 212	Client Care Management Practice I	6
NUR 221	Nursing Dimensions II	6
NUR 222	Client Care Management Practice II	6
NUR 231	Nursing Dimensions III	5
NUR 234	Capstone Clinical	4
Approx. 3 quarters		34 CRs

RESIDENTIAL HOME INSPECTION

CERTIFICATE – RESIDENTIAL HOME INSPECTION

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; students who successfully complete both courses will qualify to sit for the State Home Inspector License Exam. 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 online at www.btc.ctc.edu. A personal laptop with Wi-Fi 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 to 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	Fundamentals of Home Inspection	12
RHI 112	Home Inspection Field Training	3
Approx. 4 weeks		15 CRs

SURGERY TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

The Surgery Technology Program is an accredited program designed to meet the expanding demand of surgery and related departments. This is an exciting career opportunity that will prepare students 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 of the Program 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 AND 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 ready list, all general education and science program courses must be completed. Applicants must meet college admission requirements and submit additional materials, including the Applicant Notification: Washington State Criminal History Background Check form and evidence of high school graduation, or its equivalent. Acceptable documents include a copy of the student high school diploma, high school transcript, or GED certificate. Students can complete General Education courses in any quarter.

To be eligible for the Program ready list and entry into the Surgery Technology courses, transcripts are required, showing evidence that all general education courses are complete. After acceptance into 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.
- Submit a \$10.00 background check processing fee.
- Possess and maintain a current CPR card—minimum CPR required is Adult Heartsaver (3 hrs).
- Show proof of personal health insurance (student accident insurance is available).
- Be 18 years of age.

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 of a C+ or 78% in each course to progress to the next quarter. 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 IN APPLIED SCIENCE

Surgery Technology

Prerequisite 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

Program Requirements

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
HLTH 133	HIV/AIDS: Healthcare Professional	1
HT 126	Fundamentals of Medical Terminology	5
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 **96 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
PSYC& 100	General Psychology	5
Choose one of the following college level math courses:		
MATH& 107	Math in Society	5
MATH& 141	Precalculus I	5
MATH&146	Intro to Statistics	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5

Approx. 3 quarters **20 CRs**

SURVEYING & MAPPING

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN 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), as well as demonstrate a working knowledge of Washington Law related to surveying and boundaries.
- Receive, interpret, and convey written, verbal, and graphic information.

APPLICATION AND 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 and MATH 098 Elementary Algebra are required prerequisite for students to enroll in this Program. Students may test out of CAP 101 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.

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 IN APPLIED SCIENCE Surveying & Mapping

AAS Academic Core Requirements

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

Program Requirements

CTE 108	Job Skills	1
ENGT 115	Fundamentals of Engineering and Surveying	5
ENGT 122	CAD I: Basics	6
ENGT 132	Engineering Applications Using MS Office	5
ENGT 153	Intermediate GIS	7
ENGT 251	AutoCAD Civil 3D I	7
ENGT 252	AutoCAD Civil 3D II	7
ENGT 253	Autocad Civil 3d III	7
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 Law and Land Descriptions	5
SURV 116	Survey Data Systems	2
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. 5 quarters **126 CRs**

AAS-T Academic Core Requirements

ENGL& 101	English Composition I	5
Choose one of the following Social Science courses:		
CMST& 210	Interpersonal Communication	5
PSYC& 100	General Psychology	5
Choose one of the following college level Math courses:		
MATH& 146	Intro to Statistics	5
MATH&141	Precalculus I	5
MATH& 107	Math in Society	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferable Courses generally accepted transfer list.		
		5

Approx. 3 quarters **20 CRs**

SUSTAINABLE TECHNOLOGY

CERTIFICATE

The Sustainable Technology certificate provides the foundation for enhancing a student's degree program skill set with concepts in sustainability, the environment, and renewable energy.

PROGRAM OUTCOMES:

- Analyze how social norms and beliefs can affect sustainability practices and outcomes.
- Develop technical skills and expertise necessary to implement sustainable solutions to specific technological and workplace issues.
- Develop an understanding of the chemical and physical nature of energy.
- Identify forms of renewable energy.
- Develop an understanding of the political, social, and economic incentives that might accelerate or impede the implementation of renewable energy in the United States.

APPLICATION AND REGISTRATION: Students may begin work on the Sustainable Technology Certificate in any quarter coursework is offered. The certificate will be conferred upon completion of the student's degree program and completion of the Graduation Application form. For more information see the Admissions and Advising Department.

SEQUENCE AND SCHEDULE: See a Quarterly Schedule for specific course schedule information. Courses may be taken in any order.

DEGREE REQUIREMENTS: Students are required to complete 17 credits for completion of this certificate. Certificate courses include: Fundamentals of Sustainability (SUST 101, 5 credits), Fundamentals of Renewable Energy (SUST 102, 5 credits), Fundamentals of Environmental Science (ENVS& 101, 5 credits) and an approved two-credit course within their program area. Students are advised to meet with their program faculty advisor to plan and identify qualifying courses to fulfill the two credit elective course requirement. Students may apply for a certificate upon completion and verification of all requirements and standards. In order to earn a Sustainable Technology certificate, students must maintain a 2.0 grade point average with no course grade below "C" (2.0).

CERTIFICATE

Sustainable Technology Certificate

SUST 101	Fundamentals of Sustainability	5
SUST 102	Fundamentals of Renewable Energy	5
ENVS& 101	Intro To Environmental Science	5
Approved Elective Course (minimum 2 credits)		2
Approx. 3 quarters		17 CRs

VETERINARY TECHNICIAN

ASSOCIATE IN APPLIED SCIENCE

ASSOCIATE IN APPLIED SCIENCE TRANSFER DEGREE

CERTIFICATE – VETERINARY ASSISTANT

The Veterinary Technician Program prepares students for employment as a Veterinary Technician with duties as allowed by Washington State Law. This program has received Provisional Accreditation through the American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities (CVTEA). Graduates 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. Individuals who successfully complete 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 understanding the process of diagnosis, treatment, and prevention of 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 of this Program 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 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, 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 AND REGISTRATION: Students are typically offered enrollment in the Veterinary Technician Program once every two years on a space available basis. Veterinary Technician students must show that they are program ready by submitting a complete packet containing the following items:

- Admissions application identifying year and quarter you want to start.
- Evidence of high school graduation or its equivalent—acceptable documents include a copy of high school diploma, high school transcript, or GED certificate. Running Start students are not permitted.
- Applicant Notification: Washington State Patrol Criminal History Background Check form. Criminal history background must verify that there is no history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43.
- A completed “Task Completion/Observation” form signed by the veterinarian, veterinary technician, or manager of a small or large animal care facility documenting at least 20 hours as a volunteer, observer, or employee.
- A signed Informed Consent of Risks form (including signature of legal guardian if under 18 years of age).
- Official transcripts containing evidence of the five general education courses:
 1. English Composition (ENGL& 101), five credits (minimum 2.0 GPA).
 2. Math in Society (Math& 107) or Pre-Calculus (Math& 141) or Intro to Statistics (MATH& 146), five credits (minimum 2.0 GPA).
 3. General Psychology (PSYC& 100), five credits or equivalent (minimum 2.0 GPA).
 4. Transfer five credits (BIOL&, CHEM&, PHYS&, or GEOL& are strongly recommended) (minimum 2.0 GPA).
 5. Intro to Computer Applications (CAP 101) (minimum 2.0 GPA).

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

After acceptance into the Veterinary Technician program and prior to beginning the first quarter, students are required to:

- Submit receipt of payment of \$10.00 background check processing fee.
- Complete the Health Status Report, including a physical within the 6 months prior to clinical.
- Be 18 years of age.
- Submit proof of current personal or student medical insurance.

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 between the hours of 8:00 am and 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 an off-site veterinary facility, the schedule is subject to change to other days and times of the week, depending on availability.

DEGREE REQUIREMENTS: Students must maintain a 2.0 cumulative GPA in program courses with no grade lower than a C-. Students may apply for an Associate of Applied Science-Transfer degree upon completion and verification of all requirements and standards.

ASSOCIATE IN APPLIED SCIENCE

Veterinary Technician

Prerequisite Academic Core Requirements

CAP 101	Introduction to Computer Applications	5
ENGL& 101	English Composition I	5
PSYC& 100	General Psychology	5
Choose one of the following college level math courses:		
MATH& 107	Math in Society	5
MATH& 141	Precalculus I	5
MATH&146	Intro to Statistics	5
PLUS		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		
		5
Approx. 3 quarters		25 CRs

Program Requirements

CTE 108	Job Skills	1
VET 120	Veterinary Math	4
VETT 101	Veterinary Nursing I	5
VETT 102	Veterinary Anatomy & Physiology I	6
VETT 103	Veterinary Medical Terminology	3
VETT 104	Veterinary Nutrition I	3
VETT 105	Learning for a Lifetime	3
VETT 106	Microbiology, Virology, & Mycology	4
VETT 107	Small Animal Parasitology	3
VETT 108	Radiology I	6
VETT 109	Laboratory Sciences	5
VETT 110	Veterinary Anatomy & Physiology II	3
VETT 111	Small Animal Medicine I	4
VETT 112	Veterinary Nursing II: Surgical	5
VETT 113	Immunology & Pharmacology I	6
VETT 114	Dentistry	4
VETT 115	Radiology II	5
VETT 116	Large Animal Medicine	3
VETT 117	Veterinary Nursing III: Large	5
VETT 118	Small Animal Medicine II	3
VETT 119	Advanced Clinical Lab Science	4
VETT 120	Anesthesia	5
VETT 121	Exotic Animal Medicine	3
VETT 122	Veterinary Nutrition II	2
VETT 123	Veterinary Nursing IV	5
VETT 124	Specialty Medicine	3
VETT 125	Humanity of Veterinary Medicine	2
VETT 126	Pharmacology II	3
VETT 130	Veterinary Clinical Work Experience	10
VETT 201	Mentorship Lab I	3
VETT 202	Mentorship Lab II	3
VETT 203	Mentorship Lab III	3
VETT 204	Mentorship Lab IV	3
VETT 205	Mentorship Lab V	3
Approx. 6 quarters		133 CRs

continued on next page

VETERINARY TECHNICIAN

(CONTINUED)

CERTIFICATE

Veterinary Assistant

VET 120	Veterinary Math	4
VETT 101	Veterinary Nursing I	5
VETT 102	Veterinary Anatomy & Physiology I	6
VETT 103	Veterinary Medical Terminology	3
VETT 104	Veterinary Nutrition I	3
VETT 106	Microbiology, Virology, & Mycology	4
VETT 107	Small Animal Parasitology	3
VETT 108	Radiology I	6
VETT 109	Laboratory Sciences	5
VET 117	Veterinary Assisting Internship	2
VETT 201	Mentorship Lab	3
VETT 202	Mentorship Lab	3

Approx. 2 quarters
41 CRs

WELDING TECHNOLOGY – ALUMINUM/STEEL, PIPE, STRUCTURAL FABRICATION

ASSOCIATE IN APPLIED SCIENCE

- ALUMINUM/STEEL WELDING & FABRICATING

- PIPE WELDING & FABRICATING

- STRUCTURAL STEEL WELDING & FABRICATING

CERTIFICATE – INDUSTRIAL WELDING

CERTIFICATE – BASIC WELDING SKILLS

The Welding Technology Program prepares students for employment in the metal and construction trades. This field continues to grow and is in very high demand, at high, family wage potential. Students will gain experiences and competencies in all major welding, cutting, and fabrication theory, processes, and Washington Association of Building Officials (WABO) welding certification testing procedures. Students can earn a certificate, an Associate of Applied Science or an Applied Science-Transfer degree in Welding with a specialization in Structural Steel Welding and Fabricating, Pipe Welding and Fabricating, or Aluminum/Steel Welding and Fabricating. The Program includes classroom instruction, distance learning, and hands-on training in metal trades including safety, blueprint reading, metallurgy, power sources, tools and materials, welding, 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 area with heavy equipment, and clean room for aluminum welding and fabricating, a large Pipe Fabrication area, and a unique enclosed-space welding and fabricating Training Module for simulated real-world welding and fabrication environs.

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, including Industry Upgrades. Our WABO Inspectors are AWS CWIs with extensive industry backgrounds in welding and inspection. 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: BTC Welding Program graduates will:

- Exhibit and maintain essential employability behaviors.
- Observe and practice industry safety guidelines.
- Analyze and interpret prints, drawings, and symbols for welding and fabrication of parts and structures.
- Achieve competency in a variety of 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 at least one WABO certification or industry-accepted certification welding test (ASME, AWS, ABS, etc.).

- Exhibit knowledge of occupational environments, metallurgy, materials, tools, fabrication, layout, and mechanical and thermal 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 AND 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, 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 IN APPLIED SCIENCE

Welding Technology-Aluminum/Steel Welding & Fabricating, Pipe Welding & Fabricating, or Structural Steel Welding & Fabricating

AAS and Certificate Academic Core Requirements

CMST& 210	Interpersonal Communication	5
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
Quarters 1, 2, 3 for Welding Degree:		
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	4
WLD 106	Print Reading I	4
WLD 107	Welding Leadership I	1
WLD 110	SMAW I	5
WLD 120	GMAW I	5
WLD 121	GMAW Aluminum I	5
WLD 130	FCAW I	4
WLD 140	GTAW I	4
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
	PLUS pick one General Education Course for Quarter 1	5
	PLUS pick one General Education Course for Quarter 2	5
	PLUS pick one General Education Course for Quarter 3	5

Quarter 4 – 2nd Year: Aluminum/Steel Welding & Fabricating

WLD 206	Print Reading II	3
WLD 219	GTAW Aluminum II	2
WLD 230	FCAW II	4
WLD 242	GTAW Aluminum II	5
WLD 252	Aluminum Fabrication II	5

Quarter 4 – 2nd Year Pipe Welding & Fabricating

WLD 205	Print Reading II Pipe	3
WLD 210	SMAW II	3
WLD 215	SMAW Pipe	6
WLD 256	Pipe Fitting I	7

Quarter 4 – 2nd Year Structural Steel Welding & Fabricating

WLD 205	Print Reading II Pipe	3
WLD 210	SMAW II	3
WLD 215	SMAW Pipe	6
WLD 256	Pipe Fitting I	7
OR		
WLD 206	Print Reading II	3
WLD 219	GTAW Aluminum II	2
WLD 230	FCAW II	4
WLD 242	GTAW Aluminum II	5
WLD 252	Aluminum Fabrication II	5

Quarter 5 – 2nd Year Aluminum/Steel Welding & Fabricating

WLD 208	Metallurgy	3
WLD 222	GMAW Aluminum II	4
WLD 254	Steel Fabricating II	6
WLD 270	Aluminum Testing	4
	PLUS Aluminum/Steel Departmental Electives for Quarter 5	2

Quarter 5 – 2nd Year Pipe Welding & Fabricating

WLD 208	Metallurgy	3
WLD 257	Pipe Fitting II	6
WLD 262	GTAW Pipe Welding	6
	PLUS Pipe Departmental Electives for Quarter 5	4

Quarter 5 – 2nd Year Structural Steel Welding & Fabricating

WLD 208	Metallurgy	3
WLD 220	SMAW Pipe Practice II	4
WLD 230	FCAW II	4
WLD 254	Steel Fabricating II	6
OR		
WLD 255	Steel Fabricating III	6
	PLUS Structural Steel Departmental Electives for Quarter 5	2

Quarter 6 – 2nd Year Aluminum/Steel Welding & Fabricating

CTE 108	Job Skills	1
WLD 207	Welding Leadership II	1
WLD 209	Codes and Standards	2
WLD 271	WABO/ASME Testing I	6
WLD 295	Capstone	3
	PLUS Aluminum/Steel Departmental Electives for Quarter 6	6

Quarter 6 – 2nd Year Pipe Welding & Fabricating

CTE 108	Job Skills	1
WLD 207	Welding Leadership II	1
WLD 209	Codes and Standards	2
WLD 271	WABO/ASME Testing I	6
WLD 295	Capstone	3
	PLUS Pipe Departmental Electives	6

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WELDING TECHNOLOGY

(CONTINUED)

Quarter 6 – 2nd Year Structural Steel Welding & Fabricating

CTE 108	Job Skills	1
WLD 204	Print Reading III Steel	4
WLD 207	Welding Leadership II	1
WLD 209	Codes and Standards	2
WLD 271	WABO/ASME Testing I	6
WLD 295	Capstone	3
PLUS Structural Steel & Fabricating Departmental Electives		3

Approx. 6 quarters 126 CRs**AAS-T Academic Core Requirements**

ENGL& 101	English Composition I	5
PSYC& 100	General Psychology	5
AND choose one of the following college level Math courses:		
MATH& 107	Math in Society	5
MATH&141	Precalculus I	5
MATH& 146	Intro to Statistics	5
AND		
Five credit elective course in Science, Social Science or Humanities from the AAS-T-Transferrable Courses generally accepted transfer list.		

Approx. 3 quarters 20 CRs**AAS, AAS-T, Certificate Available Electives**

WLD 295	Capstone	3
WLD 216	SMAW Practices	2
WLD 217	Advanced SMAW Practices	6
WLD 218	SMAW Practices II TP	2
WLD 219	GTAW Aluminum II	2
WLD 220	SMAW Pipe Practice II	4
WLD 223	GMAW Practices	2
WLD 224	Advanced GMAW Practices	2
WLD 225	GMAW Aluminum Practices	4
WLD 226	Advanced Aluminum Welding Practices	6
WLD 231	FCAW Practices	6
WLD 232	Advanced FCAW Practices	6
WLD 243	GTAW Practices	2
WLD 244	Alloy Pipe Welding	6
WLD 245	Advanced GTAW Practices	6
WLD 246	GTAW Aluminum Practices	2
WLD 247	Advanced GTAW Aluminum Practices	3
WLD 258	Steel Fabrication Projects	6
WLD 259	Advanced Steel Fabrication Projects	6
WLD 265	Aluminum Fabrication Projects	6
WLD 266	Aluminum Fabrication Projects Advanced	6
WLD 273	Testing II	6
WLD 274	Testing II	4
WLD 293	Welding Internship I	2
WLD 297	Welding 10, 30, 60 HR Upgrade – Daytime	4
WLD 298	Welding: Special Projects	5
WLD 299	Welding Internship	5

112 CRs

CERTIFICATE

Quarters 1, 2, 3 for Industrial Welding Certificate

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	4
WLD 106	Print Reading I	4
WLD 107	Welding Leadership I	1
WLD 110	SMAW I	5
WLD 120	GMAW I	5
WLD 121	GMAW Aluminum I	5
WLD 130	FCAW I	4
WLD 140	GTAW I	4
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
AND choose one Academic Core course for Quarter 1		5
AND choose one Academic Core course for Quarter 2		5
AND choose one Academic Core course for Quarter 3		5

Quarter 4 – 2nd Year Aluminum/Steel Welding & Fabricating

WLD 206	Print Reading II	3
WLD 219	GTAW Aluminum II	2
WLD 230	FCAW II	4
WLD 242	GTAW Aluminum II	5
WLD 252	Aluminum Fabrication II	5

Quarter 4 – 2nd Year Pipe Welding & Fabricating

WLD 205	Print Reading II Pipe	3
WLD 210	SMAW II	3
WLD 215	SMAW Pipe	6
WLD 256	Pipe Fitting I	7

Quarter 4 – 2nd Year Structural Steel & Fabricating

WLD 205	Print Reading II Pipe	3
WLD 210	SMAW II	3
WLD 215	SMAW Pipe	6
WLD 256	Pipe Fitting I	7
OR		
WLD 206	Print Reading II	3
WLD 219	GTAW Aluminum II	2
WLD 230	FCAW II	4
WLD 242	GTAW Aluminum II	5
WLD 252	Aluminum Fabrication II	5

Quarter 5 – 2nd Year Aluminum/Steel Welding & Fabricating

WLD 208	Metallurgy	3
WLD 222	GMAW Aluminum II	4
WLD 254	Steel Fabricating II	6
WLD 270	Aluminum Testing	3
AND Aluminum/Steel Departmental Electives for Quarter 5		2

Quarter 5 – 2nd Year Pipe Welding & Fabricating

WLD 208	Metallurgy	3
WLD 257	Pipe Fitting II	6
WLD 262	GTAW Pipe Welding	6
AND Pipe Departmental Electives for Quarter 5		4

Quarter 5 – 2nd Year Structural Steel & Fabricating

WLD 208	Metallurgy	3
WLD 220	SMAW Pipe Practice II	4
WLD 230	FCAW II	4
WLD 254	Steel Fabricating II	6
	OR	
WLD 255	Steel Fabricating III	6
	AND Structural Steel Departmental Electives	2
Approx. 5 quarters		107 CRs

CERTIFICATE

Prerequisites Academic Core for Basic Welding Skills

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

Certificate Requirements

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	4
WLD 106	Print Reading I	4
WLD 107	Welding Leadership I	1
WLD 110	SMAW I	5
WLD 120	GMAW I	5
WLD 121	GMAW Aluminum I	5
WLD 130	FCAW I	4
WLD 140	GTAW I	4
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
	AND choose one Academic Core course for Quarter 1	5
	AND choose one academic Core course for Quarter 2	5
	AND choose one academic Core course for Quarter 3	5
Approx. 2 quarters		40-61 CRs

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 Arithmetic, 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 273
INTERNSHIP 3 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.

**BUS& 201
BUSINESS LAW 5 CR**

This course 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 business and personal aspects of law as set forth in the course outline.

PREREQUISITES: 71 Reading Accuplacer Score

**MGMT 154
CREATING AND MANAGING
A SMALL BUSINESS 5 CR**

This course examines the organization and operation of a small business. Topics include development of a business plan, failure factors in small business, sources of capital, record-keeping, financial statements, taxation, marketing, legal and regulatory issues, and best management practices.

**ANAEROBIC DIGESTER
TECHNICIAN****ADTEC 126
BASIC ELECTRICITY 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 textbook are supplemented by student's individual work of projects.

**ADTEC 200
ANAEROBIC DIGESTION
ESSENTIALS 4 CR**

This is a lecture and laboratory-based course, covering the basics of anaerobic digestion, its operations and maintenance, and its relationship to farm operations, energy production, and regulatory oversight. Emphasis is placed on applying general anaerobic digestion principles to the commercial farm setting, and understanding as well as experiencing what is required of technicians during routine, scheduled Standard Operating Procedures (SOPs) on such farm-based digester systems.

**ADTEC 237
COOL TOWERS/WATER TREATMENT 1 CR**

This course presents a study of cooling towers and the treatment of the water used.

**ADTEC 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.

**AUTOMOTIVE 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 will address the basic knowledge and skill to perform personal and environmental safety practices, spray gun and related equipment operation, surface preparation, and various refinishing operations used on vehicles.

PREREQUISITES: ACRT 101

**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. Instruction in 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.

**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 TECHNOLOGY

AUTO 103
ENGINES 12 CR
 An introductory look at the 4-stroke gasoline engine, followed by in-depth study and practice of industry standard service procedures, including diagnosis and repair of internal engine systems.
PREREQUISITES: TRANS 103

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.
PREREQUISITES: TRANS 103

AUTO 122
BASIC DRIVE TRAIN 4 CR
 This course will focus on the basic fundamentals of drive train systems found in the modern automobile. This course will include axles and axle bearings.
PREREQUISITES: TRANS 103

AUTO 141
ENGINE PERFORMANCE 1 2 CR
 Troubleshoot mechanical component failures within the engine that cause drivability complaints, such as misfires. In-depth practice of diagnostic methods such as power balance, compression, and leak down testing, and using misfire counters.
PREREQUISITES: TRANS 103

AUTO 151
ELECTRICITY/ELECTRONICS 1 6 CR
 A comprehensive and thorough introduction to electrical theory as applied to the automobile. This course will focus on electrical behavior in automotive circuits, understanding and using wiring schematics, and basic trouble shooting procedures on simple automotive circuits.
PREREQUISITES: TRANS 103

AUTO 161
STEERING AND SUSPENSION 6 CR
 This course will focus on the fundamentals of suspension and steering, including four-wheel laser alignment.
PREREQUISITES: TRANS 103

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.
PREREQUISITES: TRANS 103

**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 his or her own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. If practical or possible, it is recommended that the student's experience focus on the subject areas recently completed on campus, thereby making the internship site a real-world extension of the classroom. Student work will be monitored by an instructor from BTC, who will periodically visit the work site.

**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 his or her own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. If practical or possible, it is recommended that the student's experience focus on the subject areas recently completed on campus, thereby making the internship site a real-world extension of the classroom. Student work will be monitored by an instructor from BTC, who will periodically visit the work site.

**AUTO 250
AUTOMATIC TRANSMISSION/
TRANSAXLE 7 CR**

This course will focus on theory, description and operation of automatic drive systems. This will include diagnosing and troubleshooting hydraulic, electrical/electronic controls and mechanical systems, and practicing proper R&R techniques.
PREREQUISITES: AUTO 250, AUTO 265

**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.
PREREQUISITES: AUTO 151

**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 his or her own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. If practical or possible, it is recommended that the student's experience focus on the subject areas recently completed on campus, thereby making the internship site a real-world extension of the classroom. Student work will be monitored by an instructor from BTC, who will periodically visit the work site.

**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.
PREREQUISITES: AUTO 122

**AUTO 265
ENGINE PERFORMANCE 2 3 CR**

This course covers computerized engine management systems, including OBD2 and diagnostic trouble code interpretation.
PREREQUISITES: AUTO 141, AUTO 255

**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.
PREREQUISITES: AUTO 103, AUTO 265

**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 his or her own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. If practical or possible, it is recommended that the student's experience focus on the subject areas recently completed on campus, thereby making the internship site a real-world extension of the classroom. Student work will be monitored by an instructor from BTC, who will periodically visit the work site.

BASIC ACADEMIC SKILLS

**ABE 041
INTRO TO COLLEGE A: GED
& BEYOND – READING/WRITING 6 CR**

This course provides instruction in ABE and GED levels of reading and writing as well as college success and career planning. Upon completion, students are prepared to enter Essential Reading and/or Essential Writing.

**ABE 042
INTRO TO COLLEGE B: GED
& BEYOND – MATH 6 CR**

This course provides instruction in ABE and GED levels of math as well as college success and career planning. Upon Completion, students are prepared to enter Essential Math.

**ABE 050
ESSENTIAL MATH 5 CR**

A math course designed for students who need better math skills to pass the GED math test or Accuplacer arithmetic test or to progress to Pre-Algebra. 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; understanding and application of ratio, proportion and percent; elements of geometry, problem solving, and signed numbers; and solving simple equations. The course is designed to use interactive software and a variety of classroom strategies.
PREREQUISITES: CASAS Math score 211

**ABE 052
ESSENTIAL WRITING 5 CR**

This course helps students develop basic English writing skills such as organization of ideas, conventions of English language usage (grammar, spelling, sentence structure, and punctuation), and feedback and revision. Students will apply critical thinking skills such as analyzing and synthesizing ideas from authentic readings. Basic computer use is required. This course prepares students for entry into English 92.
PREREQUISITES: Level 4 ABE or 6 ESL in writing; recommended concurrent registration in Essential Reading

**ABE 054
ESSENTIAL READING 5 CR**

This course helps students develop English reading skills including comprehension, vocabulary and study skills through real-world investigations, directed by student interest. Focus is placed upon critical thinking skills, central themes, and main ideas. These are essential for taking notes and writing summaries in other courses. Inferences, paragraph patterns, and implied main ideas are also studied. Basic computer use is required. This course prepares students for entry into Reading 85.
PREREQUISITES: CASAS reading score of 221 or higher; recommended concurrent registration in Essential Writing

**ABE 061
VOCABULARY FOR ACADEMIC
PURPOSES 2 CR**

This course will help students improve their reading comprehension for academic purposes by offering lessons and exercises using the Academic Word List, a list of the most frequently used academic words in the English language. Students will analyze words and their usage and generate writing using the vocabulary words. A goal of understanding academic vocabulary with low amount of context is the focus of this course. CASAS 220 and permission from instructor required.

**BAS 020
COMPUTER BASICS 3 CR**

This course provides instruction for basic academic skills students in basic computer survival skills, including navigating Microsoft Windows, word processing with Microsoft Word, and use of common software for spreadsheets and multimedia presentations. Email and Internet skills are also taught.

BAS 030

BAS/ESL/GED ORIENTATION 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 includes instruction to BTC Student Services and community services, basic skills assessment (CASAS), learning styles assessment, barrier identification, goal-setting, and career planning.

BAS 080-089

BASIC ACADEMIC SKILLS 3 CR – 6 CR

These courses provide contextualized support and study strategies for student enrolled in IBEST courses.

ESL 031

BEGINNING ESL: READING/WRITING 5 CR

This course is designed for adults who have little or no proficiency in the English language. Emphasis is on functioning in situations related to immediate needs and tasks in which basic reading and writing are necessary. Reading and writing the English alphabet; understanding letter-sound relationship; recognizing sight words; filling out personal information on simple forms; understanding and using basic every day vocabulary, and expressing basic survival needs will be taught.

ESL 032

BEGINNING ESL: SPEAKING/ LISTENING 5 CR

Instruction in levels 1-2 English as a Second Language speaking and listening. Small-group, individualized, and computer-assisted instruction are used. Curriculum is based primarily on students' life skill needs, plus students' personal and vocational goals.

ESL 041

INTERMEDIATE ESL: READING/ WRITING 5 CR

This course is designed for adults who can meet basic survival and social needs, fill out simple forms, and write in sentences. Emphasis is on understanding and responding to familiar topics, requesting and clarifying basic information; following written direction; using reading strategies; writing and editing simple paragraphs using all basic verb tenses; and completing forms and applications.

ESL 042

INTERMEDIATE ESL: SPEAKING/ LISTENING 5 CR

This course is designed for adults who can meet basic survival and social needs and understand and produce basic phrases. Emphasis is on understanding and responding to familiar topics, requesting and clarifying basic information; following oral direction; and speaking so others can understand.

ESL 051

ADVANCED ESL: READING/WRITING 5 CR

This course is designed for adults who can read simple, well-defined and structured texts in familiar settings, write paragraphs, and handle grammar and writing mechanics with few errors. Emphasis is on communicating effectively, conducting research using electronic sources; applying critical thinking skills; writing and editing multi-paragraph essays; writing resumes and cover letters; and using a variety of sentence structure types.

ESL 052

ADVANCED ESL: SPEAKING/ LISTENING 5 CR

This course is designed for adults who can speak fluently and accurately with some support in settings that may not be entirely familiar and can comprehend relatively unstructured conversations. Emphasis is on communicating effectively, face-to-face and on the phone; applying critical thinking skills; and making oral presentations.

GED 040

GED FAST TRACK 5 CR

This GED preparation course includes instruction in reading, writing and math as well as 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. This course utilizes the GED preparation online program GED Academy and the Angel platform.

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. Emphasis on integration of each system to other systems and the whole organism, as well as application of key concepts to health and disease.

PREREQUISITES: Accuplacer score of 71 or higher on Reading

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.

PREREQUISITES: BIO 105 (or BIOL& 241 and BIOL& 242), HT 126

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 Reading Comprehension score of 85 or B grade in RDG 085; and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in COM 170, and also MATH 098 with a grade of C

BIOL& 241

HUMAN ANATOMY & PHYSIOLOGY I 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 includes anatomical terminology, tissues, and integumentary, skeletal, muscular, nervous, and endocrine systems.

PREREQUISITES: BIOL& 160 with a C grade, CHEM& 121 with a C grade

BIOL& 242

HUMAN ANATOMY & PHYSIOLOGY II 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 includes 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

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 Arithmetic or instructor permission

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 150

MATHEMATICS FOR BUSINESS 5 CR

Students will apply math concepts to business applications such as commissions, banking, payroll, consumer credit, simple interest, mortgages, amortization, insurances, taxes, stock market, and statistics.

PREREQUISITES: Accuplacer Score: 50 Arithmetic

BUS 171

TECHNICAL COMMUNICATIONS 5 CR

This 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, resumes, technical manuals, e-mail, and newsletters. They will also be learning to evaluate formatting, grammar, graphics, and general appearance. Students will learn effective oral presentation and job interviewing skills.

PREREQUISITES: Accuplacer Scores: 71 Reading; 71 Sentence Skills; CAP 106 or instructor permission

BUS 184

CUSTOMER SERVICE 3 CR

Excellence in customer service can be the determining factor to the success or failure of an organization, no matter the type of service or product. 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; 71 Sentence Skills

BUS 225

INTERNSHIP 6 CR

Students will work in an office-related job, receiving pay or volunteering.

PREREQUISITES: Instructor permission

BUS 226

MEDICAL OFFICE WORK EXPERIENCE 3 CR

Students will complete an online work experience in medical coding. Text required.

PREREQUISITES: HT 265 and Program Advisor 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: At least a C (2.0) in CAP 106

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: CAP 154 or extensive knowledge of Quickbooks

CTE 108

JOB SKILLS 1 CR

This course provides students with the foundation for job preparation and job searching. Students will identify their qualifications for their chosen career, identify what employers look for in strong candidates, build resumes and cover letters, and gain tips on completing applications, job and informational interviewing, as well as job searching, professional networking, and tips for setting up a successful career. This is a hybrid course that includes a combination of face-to-face and online instruction.

PREREQUISITES: Students should have skills in Microsoft Office before enrolling in this course

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. Through critical analysis, this course will discuss and examine the concept of interest, secrecy and confidentiality, honesty, and 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: Accuplacer Reading Comprehension score of 85 or B grade in RDG 085, and Accuplacer Sentence Skills score of 85 or B grade in ENGL 092 or C grade in COM 170 and Math 099 with a grade of C

CHILD DEVELOPMENT

ECCD 112

BASICS IN CHILD CARE 2 CR

This course provides people beginning their work with young children basic core knowledge of childcare, 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 childcare providers, and professionalism. Required for childcare directors, site supervisors, lead teachers in center settings, and licensed family childcare providers and their assistants.

2012-2014 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.

PREREQUISITES: Currently working with young children in a paid or volunteer position

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 covered in course two include children's social and emotional development, physical and intellectual competence, and curriculum development. In addition to coursework, fieldwork is also required, 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 with young children in a paid or volunteer position

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 covered in course three include family relationships, early childhood professionalism, and curriculum and portfolio development. In addition to coursework, fieldwork is also required, 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 interact together in class. Topics include infant development, play, sleep, nutrition, 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 135-137

ONE YEAR OLD DEVELOPMENT – LEVEL A, B, C 2 CR

Adults and children attend these courses 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 140-142

TWO YEAR OLD DEVELOPMENT – LEVEL A, B, C 2 CR

Adults and children attend these courses 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 145-147

THREE & FOUR YEAR OLD DEVELOPMENT – LEVEL A, B, C 3 CR

Adults and children attend these courses 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 150-152

FOUR & FIVE YEAR OLD DEVELOPMENT – LEVEL A, B, C 1.5 CR

Adults and children attend these courses 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 155-157

TODDLER & PRESCHOOLER DEVELOPMENT – LEVEL A, B, C 2 CR

Adults and children attend these courses together in an instructional program that focuses on children's development, and caring for and teaching more than one. Developmentally appropriate activities are planned for adults and children from birth to age five 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 FOR PARENTS & TEACHERS 1 CR

Early childhood step is an interactive class for parents and 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.

ECED 162

HOW TO TALK SO KIDS WILL LISTEN 1.5 CR

How to Talk 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, and love and respect will be discussed.

ECED 163

SCHOOL AGE STEP EFFECTIVE PARENTING OF SCHOOL AGE CHILDREN 1 CR

Being an effective parent is one of the most challenging tasks in life – as well as one of the most rewarding. This course will provide a practical approach to improving parent-child relations for parents of children ages 6-11 years. Participants will learn more effective ways to relate to their child, methods of discipline that develop responsibility in the child, how not to reinforce their child's unacceptable behaviors, and how to encourage cooperative behaviors.

ECED 170

LOVE & LOGIC FOR SUCCESSFUL 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-tos" of successful parenting—not just theoretical concepts. The discussions and readings will provide parents with specific, tangible skills to use, and a mindset that allows them to develop a loving relationship while setting limits and boundaries.

COMMUNICATIONS

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 or a C grade in both ENGL 092 and RDG 085

COMPUTERS

CAP 101

INTRODUCTION TO COMPUTER APPLICATIONS 5 CR

Students will learn to use a personal computer and gain a basic understanding of Excel, Word, and PowerPoint. They will also become familiar with basic computer hardware components and Internet usage. Students with little or no experience with computers should consider taking BAS 020 COMPUTER BASICS prior to taking CAP 101.

PREREQUISITES: Accuplacer score: 71 Reading

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/ SKILLBUILDING I 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 KEYBOARD 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: BUS 100 or BUS 150 or MATH 100 or MATH& 107 or higher; CAP 101

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 or instructor permission

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 or instructor permission

CAP 150

PROJECT LEVEL 1 1 CR

The first in a series of two courses designed for individuals who will use Microsoft Project 2002 as a tool to assist them in managing projects. Topics include critical skills to create and modify a project plan file containing tasks, resources, and assignments; create a project plan file to organize tasks in a work breakdown structure determined by relationships; and assign resources and confirm strategy to implement the project plan.

CAP 151

PROJECT LEVEL 2 1 CR

Students 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 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 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 instructor permission

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 140, IT 141, or IT 160

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: CAP 101 or as a co-requisite

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: CAP 101 or as a co-requisite

IT 140

LINUX COMMAND LINE OPERATING SYSTEMS 5 CR

This course introduces students to the basic functions of operating systems and command line interfaces by learning the Linux command line. Topics include navigation, file manipulation, and redirection commands, so that students can build useful batch scripts by the end of the course.

PREREQUISITES: CAP 101 or as a co-requisite

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: CAP 101 or as a co-requisite

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, IT 141; IT 160 or as a co-requisite

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: CAP 101 and either IT 112 or IT 141

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 142, IT 160

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 142, IT 160

IT 230 WINDOWS POWERSHELL 5 CR

This course introduces Windows PowerShell, a task-based command line shell/scripting language designed for system administration. Students will learn cmdlets and syntax constructs such as arrays, loops, and functions; and how to build scripts and utilities to automate system tasks or create powerful system management tools. This is a hybrid class with classroom lecture plus online instruction/class work.

PREREQUISITES: IT 140, IT 142

IT 240 ADVANCED LINUX ADMINISTRATION & CONFIGURATION 5 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 either 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 142, 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 142, IT 160; IT 242 or as a co-requisite

IT 261 ADVANCED TOPICS 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, Windows PowerShell, and computer forensics.

PREREQUISITES: IT 140, IT 142

IT 262 ADVANCED TOPICS 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, Windows PowerShell, and computer forensics.

PREREQUISITES: IT 140, IT 142

IT 270 APPLIED IT CAREER SKILLS 8 CR

Students will work in their new career field, applying their new skills and being mentored and evaluated by industry professionals. The career search 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: IT 261 or IT 262 as a co-requisite

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: IT 261 or IT 262 as a co-requisite

CULINARY ARTS

CUL 110 SANITATION & SAFETY 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. ServSafe® course text and national certification examination are required.

CUL 112 INTRODUCTION TO THE HOSPITALITY INDUSTRY 3 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, as well as 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.

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.

**CUL 120
INTERNATIONAL CUISINE 6 CR**

This course provides students with practical experience in the preparation and service of foods from international countries. 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

**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 and 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, handling, 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

**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, nutritive value of foods, factors influencing body food requirements and their importance in promoting health and preventing disease, as well as 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
AMERICAN REGIONAL A' LA CARTE
COOKERY 6 CR**

This course is an introduction to regional American cuisine. Students will identify fifteen distinct regional American cuisines. The history, techniques, indigenous foods, and recipes from the regions will be explored and prepared in lecture and labs. Students will study the cuisine of Chesapeake Bay shore, Louisiana, Mid-Atlantic States, Appalachian South, Western Ranchlands, Plantation South, South Florida and the Caribbean, the Central Plains, Rocky Mountains and Great Basin, Mexican Border, California, Hawaii, and the Pacific Northwest. Lab practice topics include station set-up and organization, food preparation, planning sheets, portion control, timing, temperature control, teamwork, communication, productivity skills, and sanitary/safety production skills. Weekly participation in a la carte production provides students with opportunities to refine fundamental culinary skills and develop a la minute production skills. Upon completion of this course, the student should be able to effectively set up and operate an a la carte station.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116

**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, CUL 144

**CUL 152
CULINARY COMPETITION
FUNDAMENTALS 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, 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 (pate feuillette), 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 layout, 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

**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 will also be discussed. Upon completion, students will be able to determine which wines compliment various cuisines and particular tastes.

PREREQUISITES: Successful completion of the first 5 quarters of the Culinary Arts curriculum

CUL 230

NORTHWEST A' LA CARTE COOKERY 8 CR

This course provides students with an opportunity to apply the vast majority of the culinary arts curriculum as they rotate through several stations creating Northwest cuisine in the à la carte restaurant kitchen. Students will become familiar with the theory of and lab responsibilities involved in setting up and running an a' la carte restaurant station, including food preparation, planning sheets, organization, portion control, timing, temperature control, teamwork, communication, productivity, and sanitary/safety production skills. In addition, students supervise first year student commis, and 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 maître d' positions.

PREREQUISITES: Successful completion of first 5 quarters of the Culinary Arts curriculum

CUL 232

FOOD AND BEVERAGE SERVICE LAB 4 CR

In this course, students apply service skills and knowledge of guest relations, tableside cookery, point-of-sale operations, cash handling, reservations, seating, and greeting in Bellingham Technical College's Café Culinare. The students are responsible for excellent customer service under all conditions. Students work in various dining room positions, such as maître d', front server, and back server at Café Culinare.

PREREQUISITES: Successful completion of first 5 quarters of the Culinary Arts curriculum

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

DENTAL ASSISTING

DEN 100

INTRODUCTION TO DENTAL ASSISTING 1 CR

This course orients the student to 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 structure of 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 implementing the course clinical competencies. Students will be assigned weekly to a variety of clinical responsibilities. 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 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 implementing of the course clinical competencies. Students will be assigned weekly to a variety of clinical responsibilities. 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: EXPANDED FUNCTIONS DENTAL AUXILARY

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.

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. Use of dental materials by dental hygienists. Ethical situations pertaining to treatment planning.

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.

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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 128
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 set-up, oxygen, rescue CPR, and AED.

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 its relationship to oral diseases.

DHYG 135
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.

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, research reports, oral cancer, and tobacco cessation emphasized.

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. 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 216
COMMUNITY ORAL HEALTH I 3 CR
A systematic approach to developing community oral health programs. Surveillance systems, epidemiology charts, Healthy People 2010. Teamwork activities. Water fluoridation, sealants, fluoride rinse programs, varnish, and mouth guards. Lesson plans. Steps in program planning. Health education theories.

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 3 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 226
COMMUNITY ORAL HEALTH II 4 CR
Assessment indices, dental hygiene diagnosis. Program planning, funding and budgets, legislation. Cultural issues in public health.

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: implants, 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, and job search strategies. Financial planning, guest speakers. Dental Practice Act and licensure requirements. Application for board examinations. Specialized clinical skills.

DHYG 236

COMMUNITY ORAL HEALTH III 2 CR

Implementation of community program. Evaluation of program, workforce issues, statistics. Board review.

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 LAB I 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 II 2 CR

This course is a continuation of EFDA 101. Materials and procedures associated with restorative dentistry including adhesion, liners and bases, and occlusion.
PREREQUISITES: EFDA 101

EFDA 112

RESTORATIVE LAB II 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 WREB exam. 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 TECHNOLOGY

DET 104

HYDRAULIC BRAKES 2 CR

This course will address the basic operation of mobile hydraulic braking systems, with the emphasis on preventive maintenance and logical troubleshooting.
PREREQUISITES: TRANS 101, 102, 103

DET 106

ELECTRICAL/ELECTRONICS I 4 CR

This course will address the basic operation of electrical/electronic systems, with the emphasis on preventive maintenance and logical troubleshooting.
PREREQUISITES: TRANS 101, 102, 103

DET 116

ELECTRICAL/ELECTRONICS II 4 CR

This course will address the basic operation of electrical/electronic systems, with the emphasis on preventive maintenance and logical troubleshooting.
PREREQUISITES: TRANS 101, 102, 103

DET 126

ELECTRICAL/ELECTRONICS III 4 CR

This course will address the basic operation of electrical/electronic systems, with the emphasis on preventive maintenance and logical troubleshooting.
PREREQUISITES: TRANS 101, 102, 103

DET 129

APPLIED DIESEL CONCEPTS I 12 CR

The student is required to intern in a business that performs repairs to diesel equipment. The student will obtain and maintain their employment. The student is normally working with or under the direct supervision of a journey-level technician. It is recommended that the student's experience focus on the subject areas completed in the last quarter

on campus. The repair facility then becomes a real-world extension of the classroom. An instructor from BTC, who will periodically visit the work site, will monitor student work.

PREREQUISITES: TRANS 101, 102, 103

DET 139

APPLIED DIESEL CONCEPTS II 12 CR

The student is required to intern in a business that performs repairs to diesel equipment. The student will obtain and maintain their employment. The student is normally working with or under the direct supervision of a journey-level technician. It is recommended that the student's experience focus on the subject areas completed in the last quarter on campus. The repair facility then becomes a real-world extension of the classroom. An instructor from BTC, who will periodically visit the work site, will monitor student work.

PREREQUISITES: TRANS 101, 102, 103

DET 201

HYDRAULICS 8 CR

This course will address the basic operation of diesel engines and their systems, with the emphasis on preventive maintenance and logical troubleshooting.

PREREQUISITES: TRANS 101, 102, 103

DET 202

DIESEL ENGINES 13 CR

This course will address the basic operation of diesel engines and their systems, with the emphasis on preventive maintenance and logical troubleshooting.

PREREQUISITES: TRANS 101, 102, 103

DET 203

DRIVE TRAIN 3 CR

This course will address the basic operation of drive train systems, with the emphasis on preventive maintenance and logical troubleshooting.

PREREQUISITES: TRANS 101, 102, 103

DET 204

AIR BRAKES 5 CR

This course will address the basic operation of mobile air braking systems, with the emphasis on preventive maintenance and logical troubleshooting.

PREREQUISITES: TRANS 101, 102, 103

DET 205

SUSPENSION/STEERING 5 CR

This course will address the basic operation of suspension and steering systems, with the emphasis on preventive maintenance and logical troubleshooting.

PREREQUISITES: TRANS 101, 102, 103

DET 208

PREVENTIVE MAINTENANCE 6 CR

This course covers how to set up a PM program, arrange PM scheduling, keep vital records, and winterize heavy-duty vehicles. It also discusses when to place a vehicle out of service or deadline it.

PREREQUISITES: TRANS 101, 102, 103

DET 239

APPLIED DIESEL CONCEPTS III 13 CR

The student is required to intern in a business that performs repairs to diesel equipment. The student will obtain and maintain their employment. The student is normally working with or under the direct supervision of a journey-level technician. It is recommended that the student's experience focus on the subject areas completed in the last quarter on campus. The repair facility then becomes a real world extension of the classroom. An instructor from BTC, who will periodically visit the work site, will monitor student work.

PREREQUISITES: TRANS 101, 102, 103, COM 170 or ENGL&101, MATH 100 or MATH& 107 or MATH& 141, PSYC 111 or PSYC& 100 with a grade of C (2.0) or better

DET 240

CURRENT DIESEL INDUSTRY TOPICS I 6 CR

The student is required to volunteer to work at improving their skills related to the diesel industry. This may include, but not be limited to, a museum of marine, agricultural, or logging equipment, restoration projects of heavy equipment or trucks/busses, participation in heavy construction projects involving the operation of heavy equipment, etc. It is recommended that the student's experience focus on the subject areas that interest the student to better further their career choice. The volunteer experience then becomes a real-world extension of the classroom. An instructor from BTC, who will visit the volunteer site periodically, will monitor student work.

DET 242

CURRENT DIESEL INDUSTRY TOPICS II 6 CR

The student is required to volunteer to work at improving their skills related to the diesel industry. This may include, but not be limited to, a museum of marine, agricultural, or logging equipment, restoration projects of heavy equipment or trucks/busses, participation in heavy construction projects involving the operation of heavy equipment, etc. It is recommended that the student's experience focus on the subject areas that interest the student to better further their career choice. The volunteer experience then becomes a real-world extension of the classroom. An instructor from BTC, who will visit the volunteer site periodically, will monitor student work.

ECONOMICS

ECON 103

INDUSTRIAL ECONOMICS 5 CR

Students will learn the basic concepts of microeconomics, 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.

PREREQUISITES: MATH 099 or MATH 100 or MATH& 141

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 is a project-oriented course, designed to provide opportunities for post-secondary professional-technical instructors to document their professional skills and experiences, which they acquired 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 skilled educators. 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 be-

come 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 developing 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.

PREREQUISITES: EDUC 207

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.

PREREQUISITES: EDUC 209

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.

PREREQUISITES: EDUC 209

EDUC 221

LEADERSHIP DEVELOPMENT 3 CR

This course focuses on methods that implement leadership development as an integral component of professional technical program. Instruction will stress skills in organizing groups to action, decision making, and human relations.

PREREQUISITES: EDUC 207

EDUC 226

LEARNING STYLES 3 CR

In this course, professional-technical instructors will be introduced to the theories of learning styles, multiple intelligences, learning types, and environmental affects 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.

PREREQUISITES: EDUC 207

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 a management plan for determining, obtaining, 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.

PREREQUISITES: EDUC 207

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.

PREREQUISITES: EDUC 207

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 and 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, into their current methods of delivering student instruction, and into effective ways of assessing student learning, by integrating new technology into student assignments. As needed, the instructor-learner will develop the skills required to research, organize, and maintain information about certification requirements for program-specific technology.

PREREQUISITES: EDUC 207

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.

PREREQUISITES: EDUC 207

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 demonstrated 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.

PREREQUISITES: EDUC 216

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 demonstrated via project portfolio. In a classroom, lab, and workplace-learning environment, the student instructor will establish and implement learning outcomes focused on assessment and new technologies such as distance learning, hybrid courses, and electronic instruction.

PREREQUISITES: EDUC 251

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.

PREREQUISITES: EDUC 207

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.

PREREQUISITES: EDUC 207

EDUC 261

INDUSTRY-BASED PROFESSIONAL DEVELOPMENT 3 CR

This 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.

PREREQUISITES: EDUC 207

EDUC 262

ADVANCED INDUSTRY-BASED PROFESSIONAL DEVELOPMENT 6 CR

This 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.

PREREQUISITES: EDUC 207

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. It 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.

PREREQUISITES: EDUC 207

ELECTRICIAN

ELCN 100

ELECTRICAL TRADE & SAFETY 2 CR

A dynamic introduction to the electrical trade, regulations and requirements, the job market, descriptions of various types of work areas, safety issues, and safety requirements.

ELCN 101

DC CIRCUITS 3 CR

Will prepare the student with the knowledge and skills to diagnose and repair electrical circuits. Instruction emphasizes DC electrical theory, structure of matter, electron theory, and Ohm's law, using interactive software, dynamic lecture, and discussion. Students will apply basic algebra skills 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.

PREREQUISITES: ELCN 101, MATH 100

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

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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 4 CR
Theory and operation of rotating electrical machines and transformers.
PREREQUISITES: ELCN 102

ELCN 112
INTRODUCTION TO NATIONAL ELECTRICAL CODE 4 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, feeders, and equipment rooms.
PREREQUISITES: ELCN 112

ELCN 125
ELECTRICAL 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 gases. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

ELCN 131
DC CIRCUIT LAB 3 CR
Emphasizing DC Electrical theory and Ohm's law, series and parallel circuits are analyzed with hands-on experiments and commonly used test equipment.
PREREQUISITES: ELCN 100, ELCN 101, ELCN 103, or concurrent

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: ELCN 101, ELCN 103, ELCN 125 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 5 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 2 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 5 CR
Preparing for fabrication, diagnose and repair of industrial control devices, emphasizing motor control theory, system wiring, and diagrams.
PREREQUISITES: ELCN 104, ELCN 105

ELCN 203
PLCS AND VFDS 5 CR
This course is an 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 AND CONDITIONS 3 CR
Examine and locate the National Electrical Code requirements and limitations for specialized circumstances, such as hazardous areas, health care, industrial locations, assembly areas, alternate energy sources, elevators, and commercial specialty equipment.

ELCN 251
COMMERCIAL AND RENEWABLE ENERGY PROJECTS 5 CR
Students will build projects utilizing a variety of standard commercial and institutional techniques.

ELCN 261
INDUSTRIAL CONTROL WIRING METHODS AND MATERIALS 6 CR
This course is a hands-on lab exploring the design and construction of motor control systems. Control circuits are fabricated in industrial enclosures, using control relays, sensors, and motor starters.
PREREQUISITES: ELCN 151

ELCN 262
SPECIALTY INDUSTRIAL WIRING PROJECTS 5 CR
This is an electrical construction lab class. Students will build projects utilizing a variety of standard industrial techniques.
PREREQUISITES: ELCN 261

ELCN 263
AUTOMATED CONTROL PROJECTS 6 CR
This is a 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
RENEWABLE ELECTRICAL SOURCES 4 CR
Explores new, alternative electrical power sources from a design and build point of view, with an emphasis on the NEC requirements.

ELCN 281
ELECTRICAL ESTIMATING AND DESIGN 3 CR
Designing and estimating material and labor costs for a variety of electrical projects using catalogs, the internet, and estimating software.

ELECTRO MECHANICAL TECHNOLOGY

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
This course covers industry and workplace safety awareness and practices.

EMTEC 121
FUNDAMENTALS OF HYDRAULIC AND PNEUMATICS 5 CR
This is the first course in a series designed to prepare the industrial millwright, electrician and maintenance technician with the knowledge and skills necessary to maintain, diagnose, and repair hydraulic and pneumatic systems. Instructional material is 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
This course introduces the student to fundamental mechanical concepts necessary for the installation, operation, and maintenance of industrial machinery.
PREREQUISITES: EMTEC 105 or concurrent

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, and programming.
PREREQUISITES: EMTEC 211 or instructor permission

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 123

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 ultrasonics. 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

WLD 173
EMTEC BASIC WELDING **2 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.

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.

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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

DIRECT CURRENT I 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

DIRECT CURRENT II 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

ALTERNATING CURRENT I 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

ELTR 115

ALTERNATING CURRENT II 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 I 5 CR

Students learn how discrete semiconductor devices are constructed and how to handle them, as well as 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 II 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 I 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 II 3 CR

Oscillators, active filters, single power-supply circuits, and other applications of op-amps are covered in theory, practical labs, and projects.

PREREQUISITES: ELTR 130

ELTR 140

DIGITAL I 5 CR

A comprehensive focus on the concepts, terminology, components, and circuits that combine to form basic digital systems, with lab work and projects.

PREREQUISITES: ELTR 135

ELTR 145

DIGITAL II 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 6 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

MICRO-CONTROLLER SYSTEM I 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 213

MICRO-CONTROLLER SYSTEM II 6 CR

The course materials include principles of interfacing, including A/D, D/A, digital and analog I/O, PWM, etc. Programming the microcontroller will be based on ANSI-C with introduction to C++. Real time multitasking and basic operating system principles are also covered. This course includes an introduction to different vendors' products and working with a single board development system, such as PSOC. Students will continue to implement, debug, and complete a sizeable term project that was designed in the Microcontroller System I class.

PREREQUISITES: ELTR 212, MATH& 141

ETEC 236

PHOTONICS 5 CR

This course offers an introduction to the fundamentals and applications of optical principles with fiber optics.

PREREQUISITES: ELTR 145

ETEC 245

MECHATRONICS I 8 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 246

MECHATRONICS II 8 CR

This course is an introduction to basics of DCS, their applications, programming, and troubleshooting. Also covers control principles, programmable logic controller, and embedded controllers using the existing PLC cube and adding the Vendor POSC embedded controller kit.

PREREQUISITES: ETEC 245, MATH& 141

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 264

EMERGING TECHNOLOGY 5 CR

This course is designed to keep students current with technology. Currently, this course is an introduction to nanotechnology, solar cells, and fuel cell (PEM) technologies. Students will learn the characteristics and the efficiency of the solar and PME fuel cell. Also, applications of nanotechnology in the field of electronics, medicine, and pharmaceuticals will be examined. This course will change as new emerging technologies move to the forefront.

PREREQUISITES: ELTR 145, MATH& 141

ETEC 281

ROBOTICS 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. Assignment to this part of the course will depend upon employer availability, 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. Assignment to this part of the course will depend upon employer availability, student willingness for this experience, and near completion of the course.

EMERGENCY MEDICAL SERVICES

EMS 121
EMT I FUNDAMENTALS 5 CR
 This course, first in a three-course series, covers the basic structure of EMS and the fundamentals of emergency patient care. Topics include: EMS systems, workplace safety and wellness, anatomy and physiology, medical terminology, vital signs, airway management, and patient assessment.

EMS 122
EMT II MEDICAL DISORDERS 5 CR
 This is the second course in the EMT series, and covers the common medical conditions, emergencies, and field treatment for acutely ill patients by EMS responders. Topics include: cardiovascular, respiratory, neurologic, psychiatric, endocrine, and other non-traumatic medical emergencies.

EMS 123
EMT III EMERGENCIES 6 CR
 In the third and final course in the EMT series, the student will learn how to deal with injuries caused in traumatic accidents, and emergencies in special patient populations, such as pregnancy, neonates and pediatrics, and geriatrics. Students will also learn about other specialized EMS operations to include emergency vehicle safe driving practices, incident management, interfacing with advanced life support, and disaster response. A cumulative capstone written and practical skills exam will be given at course/series completion.

ENGINEERING

ENGT 115
FUNDAMENTALS OF ENGINEERING AND SURVEYING 5 CR
 An introduction to engineering and surveying problem solving. Focusing on the practical application of mathematics necessary to navigate complex plan sets for the purpose of construction and inspection. Students will explore trigonometry, horizontal curves, super elevations, plan and profile geometry, slope, area, and volumes.
PREREQUISITES: MATH 100 with a C+ or higher

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 techniques toward various engineering disciplines, including manufacturing, piping, civil, structural, HVAC, and architectural.
PREREQUISITES: ENGT 121, ENGT 122

ENGT 125
DRAFTING II: ADVANCED CONCEPT AND 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

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 set up, implementation of ANSI drawing standards, and plotting techniques.
PREREQUISITES: ENGT 123

ENGT 132
ENGINEERING APPLICATIONS USING MS OFFICE 5 CR
 Continues instruction in Windows-based computer applications, focusing primarily on how MS Office tools are used by engineering technicians.
PREREQUISITES: CAP 101, ENGT 122

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 251

ENGT 153
INTERMEDIATE GIS 7 CR
 An introduction to desktop mapping, focusing on the use of ArcView software in Geographic Information Systems applications.
PREREQUISITES: ENGT 122, 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 perspective. In addition, earthwork conversions to and from loose cubic yards, bank cubic yards, and compacted cubic yards is introduced.
PREREQUISITES: ENGT 251

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 4 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 9 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 statics 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 3-dimensional drawing and solid modeling. Topics include wireframe models, 3-D 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 8 CR
 This course provides an introductory overview of process pipe drafting and design. It covers various topics, including piping concepts and terminology, pipe and fitting specifications, piping symbol representation, valves and instrumentation, and process piping equipment. Students will utilize AutoCAD Plant 3D software to create flow diagrams and 3D design models from piping specifications, according to industry standards. The 3D design models will be subsequently used to generate a variety of standard pipe drawings, including plans and elevations, isometrics, and spool drawings.
PREREQUISITES: ENGT 125, ENGT 126

ENGT 251
AUTOCAD CIVIL 3D I 7 CR
 Study and use of the Civil Engineering and Survey industry-specific CAD software for computer aided drafting. Focuses on the use of land development and survey with AutoCAD on Civil/Survey-specific software applications.
PREREQUISITES: ENGT 122 or instructor permission

ENGT 252
AUTOCAD CIVIL 3D II 7 CR
 Study and use of the Civil Engineering and Survey industry-specific CAD software for computer aided drafting. Focuses on roadway and infrastructure design with AutoCAD on Civil/Survey-specific software applications.
PREREQUISITES: ENGT 251

ENGT 253
AUTOCAD CIVIL 3D III 7 CR
 Study and use of the Civil Engineering and Survey industry-specific CAD software for computer aided drafting. Focuses on land development and grading with AutoCAD on Civil/Survey specific software applications.
PREREQUISITES: ENGT 252

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 251

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

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 both ENGL 092 and RDG 085

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 AND AQUACULTURE

AQSCI 186
RIVERS, LAKES, & STREAMS 5 CR
 A lecture, lab, and field-based course that focuses on the ecological, physical, and chemical components of rivers, lakes, and streams. Topics covered include: stream classification methodology, hydrological budgets, flow measurement, lake/pond mapping, pond management, aquatic plant identification, and aquatic macro-invertebrate sampling and identification.

AQSCI 211
FUNDAMENTALS OF FISHERIES BIOLOGY 5 CR
 Introduction to the major groups of fishes with particular emphasis on fishes of North America. Lecture, laboratory, and field work will introduce students to the fundamentals of how and why fish function. Identification and classification, anatomy and physiology, age and growth, reproduction, and behavior will be studied.

AQSCI 225
FISHERIES TECHNIQUES I 8 CR
 These introductory courses focus on common methods of fish enumeration, tagging, mark and recapture, and estimation of escapement. Topics include Coded Wire Tag recovery and reading, otolith recovery and reading, scale sampling and age determination, and spawning grounds surveys.

AQSCI 226
FISHERIES TECHNIQUES II 8 CR
 These introductory courses focus on common methods of fish enumeration, tagging, mark and recapture, and estimation of escapement. Topics include Coded Wire Tag recovery and reading, otolith recovery and reading, scale sampling and age determination, and spawning grounds surveys.

AQSCI 266
AQUATIC HABITAT ASSESS 4 CR
 This course is intended to provide students with a set of techniques for obtaining aquatic habitat data. Students will learn common methods used by agencies to inventory aquatic habitat, analyze habitat quality, monitor effects of land use, and assess habitat improvement activities.

FISH 100
INTRODUCTION TO SAFETY 1 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 3 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.

FISH 111
SALMONID 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 I 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**
AQUATIC INVERTEBRATE 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, and how other industries can affect the fisheries industry and environment.
- FISH 161**
FISH AQUACULTURE TECHNIQUES 6 CR
This lecture/lab course will introduce the skills required to culture fish for aquaculture. Students will work with trout, salmon, and other species for food or nonfood purposes. Students will work at the salmon and trout hatcheries to get experience with these and other species.
- FISH 163**
SHELLFISH AQUACULTURE TECHNIQUES 5 CR
Students will be introduced to the skills required to culture shellfish in aquaculture. The students will work with oysters, clams, mussels, geoducks, and other species. Culture of diatoms for larval shellfish and setting will also be covered. Students will work in the program's shellfish lab and other production facilities. They will also culture manila clams, mussels, oysters (several species), and geoducks at the program's shellfish beds to gain experience.
- FISH 170**
HATCHERY OPERATIONS II 4 CR
This course emphasizes hands-on practice to teach students the skills required to work in a hatchery. Students will work in hatcheries to gain experience with eggs, incubators, and hatchery equipment.
- FISH 186**
HATCHERY OPERATIONS III 5 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 I 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.
PREREQUISITES: FISH 133 or FISH 170
- 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.
PREREQUISITES: FISH 133 or FISH 170
- FISH 196**
FISHERIES CURRENT TOPICS II 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.
PREREQUISITES: FISH 133 or FISH 170
- FISH 197**
FISHERIES CURRENT TOPICS III 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.
PREREQUISITES: FISH 133 or FISH 170
- FISH 198**
FISHERIES CURRENT TOPICS IV 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.
PREREQUISITES: FISH 133 or FISH 170
- 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.
- FISH 270**
ADVANCED NET PEN FISH CULTURE II 4 CR
The student will gain familiarization and experience as a salmon net pen worker, and will focus on the skills needed to work at State, Federal or private net pen operations.
- FISH 296**
AQUATIC ECOLOGY CURRENT TOPICS I 4 CR
Designed for the second year student, this course presents topics in the field of Aquatic Ecology. Current topics include: Fisheries Management, Ichthyology, Marine Conservation Reserves, Stream Habitat Restoration, Environmental Conservation Research, and Public Lands.
- FISH 297**
AQUATIC ECOLOGY CURRENT TOPICS II 4 CR
Designed for the second year student, this course presents topics in the field of Aquatic Ecology. Current topics include: Fisheries Management, Ichthyology, Marine Conservation Reserves, Stream Habitat Restoration, Environmental Conservation Research, and Public Lands.
- 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 0.5 CR
This AHA three-hour course includes adult one-person CPR, obstructed airway techniques, and discussion on barrier devices. Skills completion and written exam are required for card. Pocket mask required. Card is valid for two years.
- HLTH 131**
HIV/AIDS FOR COUNSELORS 0.5 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.

2012-2014 Course Descriptions

HLTH 150

FIRST AID INDUSTRIAL 1 CR

This twelve-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 eight-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 and render emergency care in a low-risk occupational environment. It also teaches adult CPR and Obstructed Airway techniques. CPR and First Aid cards are good for two years.

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

HO 127

HEALTHCARE PROVIDER CPR 0.5 CR

This six-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 includes an introduction to automatic external defibrillation.

HO 157

INTRODUCTION TO PHLEBOTOMY SKILLS 4 CR

This course introduces the principles of phlebotomy, and covers basic anatomy and physiology, asepsis, disease processes, equipment and supplies, collection procedures, and quality assurance, as well as medical and legal issues associated with phlebotomy practice. The course includes practice and performance of venipuncture and finger-stick methods. Manual dexterity to perform skills is essential to the successful completion of the course.

PREREQUISITES: Program admission

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, and HT 126

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 135

PHARMACOLOGY FOR THE MEDICAL OFFICE 2 CR

This course will introduce students to the various forms of medications, drug classifications, and administration routes, and how they work. Students will also learn the terminology associated with each, for those medications commonly prescribed in the medical office setting.

PREREQUISITES: BIO 105, HT 126

HT 160

PHLEBOTOMY EXTERNSHIP 3 CR

Per the requirements of WAC 246-826-130, the phlebotomy student will demonstrate competency and be evaluated in a laboratory setting, to successfully perform venipuncture procedures, utilizing appropriate equipment with correct technique in a medical lab setting, all within approved medical safety standards.

PREREQUISITES: HO 157

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, 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, HT 126 or HT 129

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, 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 5 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, 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 E.P.A. regulations. Lectures are supplemented by student's individual work on projects in the concurrent course.

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, and 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, HR 180, or COM 170
- CREF 137**
COMMERCIAL ICE SYSTEMS LAB 4 CR
This course applies 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 various manufacturers' 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, proper cleaning, and sanitation are also stressed in the coursework.
PREREQUISITES: Completion of CREF 133, HR 180, 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, HR 180, 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, HR 180, 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, HR 180, 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, HR 180, 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, HR 180, 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, HR 180, 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, HR 180, 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, CREF221, HR 180, 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, HR 180, 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, COM 170

**CREF 231
COMMERCIAL/INDUSTRIAL REFRIG
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) HR 180, COM 170

**CREF 233
COMMERCIAL/INDUSTRIAL REFRIGERA
TION 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 are emphasized. Students work in teams, and rotate shifts weekly, allowing each student the opportunity to work with all team members. Safety is foremost, as most of these systems are high voltage, multi-phase systems. Students diagnose and solve problems inserted into the systems by the instructor, make repairs, and invoice the instructor.

PREREQUISITES: Concurrent with CREF 231

**CREF 236
COMMERCIAL AND INDUSTRIAL CHILLED
WATER SYSTEMS 3 CR**

Chilled water systems 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, 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, 130 series, 140 series, 220 series, 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 CREF 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, 130 series, 140 series, 220 series, 230 series with minimum grade average of C for each series CREF 120 series, 130 series, 140 series, 220 series, 230 series with minimum grade average of C 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, how the LEED certification process is implemented, and steps to arrive at LEED certification. Air balancing is introduced, and the basic requirements and documentation, as well as the requirements to become a certified individual, are explored.

PREREQUISITES: CREF 120 series, 130 series, 140 series, 220 series, 230 series with minimum grade average of C 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.

PREREQUISITES: CREF 120 series, 130 series, 140 series, 220 series, 230 series with minimum grade average of C for each series

HYPNOTHERAPY

**HYPN 101
BASIC HYPNOSIS 5 CR**

This course teaches basic hypnosis/self-hypnosis and is the first in a three-part series. Topics include hypnotic history/suggestibility tests, six basic induction types, deepening and awakening techniques, testing during hypnosis, post-hypnotic suggestion, legal and ethical issues, and self-hypnosis and stress management. This course may be taken for personal growth or as a pre-requisite for the study of professional hypnotherapy, and is approved by the National Society of Clinical Hypnotherapists.

**HYPN 102
INTERMEDIATE HYPNOTHERAPY 5 CR**

This course is designed to teach the serious student of hypnosis how to apply hypnotherapy techniques for motivation and goal achievement. Topics include how hypnotherapy differs from other therapies, the four hypnotherapeutic steps to change, and Charles Tebbets' legendary parts therapy. Learn how to uncover subconscious blocks, how habits are anchored and what triggers them, as well as other rapid change techniques.

PREREQUISITES: HYPN 101

**HYPN 103
ADVANCED HYPNOTHERAPY 5 CR**

In this course, students learn more advanced techniques and prepare for a growing practice in the community. Learn about the legendary and successful parts therapy discovered by the late Charles Tebbets to help people overcome inner conflicts and habit control. Pain management techniques and guidelines will be covered, as well. Upon successful completion, the student is eligible to apply for Washington State Licensure through the Department of Health.

PREREQUISITES: HYPN 102

INSTRUMENTATION

INST 200 INTRODUCTION TO INSTRUMENTATION 2 CR

This course introduces students 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 students to begin their second year of Instrumentation at the start of Fall, Winter, or Spring quarter.
PREREQUISITES: Or co-requisite MATH& 141 or instructor permission

INST 205 JOB PREPARATION I 1 CR

Preparation for employment, including resume preparation, cover letter writing, job search engine use, and interviewing skills.
PREREQUISITES: MATH& 141, INST 200 or instructor permission

INST 206 JOB PREPARATION II 1 CR

This course teaches students how to get the jobs that are not listed in classified ads or job search engines. Students will learn how to professionally network, research employers for job potential, conduct informational interviews, and otherwise take an active approach in securing employment within their professional field.
PREREQUISITES: MATH& 141, INST 205 or instructor permission

INST 230 MOTOR CONTROLS 3 CR

In this course, students will learn the theory of electric motor operation, and the practice of wiring and configuring electric motor control circuits. Coverage of three-phase AC electric motor controls, as well as variable-frequency AC motor drives, is included in this course.
PREREQUISITES: Or co-requisite MATH& 141 and ELTR 125

INST 231 PLC PROGRAMMING 3 CR

This course is an introduction to the basics of PLCs, their applications, programming, and troubleshooting.
PREREQUISITES: MATH& 141 and/or co-requisite INST 230

INST 232 PLC SYSTEMS 3 CR

In this course, students will apply programmable logic controllers (PLCs) to the control of real processes, as well as learn to effectively test and troubleshoot PLC Fundamentals of Engineering and Surveying controlled systems.
PREREQUISITES: MATH& 141 and/or co-requisite INST 231

INST 240 PRESSURE AND LEVEL MEASUREMENT 6 CR

In this course, students 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.
PREREQUISITES: MATH& 141 and/or co-requisite INST 200

INST 241 TEMPERATURE AND FLOW MEASUREMENT 6 CR

In this course, students 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.
PREREQUISITES: MATH& 141 and/or co-requisite INST 240

INST 242 ANALYTICAL MEASUREMENT 5 CR

This course teaches the basic principles of process analysis, including pH, electrical conductivity, turbidity, and chemical composition. A review of INST 240 (pressure and level measurement) and INST 241 (temperature and flow measurement) is also included in this course.
PREREQUISITES: MATH& 141 and/or co-requisite INST 241

INST 250 FINAL CONTROL ELEMENTS 5 CR

In this course, students will learn how to precisely control energy in process systems using fluid valves, motors, and other actuating devices. Students will also learn how fluid power systems work, and how to efficiently troubleshoot final control elements.
PREREQUISITES: MATH& 141 and/or co-requisite INST 200

INST 251 PID CONTROL 5 CR

This course teaches students how the most basic and widely used control algorithm works: proportional-integral-derivative (PID). Students 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.
PREREQUISITES: MATH& 141 and/or co-requisite INST 250

INST 252 LOOP TUNING 4 CR

This course teaches more advanced loop tuning techniques as well as advanced process control strategies including cascade and feed forward. Students 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.
PREREQUISITES: MATH& 141 and/or co-requisite INST 251

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.
PREREQUISITES: MATH& 141 and/or co-requisite INST 200

INST 262 DCS AND FIELDBUS 5 CR

This course teaches the basic principles of distributed instrumentation, including both distributed control systems (DCS) and Fieldbus instruments. Safety instrumented system (SIS) concepts and components are also covered here.
PREREQUISITES: MATH& 141 and/or co-requisite INST 260

INST 263 CONTROL STRATEGIES 5 CR

This course teaches the theory and practical application of process control strategies, including cascade, feed forward, selector, and override controls. Students will also explore common types of controlled processes found in industry to see how these algorithms are practically applied.
PREREQUISITES: MATH& 141 and/or co-requisite INST 262

INST 290 INTERNSHIP 5 CR

The optional elective course provides hands-on experience in industry-related refining, technical, and workplace skills in a work environment. Specific performance skills will be developed for each individual student internship. Clock hours are variable and may be repeated for clock hour credit.
PREREQUISITES: MATH& 141 and/or co-requisite INST 200 or instructor permission

INST 292 INTERNSHIP 10 CR

This optional elective course provides hands-on experience in industry-related refining, technical, and workplace skills in a work environment. Specific performance skills will be developed for each individual student internship. Clock hours are variable and may be repeated for clock hour credit.
PREREQUISITES: MATH& 141 and/or co-requisite INST 200 or instructor permission
LEGAL

LEGAL

LGL 127 LEGAL OFFICE PROCEDURES 5 CR

Designed to introduce students who have little or no background in the legal field with the terminology, background, and knowledge of the legal procedures required to work in a law office. It presents basic legal concepts and 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: LGL 132

LGL 132
LEGAL TERMINOLOGY **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.

LGL 211
LEGAL DOCUMENT PROCESSING **5 CR**
 Course utilizes 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 127

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

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.
PREREQUISITES: Accuplacer Arithmetic score of 38 or higher or a P grade in ABE 050

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; and factoring and graphing. It is equivalent to one year of high school algebra. This course is targeted to those students whose programs involve more algebra than is included in BTC's occupational and technical math courses. This course will also serve as a prerequisite to intermediate algebra 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 may be required.
PREREQUISITES: Accuplacer Algebra score of 75 or higher or a C grade in MATH 098

MATH 100
OCCUPATIONAL MATH **5 CR**
 This course covers fractions, decimals, percents, ratios and proportions, English and 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 50 or higher or Accuplacer Algebra score of 75 or a grade of C in MATH 090

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 and decay, and right triangle trigonometry. This course may require Microsoft 2003 documents, as well as the equation editor program.
PREREQUISITES: Math 99 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. The course will also cover systems of equations, matrices and determinants, and their applications.
PREREQUISITES: MATH 99 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 identifies, 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 will also be included.
PREREQUISITES: MATH& 141 with a C or above

MATH& 146
INTRODUCTION TO STATISTICS **5 CR**
 Fundamental concepts and basic tools of descriptive and inferential statistics. How to describe data and make reasonable conjectures about the populations from which the samples were taken. Topics include: sampling distribution patterns, organization of data, sampling methods and experimental design, probability and simulation of random events, estimation of population parameters, confidence intervals, correlation, linear regression, and basic hypothesis testing. Internet/computer access and graphing calculator required.
PREREQUISITES: MATH 099 with a grade of C or better or College-Level Math test score of 32

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**
 Concurrent with NUR 101, NUR 102 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

Concurrent with NUR 101A, NUR 102A provides the student with an opportunity to learn and practice basic nursing skills, which include 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 care 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 PNS 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 98 or MATH 99, 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

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 pre-operative 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

Concurrent with NUR 121, NUR 122 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

Concurrent with NUR 121A, NUR 122A 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 peri-operative 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

Concurrent with NUR 121B, NUR 122B 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 peri-operative 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. 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 Licensed 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, as well as 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 6 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, 212

NUR 222

CLIENT CARE MANAGEMENT PRACTICE II 6 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, 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 AND FITNESS 6 CR

In this introductory course, students will study the science and structure of the human body and how it relates to exercise science; nutrition and appropriate eating systems; the operation and set up of exercise machinery; sports injury management and prevention; and gym etiquette. Acquire the necessary skills to assess the needs of future clients and design appropriate fitness programs for them.

PFT 110

PROGRAM DEVELOPMENT AND TRAINING PRINCIPLES 6 CR

Focusing on smooth, cardiac, and skeletal muscle physiology, participants will investigate structure, function, and cellular adaptations with exercise. Create exercise programs using scientific principles, from beginning to advanced training, development, and implementation. This course will cover the mechanics of muscle development, as well as behavior and performance guidelines necessary to achieve prescribed results. Students complete an internship during this course.

PREREQUISITES: PFT 100

PFT 120

FACILITY MANAGEMENT AND MARKETING FOR A FITNESS TRAINER 6 CR

In this final course, participants will learn about the daily operations of a fitness facility. Topics covered include: equipment maintenance; purchasing and budget management; multi-client training principles; the basics for designing an effective plan to run a successful training facility; and the evaluation of new and existing programs. Participants will identify a career direction and develop their talents to successfully market their services.

PREREQUISITES: PFT 110

PRECISION MACHINING

MACH 100

INTRODUCTION TO TRADE/OCCUPATIONAL SAFETY 1 CR

Overview of the program, college, and program 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, 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 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.

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 143
CAD FOR MACHINING 5 CR
 This course is an introduction to CAD (Computer Aided Design) with emphasis on machining applications. 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.

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 213
APPLIED MACHINERY'S HANDBOOK 1 CR
 An introduction to the use of information in Machinery's Handbook to solve shop-related problems.

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 243
CNC/CAM PROGRAM AND OPERATIONS A 10 CR
 Course focuses on advanced programming related to CNC, including macros and subroutines, and computer-aided programming using the Master CAM programming system.

MACH 244
CNC/CAM PROGRAMMING AND 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 AND 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 275
CURRENT TOPICS 5 CR
 This course is an individual self-pace study on Precision Machining Current Topics. Topic or project is decided on by both instructor and student. Prerequisite: Instructor permission.

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.
PREREQUISITES: CAP 101, MATH 100 or as a co-requisite

PTEC 102
PROCESS TECHNOLOGY I (EQUIPMENT) 5 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 or as a co-requisite

PTEC 103
SAFETY, HEALTH & 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. This course may be either live, a hybrid, or online.
PREREQUISITES: PTEC 101, PTEC 102

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 101, PTEC 102

PTEC 107
PROCESS SCIENCE 5 CR
 This course provides a comprehensive introduction to the principles of physics and organic chemistry as they relate to the process industry. The emphasis of the course is on how process design and operating methods are based on universal scientific principles.
PREREQUISITES: PTEC 103, PTEC 105

PTEC 110
PROCESS INSTRUMENTATION 5 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 103, PTEC 105

2012-2014 Course Descriptions

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.

PREREQUISITES: CAP 101

PTEC 191

LEADERSHIP 3 CR

In this course, students will study "soft skills," such as time management, feedback, teamwork, and interpersonal skills. Topics covered include making the change from worker to first-time supervisor, and leadership techniques. The student will have an opportunity to apply mentoring and leadership techniques while improving personal effectiveness.

PREREQUISITES: PTEC 105

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.

PREREQUISITES: CAP 101

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.

PREREQUISITES: CAP 101

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: CAP 101, MATH 100

PTEC 195

BIODIESEL FUNDAMENTALS 3 CR

In this course, students will be introduced to 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.

PREREQUISITES: CAP 101

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.

PREREQUISITES: CAP 101

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 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.

PREREQUISITES: PTEC 103, PTEC 105 - open to currently enrolled PTEC students with instructor permission

PTEC 198

BASIC MECHANICAL SKILLS 3 CR

In this course, students will learn and practice the use of basic hand tool and power tool to disassemble various pieces of industrial equipment, to include valve maintenance and valve repacking. Reading and interpreting manufacturers' technical manuals and equipment drawings. Students will disassemble, inspect pipe flanges, install blinds, and make up-piping flanges and connections in accordance with applicable documentation.

PREREQUISITES: CAP 101

PTEC 199

POWER GENERATION 3 CR

In this course, students will be introduced to multiple types of power generation such as boilers, co-generation, wind, and hydropower. This will include the operations of boilers, steam turbines, gas turbines, wind turbines, and hydro turbines. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will visit a power generation site and discuss with operators the unique industry requirements and job outlook. A project related to power generation will also be required. This course may be either live, a hybrid, or online with access to the laboratory and pilot plant.

PREREQUISITES: CAP 101

PTEC 203

SAFETY, HEALTH & 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 107, PTEC 110

PTEC 205

DYNAMIC PROCESS CONTROL (SIMULATORS) 5 CR

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. This course will be conducted as a hands-on operating experience, using both small-group and individual simulation activities, assignments, and scenarios.

PREREQUISITES: PTEC 107, PTEC 110

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). This course may be either live, a hybrid, or online.

PREREQUISITES: ECON 103, PTEC 107, PTEC 110

PTEC 211

ADVANCED PROCESS CONTROL AND TROUBLESHOOTING 5 CR

In this course, students will be introduced to controllers, control schemes, and advanced control schemes at a level appropriate for the process technician. The student will learn about 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 107, PTEC 110

PTEC 212

INDUSTRIAL PROCESSES AND EQUIPMENT 5 CR

The purpose of this course is to provide the student with an understanding of the typical process systems employed in process technology companies, such as petroleum refining, wastewater treatment, food processing, pulp and paper processing, and power generation. Special emphasis will be placed upon systems that are utilized by local area process technology companies. Lab assignments and activities will be conducted to illustrate and simulate typical industrial processes. The student will understand the construction, theory of operation, and typical uses of process industry equipment.

PREREQUISITES: PTEC 107, PTEC 110

**PTEC 215
PROCESS TECHNOLOGY III
(OPERATIONS) 5 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. A key focus of the course is the completion of the program capstone field project.

PREREQUISITES: PTEC 107, PTEC 110

**PTEC 270
PROCESS TECHNOLOGY PROJECT I 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 or plant to define a particular project topic from a real-life situation. The student or the group of students will define the problem, resources needed, postulate the hypothesis/solution, research the problem and possible solutions, visit the plant, interview or consult resources including the instructor, engineers, technicians, and the Internet, and develop a solution. The student or the group will then write the technical report, detailing the complete process, including defining the problem, the 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: PTEC 101, PTEC 103

**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 or plant to define a particular project topic from a real-life situation. The student or the group of students will define the problem, resources needed, postulate the hypothesis/solution, research the problem and possible solutions, visit the plant, interview or consult resources including the instructor, engineers, technicians, and the Internet, and develop a solution. The student or the group will then write the technical report, detailing the complete process, including defining the problem, the 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: PTEC 101, PTEC 103

**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: PTEC 101, PTEC 103

**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: PTEC 101, PTEC 103

PROJECT MANAGEMENT

**PMP 100
PROJECT MANAGEMENT
FUNDAMENTALS 1 CR**

Students 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 students 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 students 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. Students will complete a project plan of their choice that will utilize the knowledge, skills, and methodologies gained in the certificate program. Students 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: 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

**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

**BIO 130
SECTIONAL ANATOMY 4 CR**

Building on knowledge of anatomy and physiology, this course offers a unique perspective of anatomical relationships. This course promotes an understanding of the human body from sagittal, coronal, and transverse cross sectional perspectives. With the extensive use of diagrams, MRI and CT images, this course will explore anatomical structure and physiology. This course is taught online, using WAOL blackboard management. Course will present lectures, student discussion, student/instructor interactions, quizzes, and exam.

PREREQUISITE: BIO 210 & 211, or licensed health care professional, with permission of instructor

**RT 101
RADIOGRAPHIC POSITIONING I 6 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 6 CR**

This course introduces the basic positioning techniques used in the radiography of the bony thorax, spinal column, and 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 2 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 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

ADVANCED 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

ADVANCED 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, including 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 40 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. Report writing is in addition to the 40 hours of field training, and will be completed by students offsite and outside of class time.

PREREQUISITES: RHI 111

SCIENCES

ENVS& 101

FUNDAMENTALS OF ENVIRONMENTAL SCIENCE 5 CR

Basic lab science course designed to give students a solid foundation in ecology and current human disturbances of ecological systems. Topics will include basic ecosystem structure and function, including energy flow, biochemical cycles, limiting factors, climate, population dynamics, and community interactions. Course will also focus on human population growth, pollution of various ecosystems, and agriculture. Special focus in lab will be on understanding aquatic ecosystems and human-induced disturbances of marine, lake, and riparian systems.

PREREQUISITES: Accuplacer Reading Comprehension score of 85 or B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in COM 170

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, gowning 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, HO 105

SURG 136

SURGERY TECHNOLOGY CLINICAL PRACTICE I 12 CR

Lab and clinical practice with focus on development of entry-level skills.

PREREQUISITES: SURG 120, SURG 125, HO 105

SURG 143

SURGERY TECHNOLOGY III 6 CR

Focus on legal, personal, and professional responsibilities of a surgical technologist and related accrediting agencies, along with job-seeking skills. Includes patient care emergencies and sciences for the operating room.

PREREQUISITES: SURG 133, SURG 136

SURG 145

SURGERY TECHNOLOGY 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 & MAPPING

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 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 098 or instructor's permission

SURV 103

FUNDAMENTALS OF SURVEYING II 5 CR

Emphasis on fieldwork 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

SURV 104

CONSTRUCTION AND HIGHWAY SURVEYS 6 CR

Students will learn stakeout procedures for a variety of construction projects. In addition, the students will develop techniques to help them learn to use horizontal and vertical curves in the field and office to join tangent lines.

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 U.S. and the subdivision of sections.

SURV 113

BOUNDARY LAW AND LAND DESCRIPTIONS 5 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

SURV 116

SURVEY DATA SYSTEMS 2 CR

A comprehensive study of transferring data between the data collector and the computer.

PREREQUISITES: ENGT 122 with a C- or higher grade; and SURV 102 with a C- or higher grade

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 098

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.

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 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

SUSTAINABLE TECHNOLOGY

SUST 101

FUNDAMENTALS OF SUSTAINABILITY 5 CR

Investigation of the three core sustainability concepts: environmental, economic, and social sustainability. Includes historical progression and contemporary forms of sustainability in workforce and technological applications.

SUST 102

FUNDAMENTALS OF RENEWABLE ENERGY 5 CR

Primer on the physical and chemical properties of energy. Assessment of current and future energy systems, resources, extraction, conversion, and demand, with an examination of the impacts of energy sources, including fossil fuels, biomass, geothermal, nuclear, wind, solar, and hydrogen fuel.

TRANSPORTATION

TRANS 101

BASIC TRANSPORTATION SERVICE AND SYSTEMS 101 5 CR

Students will be introduced to basic automotive and diesel repair practices. Proper interaction with customers, shop managers, and fellow employees will be emphasized.

PREREQUISITES: Program admission or instructor permission

TRANS 102

BASIC TRANSPORTATION SERVICE AND SYSTEMS 102 5 CR

Students will begin to apply tool use and shop practices that were introduced in Basic Transportation 102. These practices will be demonstrated on shop and customer vehicles.

PREREQUISITES: TRANS 101

TRANS 103

BASIC TRANSPORTATION SERVICE AND SYSTEMS 103 5 CR

Student will continue to implement the knowledge they have gained in Trans 101 and 102 to more advanced vehicle systems. Students at this point will have the basic knowledge of dealing with customer concerns, verifying their concerns, and beginning to diagnose basic problems.

PREREQUISITES: TRANS 102

VETERINARY TECHNICIAN

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 need to have completed VET 101, 102, 103, 104, 106, 107, 108 and 109, as well as VET 120. Students are to gain work experience as a Veterinary Assistant in an appropriate setting.

PREREQUISITES: VET 120, VET 101, 102, 103, 104, 106, 107, 108, 109 with C (2.0) grade or better

VET 120

VETERINARY MATH 4 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

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 6 CR

Upon completion of this course, the veterinary assistant and veterinary technician student will be knowledgeable in the function of basic cell structure; skeletal anatomy and physiology; integument and muscular systems; the respiratory and cardiovascular systems; and the hemolymphatic, gastrointestinal, endocrine, reproductive, urinary, and nervous systems.

VETT 103

VETERINARY MEDICAL TERMINOLOGY 3 CR

Upon completion of this module, students will understand terms of anatomical topography, nursing records, pharmaceutical, emergency, and 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 student will understand appropriate and inappropriate dietary components for various life stages to promote optimal health. The student will also be able to explain nutritional recommendations to clients and reinforce owner compliance.

VETT 105

LEARNING FOR A LIFETIME 3 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 student should be empowered with critical thinking and problem-solving skills, be able to utilize a variety of reference media, and assess that material for quality of content. The student will also 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 4 CR

Upon completion of this module, the student will be able to classify, collect, and culture bacteria. The student will also be knowledgeable in mycology and virology.

VETT 107

SMALL ANIMAL PARASITOLOGY 3 CR

Upon completion of this module, the student will be able to identify and describe the life cycle of ecto- and endo-parasites; understand the importance of parasites in veterinary and zoonotic disease; understand the importance of and demonstrate proper diagnostic fecal techniques; identify parasite ova, adults, and non-parasite artifacts; and review therapy and prevention of parasitic diseases.

VETT 108

RADIOLOGY I 6 CR

Given the characteristics of the patient and the radiographic study that has been requested, the 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 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 student will be able to properly handle and submit appropriate samples for diagnostic analysis to ensure maximum accuracy of results. Also, to give the characteristics of the laboratory equipment; the student will determine proper maintenance and quality control procedures to ensure accurate results.

VETT 110

VETERINARY ANATOMY AND PHYSIOLOGY II 3 CR

Upon completion of this module, the student will be knowledgeable in unique equine features, including head and gastrointestinal tract and reproductive tract; unique ruminant features, including gastrointestinal tract, reproductive tract and foot; and avian anatomy.

PREREQUISITES: VETT 102

VETT 111

SMALL ANIMAL MEDICINE I 4 CR

Upon completion of this module, the student will be knowledgeable in the general approach to medical problems, and become familiar with systemic diseases, respiratory and cardiac diseases, gastrointestinal diseases, urinary tract diseases, liver and pancreas diseases, endocrine diseases, neurologic diseases, and erythrocytes, platelets, and coagulation.

VETT 112

VETERINARY NURSING II: SURGICAL 5 CR

Given the characteristics of the patient and the surgical procedure to be performed, the student will be able to assess the patient's pre-surgical status and tests, and report to the veterinarian, verify the owner's consent to the procedure and its cost, identify and apply appropriate surgical site preparation of hair clipping and decontamination, position the patient appropriately for maximum surgical convenience and safety, and maintain aseptic technique for surgical facility and equipment.

PREREQUISITES: VETT 101

- VETT 113**
IMMUNOLOGY & PHARMACOLOGY I 6 CR
Upon completion of this module, the 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 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 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 student will be knowledgeable of dental anatomy and pathophysiology, dental radiographs, dental instruments and usage, large animal dentistry (equine and swine), small mammal dentistry, and avian beaks.
- VETT 115**
RADIOLOGY II 5 CR
Given the characteristics of the patient and the radiographic study that has been requested, the 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 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 student will properly prepare the imaging site and equipment, and position the patient appropriately for the study.
PREREQUISITES: VETT 108
- VETT 116**
LARGE ANIMAL MEDICINE 3 CR
Upon completion of this module, the student will be knowledgeable in equine preventative health care, gastrointestinal diseases, respiratory and cardiac diseases, lameness, and reproductive and neonate diseases; bovine gastrointestinal and reproductive diseases; and important diseases of sheep, goats, and llamas.
- VETT 117**
VETERINARY NURSING III: LARGE 5 CR
Upon completion of this module, the 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 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: lymphatics, spleen, and bone marrow, reproductive disorders, trauma medicine, transfusion medicine, sepsis, diabetes mellitus and diabetic ketoacidosis (DKA), and acute abdomen stabilization.
PREREQUISITES: VETT 111
- VETT 119**
ADVANCED CLINICAL LAB SCIENCE 4 CR
Upon completion of this module, the student will be knowledgeable in the following advanced clinical laboratory sciences: serology and antigen testing, pulse oximetry, capnography, and blood gas analysis, electrocardiogram (EKG), arthrocentesis, CSF tap, and bone marrow evaluation, blood pressure evaluation, thoracocentesis, abdominocentesis, and transtracheal wash, blood collection for transfusion or blood culture, and advanced hematology.
PREREQUISITES: VETT 109
- VETT 120**
ANESTHESIA 5 CR
Given the characteristics of the anesthetic patient and the procedure, (assisted by the veterinarian) the student will assess patient risk status and determine appropriate perianesthetic, anesthetic, and pain management protocols. The 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 student will safely obtain subjective and objective data that will allow evaluation of these animals. The 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 student will be knowledgeable of nutrition and recovery care, therapeutic nutrition, small mammal and avian nutrition, and nutrition of lizards, snakes, and turtles.
PREREQUISITES: VETT 104
- VETT 123**
VETERINARY NURSING IV 5 CR
Upon completion of this module, the 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. The student will also 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 student will be knowledgeable of the following veterinary medicine specialties: ophthalmology, dermatology, oncology, alternative and complementary medicine, physical therapy, cardiology, theriogenology, and hospice care.
- VETT 125**
HUMANITY OF VETERINARY MEDICINE 2 CR
Upon completion of this module, the 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. The 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 student will be knowledgeable of gastrointestinal drugs, hormones, anticonvulsants, and therapies for 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 3 CR
This 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 in the classroom lab, as well as at veterinary clinical sites, and evaluated by a faculty member.
- VETT 202**
MENTORSHIP LAB II 3 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 skills sets. Primary skills focus on advanced sampling techniques and beginning radiology.
PREREQUISITES: VETT 201
- VETT 203**
MENTORSHIP LAB III 3 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 on surgical assisting and nursing, dressing and bandaging techniques, and dentistry.
PREREQUISITES: VETT 202
- VETT 204**
MENTORSHIP LAB IV 3 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 on anesthesia, advanced diagnostics, and advanced radiology.
PREREQUISITES: VETT 203

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VETT 205

MENTORSHIP LAB V 3 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 on equine patient care, bovine patient care, and advanced nursing care.

PREREQUISITES: VETT 204

WELDING TECHNOLOGY

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 and 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 and fabricating industry. Lecture topics will include code and non-code welding, fabricating, structural steel welding, aluminum welding, pipe welding and 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 4 CR

This course will introduce the student to the basics of plasma arc cutting, and 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 4 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 an 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 and Saturday) is required.

WLD 110

SMAW I 5 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 5 CR

Introduction to the Gas Metal Arc Welding, 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 5 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, 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 4 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 101,102,103,105,106

WLD 151

ALUMINUM FABRICATION I 4 CR

Weld joint theory and preparation, fabricating aluminum and shapes, application of print reading basics. 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; and attention to detail, neatness, and the finished product will be demonstrated in an approved small fabrication project.

PREREQUISITES: WLD 101,102,103,105,106

WLD 204

PRINT READING III STRUCTURAL STEEL 4 CR

Students will learn to use prints and drawings used in the welding trade, with emphasis on structural steel. Students will study and interpret industry drawings and prints, plan drawings, symbols, dimensions, terminology, notes, applied mathematics, and sketching and drawing techniques.

PREREQUISITES: All WLD 100 level courses.

WLD 205

PRINT READING II PIPE 3 CR

Students will learn to use prints and drawings used in the welding trade, with emphasis on structural steel. Students will study and interpret industry drawings and prints, plan drawings, symbols, dimensions, terminology, notes, applied mathematics, and sketching and drawing techniques.

PREREQUISITES: All WLD 100 level courses.

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	WLD 222 GMAW ALUMINUM II 4 CR	WLD 257 PIPE FITTING II 6 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 and Saturday) is required.	Continuation of GMAW, with fillet and groove welds in all positions. Pulse processes, power sources, shielding gases, and applications will be discussed. <i>PREREQUISITES: WLD 121</i>	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; and special pipefitting problems, including branch connections, headers, 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, filters, and pressure vessels; bolts, flanges, gaskets, bolt-up and blanking techniques; and rigging for piping installations in the Fabrication Module, simulating real-world conditions. This course will be based extensively on The Pipe Fitter's Blue Book by Graves and NCCER Pipefitting Levels 1-3. <i>PREREQUISITES: WLD 256</i>
WLD 208 METALLURGY 3 CR	WLD 230 FCAW II 4 CR	WLD 261 ADVANCED STRUCTURAL STEEL WELDING 6 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.	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. <i>PREREQUISITES: WLD 130</i>	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 process, using SMAW, GMAW, FCAW, or GTAW processes. <i>PREREQUISITES: WLD 210</i>
WLD 209 CODES AND STANDARDS 2 CR	WLD 242 GTAW ALUMINUM II 5 CR	WLD 262 GTAW PIPE WELDING 6 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.	This course focuses on GTAW with fillet and groove welds in all positions on aluminum. <i>PREREQUISITES: WLD 141</i>	GTAW open root welding on pipe (including carbon steel and alloy pipe welding techniques). 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. <i>PREREQUISITES: WLD 215</i>
WLD 210 SMAW II 3 CR	WLD 252 ALUMINUM FABRICATION II 5 CR	WLD 270 ALUMINUM TESTING 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. <i>PREREQUISITES: WLD 110</i>	This course covers advanced fabricating techniques for the job site, including material handling practice and safety, crane and hoist operation and 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, and techniques in the Modular Training Facility. Also includes fall protection and scaffold safety, and use of large shop equipment (brake, shear, power rolls). <i>PREREQUISITES: WLD 151</i>	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. Will require a successful in-house certification welding test GTAW and GMAW to WABO, Coast Guard, AWS, AAS, or ABS Standards.
WLD 215 SMAW PIPE 6 CR	WLD 254 STEEL FABRICATING II 6 CR	WLD 271 WABO/ASME TESTING I 6 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. <i>PREREQUISITES: WLD 110</i>	This course covers advanced fabricating techniques for the jobsite, including material handling practice and safety, crane and hoist operation and 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 and scaffold safety, and use of large shop equipment (brake, shear, power rolls). <i>PREREQUISITES: WLD 150</i>	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. <i>PREREQUISITES: WLD 230, WLD 210, or WLD 262</i>
WLD 219 GTAW ALUMINUM II 2 CR	WLD 255 STEEL FABRICATING III 6 CR	WLD 295 CAPSTONE 3 CR
This course focuses on GTAW with fillet and groove welds in all positions on aluminum. <i>PREREQUISITES: The previous WLD 100 level courses.</i>	A continuation of Steel Fabricating II, students will practice fabricating techniques, utilizing large shop equipment, and fabrication techniques for industry. <i>PREREQUISITES: WLD 254</i>	A culminating project consisting of a portfolio, resume and job search element, and a culminating fabrication project under the direction of staff. <i>PREREQUISITES: All WLD courses 270 & under</i>
WLD 220 SMAW PIPE PRACTICE II 4 CR	WLD 256 PIPE FITTING I 7 CR	
SMAW process on pipe in various positions with various electrodes for the advanced welder. Practice mainly for 6G Pipe Test. <i>PREREQUISITES: All WLD 100 level courses.</i>	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. <i>PREREQUISITES: WLD 150</i>	



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ASME/ANSI Certified Journeyman Alloy Pipewelder
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ARDMS
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WA Professional Technical Certification

Daniel Beeson

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ASE Advanced Engine Performance Specialist Certified
Certified Journeyman Automotive Technician
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Microsoft Certified Systems Administrator
Microsoft Certified Systems Engineer
Microsoft Certified Systems Professional
CompTia Network+ Certified
CompTia Security+ Certified
Certified Novell Administrator
WA Professional Technical Certification

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Nurse Educator Specialist Training Certificate
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WA Technical Professional Certification

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Master's Certificate, Training & Development, Portland State University
B.S., Dental Hygiene, Oregon Institute of Technology
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Dental Hygiene Renewable Limited License, Washington
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Certified Culinary Educator, American Culinary Federation
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A.T.A., Nursing, Skagit Valley College
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Certified Gerontological Nurse
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AWS-Certified Welding Educator (CWE)
AWS-Certified Radiographic Interpreter (CRI)
WABO-Structural steel and Welding Inspector
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WABO-Weld Examiner
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WABO Welding Certification
WA Professional Technical Certification

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Instrumentation & Industrial Electronics Certificate, J.M. Perry Technical Institute
Journey Level Status Instrument Technician-Primary Metals Industry
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WA Professional Technical Certification

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M.Ed., Counselor Education, University of Florida
B.A., Psychology, University of West Florida
Licensed Mental Health Counselor, State of Washington

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Tim Martinson*Precision Machining*

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B.A., Business Education, Western Washington University

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Microsoft Office Specialist: MS Word 2010 Core and Expert

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CompTIA A+ Certified

CompTIA Network+ Certified

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Certified Executive Chef, American Culinary Assoc.

Secusafe Certification, National Restaurant Assoc.

WA Professional Technical Certification

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Certified Preventive Functions Dental Assistant

Certified Dental Assistant

Registered Dental Assistant, Washington State

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M.A., Counseling Psychology, University of Colorado

M.A.T., Mathematics, Indiana University

B.S., Mathematics and Statistics, Mesa State College

B.A., Fairhaven Interdisciplinary Concentration, Western Washington University

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Microsoft Certified Professional

A+ Certified Professional

Network+ Certified Professional

Linux+ Certified

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WA Professional Technical Certification

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WA Professional Technical Certification

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A.A.S., Civil Engineering, Spokane Community College

WA Professional Technical Certification

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A.T.A. Nursing, Skagit Valley College

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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

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M.S., Aquatic Ecology, Western Washington University

B.S., Marine Biology, Western Washington University

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A.A., Liberal Arts, Fresno City College

ASE Master M/H Truck Technician

ASE Master Automobile Technician

ASE Advanced Engine Performance Specialist Certified

ASE Light Vehicle Diesel Engines Certified

WA Professional Technical Certification

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B.S., Nursing, University of Phoenix

B.S., Animal Science, Iowa State University

A.A., Registered Nurse, Skagit Valley College

Lowell Wester*Sciences*

B.A., Chemistry/Secondary Education, Trinity College

D.C., Palmer College of Chiropractic

WA Professional Technical Certification

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Certified Dental Assistant, Dental Assisting National Board

Registered Dental Assistant, Washington State and California

Registered Dental Hygienist, Washington State and California

WA Professional Technical Certification

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M.B.A., Technology Management, University of Phoenix

B.S.B.A., Walla Walla College

Microsoft Certified Systems Engineer

Microsoft Certified Professional

Microsoft Office Specialist

Certified Novell Administrator

CompTIA A+ and Network+ Certified Professional

WA Professional Technical Certification

Sandra Woodfield*Radiologic Technology*

M.P.A., Public Administration, University of North Carolina at Wilmington

B.A., 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*

B.S., Electrical Engineering, Washington State University

WA Professional Technical Certification

Lorrie Zwiers*Surgery Technology*

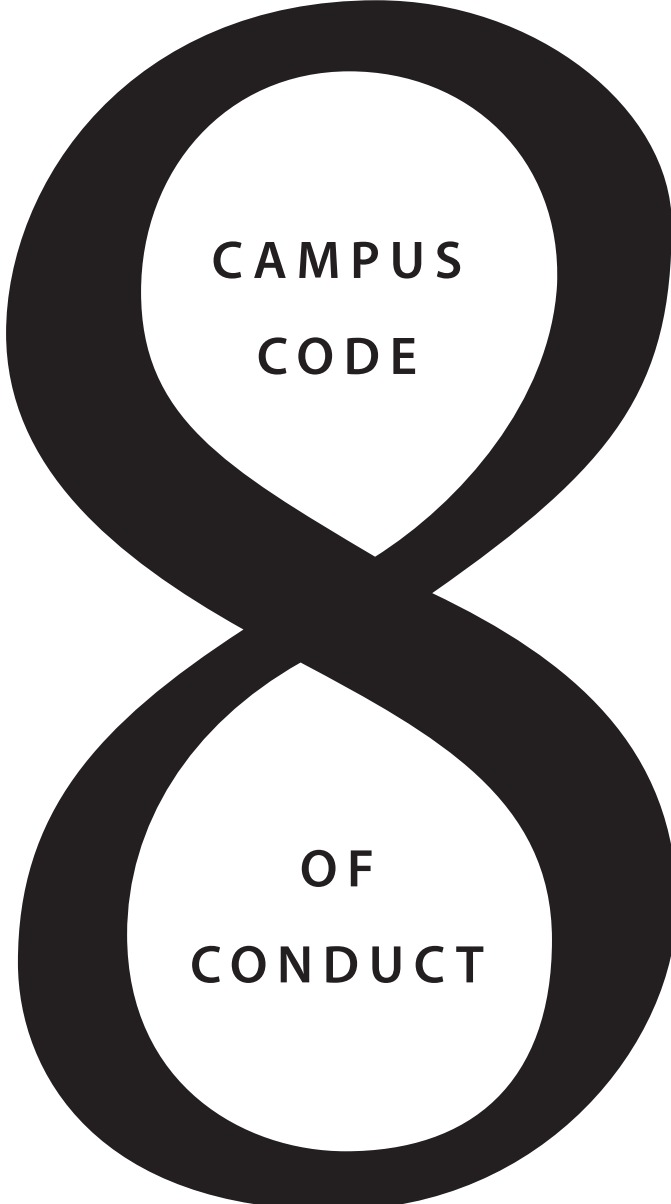
A.A., Nursing, Everett Community College

LPN Nursing, Bellingham Vocational Technical Institute

Registered Nurse License, State of Washington

C.N.O.R. Certified

WA Professional Technical Certification



CAMPUS
CODE

OF
CONDUCT

CAMPUS CODE OF CONDUCT

495B-120

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 as now law or hereinafter amended.
- (4) "Drugs" means a narcotic drug as defined in RCW 69.50.101, a controlled substance as defined in RCW 69.50.201 through 69.50.212, or a legend drug as defined in RCW 69.41.010.
- (5) "College facilities" includes all buildings, structures, grounds, office space and parking lots..
- (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, deferred suspension, suspension, or expulsion of a student under WAC 495B-120-120 for the violation of a rule adopted in this chapter.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-010, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-010, filed 2/10/93, effective 3/13/93.]

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 may be applied 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 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 college-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 the Washington criminal trespass law, in addition to such other sanctions as may be applicable.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-020, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-020, filed 2/10/93, effective 3/13/93.]

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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-030, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-030, filed 2/10/93, effective 3/13/93.]

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:
 - (i) Be liable for harm caused to persons or property resulting from hazing; AND
 - (ii) 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 conduct code, 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 conduct code.
 - (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.
 - (i) 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.
 - (ii) 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.
 - (iii) Impermissible conduct not amounting to hazing is subject to any sanctions available under the campus conduct code in WAC 495-120-040 through 495-120-150, depending upon the seriousness of the violation.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-035, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 97-11-014, § 495B-120-035, filed 5/9/97, effective 6/9/97.]

495B-120-040

Student misconduct.

Disciplinary action may be taken for a violation of any provision of this campus conduct code, 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, but not limited to:

- (1) Smoking is prohibited on campus except in designated smoking areas;
- (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 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, but not limited to, cheating, plagiarism, or knowingly furnishing false information to the college;
- (6) Willful failure or demonstrated inability to comply with college standards;
- (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) Intentional or negligent damage to or destruction of any college facility, equipment, or other private real or personal property;
- (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 college-operated facilities and premises and/or during college-sponsored events;
- (12) Computer, telephone, or electronic technology violations. 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 any 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 on, reckless endangerment of, intimidation of, or interference with 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 through 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) Criminal law violations, illegal behavior, other unlawful violations. Any person can be reported to proper authorities for acts that constitute violations of applicable local, state, and federal laws;

(20) Violation of other published college policies, rules, or regulations.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-040, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-040, filed 2/10/93, effective 3/13/93.]

495B-120-045

Loss of eligibility — 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 which may be imposed, be disqualified from participation in any college-sponsored events or activities.

[Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-045, filed 2/10/93, effective 3/13/93.]

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.
- (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 subparagraphs (1) and (2) above will be subject to disciplinary action and may be referred for prosecution.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-050, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-050, filed 2/10/93, effective 3/13/93.]

495B-120-060

Free movement on campus.

The president is authorized to prohibit the entry of or to 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.

There shall be no overnight camping on college facilities or grounds. Camping is defined to include sleeping outside, sleeping in vehicles, carrying on cooking activities, or storing personal belongings for personal habitation, or the erection of tents or other shelters or structures used for purposes of personal habitation.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-060, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-060, filed 2/10/93, effective 3/13/93.]

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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-070, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-070, filed 2/10/93, effective 3/13/93.]

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 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 subsection (a) of this section, 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 the disciplinary action through the discipline appeal procedure (WAC 495B-120-180, discipline appeal procedure).

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-080, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-080, filed 2/10/93, effective 3/13/93.]

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 appear-

ance of one or more additional speakers at a meeting or at a subsequent meeting so that other points of view may be expressed.

- (3) The college has designated an area as the sole limited public forum area for first amendment activities on campus. This area is identified in the college facilities use policy and may change from time to time as decided by the college president.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-090, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-090, filed 2/10/93, effective 3/13/93.]

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 nonstudents shall register with the vice-president of student services prior to the distribution of any handbill, leaflet, newspaper 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 subparagraphs (1) and (2) above will be subject to disciplinary action.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-100, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-100, filed 2/10/93, effective 3/13/93.]

495B-120-110

Commercial activities.

- (1) College facilities will not be used for a 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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-110, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-110, filed 2/10/93, effective 3/13/93.]

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 that he or 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 imposed is inappropriate, the student may appeal the sanction pursuant to the provision in WAC 495B-120-180.

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[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-120, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-120, filed 2/10/93, effective 3/13/93.]

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.
- (5) "Deferred suspension" means notice of suspension from the college with the provision that the student may remain enrolled contingent on meeting a specified condition. Not meeting the contingency shall immediately invoke the suspension for the period of time and under the conditions originally imposed.
- (6) "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.
- (7) "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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-130, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-130, filed 2/10/93, effective 3/13/93.]

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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-135, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-135, filed 2/10/93, effective 3/13/93.]

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 designee.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-140, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-140, filed 2/10/93, effective 3/13/93.]

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 appeal procedure set forth in WAC 495B-120-180 shall be provided the opportunity to reestablish 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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-150, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-150, filed 2/10/93, effective 3/13/93.]

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 members of his/her staff and/or establish committees or other hearing bodies to advise or act for them 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 applied 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 proceeding, exonerating the student or students;
 - (b) Dismiss the case after whatever counseling and advice may be appropriate;
 - (c) Directly impose any of the disciplinary sanctions that are outlined in WAC 495B-120-130, 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 subsection (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 or her side of the matter. The student may elect, as well, to utilize the appeal procedures pursuant to WAC 495B-120-180.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-160, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-160, filed 2/10/93, effective 3/13/93.]

495B-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 campus conduct code.
 - (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:
 - (i) The charges against the student, including the reference to the law and/or code of conduct;
 - (ii) The specified date, time, and location that the student must appear before the vice-president for a hearing, which shall be held as soon as practical after the summary suspension;
 - (iii) 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 (2) of this section.
- (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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-165, filed 1/21/11, effective 2/21/11.]

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 administrator, two members of the faculty, two representatives from the student council, and one 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 placed on deferred suspension; or
 - (e) Be given a suspension; or
 - (f) Be expelled; or
 - (g) Be exonerated with all proceedings terminated and with no sanctions imposed; and/or
 - (h) Be disqualified from participation in any college-sponsored activities.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-170, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-170, filed 2/10/93, effective 3/13/93.]

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 outlined 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 designee to obtain the necessary form and information.)
- (2) Appeals must be filed with the vice-president of student services or a designee.
- (3) Appeals must be filed within ten 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 acknowledgment 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 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 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.

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- (8) If an investigation is ordered, the investigating officer will:
- Meet with the student and the staff member(s) who initiated the discipline;
 - Examine documentation and interview witnesses;
 - Consult with the appropriate vice-president or equivalent unit head and/or other appropriate administrator; AND
 - Prepare a written investigative report.
- (9) After a full review, the committee's decision will be limited to one of the following statements:
- "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
 - "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 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.
- 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.
 - The hearing will be held within thirty calendar days from the time 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.
 - 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.
 - The hearing will be conducted as expeditiously as possible and on successive days, if possible.
 - 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.
 - 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.
 - 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.
 - 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.
- All parties will have the opportunity to present evidence, respond to evidence presented, and examine and cross examine witnesses.
 - 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.
 - 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.
- Any legal opinion or interpretation given to the committee by the parties may be shared with all parties to the case.
 - 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 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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-180, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-180, filed 2/10/93, effective 3/13/93.]

495B-120-190

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 exoneration, 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.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-190, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-190, filed 2/10/93, effective 3/13/93.]



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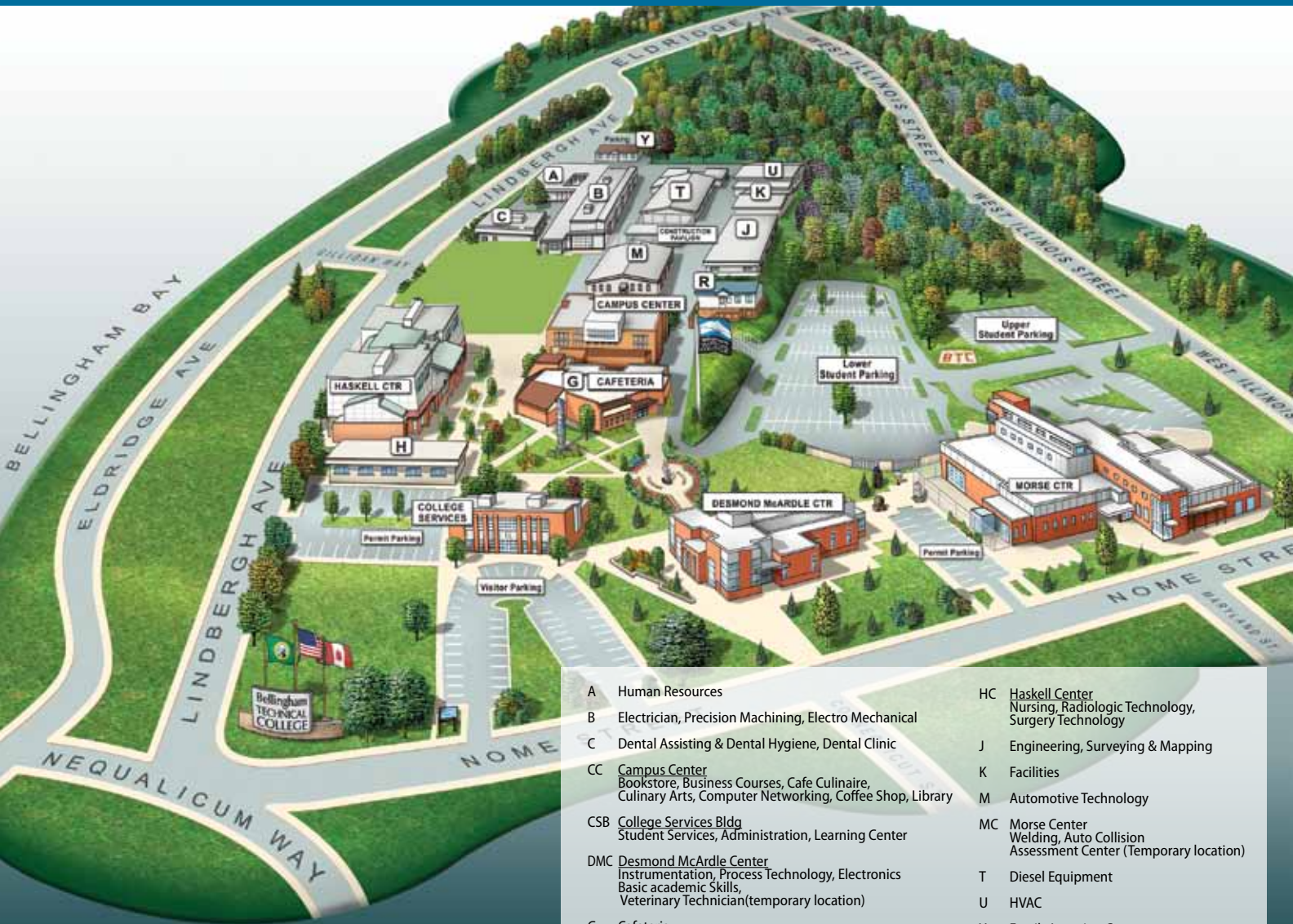
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| B | Electrician, Precision Machining, Electro Mechanical | J | Engineering, Surveying & Mapping |
| C | Dental Assisting & Dental Hygiene, Dental Clinic | K | Facilities |
| CC | Campus Center
Bookstore, Business Courses, Cafe Culinaire,
Culinary Arts, Computer Networking, Coffee Shop, Library | M | Automotive Technology |
| CSB | College Services Bldg
Student Services, Administration, Learning Center | MC | Morse Center
Welding, Auto Collision
Assessment Center (Temporary location) |
| DMC | Desmond McArdle Center
Instrumentation, Process Technology, Electronics
Basic academic Skills,
Veterinary Technician(temporary location) | T | Diesel Equipment |
| G | Cafeteria | U | HVAC |
| H | Health Occupations, Practical Nursing, Continuing Ed,
Tutoring Center | Y | Family Learning Center |