Bellingham
TECHNICAL
COLLEGE

**2018
2019**

CATALOG

MESSAGE FROM THE PRESIDENT

Welcome to Bellingham Technical College!

BTC is changing lives by graduating students with living-wage jobs and giving them a competitive edge for employment. I am continually moved by the dedication and tenacity I see in our students as they work to attain a program degree or certificate. Our students possess both perseverance and determination in their pursuit to improve their lives, support their families and contribute to their communities. In the past ten years alone, BTC has awarded more than 8,900 degrees, certificates and apprenticeships to students who go on to start meaningful careers.

I encourage you to apply to BTC and join the ranks of BTC's graduates. We have 38 degrees, 60 certificates and two bachelor of applied science degrees, with programs that cover engineering, manufacturing, healthcare, office skills and more. Find the program that best aligns with your aspirations, and get started.

Take the first step by talking with one of our Admissions team and take a tour of our campus. You have the power and opportunity to be a change-maker as you aim for a new career, and BTC is here to help you on that journey.

Sincerely,

Kimberly Perry, Ed.D
President

TABLE OF CONTENTS

1

ABOUT OUR COLLEGE

ABOUT OUR COLLEGE

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 212,284. The majority of students are local, with a growing number moving to the area to enroll at BTC.

About Our Students

In the 2016-2017 academic year, the college served over 5,300 students. In fall of 2017, the student body was 55% female, 45% male, with at least 21% students of color. The average student age was 31 years old. BTC served 2,200 full-time equivalent students.

(Data source: BTC Operational Data Store)

Accreditation Status

Bellingham Technical College is accredited by the Northwest Commission on Colleges and Universities (NWCCU), an institutional accrediting body recognized by the Council for Higher Education Accreditation and the United States Department of Education. BTC's accreditation was reaffirmed in February 2016.

Accreditation by NWCCU indicates that BTC meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future.

Accreditation by NWCCU applies to the institution as a whole. It provides reasonable assurance about the quality of opportunities available to students who attend the institution. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates.

Inquiries regarding BTC's accredited status should be directed to BTC's administrative staff or by contacting the Northwest Commission on Colleges and Universities, 8060 165th Avenue NE, Suite 100, Redmond, WA, 98052, (425) 558-4224, www.nwccu.org.

In addition to institutional accreditation, many of BTC's programs (e.g., Culinary Arts, Dental Assisting, Dental Hygiene, Nursing, Surgery Technology, Veterinary Technician) have national certification or accreditation. These are highlighted in the program descriptions.

Advisory Committees

The degree and certificate programs at Bellingham Technical College rely on the involvement and support of approximately 375 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

Bellingham Technical College is committed to providing a drug-free, healthful, safe, and secure workplace and environment, and has implemented a drug and alcohol abuse, prevention, and assistance program. The College will annually notify employees and students that the unlawful possession, use, or distribution of illicit drugs and alcohol on College property, or as any part of College activity, is prohibited. (WAC 495B-121-040 (12-14))

Bellingham Technical College intends to promote a drug-free, healthful, safe, and secure work environment. The unlawful manufacture, distribution, dispensation, possession, or use of alcohol or any controlled substance is prohibited in or on property owned or controlled by Bellingham Technical College. The use of alcohol or any unlawful controlled substance while in or on property owned or controlled by Bellingham Technical College is prohibited. While state law permits the recreational use of marijuana, federal law prohibits such use on college premises or in connection with college activities. Prescription drug usage must be accomplished in a lawful and safe manner pursuant to a valid medical prescription. No employee will report to work while under the influence of alcohol or 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.

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 (including pregnancy and parenting status), gender identity or expression, 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, 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: Executive Director of Human Resources, 3028 Lindbergh Avenue, Bellingham, WA 98225, 360.752.8354. For Title IX/504 compliance, contact: Vice President of Student Services, 3028 Lindbergh Avenue, Bellingham, WA 98225, 360.752.8440.

BTC publications are available in alternate formats upon request by contacting the Accessibility Resources office at 360.752.8576.

2018-2023 STRATEGIC PLAN

VISION

Bellingham Technical College will be a recognized leader in providing innovative and effective technical education, maximizing student potential and supporting the regional economy through development of a competitive workforce.

MISSION

Bellingham Technical College provides student-centered, high-quality professional technical education for today's needs and tomorrow's opportunities.

CORE THEMES

Teaching & Learning: Foster teaching and learning through quality instructional methods, effective student learning environments, job skills training, and professional development.

Student Career Preparation & Achievement: Facilitate student career preparation and achievement through career advising, workplace readiness and soft skills training, job placement and support, and strong employer relationships.

Innovation & Responsiveness: Promote innovation and responsiveness by keeping up with current workplace practices, trends, and latest technology; supporting adaptation to change; and developing external partnerships.

Campus Community & Culture: Strengthen campus community and culture through a collaborative workplace, connected infrastructure, transparent governance, respectful and open communication, and a welcoming and safe environment.

VALUES

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

STUDENT-CENTERED
Creating a supportive and inclusive community that results in a high level of student competence, professionalism, and success.

RESPONSIVE
Embracing positive, effective change that creates opportunity and meets current and emerging needs.

COLLABORATIVE
Creating and leveraging partnerships and resources to achieve shared values and goals for students, the college, and the community.

PRINCIPLED
Promoting a culture of respect and accountability, reflecting integrity in decision-making, and ensuring responsible stewardship of all resources

BELLINGHAM TECHNICAL COLLEGE FOUNDATION

The Bellingham Technical College Foundation's mission is to change lives by expanding access to quality education.

The Foundation Board of Directors and staff forward this mission by partnering with 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 fundraising goals (2017-20), including the commitment to raise:

- $900,000 to support scholarships for BTC students;
- $150,000 in direct support of BTC programs;
- $410,000 to support the foundation's "Greatest Need" fund, which supports a variety of campus priorities, including: emergency grants and other assistance for students; faculty and staff professional development; support for BTC veterans; and the campus Food Pantry

There are many ways to support BTC through the foundation, including: making an annual or named scholarship donation, establishing an endowed scholarship through the foundation, donating gifts of stock or other assets, making a pledged gift over time, or donating equipment to support our college's programs. 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. We are happy to assist you in any way possible.

BTC transforms lives. The BTC Foundation is privileged to be able to work on behalf of the college and to champion student success. The foundation is located on the second floor of the Morse Center Building (rooms 201-202).

Bellingham Technical College Foundation
3028 Lindbergh Ave Bellingham, WA 98225
360.752.8684
www.btcfound.org

FOUNDATION SCHOLARSHIPS FOR STUDENTS

The BTC Foundation awards more than $275,000 in scholarships each year to an average of 50% of the students who apply. The scholarship application is available online at the beginning of Spring Quarter with the application deadline typically on or around June 30.

Learn more at www.btc.edu/scholarships.

SUMMER 2018

Independence Day Holiday... July 4
Summer BTC Classes Begin .... July 5
Summer Nelnet Last Day to Sign Up.. July 6
Summer Last Day for 100% Refund
     6 week course .... July 9
     8 week course .... July 11
Summer Last Day to Drop without a W on transcript ***
     6 week course .... July 12
     8 week course .... July 13
Fall Nelnet First Day to Sign Up.. July 16
Fall Quarterly Schedule Available... July 17
Summer Last Day for 50% Refund
     6 week course .... July 18
     8 week course ....July 23
Fall General Registration Begins..July 23
Fall Nelnet Deadline for 20% Down ....July 24
Summer Last Day to Withdraw or Change Schedule ***
     6 week course .... Aug 2
Summer Residency & Waiver Request Deadline .... Aug 3
Summer Instructor Briefcase Opens for Grading........................... Aug 8
Summer Quarter Ends - 6 week course..Aug 13
Summer Last Day to Withdraw or Change Schedule ***
     8 week course ....Aug 16
Fall Nelnet Deadline for 40% Down ....Aug 20
Fall Tuition & Fees Due *...Aug 22
Summer Quarter Ends - 8 week course..Aug 27
Summer Grades Final - Check Your Transcript ....Aug 30
Labor Day Holiday .... Sept 3

WINTER 2019

New Year's Day Holiday ....Jan 1
Winter BTC Classes Begin ....Jan 3
Winter Nelnet Last Day to Sign Up ....TBD
Winter Last Day for 100% Refund ....Jan 9
Winter Last Day to Drop without a W on transcript ***............... Jan 16
Martin Luther King Day Holiday .... Jan 21
Winter Last Day for 50% Refund **..Jan 22
Winter Residency & Waiver Request Deadline..................................Feb 1
Faculty Inservice Day (no daytime program classes).....................Feb 6
Spring Registration Access Times Available....................................Feb 11
Spring Class Information Available Online.......................................Feb 11
Presidents Day Holiday ....Feb 18
Spring Continuing Program Student Registration Begins..........Feb 19
Spring Quarterly Schedule Available...Feb 21
Spring New Program Student Registration Begins .... Feb 26
Spring Continuing Parenting Registraton Begins.........................Feb 27
Spring Nelnet First Day to Sign Up ....TBD
Spring General Registration Begins 8:00 am ....Mar 4
Winter Last Day to Withdraw or Change Schedule ***..................Mar 5
Winter Instructor Briefcase Opens for Grading ....Mar 7
Spring Tuition & Fees Due *... Mar 14
Winter Quarter Ends.. Mar 22
Spring Break...Mar 25-Apr 1
Winter Grades Final - Check Your Transcript.................................. Mar 27

FALL 2018

Fall BTC Classes Begin...Sept 18
Fall Nelnet Last Day to Sign Up..Sept 20
Fall Last Day for 100% Refund **..Sept 24
Fall Last Day to Drop without a W on transcript ***......................Oct 1
Fall Last Day for 50% Refund ** ....Oct 7
Fall Residency & Waiver Request Deadline ....Oct 17
Faculty In-service Day (no daytime program classes) ....Oct 29
Winter Registration Access Times Available ....Oct 30
Winter Class Information Available Online.......................................Oct 30
Winter Continuing Program Student Registration Begins .... Nov 5
Veterans Day Holiday...Nov 12
Winter New Program Student Registration Begins.....................Nov 14
Winter Quarterly Schedule Available .... Nov 15
Winter Continuing Parenting Registration Begins ....Nov 15
Winter Nelnet First Day to Sign Up...TBD
Fall Last Day to Withdraw or Change Schedule ***....................Nov 16
Fall Instructor Briefcase Opens for Grading ....Nov 21
Thanksgiving Holiday...Nov 22-23
Winter General Registration Begins 8:00 am..............................Nov 26
Winter Tuition & Fees Due * .... Dec 5
Fall Quarter Ends .... Dec 7
Winter Break.. Dec 10-Jan 2
Fall Grades Final - Check Your Transcript....................................... Dec 12
Winter Holiday ....Dec 24-25

SPRING 2019

Spring BTC Classes Begin ....Apr 23
Spring Nelnet Last Day to Sign Up ....TBD
Spring Last Day for 100% Refund ....Apr 8
Spring Last Day to Drop without a W on transcript ***..............Apr 15
Spring Last Day for 50% Refund..Apr 21
Spring Residency & Waiver Request Deadline................................May 1
Summer & Fall Registration Access Times Available...................May 13
Summer & Fall Class Information Available Online ....May 13
Faculty Inservice Day (no daytime program classes)..................May 16
Summer & Fall Continuing Student Registration Begins .... May 20
Summer Quarterly Schedule Available... May 23
Memorial Day Holiday...May 27
Summer & Fall New Student Registration Begins .... May 29
Spring Last Day to Withdraw or Change Schedule *** .... May 30
Summer General Registration Begins 8:00 am .... Jun 3
Spring Instructor Briefcase Opens for Grading.............................. Jun 5
Summer Tuition & Fees Due *...Jun 12
Spring Quarter Ends...Jun 20
Commencement Ceremony...Jun 20
Spring Grades Final - Check Your Transcript ....Jun 25

NOTES: * If registering after Tuition & Fee Due Date, payment is due within 48 hours. After quarter start, payment is due within 24 hours.

     ** Published Refund dates are for full-quarter length classes. Shorter classes are pro-rated. Please see the Refund Policy.

     *** Published Drop & Withdrawal dates are for full-quarter length classes. Dates vary for classes with alternative schedules.

     College Calendar - subject to change. Visit us on the web at www.btc.edu/calendar
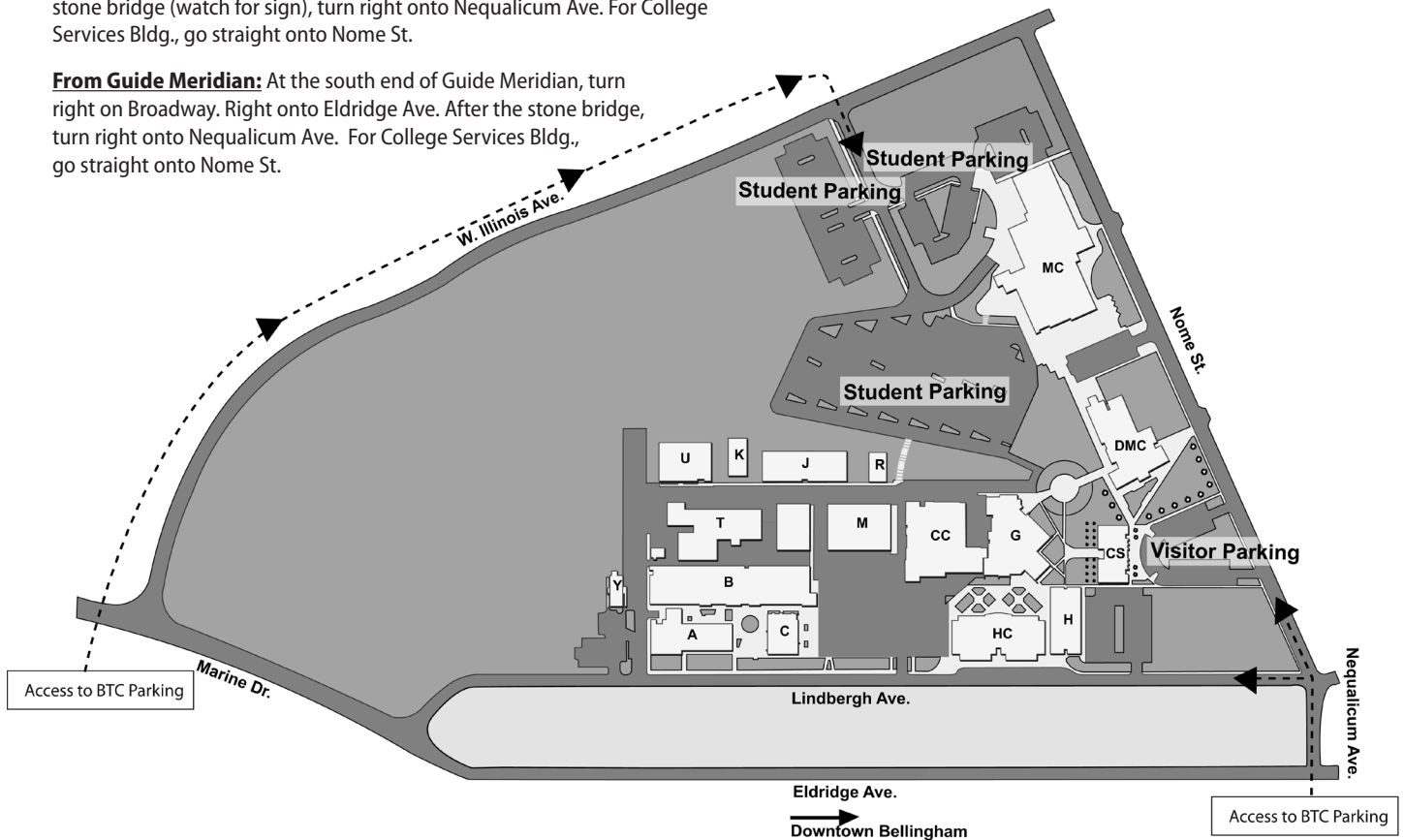
BTC Map & Directions to Campus

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.

Student Parking
Student Parking
Student Parking
MC
DMC
Visitor Parking
W. Illinois Ave.
Nome St.
U K J R
T M CC G CS
Y B H
A C HC
Marine Dr.
Access to BTC Parking
Lindbergh Ave.
Nequalicum Ave.
Eldridge Ave.
Downtown Bellingham
Access to BTC Parking

A	Literacy Council, Transitional Studies/Basic Education for Adults	HC	**Haskell Center** Nursing, Radiologic Technology, Surgery Technology, Sciences
B	Electrician, Machining, Industrial Maintenance& Mechatronics	J	Engineering Technology, Civil Engineering, Geomatics (formerly Surveying & Mapping), Mechanical Design
C	Dental Assisting & Dental Hygiene, Dental Clinic	K	Facilities
CC	**Campus Center** Campus Store, Business Courses, Cafe Culinaire, Culinary Arts, Computer Networking, Common Grounds Coffee Shop, Library, Student Center	M	Automotive Technology
		MC	**Morse Center** Welding, Auto Collision, Foundation
CS	**College Services Bldg.** Student Services, Administration, Human Resources, Cashier	R	Veterinary Technician
		T	Diesel Technology
DMC	**Desmond McArdle Center** Instrumentation & Control Technology, Process Technology, Electronics Engineering Technology	U	HVAC
		Y	Family Learning Center
G	Lindbergh Avenue Deli & Grill and Café Culinaire to go window (Spring Quarter)		Off Campus location: Technology Development Center (TDC), 1000 F Street, Bellingham: Composites Engineering
H	Assessment Center, Health Sciences, Nursing Skills and Simulation Lab, Continuing Ed, Tutoring 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 Accessibility Resources at 360-752-8345 or AR@btc.edu.

2

GETTING STARTED

ADMISSION AND ENROLLMENT

College Services Building, Room 106
Email: admissions@btc.edu Phone: 360.752.8345

Prospective students must apply for admission to the college before they register in a degree/certificate program. Students may register for full-time or part-time, based on personal preference, availability of space, and/or specific program offerings. Many courses within the program will be offered at various times throughout the program, as scheduled by the instructor. General education course offerings vary; some may be offered in online and hybrid format. In some programs, specific courses required for a degree or certificate may only be offered in certain quarters. Students should consult their academic and career advisor or BTC faculty advisor to assist in determining the best schedule option to meet their needs.

Full-time program students typically enroll in 15-21 credits per quarter: 15 credits if taking primarily academic classes and a higher credit load if taking vocational classes. To qualify as full-time, students must enroll in at least 12 credits of program-related coursework. Part-time program students typically enroll in 6-11 credits; not all programs allow for a part-time schedule. To be eligible for Financial Aid, students must be enrolled for a minimum of 6 credits of program-related coursework. 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.

Placement assessment is required for degree- and certificate-seeking students in most programs. Students may use multiple measures for placement assessment including transferred-in placement test scores or transcripts from a previous college, Smarter Balance scores, SAT and ACT scores, or transcripts from a high school (up to five years from graduation) for evaluation instead of taking the placement test.

Specific program information is defined in the Programs of Study section of this catalog.

ASSESSMENT CENTER

PLACEMENT TESTING

Building H, Room 4
Email: assessment@btc.edu Phone: 360.752.8335

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 and course placement is determined in part by students' demonstration of reading, sentence skills and mathematics competency at the level identified for program and course success. Students seeking enrollment in most programs must achieve required scores in reading, sentence skills and mathematics. BTC uses an assessment placement test to assess students' academic skill levels. The assessment testing requirement may be waived upon evaluation of the multiple measures mentioned in the Admissions and Enrollment section. Official high school or college transcripts are required from a regionally accredited college or university. All assessment test waiver requests should be made to the Admissions and Student Resource Center. The assessment test is available on a drop-in basis through the Assessment Center. Visit the Assessment Center website, www.btc.edu/Assessment, for schedule, location and resources for test preparation. The first initial assessment test fee includes one retest in each subject area within a 12-month period. Test scores are valid for five years. Students must present picture identification and payment receipt when they report for testing.

BTC will be using the College Board ACCUPLACER placement test through Fall Quarter 2018. It will be replaced with a new placement test in Winter Quarter 2019. Please contact your academic advisor with questions about testing for specific programs.

GED TESTING

Building H, Room 4
Email: assessment@btc.edu Phone: 360.752.8335

GED testing is offered through the BTC Assessment Center. Visit GED.com for information about the computerized GED test, registering and scheduling your GED test, transcript information and more. Contact the Assessment Center for additional information. Students must present a government-issued picture ID at the time of testing.

Testing candidates under the age of 19 need to complete a Request for Approval to Test, available at their last school of attendance with a signature from their former school administration. Students must access the GED website to request testing accommodations.

ADDITIONAL TESTING

The BTC Assessment Center also offers a variety of industry and program tests. To learn more, visit the website, www.btc.edu/Assessment.

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 Student Resource Center at 360.752.8345 to meet with an advisor, and receive program and schedule information. Advisors can also assist in exploring career options.

1. Complete an online application for BTC programs through the Washington State Web Admissions Center: www.btc.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 interest list do not need to resubmit an application while waiting for a program opening but are encouraged to update staff with any change in contact information. Students are encouraged to apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA) online. Learn more at www.btc.edu/FinancialAid.

2. Assess your starting point. Degree- and certificate-seeking students need to determine their math and English starting points. Placement may be determined by multiple measures. These measures include:

   a. The assessment test or equivalent placement test, to 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 may retest as stated in the Assessment Center section. The assessment test is available on a drop-in basis

through the Assessment Center. Visit the Assessment Center website, www.btc.edu/assessment for schedule, location and resources for test preparation. The assessment test fee includes one retest in each subject area within a 12-month period. Test scores are valid for five years. Students must present photo identification and payment receipt when they report for testing. BTC will be using the College Board ACCUPLACER placement test through Fall Quarter 2018. It will be replaced with a new placement test in Winter Quarter 2019. Please contact your academic advisor with questions about testing for specific programs.

b. Washington State CTC Approved Placement Reciprocity Agreement Policy. BTC will accept course placement from local skills assessment as well as course placement from pre-college math and English courses taken at any Washington state community and technical colleges (CTC) within five years. If you have completed placement testing at another college or university within the last five years, you may submit an Evaluation Request form and the official scores to the Admissions and Student Resource Center for equivalency to the assessment test scores.

c. An official college transcript from a regionally accredited college or university, indicating the applicant has completed a minimum of three (3) credits for a course in English and/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 assessment test requirement waived upon evaluation of an official transcript and completion of the Transcript Evaluation Request form. Requests for evaluation of transcripts for assessment test waiver can be made through the Admissions and Student Resource Center in College Services 106.

d. An official high school transcript with math and English GPAs, up to five years after graduation, may be evaluated for placement. If the GPA does not meet the minimum GPA identified for a specific program, the student will need to take the assessment test. The transcripts and Evaluation Request form should be submitted to the Admissions and Student Resource Center in College Services 106.

e. Official Smarter Balance scores may be submitted for evaluation and placement. The scores and Transcript Evaluation Request form should be submitted to the Admissions and Student Resource Center in College Services 106. If the Smarter Balance scores fail to meet the minimum requirements, the student will need to take the assessment test.

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, sentence skills and arithmetic or algebra on the ACCUPLACER or scores from multiple measures are 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 a GED or has completed homeschooling as defined by state law or has applied for special student program admissions under the provisions of a student enrollment options program, such as Running Start or a successor program.

NOTE: To be eligible for federal or state Financial Aid, a student must be a high school graduate, have a GED, or have completed homeschooling as defined by state law.

LOCAL ENROLLMENT OPTION

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

1. Is 16 years of age or older.

2. Meets the requirements of Section 1 and Section 2 above.

3. Is not currently enrolled in high school or, if currently enrolled in high school has written approval (if required) from the sending high school to enroll, and agrees 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 petitions 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 of Student Services 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 continuing education 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. The written request by the student must include evidence that the person:

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.)

IMPACT! A Youth Re-Engagement Program for ages 16-21

IMPACT! Youth Re-engagement is a free program for eligible students that creates a path to academic and career success for students who have dropped out, or are at severe risk of dropping out, of high school. The program is flexible, with each student working with an advisor to make realistic goals for high school completion and their career. The IMPACT! program has the ability to cover tuition, fees and books for

students, with the ultimate goal of getting more students associate degrees and certificates, or ready to transfer to a four-year college or university for a bachelor's degree. All students who graduate from a Washington state community college or technical college will receive a Washington State High School Diploma, which will be posted on their college transcript. Find out more at www.btc.edu/impact

DUAL CREDIT (Earn college credit while still in high school)

BTC offers two pathways to students who want to earn dual credit, giving students a great way to jumpstart their college degree and save money. Students can check out our options, Running Start and Career and Technical Education (CTE) Dual Credit, through our interactive Dual Enrollment Web Tool. For more information, contact our High School Relations Program Manager at BCovert@btc.edu or 360.752.8365.

Career and Technical Education (CTE) Dual Credit

CTE Dual Credit is a dual credit program offering high school students the opportunity to earn college credit for articulated high school courses. Working together, high school and college instructors have identified certain high school career and technical education courses that meet the course requirements of comparable college courses. These courses are identified as CTE Dual Credit approved. Students enrolled in these courses may be eligible to receive BTC college credit through the schools' articulation agreements with BTC.

Students who complete approved high school CTE Dual Credit courses with a grade of B or better and complete all required course competencies will be eligible for BTC college credit. However, the student will not automatically receive credit; they must complete online registration for the course in the Statewide Enrollment and Reporting System (SERS) and print, complete, and submit the registration form to the Whatcom CTE Dual Credit Consortium. Registration instructions are available in the career and counseling centers at each area high school. All high school CTE Dual Credit courses articulated for college credit at BTC will be transcripted with the grade earned in the student's high school course. Courses are only transcripted within the academic year the student completes the coursework. Back-dating is not allowed.

Award of articulated credits through BTC does not guarantee or imply acceptance of such credits by other higher education institutions. To inquire about course acceptance/transferability, please contact the destination institution. For more information, visit Whatcom County's CTE Dual Credit website at www.btc.edu/ctedualcredit.

Running Start

Running Start is a statewide program that allows qualified high school juniors and seniors to attend BTC tuition-free (up to 15 credits per quarter, other costs apply). Students are enrolled simultaneously in high school and college classes (or just college classes) and may receive both high school and college credit for classes completed at BTC. Students may choose to begin their degree or certificate program and/or complete most of their high school requirements at BTC. A student's public school district is ultimately responsible for determining a student's Running Start eligibility. Sign up for an information session at www.btc.edu/RSEvents.

Running Start students are expected to attend and complete the entire course and receive a satisfactory grade in order to receive credit. Running Start will not fund course challenges. The Running Start program is not available during Summer Quarter; however, students interested in attending Summer Quarter may elect to attend summer classes and self-pay tuition and fees.

All Running Start students, including homeschool and private school students, must be registered with a public school district. A high school counselor or school district official, BTC advising representative, the student, and a parent/guardian must sign the Running Start Enrollment Verification Form (RSEVF) each quarter for Running Start eligibility. An appointment should be made with the High School Relations Program Manager or Running Start Advisor after the high school completes the RSEVF each quarter for assistance with course selection, registration, support information, and funding information. Students must register in person and pay class and program fees by the quarter due dates published at www.btc.edu/calendar (exception: students who register during summer for fall classes are given until the Friday following Labor Day to submit required paperwork and pay remaining balance).

A Running Start Tuition Fee Waiver is available on the BTC Running Start website for eligible students. Running Start students must meet eligibility criteria outlined by Statute RCW 28A.600.310 and submit the waiver request form with supporting documentation no later than the first day of classes. Qualified students are not required to pay the Running Start Fee per credit or excess tuition based on FTE. All Running Start students are still responsible for all other class and program fees, books, supplies, and transportation. Additional financial support may be available in the form of scholarships/financial assistance and/or a book-loan program. Contact the High School Relations Program Manager or Running Start Advisor with questions about financial support.

The steps to become a Running Start student at BTC are:

- Complete and submit the BTC Running Start Application to the Admissions & Student Resource Center. Attending a Running Start Information Session is strongly recommended.
- Placement
- Running Start Paperwork
- Advising and Registration
- Orientation

*More detailed information about these steps can be viewed on the Running Start Webpage at www.btc.edu/RunningStart.

What does Running Start cover?

- Running Start-eligible credits are tuition free (other costs apply and may show on the "tuition" line of a student's schedule).

For students to be eligible for Running Start each quarter:

- The Running Start Enrollment Verification Form (RSEVF) must be complete to be valid.
- The number of college credits students are allowed for Running Start at BTC is determined by the high school and is based on the number of high school FTE (full time equivalent) provided on the RSEVF.

Each class must meet all of these guidelines to qualify as Running Start and tuition free (but there are fees):

- College-level class (100-400 level, not below 100, not in 900 level)
- Credit class – for college credit (not non-credit or non-graded)
- State Support (not self-support)
- Approved by the high school on the Running Start Enrollment Verification Form

- Required as part of the program into which you are admitted
- Within the allowed hours/credits (FTEs) indicated on the Running Start Enrollment Verification Form
- You will be attending class all quarter (not challenging the class – If you challenge a class, you will be required to pay full price.)
- Class is taken during Fall, Winter, or Spring quarters (Running Start is not available Summer Quarter. Summer students pay full price.)

For more information, contact the Running Start Advisor at 360.752.8365 or email rstart@btc.edu.

What costs do Running Start students pay?

Running Start students pay tuition for credits that are not Running Start eligible. Students pay program and class fees; for books, materials and supplies; and for uniforms and tools.

Tuition

Running Start students are charged resident-rate tuition for credits that are not Running Start eligible. After Running Start eligible credits, the next 10 credits are at the 1-10 credit resident rate, with any additional credits after that at the 11-18 credits resident rate. Many programs at BTC require more than 15 credits per quarter. See Tuition Rates and Cost Estimates.

Running Start Fee

The Running Start Fee is made up of the Administrative, Operating, Building, and Student-Approved Fees. It appears as a tuition line item.

2018-2019 Running Start Fee is $4.71 per Running Start-eligible credit.

Low Income? Contact the Running Start advisor at rstart@btc.edu or call 360-752-8385 if you think you may qualify for the Low Income Running Start Waiver, which waives the Running Start Fee.

Program & Class Fees

Running Start students are responsible to pay all program and class fees.

Program & class fees address distinct and specified costs such as lab assistants, supplies, materials, equipment, rentals, software licensing, replacement and upgrade, maintenance, and other operational costs specific to the class and/or program.

Online/Hybrid Class Fees

You are responsible to pay online fees if you register for online/hybrid classes. Online and Hybrid costs are listed under the fees section at www.btc.edu/tuition.

Additional Costs

Running Start students are responsible for purchasing books, materials and supplies, as well as uniforms and tools if applicable for your program of study.

Running Start students pay Student Fees for applicable services. See Fees for more information.

When is payment due for Running Start students?

Generally, tuition and fees are due at the following times. For specific dates, see our BTC Campus Calendar. Upcoming dates are also posted in myBTC portal.

Summer: mid-June (full price - no Running Start in Summer)

Fall: mid-August* (timing exception for Running Start)

Winter: mid-December

Spring: mid-March

*Fall Quarter Running Start students are given until the Friday after Labor Day due to high school staff availability during the summer. Signed Running Start Enrollment Verification and payment are due on the Friday after Labor Day.

TUITION & FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

VETERAN ADMISSION PROCESS

Student veterans will follow a similar admission process as other students, however there are some additional requirements. Bellingham Technical College is honored to have veterans as part of our community and is committed to ensuring that all veterans, active duty personnel, reservists, and their families have access to the educational benefits and resources entitled to them. Below are the admission steps tailored for student veterans. You can also find these steps and more information on our website: www.btc.edu/VeteransSteps

1. Complete an online application for BTC programs through the Washington State Web Admissions Center at: www.btc.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 interest list do not need to resubmit an application while waiting for a program opening.

2. Apply for VA Education Benefits. To learn about VA education benefits, please review the Department of Veterans Affairs website. Next, you can complete the Veterans Online Application through the VONAPP website www.vets.gov. It typically takes 6-8 weeks to receive your Certificate of Eligibility, so it is important to plan ahead. If you have questions or need assistance with your application please call 1-888-GIBILL1 (1-888-442-4551) to speak with an Education Case Manager.

3. Send in your military and civilian academic transcripts. The Department of Veterans Affairs requires that any other college transcripts and military training transcript be evaluated for transfer-in credit. This is not an optional step; all transcripts must be evaluated prior to admission. You will need to complete an Evaluation Request Form and have official copies of your transcripts from previous colleges and your military transcripts delivered to BTC. Once we have all of your transcripts and the evaluation request form on file, the evaluation process typically takes up to 3 weeks. Student veterans using educational benefits are not permitted to opt out of prior credit evaluation. For more information regarding transcript evaluation and access to the Transcript Evaluation Policy, please visit the Veterans Support page on BTC's website at: www.btc.edu/veterans

4. Complete the assessment test. If your transcripts are not sufficient to determine course placement you will need to complete an assessment test. It is not a pass/fail test; it simply measures your current skill level. Your scores will help you choose the right classes, make a plan, and obtain any needed support services. Starting with the assessment test means a more successful college experience. No appointment is needed to take the test. Just pay the $25 fee to the BTC Cashier or Campus Store, and

bring your receipt to the Assessment Center. Plan to spend about two hours. Your assessment test will be administered in the Assessment Center, Building H, Room H4. Assessment Center hours are posted at www.btc.edu/assessment.

5. Schedule an appointment with our Veterans Coordinator and Certifying Official. Our Veterans Coordinator will meet with you, so you can learn about on-campus resources and opportunities provided specifically for student veterans. Our Certifying Official will collect all required paperwork and documentation. You will need to work directly with our Certifying Official in regards to your VA Education Benefits. For more information about the required paperwork please visit our website at www.btc.edu/veterans.

6. As a student Veteran in a BTC education program, you will have a quarterly priority registration access time. Your registration access time is located in myBTC portal. Registering at this time allows you to enroll on the first day of registration with new student veterans and with continuing student veterans.

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 assessment test to meet current program-level requirements. The Advanced Placement-Permission Slip, which can be obtained from the Admissions and Student Resource Center or via our website, will need to be completed by the student and turned into the Admissions and Student Resource Center when signatures are obtained.

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

NEW STUDENT ORIENTATION

New BTC students will meet with an academic advisor during the enrollment process for a **GET Started** new student advising session to help you navigate your **G**oals, create an **E**ducation Plan, and become **T**ech Ready, and to register for classes. Additionally, students who begin Fall, Winter, or Spring quarter are required to participate in a New Student Orientation, usually held the day before the quarter begins. Summer Quarter students can attend Fall Quarter orientation. All orientation activities are mandatory. RSVP online at www.btc.edu/Events.

INTERNATIONAL STUDENTS

Bellingham Technical College (BTC) issues the M-1 and F-1 Certificates of Eligibility for technical professional program and Direct Transfer Degree students. Based on program and length of study, the Director of Admissions will determine which VISA is most appropriate for international applicants.

The M-1 Certificate of Eligibility is issued for a period of 12 months. If enrolled in a program longer than 1 year, an Extension of Stay I-538 or application for new M-1 VISA is required. M-1 students must be enrolled full-time every quarter (including summer quarter), may not change their program of study, and may not hold employment while in attendance at BTC.

In comparison, F-1 Certificate of Eligibility is not limited to the 12-month period but is issued for the length of the program. F-1 students may change their program of study and may hold employment on campus.

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 an International Student Admissions paper application. The Washington State Web Admissions online application is not accepted for international students.

• Placement Assessment: Applicants must demonstrate competency in English before an I-20 can be issued. English and math assessment is required before an application can be accepted for program entry. Students in the United States may take the BTC ACCUPLACER Assessment to accomplish math, sentence structure, and reading score requirements. BTC also accepts equivalent college placement scores, the TOEFL (contact Admissions for specifics), IELTS, or certain college coursework for assessment waiver. To inquire more about assessment requirements, please email Admissions at admissions@btc.edu or call 360.752.8345.

• Other Requirements: The following programs have additional prerequisites or admissions requirements: Automotive Technology, Dental Assisting, Dental Hygiene, Diesel Technology, Instrumentation, Nursing, Pastry, Process Technology, Radiologic Technology, Surgery Technology, and Veterinary Technician. Applicants to these programs should contact Admissions at admissions@btc.edu or 360.752.8345 regarding requirements before submitting an application.

When the admissions process is complete and when space is available, applicants are accepted into their program of study. Program start times vary depending on the program and space availability. Some programs have waiting lists of one to several quarters long, which can impact the VISA application timeframe. Once confirmation of start date has been received, international program students must make an appointment with the DSO in the Admissions and Student Resource Center to be issued an I-20 to begin the VISA application process. The following items are required for issuance of an I-20:

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 educational and living costs while in attendance. Students independently supporting themselves must submit the International Student Verification of Funds form with the appropriate signatures. If the applicant is being supported by family funds or other patron, the party who provides the support should sign the Sponsor's Statement of Support form. Bank verification showing the availability of funds meeting or exceeding annual program costs is also required.

• **Student Agreement:** Applicants are required to read and 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

International Education Research Foundation www.ierf.org

CLASS REGISTRATION

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. Class information is published online under Take A Class. Continuing Education courses do not require an admission application in order to register.

REGISTRATION & ENROLLMENT

- A student is considered officially enrolled in a course or program after registering and paying all tuition and fees by specific due dates.

- Each student has the responsibility of registering online in myBTC portal or submitting a completed Registration Form to the Registration Office, reviewing the accuracy of the Student Schedule, and paying tuition and fees each quarter by the due date specified on the college calendar: www.btc.edu/calendar.

- Registering with instructor permission requires staff assistance. Use an Override Request Form or email the class instructor with enough details that Registration staff can add you to the class if your instructor forwards your email with instructor permission granted.

- Students may be dropped for nonpayment from classes if the student's tuition and fees are not paid in full when due.

- Attend the first class! Students may be dropped from classes if the student fails to attend and there is no class participation in a course activity by the second day of class. Non-attendance and no course participation by the second class is considered a No Show.

REGISTRATION DATES AND TIMES

- New Student Registration and General Registration dates are posted on the college calendar: www.btc.edu/calendar.

- Registration access times for Continuing Degree/Certificate Program Students are assigned by cumulative credits earned at Bellingham Technical College with veteran students registering first. Generally, continuing students register for Summer and Fall in May, Winter in November, and Spring in February. Check your individual access time in myBTC portal. Please register at your assigned time or as soon as you can after it.

- Refund dates and drop/withdraw dates are posted for full-quarter-length state-support classes. If your class is shorter, the dates are calculated on a pro-rated basis.

- The last day to withdraw or change your schedule is the last day you may make any changes to your schedule for the quarter. (Exception: If a short class begins after this date, you may be able to add/drop/withdraw in writing. Contact the Registration Office regarding specific classes that start toward the end of the quarter.)

- Check myBTC portal and the college calendar at www.btc.edu/calendar for important dates and deadlines.

CLASS WAITLISTS

Class waitlists are available for open enrollment classes. One day classes do not have a class waitlist. There is no waitlist on a class reserved for a cohort of students.

Students are responsible for choosing to be placed on a class waitlist and removing a class waitlist if they no longer wish to take the class. Students can view and manage class waitlists in myBTC portal. Students are automatically registered into class through the first night of the quarter. Instructor permission is required beyond the first day of class. Refunds will not be granted if a student registered into a class from a class waitlist and did not drop the class.

CHANGING CLASSES

Students add and drop classes in myBTC portal. Written requests are accepted in person on a signed Add/Drop Form, Override Request Form, or by a specific and detailed email from the student's email account. Non-attendance in a class for which a student is officially enrolled does not constitute an official drop or withdrawal.

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.

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 and two-three (2-3) days in Summer Quarter to change their schedule. Adding a class will depend on space available. Instructor permission is required to add a class after the fifth day of the quarter and second or third day in Summer Quarter. Academic/General Education classes require permission to add the class after the second (2nd) day of the quarter. A few programs require permission if the class has started. 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.

DROPPING CLASSES

Students may remove a class from their schedule in myBTC portal. Written requests are also accepted in person on a signed add/drop form, or by a specific and detailed email from the student's email account.

A class is dropped if the student removes the class by the census date of the class, which is the 10th day (excludes weekends and legal holidays) of the quarter or 20% of the class as calculated by the computer. A dropped class is removed from the student's class schedule and transcript.

WITHDRAWAL PROCEDURE

1. We strongly recommend that you meet with your advisor to discuss plans for withdrawal and potential plans for return.

2. Removing a class after the class census date (the 10th day of the quarter or 20% of the class) results in a withdrawal. The class

will appear on your student schedule and transcript with a W grade. It will not calculate in your GPA, but it may count as a class attempted for Financial Aid satisfactory progress.

3. 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.

4. To officially withdraw from a course, students must withdraw online or submit an Add/Drop form to Registration 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. For short classes, BTC calculates withdrawal deadlines based on start date, end date, and 75% of instructional days.

5. If withdrawing completely online from BTC, complete a brief Withdrawal Survey.

6. Submitting a petition for a Hardship Withdrawal allows students who cannot complete a quarter due to unanticipated medical emergencies (not short-term or chronic illnesses), a call to active military duty or an emergency or family crisis to request to be withdrawn from all classes by the last day of their enrolled quarter. Third-party documentation is required, and tuition and fee refunds apply only to medical reasons and military call up. No petitions for Hardship Withdrawals will be accepted after the last day of the quarter.

7. BTC reserves the right to administratively withdraw students with notification under the following conditions:
   - Student meets the criteria of a No Show
   - Student has not paid tuition and fees by the payment deadline or financial aid funding has been terminated
   - Student has not successfully fulfilled the prerequisites for a class or program
   - Student has exceeded the class repeat limit of a total of three times
   - Student is academically suspended, enrolled for the next quarter, and does not have an academic re-admission plan by the 5th day of the quarter
   - Student violates the Student Code of Conduct

COST OF ATTENDANCE

When estimating the cost of attending Bellingham Technical College, you will take into consideration

1. Tuition rates
2. Program & Class Fees
3. Books, Supplies, Uniforms, Tools, and any additional items needed for your specific program
4. Living expenses

Cost information is available online at www.btc.edu/tuition.

Each program provides cost estimates on our website under Degrees & Classes.

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 to 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.edu/tuition to obtain a current tuition and fee schedule at the time of application and before payment is due. Tuition and fee charges will vary depending on credit load and program fees.

TUITION

Tuition is based on residency. See www.btc.edu/residency. Tuition rates are published online at www.btc.edu/tuition.

PROGRAM AND COURSE FEES

Program and course fees are in addition to tuition and address distinct costs such as lab fees and assistants, supplies, materials, equipment, rentals, software licensing/replacement/ upgrade, maintenance, and other operational costs.

OTHER FEES

Application Fee (separate application fee for select health programs) None

Replacement Student Body Card $5.00

Unofficial Transcript (available on website) None

Official Transcript (order online) $7.25

Replacement Degree/Certificate (per copy) $5.00

See Health programs for Admissions Fees

REFUND POLICY

STATE-FUNDED CREDIT CLASS REFUND POLICY

(Supported with State funds)
   - 100% refund if a student withdraws from a class through the 5th instructional day of the quarter.
   - 50% refund if a student withdraws after the 5th 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 REFUND POLICY

(Supported by student fees)
- 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

- The refund will be calculated based on the date the drop or withdrawal takes place online, or the date the Add/Drop form is submitted to Registration 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.

- 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 more information.

- 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, and a Hardship Withdrawal Form with third-party supporting documentation. Circumstances warranting a refund exception are medical reasons or being called into military service of the United States.

- 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 drop or withdraw from your class during a partial or zero refund period.

WASHINGTON STATE RESIDENCY

Students will be initially classified as resident or non-resident based on the information provided on the Admissions Application. Bellingham Technical College complies with applicable state laws regarding residency classification. Washington residency law is codified in RCW 28B.15 and further explained in WAC 250.18.

In general, a student is considered a resident for tuition and fee purposes under the following conditions:

1. The student is a US citizen, or has permanent or temporary resident status, or holds Refugee-Parolee or Conditional Entrant status with the United States Immigration and Naturalization Service, or is otherwise permanently residing in the United States under color of law; and

2. The student is financially independent for the current calendar year and the calendar year prior to which application is made (if the student is not financially independent, then his/her residency is based on whether one or both parents have met all residency requirements); and

3. The student (or, if financially dependent, at least one of the student's parents) is in Washington primarily for reasons other than educational and has officially established Washington as his or her true, fixed and permanent home and place of habitation for a period of at least one year prior to the start of the quarter of enrollment.

For information about how to request reclassification, BTC accepted waivers, and residency forms, see www.btc.edu/residency.

Students taking only classes in Transitional Studies, Child & Family Studies, First Aid, or self-support classes are not subject to residency requirements. If you move from these classes into state-funded academic and/or vocational classes, residency requirements will be applicable.

BTC Tuition Waiver
Bellingham Technical College offers a partial Tuition waiver for US Citizens and students holding Permanent Resident status who are residents of the 50 States and US Territories. This waiver is applied as part of our Admissions process.

TAX CREDIT INFORMATION

Several education tax benefits are available to lessen the burdens of higher education. Tax credits such as the American Opportunity Tax Credit or the Lifetime Learning Credit may be claimed for qualified tuition and educational expenses. After the end of each tax year, students will be mailed a 1098T form reflecting qualified payments to BTC from the Washington State Board of Community and Technical Colleges. This form, which is also viewable online using your student login information, can be used to complete the appropriate tax credit claim forms. Contact your tax advisor or the IRS for assistance with these credits or other tax questions.

PAYING FOR COLLEGE

Financial Aid

College Services Building, Room 101

Email: finaid@btc.edu Phone: 360.752.8351

BTC Federal School Code: 016227

Bellingham Technical College believes people should have the opportunity to achieve their educational goals, and we are here to help support your educational efforts. To help finance your education, you must become familiar with Student Financial Resources, which includes the Financial Aid Office and the Workforce Funding and Student Support Office. To learn more, visit our website at www.btc.edu, read the Student Financial Aid Handbook (located under Financial Aid Forms or in your Financial Aid Portal), or contact our office.

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 allows students' aid applications to be reviewed before the beginning of the quarter, and a better chance of receiving limited first-come first-served funding.

Students 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 FORMULA:

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 Expected Family Contribution, eligibility for grants, scholarships, work-study, and Federal Loans.

TUITION PAYMENT PLAN

Nelnet Business Solutions, an approved third-party vendor, allows students to pay for tuition and fees over time during the quarter. Tuition payment plans break down your tuition balance into affordable monthly payments. There's no interest, payment options are flexible, setup fees are affordable, and it's easy to enroll. Find out more at
http://www.btc.edu/CurrentStudents/StudentResources/NelNet.aspx

FINANCIAL AID PROGRAMS

FINANCIAL AID APPLICATION PROCEDURE

Complete and submit the Free Application for Federal Student Aid (FAFSA) online. This application collects financial data and other information used to calculate the Expected Family Contribution (EFC), which determines a student's basic aid eligibility. Students may complete their FAFSA online at www.fafsa.ed.gov. To use this site, you must create an FSA ID at fsaid.ed.gov. Once BTC receives your FAFSA, other information may be requested from you to complete your file. The Financial Aid office will contact you via the email address on your FAFSA to let you know what is still needed. Most of the necessary forms may be downloaded from the Student Financial Aid Portal at www.btc.edu/financialaidportal, or from the financial aid forms section of the BTC Financial Aid website at www.btc.edu/financialaidforms.

Be certain that all required information has been received to complete your file. Students must reapply for financial aid each academic year by submitting a new FAFSA after October 1 prior to the new award year. Each financial aid year begins with Summer Quarter and ends with Spring Quarter. Since some funding is first-come, first-served, you should apply as soon as possible.

ELIGIBILITY REQUIREMENTS

Students are eligible for financial aid if they are:

1. Attending a financial aid-eligible program 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 or on the Financial Aid webpage 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 military 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.

Only classes required for a student's aid-eligible program may count toward financial aid awarding.

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 typically begins in March.

SATISFACTORY ACADEMIC PROGRESS

To remain in good standing, students need to maintain a cumulative 2.0 grade point average and complete at least two-thirds of their attempted credits. All attempted credits count, no matter who paid for them. Contact the Financial Aid Office or visit the Financial Aid section of the BTC website.

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 state and federal 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 see the Student Financial Aid Handbook online or in your Financial Aid Portal.

AVAILABLE FINANCIAL AID PROGRAMS

This is a brief summary of some of the financial aid available at BTC. For a more detailed account of awards and requirements, please see the Student Financial Aid Handbook on our website or in your Financial Aid Portal.

FEDERAL PELL GRANT
The federal Pell Grant is free monetary assistance for educational expenses. Students who have earned a bachelor's degree are not 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 completion of the FAFSA or WASFA for DREAMer (undocumented) students.

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 or read the Student Financial Aid Handbook on our website or in your Financial Aid Portal.

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. All placements are on campus.

FEDERAL DIRECT AND PLUS STUDENT LOANS

The Federal Direct student loan is guaranteed by the federal government; students do not need established credit to qualify. Students must be enrolled in at least 6 program-eligible credits (half-time) to qualify. Repayment begins up to six 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 Certifying Official 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.

BTC FOUNDATION SCHOLARSHIPS FOR STUDENTS

The BTC Foundation awards more than $275,000 in scholarships each year to an average of 50% of the students who apply. The scholarship application is available online at the beginning of Spring Quarter with the application deadline typically on or around June 30. Learn more at www.btc.edu/scholarships.

WORKFORCE FUNDING & STUDENT SUPPORT

Workforce Funding & Student Support, a program within Student Financial Resources (College Services Building, 102), oversees some additional student funding resources. Students may be eligible for funding beyond their FAFSA financial aid package (see Financial Aid section).

Basic Food Employment & Training (BFET)

BFET is a funding source to assist 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 360.752.8468 for more information and find us at www.btc.edu/bfet.

Passport to College

Passport to College assists foster youth with the cost of attending college (tuition, fees, books, housing, transportation, and some personal expenses), and specialized support services from a designated college staff member. Passport serves former foster youth who: 1) spend at least one year in foster care in Washington state after their 16th birthday, 2) emancipate from care on or after January 1, 2007, 3) enroll at least half-time in an eligible college by their 22nd birthday, 4) maintain Washington residency, and 5) are working toward earning their first degree or certificate. For more information call 360.752.8468 and find us at www.btc.ctc.edu/passport.

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 for 45 credits and fees up to $200, as well as $1,000 for books and tools. The program is available to students below 200% of the federal 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, Machining, Electrician, Industrial Maintenance& Mechatronics, Instrumentation & Control Technology, Mechanical Engineering, HVAC, Electronics, Process Technology, Automotive Technology, Diesel Technology, Surgery Technology, Radiologic Technology, Nursing, Dental Hygiene, and Dental Assistant (eligible programs are subject to change). Opportunity Grant supports students through financial aid planning, program choice, academic advising, and support services. For more information on how to apply, call 360.752.8468 and find us at www.btc.edu/opportunitygrant.

WorkFirst

WorkFirst is available to low-income parents who receive Temporary Assistance to Needy Families (TANF) through DSHS. 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. Students choose a career plan that may include development of basic skills, better employability skills, or a new career, in order to progress in a pathway toward employment. Contact WorkFirst staff at 360.752.8468 and find us at www.btc.edu/workfirst.

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 four years, 4) are displaced homemakers, 5) were self-employed but closed the business due to economic conditions in the community, 6) are veterans who were discharged within the past four years.

Bellingham Technical College can typically financially assist eligible students during their first quarter, or to bridge a gap in funding at any point in a program of study. In addition to potential funding for a quarter, Worker Retraining offers assistance in a variety of other arenas, including program ready list priority under some circumstances, and coordination of programs and services with WorkSource and the Employment Security Department. To find out more, please contact the Bellingham Technical College Worker Retraining Coordinator at 360.752.8468 and find us at www.btc.edu/workforcefunding.

DREAMers (undocumented students)

Bellingham Technical College (BTC) is committed to assisting all students

succeed, regardless of citizen status. New state law and funding has increased opportunities for non-citizens to access higher education. At BTC, these students are called DREAMers. For more information on admissions, financial aid and DACA please call 360.752.8468 or find us at www.btc.edu/dreamers

ADVISING & CAREER SERVICES

Admissions & Student Resource Center
College Services Building, Room 106
Email: advising@btc.edu Phone: 360.752.8450

Once students declare their program intent at BTC, they will be assigned an academic and career advisor who will help ensure they are on track with course planning and ready to enter their program of choice. Once the student is enrolled in their program, a faculty member will serve as the advisor for the remainder of the program. However, their advisor in Advising & Career Services will stay connected to the student to assist with career development activities.

Enrolled students may find their advisor name and contact information by entering their SID at www.btc.edu/MyAdvisor

Academic and career advisors work with students in a variety of ways to help them achieve both their educational and career goals:

- Set academic goals that are relevant to the student's desired career field
- Create an education plan that helps guide a student in choosing courses for future quarters
- Learn about the different technology resources students use at BTC and practice tech readiness

Contact Advising & Career Services if you have questions.

STUDENT LIFE & SERVICES

3

STUDENT LIFE & SERVICES

ADVISING & CAREER SERVICES

College Services Building, Room 106
Email: advising@btc.edu Phone: 360.752.8450
Website: www.btc.edu/Advising

The goal of BTC academic and career advisors is to help students get started in their educational and career planning, be a student resource while they are at BTC, and help them prepare for and enter the workforce after graduation. Resources include:

- Career exploration and advising including vocational assessments, employment outlook and more

- Building an educational plan to know the classes needed to enter and make efficient progress in a program

- Job and internship searching assistance including résumé and cover letters, interviewing, applications, etc.

STUDENT SUPPORT SERVICES: TRIO AND STAR

Campus Center Building, Rooms 218 & 221 (TRIO)
Email: trio@btc.edu Phone: 360.752.8640

TRIO Student Support Services is a federally funded program on campus aimed at helping students adjust to college life, succeed in their classes, graduate with a degree or certificate, and start their career or transfer to a four-year university to continue their education. See BTC's website for more information about services and eligibility: www.btc.edu/TRIO

Campus Center Building, Room 216 (STAR)
Email: star@btc.edu Phone: 360.752.8645

STAR is a free academic support program dedicated to helping students succeed. Students partner with a Success Coach to create an individualized success plan designed to indentify and address potential barriers, learn to set realistic and attainable goals, and access resources that will increase overall academic, career, and personal achievements. See BTC's website for more information about services and eligibility: www.btc.edu/STAR

COUNSELING SERVICES

College Services Building, Room106
Email: counseling@btc.edu Phone: 360.752.8450

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.

REGISTRATION

College Services Building, Lobby
Email: registration@btc.edu Phone: 360.752.8350

Registration provides support to students to meet their educational 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/drops/withdrawals), enrollment verifications, processing official transcript requests, maintaining student records, notifying students who do not meet satisfactory progress, degree audit assistance and verifying program course requirements at the time of completion.

ACCESSIBILITY RESOURCES:
ACCESS AND DISABILITY SERVICES

College Services Building, Room 106
Email: ar@btc.edu Phone: 360.752.8450

Accessibility Resources (AR) exists to create 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 student independence and to ensure recognition of their abilities, as well as their disability challenges. Additionally, AR 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 a timely manner, as well as providing documentation prepared by a certified medical doctor, psychologist, or psychiatrist with credentials to diagnose the student's disability. For complete documentation guidelines, please visit our website at www.btc.edu/ar.

An initial appointment with the AR Coordinator is required to access accommodations through BTC's AR Office. While documentation is only submitted once, accommodation requests need to be made each quarter of attendance, optimally four weeks prior to the quarter start date. Late requests may result in a delay of accommodation placement. Call 360.752.8450 for more information.

DIVERSITY/MULTICULTURAL SUPPORT SERVICES

College Services Building, Room 106
Email: diversity@btc.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 360.752.8345.

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 composed of more than 20 ethnic backgrounds, as well as single parents, veterans, adults seeking new careers, immigrants, GED holders, English language learners, 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.

VETERANS SUPPORT SERVICES

College Services Building
Email: veterans@btc.edu
Phone: Director of Multicultural and Student Support
Services 360.752.8377

Bellingham Technical College is honored to have veterans as part of our community and is committed to ensuring that all veterans, active duty personnel, reservists, and their families have access to the educational benefits and resources entitled to them. Below is a selection of services that we offer to our veteran community.

Early Registration for Veteran Students

As a veteran enrolled in a BTC educational program, you get to register first for next quarter classes. Watch for your registration access time in myBTC portal and register right after your assigned time.

Residency Status Review

If you are a veteran with non-resident status whose separation date is within the last three years, we would like to review your residency status. The VA School Certifying Official at BTC is able to assist student veterans and dependents with residency questions and paperwork.

Advising/Educational Plan

Our Advising and Career Services office has staff available who are acquainted with veterans' concerns regarding course scheduling. Email: advising@btc.edu

Benefits, Resources, Residency and more

See BTC's website at www.btc.edu/veterans for details.

STUDENT VETERANS OF AMERICA, BTC CHAPTER

The BTC Veterans Club, a chapter of Student Veterans of America (SVA), consists of a board of elected student executives and staff advisors, and convenes weekly for lunchtime meetings open to the general campus community. The purpose of this club is to foster peer support within the veteran community on campus, give veterans a place to meet one another, and act as a platform for discussing and advocating for veterans' academic needs. This club is recognized nationally by the SVA ,as well as internally by the Associated Students of Bellingham Technical College (ASBTC).

Club meetings

Wednesday from 11am – 12pm
in Building H, Room H-17
All are welcome.

Graduation Honor Cords

BTC veteran graduates are given Veteran Honor Cords for the Commencement Ceremony. Pick up your Veteran Honor Cord during Commencement check-in.

TRANSITIONAL STUDIES

Building A
Email: ts@btc.edu Phone: 360.752.8494

The mission of the Transitional Studies program is to prepare students for lifelong success by facilitating basic academic learning, college preparation, and workplace behaviors and attitudes. Find out more about Transitional Studies programs online at www.btc.edu/TransitionalStudies

The Transitional Studies program offers:

- College Readiness including reading, writing, and math
- High school equivalency (GED)
- Youth Re-engagement Program (IMPACT!)
- High school completetion (WA State diploma)
- English Language Acquisition (ELA) for immigrants and Limited English Proficient (LEP) DSHS clients
- Career pathway planning
- Integrated Basic Education and Skills Training (I-BEST)

Adults seeking Transitional Studies classes should contact the Transitional Studies office for information. Transitional Studies hours are Monday through Friday from 8:00 am to 4:00 pm.

The Transitional Studies program is open to adults who meet the following requirements:

- Need basic education skills (reading, writing, math, English language)
- Lack a high school diploma or equivalency (GED)
- Commit to regular attendance
- Have the 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.

LIMITED ENGLISH PROFICIENT (LEP) PATHWAY ENGLISH LANGUAGE ACQUISITION (ELA)

The Limited English Proficient (LEP) pathway ELA program is a specially funded class for recent immigrant adults referred through DSHS. ELA Levels 1 through 4 are taught in this program.

ASSOCIATED STUDENT GOVERNMENT

Campus Center, Room 300
Email: asbtc@btc.edu Phone: 360.752.8357

The Associated Students of Bellingham Technical College (ASBTC) comprises all enrolled BTC students. Through the ASBTC, students have a voice to assure that student issues and concerns are heard.

Students who participate in student government help establish

campus policies and procedures, allocate the services and activities fees, serve on college and student committees and evaluate student programs and services to meet the changing needs and interests of the students.

Interested in participating in student governance? Contact ASBTC now!

ASBTC Goals:

- 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.

ASBTC is fully supported by BTC faculty, staff, administration, and trustees. Joining is a great way to get involved with issues that affect all students and to develop skills in leadership, cooperative governance, and community building.

PHI THETA KAPPA HONOR SOCIETY

College Services Building, Room 106
Email: ptk@btc.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 or higher. 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 bi-weekly on campus. All members are encouraged to participate and get involved, but participation is not a requirement of membership.

LIBRARY

Campus Center Building, 3rd Floor
Email: library@btc.edu Phone: 360.752.8383

The Bellingham Technical College Library supports student research and learning. Books, DVDs, journals, eBooks, and digital resources are specifically selected to support the college curriculum. The BTC Library's digital resources include eBooks and journal databases that offer access to full-text journals, and newspapers. Access to the BTC Library's catalog and digital resources is available at www.btc.edu/library.

Library users are encouraged to ask for help. Library staff can give you individual assistance and instruction from the Information Desk and through the Book-A-Librarian service in-person or online. 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, the campus's open computer lab. The BTC Library is the front line of support for all student technology questions. There are computers equipped with software to support program coursework, an Information and Digital Literacy classroom, and a computer station equipped with accessibility support software. Students may access the wireless network using their personal devices.

Students may check out digital cameras, digital recorders, flash drives, laptops, and iPads at the Library Information Desk. To facilitate both quiet and group study there are eight group study rooms in addition to tables and casual lounge furniture. 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.edu/library/AskLibrarian. Library staff are always available to help you with your research, information, and technology questions.

CAMPUS STORE

Campus Center Building main floor
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 10 cents per copy. 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 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, and most debit cards.

FOOD SERVICES

G Building and Campus Center Building, Main Floor
Phone: 360.752.8471

Food service is available in the Lindbergh Avenue Deli & Grill in Building G and at the Common Grounds Coffee Shop in the Campus Center building. The Lindbergh Avenue Deli & Grill serves a selection of hot entrees, and a large variety of hot and cold sandwiches. It features pizza, a salad bar, and other favorites. Common Grounds Coffee Shop (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 Conference and Events Services at 360.752. 8303.

The Culinary Arts program operates the Café Culinairé restaurant in the Campus Center building and the Culinairé Express window in the Cafeteria (G Building). Both are open to the public at selected

times throughout the year. Please visit www.btc.edu/CafeCulinaire for more information.

Vending machines are located in the Campus Center building, Building C, Building G, Building J, Building U, Haskell Center, Des 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. Some programs require student insurance before beginning clinical internships.

Bellingham Technical College students may purchase voluntary student accident and health insurance. Insurance information is available in the Admissions & Student Resource Center in the College Services Building or by calling 360.752.8345.

PARKING

Visitor parking is located in front of the College Services building, the CS lot, at the east end of the campus off Nome Street and the west end of campus in the Y building lot. The C building lot, on Lindbergh and Gilligan Way is reserved for Dental patients and Café Culinairé customers. Registered students, faculty and staff are not visitors and are subject to parking violation tickets, immobilization, and/or towing. Visitors are required to sign in at the Visitors sign-in counters for each lot. Sign-in locations are in the foyers of the College Services building for the CS lot, the A building lobby for the Y lot and in the Dental Clinic in C building and Café Culiniairé for the C lot. Visitor parking is limited to 2 hours.

General free parking in designated spots only is accessed via West Illinois Street in the three (3) parking lots located north of the campus buildings. Designated spots are those parking spaces indicated by a white line on both sides of the vehicle when parked. Parking lots off Nome Street or Lindbergh Avenue are restricted parking for permit, carpool, and handicap parking as designated.

Motorcycle parking is available in four (4) areas around campus and is marked as such.

Maps indicating the appropriate place to park for general, visitor, ADA, and motorcycle parking are available at the Information desk in the College Services lobby as well as in the Library on the third floor of the Campus Center.

Failure to adhere to parking rules as designated on parking lot signage will result in the following:

- Parking violation ticket
- Fines
- Holds on registration, transcripts, financial aid, degrees or certificates
- Immobilization, and/or towing

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. You can obtain the ADA parking permit by accessing a required form at www.dol.wa.gov/forms/420073.pdf. A portion of this form will need to be filled out by your physician. Once completed take the form to any licensing office to receive your ADA permit over the counter.

Information on carpool parking spaces can be obtained by calling the Cashier in the College Services building at 360.752.8311.

The following situations are subject to vehicle immobilization and/or towing; fees are associated with the release of the immobilization device and with towing at the owner's expense:

- Any vehicle that receives three (3) parking violations will be subject to immobilization and/or towing when the third violation or subsequent violations are issued; this is regardless of whether prior fines are paid in full. (Towing companies charge by the hour and by the day for impounded vehicles.)

- Any vehicle parked in a fire lane or in handicap parking without a handicap parking permit are subject to towing and a parking citation by the Bellingham Police Department

- Vehicles left overnight or through the weekend on college property are subject to towing

The Parking Hotline number for immobilized or towed vehicles is 360.752.8798.

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

Disputes on violations may be forwarded to the **Vice President of Administrative Services** or the Vice President of Student Services for disciplinary action.

TUTORING SERVICES

Building H, Room 9 (Math) and Room 15 (Writing & English)
Email: tutoring@btc.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.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, and dental.

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 coursework in English, math, psychology, and transfer-level humanities, social science, or natural science.

Direct Transfer Agreement/Major-Related Program (DTA/MRP) and Associate in Science-Transfer/Major-Related Program (AS-T/MRP) degree options are designed for students who intend to complete a bachelor's degree at a four-year institution before entering the workforce. Completion of these BTC 90-plus credit degrees prepares students to transfer with junior status to a participating college or university.

The Bachelor of Applied Science (BAS) degree is a two-year degree added on top of an existing associate degree or previous bachelor degree.

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.

Upon successful completion of an AAS, AAS-T, DTA/MRP, or AS-T/MRP degree, 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. Students must meet eligibility criteria as defined in bill SHB 1758 and submit an online High School Diploma application. Once verified, High School Diploma will be posted to the student's BTC transcript along with the earned degree.

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, academic 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 advisor and Degree Audit.

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. Use the online Degree Audit to obtain an unofficial audit of classes you have completed and are registered for against the requirements for a specific certificate or degree.

3. Complete and submit the online BTC Graduation Application for each degree or certificate requested to the Registration Office for an official verification of completion.

4. Meet all financial obligations to the college.

5. Earn a cumulative grade point average of 2.0 or above. Individual programs may require a higher grade point average. Your cumulative GPA includes all grades on your transcript.

6. Complete 12 college-level credits in the required course work at BTC.

7. BTC may verify and award certificates and degrees as they are earned.

COMMENCEMENT CEREMONY

All students who complete a program of 45 credits or more by the preceding fall, winter, spring and following summer quarters are eligible to participate in the June Commencement Ceremony. Students must submit an online graduation application and Commencement Participation form by the published deadline. Guest tickets (no charge) are required for the Commencement Ceremony, and each participating graduate receives four tickets that can be picked up at the Commencement Countdown event. Black cap and gown are required and can be purchased through the BTC Campus Store.

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.

Each program has specific requirements unique to that field of study and employment or transfer. For specific General Education requirements, see individual program pages in the catalog, online at www.btc.edu/Degrees, in Degree Audit.

Minimum General Education Requirements

Certificates of 45 credits or more and Associate of Applied Science (AAS) degrees require a minimum of 3-5 credits in Communications, 3-5 credits in Mathematics, and 3-5 credits in Human Relations.

Associate of Science-Transfer (AAS-T) degrees require a minimum of 5 credits in English Composition (ENGL 101), 5 credits in college-level Mathematics, and 10 credits in Science, Social Science or Humanities.

Direct Transfer Agreement/Major-Related Program (DTA/MRP) and Associate in Science-Transfer/Major-Related Program (AS-T/MRP) degrees require General Education to satisfy transfer requirements for universities. See requirements at www.btc.edu/Degrees.

Bachelor of Applied Science degree requirements are posted at www.btc.edu/Degrees.

Classes falling into each of the required categories are listed at www.btc.edu/Academics. Specific programs may be more prescriptive and require a particular class within one of these categories, or may require additional General Education requirements. These requirements are catalog-year specific. Refer to program information at www.btc.edu/Degrees and talk with your advisor regarding particular requirements.
.

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 (valid grade prior to Summer Quarter 2018)
F	0.0

INTERPRETATION OF GRADE SYMBOLS

A (4.0) Excellence in Achievement of Competency

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

B (3.0) Above Average Achievement of Competency

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

C (2.0) Average Achievement of Competency

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

D (1.0) Below Average Achievement of Competency

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

F (0.0) Failure to Achieve Minimum Competency

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

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, the - symbol is no longer used with the letter grade D, and neither the + or - symbols are 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
I (with letter grade)	In-Progress (valid grade prior to Summer Quarter 2005)
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 continuing education 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 academic courses or 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/Academic Credit for Prior Learning (ACPL)

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. Also granted for successful completion of a course challenge (credit by exam).

I - Incomplete

The student completed a significant portion (75% or more) 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.

I with letter grade - In-Progress

The student has completed a significant portion of the course at the time of grading and is performing at the level of the grade identified. In-Progress grades will post each quarter until all course requirements are completed. A final grade will be posted in the quarter of completion.

NP - No Pass

In relation to the standards set for the course, the student did not meet the requirements. No Pass is used for 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. Pass/No Pass used for internship courses, work-based

learning experiences, and clinical courses.

R - Repeat (after letter grade)

A grade qualifer that indicates the course has been repeated. Only the highest grade will compute into the cumulative GPA. This indicator appears after the letter grade of the lowest grade.

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 or dean through evaluation of official transcripts. Effective Summer Quarter 2009, cumulative transfer credits will be noted on the student transcript.

V - Unofficial Withdrawal (valid grade prior to Fall Quarter 2010)

The student discontinued the course and did not officially withdraw.

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 no more than four quarters from the time the grade was awarded.

COURSE REPEAT

- Students who repeat a course need to fill out a Course Repeat form at the time of registration. If registering online, students need to complete a Course Repeat form prior to the course end date.

- Students may not take a class more than three (3) times per state regulation (this is defined as two repeats in addition to the original enrollment). Students must meet with an advisor to develop an educational plan when they repeat a class for a third time. Some programs may have more stringent restrictions for repeating courses (e.g. nursing). Courses with letter grades AU, CR, I, NP, T, or W, are excluded because these grades do not affect the GPA calculation and will remain on the transcript.

- The Repeat Symbol (R) indicates the course has been repeated. Only the highest grade will compute in the cumulative GPA. An R will be placed next to the lowest grade on the transcript.

- Students receiving financial aid or veterans 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 in myBTC portal or at www.btc.edu\transcripts within three business days following the end of the quarter. Grades can be viewed on unofficial transcripts. An unofficial transcript is an unsigned and unsealed copy of the student's academic record and is available online. There is no charge for unofficial transcripts. 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. Official transcripts are requested online through the National Student Clearinghouse at www.getmytranscript.com

GED transcripts are available at www.ged.com

Student records require a student's legal name. In myBTC portal, students may enter a preferred name for faculty class rosters.

It is the student's responsibility to review their transcript for accuracy.

GRADE POINT AVERAGE (GPA)

Quarterly grade point averages are calculated as follows: 1. The number of credits for a course multiplied by the numerical grade awarded to obtain the grade points for that course. 2. Add the grade points for all courses taken. 3. Divide the sum of the grade points earned by the total number of credits attempted in course awarding numerical grades to obtain the GPA for a particular quarter. AU, CR, I, P/NP, T, and W grades are not used in computing grade point average.

ACADEMIC ACHIEVEMENT

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

Honors Designation Awarded to each full-time student enrolled in a degree with a cumulative grade point average of 3.50 or higher at the completion of all degree requirements. Full-time is defined as being enrolled for a minimum of 12 credits per quarter.

- Cum Laude: with honor

     3.50-3.74 cumulative GPA

- Magna Cum Laude: with great honor

     3.75-3.89 cumulative GPA

- Summa Cum Laude: with highest honor

     3.90-4.00 cumulative GPA

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 by full-time program faculty upon program completion. The Certificate of Merit will be awarded one per full time faculty each academic year per cohort of graduates.Certificate of Merit recipients are announced at the June Commencement Ceremony.

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. See Attendance below.

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 coursework competencies.

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

ACADEMIC ALERT/PROBATION/SUSPENSION/READMISSION

Students who do not demonstrate satisfactory progress as defined above will be placed on academic alert. Students who do not demonstrate satisfactory progress for the following quarter will be placed on academic probation. Students will be suspended after three consecutive quarters of unsatisfactory progress. Students are notified by BTC email after quarterly grades have been posted.

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 by the 5th instructional day of the quarter. Once completed and the plan approved by a counselor and the Registrar, the student can enroll. 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 or course syllabus. 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.

Students who fail to attend and there is no class participation in a course activity by the second day of class, may be dropped from class by the Instructor as a No Show.

It is the student's responsibility to officially withdraw from a class and review their Student Schedule for accuracy.

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 and website.

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. It is the college's practice not to provide student contact lists to third parties.

BTC has defined directory information as the following:

- Student name
- Student e-mail addresses
- 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 to remove the restriction. A students name will not appear in the Commencement program or any press releases, and no degree or enrollment verifications will be processed for a third party.

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 college in an administrative, supervisory, academic, research, or support staff position
- Persons serving on college 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 or BankMobile, 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

Officials of the college have 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 obtain this form from their faculty.

STUDENT RIGHTS & RESPONSIBILITIES

DISCRIMINATION AND HARASSMENT

Bellingham Technical College is committed to providing a learning and working environment characterized by mutual respect and fair treatment among all its constituents. An essential component of this environment is a strong ethic and practice of equality, acceptance, and nondiscriminatory interactions. Harassment or discrimination on the basis of race, color, sex, gender, gender identity or manifestation, sexual orientation, religion, age, marital status, national origin, disability, veteran's status, or any other basis prohibited by college policy or by state or federal laws is unacceptable and will be addressed through this policy.

According to federal law, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance."

Furthermore, Bellingham Technical College strives to provide a safe environment in which students and employees can pursue their education and/or employment free from the detrimental effects of sexual misconduct, which includes, but is not limited to, sexual harassment, domestic violence, intimate partner violence, stalking, sexual assault, and other forms of non-consensual sexual behavior.

Sex- and gender-based harassment, discrimination or violence will be addressed through the College's Grievance Rules- Discrimination and Harassment available online (Grievance Rules- Discrimination and Harassment).

Office of the Title IX Coordinator for BTC: 360.752.8440 or titleIX@btc.edu

Office of the Equal Employment Opportunity/Affirmative Action Officer for BTC: 360.752.8549 or hr@btc.edu

STUDENT CONDUCT CODE

All students are subject to the Bellingham Technical College Student Conduct Code published in Chapter 495B-121 of the Washington Administrative Code and as defined in this catalog.

Copies of the entire Student Conduct Code are published and available to students and the campus community in the Admissions and Student Resource Center and the Office of the Vice President of Student Services and are available on the BTC website Student Resources page.

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

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

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 at 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 bi-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; 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 proceedings 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 proceedings. The student, the staff member, and the members of the hearing panel must be present during the proceedings, 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 within 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.

RELIGIOUS OBSERVANCE POLICY

According to RCW 28B.10.039 college students are entitled to two days of excused absences per academic year for reasons of faith or conscience or for organzied activities conducted under the auspices of a religious denomination, church, or religious organization. Students' grades may not be adversely impacted by absences authorized under this policy.

The student must complete and submit the Student Absence for Reasons of Faith or Conscience form to the Vice President of Student Services at least two weeks prior to the intended absence. The Vice President of Student Services will provide the student with a document verifying the date of the approved absence and further instructions. The student must contact each instructor to notify them of their upcoming absence. The instructor will determine and inform the student what adjustments, if any, will need to be made to the student's scheduled classwork or assignments within two days of receiving the student's notification.

CHILDREN ON CAMPUS

No employee, student, or visitor to the College should leave a child unattended at the College including in campus buildings, on campus grounds or in a vehicle. Children are not permitted in classrooms, the library, or other learning environments except with the specific approval of the appropriate instructional Dean, or the Vice President of Instruction on an emergency basis, and for a specified and limited period of time. Children are not allowed in areas where dangerous equipment is operated and/or where chemicals, cleaning products, solvents or hazardous products are stored or used.

SERVICE ANIMALS

Service animals are welcome on the college campus. A service animal is a dog that has been individually trained to do work or perform tasks for an individual with a disability. The dog must be trained to take specific action when needed to assist the person with a disability. Emotional support, comfort, therapy, and/or companion animals are not permitted in the college's building or classrooms.

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.

In response to Senate Bill 5463 the 34 Washington State Community and Technical Colleges modified how SIDs are assigned to new students. The purpose of this change is to move toward a common SID across the system, where students eventually will have one single SID regardless of which and how many colleges in the system they attend.

Students may have the same student ID assigned that was assigned at a previously attended college when they provide a correct social security number. This common SID process only affects students who apply to colleges as of 12/16/2011. It does not apply to previously applied or attended colleges within the Washington State Community and Technical college system.

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, 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 in the Student Center, Campus Center 300. The picture identification card includes the student identification (SID) number, which may be 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 ACTS

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. All of this information is provided to students by e-mail and is also available on the college's website: www.btc.edu.

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

The Lost and Found is located at the Information Desk in the College Services Building.

TRANSFERRING & EARNING CREDITS

CREDIT ACCEPTANCE POLICY

Transfer credit is granted for coursework 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 (2.0) or higher will be considered for transfer credit. Recency of coursework may be considered in acceptance of transfer credit. 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 course work completed elsewhere must order transcripts directly from the institution where the work was completed.

CREDIT EVALUATION PROCEDURES

Students seeking transfer credit must submit official, sealed transcripts from the sending institution and a completed Transcript Evaluation Request form to the Admissions and Student Resource Center. The form and the official transcript will be reviewed by the college-designated transcript evaluator. Processing typically takes 10-15 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 Transcript Evaluation Request form and official transcript or equivalent documentation to the Admissions and Student Resource Center. Program faculty will be consulted to evaluate and determine credit granted for equivalent technical content.

GENERAL EDUCATION COURSES

Students must submit official, sealed transcripts and a completed Transcript Evaluation Request form to the Admissions and Student Resource Center 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 assessment test.

To request credit based on AP scores, students must submit either official AP test scores from the College Board or official high school transcripts containing AP scores along with a Transcript Evaluation Request form to the Admissions and Student Resource Center. Credit will be awarded according to the Advanced Placement Credit Chart which outlines the minimum required scores and corresponding courses, available online at www.btc.edu/

AWARDING CREDIT FOR MILITARY TRAINING

BTC enrolled students who are veterans of any branch of the United States armed services must request transfer credit for military training by submitting an Transcript Evaluation Request form to the Transcript Evaluator. The student must provide official Joint Services Transcript (JST), from the Community College of the Air Force transcript or any other college/university attended.

Per the Veteran's Administration, all veteran student transfer credit must be evaluated with in two quarters of program start. After the third quarter, if the student does not submit all transcripts, the students must be decertified and the use of VA education benefits.

Veteran students using education benefits are not permitted to opt out of prior credit evaluation.

NON-TRADITIONAL CREDIT

GENERAL INFORMATION

- Credits awarded will be for courses taught at BTC
- Students must have completed the admissions process
- Credits may be applied to a maximum of 25% towards a degree or certificate
- Credits are not eligible for Financial Aid or count towards full or part time enrollment
- Credits are not eligible for payment through Running Start
- Other institutions may not accept these credits for transfer from BTC. Check with an Advisor

There are several ways for students to apply credit to their degree or certificate program in addition to completing a course at BTC or transferring credit from another college, university or other institutions, such as:

CREDIT BY EVALUATION

Commonly accepted Higher Education Equivalency exams that are documented on a transcript or another official record including:

1) CTE, 2) Advanced Placement (AP) score credit. 3) International Baccalaureate (IB) score credit 4) College level Examination program (CLEP) score credit 5) Dantes Subject Standardized Tests (DSST; formerly DANTES) score credit 6) American Council on Education (ACE) guide.

CHALLENGE (CREDIT BY EXAMINATION) FOR COURSES

The course challenge is a process permitting students to receive credit in courses in which the student demonstrates the knowledge and expertise of that course. Not all courses have a challenge procedure. Math classes are not eligible to be challenged but assessment test scores and transfer in credit are accepted. To challenge a course, the student submits a Credit by Examination form for approval to the Instructor that teaches the course, registers in a special course section, and pays the $70.00 fee per credit to the Cashier, then completes the exam. The successful challenge of courses will be transcripted with a CR grade.

CREDIT FOR PRIOR EXPERIENTIAL LEARNING FOR PROGRAMS

Credit for Prior Experiential Learning allows students to receive credit for program course requirements 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. Prior experiences include industry certifications, work experiences, and military credit using the ACE Guide for the evaluation of educational experiences in the Armed Services.

Prior learning credit is available for only certain program courses. Approved programs include, Automotive, BCIS, Civil Engineering, Computer Networking, Culinary, Diesel, Electrician, Industrial Maintenance& Mechatronics (formerly EMTEC), HIV/AIDS for Healthcare Workers, Instrumentation, Pastry, Machining, and Welding.

Students in an approved program will submit a Credit by Examination/ Evaluation form to the instructor to determine and indicate which program courses and how many credits will be granted for credit for experiential learning. Once assessed and after

receiving signed approval, the student pays the cashier the $70.00 per credit fee by the third week of the quarter and a CR grade will be posted on to the student's transcript for each course.

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

Questions regarding the Prior Learning Assessment procedure should be directed to the Dean of Professional Technical Education.

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 academic advisor. The applicant must submit official transcripts showing prior college coursework and/ or copies of professional/industry certification(s) with the Evaluation Request form

2. The appropriate professional technical faculty member will conduct the evaluation of technical course equivalency. Faculty may consider professional/industry certifications for credit for prior experiential learning. The assigned college transcript evaluator 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 coursework), 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 Student Resource Center, 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 as advanced-placed students based on the date of completion of all program admission requirements and space availability.

DEGREE AND CERTIFICATE PROGRAM CHANGE

For students who want to change program, add a program, or transfer to a different program, the first step is to discuss the possibility of a program change with a BTC Advisor or Counselor. Staff will determine if you are eligible for the new program, discuss a revised educational plan, and provide the steps for a program change.

Those receiving financial aid or other funding should determine the effect of the change on funding status prior to initiating the change. If you change your class schedule, you will be responsible to pay any additional tuition and fees.

The maximum number of programs you may work on simultaneously is two (2) programs. Funded students pursuing two (2) degrees need to complete a Funding Request for Dual Degrees in the Financial Aid office.

TRANSFERABILITY OF BTC CREDITS

To determine transferability of credits earned at Bellingham Technical College, students must request that an official BTC transcript be forwarded to the college where they want to have credits evaluated. The receiving college will determine the value of coursework completed at BTC. Contact the receiving college for evaluation information and instructions. Official BTC transcripts are available through the Registration and Enrollment Office and can be ordered online through the National Student Clearinghouse at www.getmytranscript.com. The & in a BTC course prefix 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 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 coursework.

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 CTE Dual Credit 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 certain public and private colleges and universities provide BTC students with transfer options to earn four-year degrees related to specific programs of study. To view a current listing of those colleges, please visit the BTC website, www. btc.edu/transferoptions. 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.

COPYRIGHT POLICY: 4.24.490, RCW 28B.10.842, TITLE 17 US CODE

It is the intent of Bellingham Technical College that all members of the College community adhere to the provisions of the United States Copyright Law (Title 17, United States Code, Sect. 101 et seq.). Bellingham Technical College recognizes the Copyright Act of 1976 and subsequent amendments including Guidelines for Off-the-Air Recording of Broadcast Programming for Education Purposes, The Digital Millennium Copyright Act of 1998, and The TEACH Act, which grants authors, publishers, and creators control over the copying, distribution, and performance of their original works. Bellingham Technical College recognizes the importance of the Fair Use doctrine (Section 107 of the Copyright Act of 1976); all staff and faculty shall be responsible for acquainting themselves with its provisions so that the guidelines are followed when copying is done.

5

PROGRAMS OF STUDY

COLLEGE READINESS AND SUCCESS

TRANSITIONAL STUDIES

Building A
Email: ts@btc.edu
Phone: 360.752.8494
The mission of the Transitional Studies program is to prepare students for lifelong success by facilitating basic academic learning, college preparation, and workplace behaviors and attitudes.

The Transitional Studies program offers:

- Adult Basic Education (ABE) including reading, writing, and math
- High School Equivalency preparation (GED or High School diploma)
- Youth Re-engagement Program (IMPACT!)
- High School Completion (HS21+)
- English as a Second Language (ESL) for immigrants and Limited English Proficient-LEP(DSHS) clients
- Career Pathway planning
- Integrated Basic Education and Skills Training (I-BEST)

The Transitional Studies program is open to adults who meet the following requirements:

- Complete a basic academic skills assessment (CASAS)
- Participate in orientation sessions
- Commit to regular attendance
- Have ability to participate positively in an adult learning environment
- 16 years or older and not enrolled in a K-12 school

DEVELOPMENTAL EDUCATION AND SUCCESS

Developmental education classes are courses often required as prerequisite to college-level (100 and higher) courses, but are not college-level.

- Math-Pre-Algebra, Beginning Algebra, Intermediate Algebra
- English-Reading Skills, Fundamentals of English
- College Success

ACCOUNTING

OVERVIEW
Choose Bellingham Technical College's Accounting program to prepare to get top accounting jobs. Employment choices are extensive in the high-demand field of accounting and financial jobs with this associate degree; you could work in a variety of office and business settings doing full-service bookkeeping, accounts receivable/payable, general ledgers, or payroll. If you're good with numbers and have a high attention to detail, BTC's associate degree Accounting Program will provide you a wide range of skills to use with top employers. Our graduates find bookkeeper and accountant jobs at wholesale firms and retail businesses; in local, state, and federal government; with service providers; and with health and education organizations.

PROGRAM OUTCOMES
After successfully completing this program, students will be able to:

- Use Generally Accepted Accounting Principles for sole proprietorships to analyze and record business transactions and prepare financial statements for both a service and a merchandising business.
- Competently use an integrated accounting software program to record transactions and create financial reports and statements.
- Demonstrate the ability to apply payroll laws, compute payroll, record payroll entries and prepare federal and state forms that pertain to payroll.
- Use Generally Accepted Accounting Principles for partnerships and corporations to analyze and record business transactions; prepare and evaluate financial statements.
- Interpret and apply managerial accounting information in various business decision-making roles.
- Use a spreadsheet program to solve business problems using formulas, functions, lists, and charts.
- Apply communication and interpersonal skills in a business environment while providing effective accounting support to an employer.

PROGRAM ENTRY INFORMATION
Students may begin this program any quarter.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Accounting Degree and Certificate students must have a C in all degree classes (required and elective), but there is no minimum overall GPA expectation.

ASSOCIATE OF APPLIED SCIENCE
Accounting Technician, AAS

PROGRAM REQUIREMENTS

QUARTER 1

ACCT 141	Practical Accounting I	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 64 CREDITS

ACCT 141	Practical Accounting I	5 CR
ACCT 242	Practical Accounting II	5 CR

ACCT& 201 May be substituted for ACCT 141 and ACCT 242; the student will need to take an additional 5 credits in electives.

ACCT 243	Practical Accounting III	5 CR

ACCT& 202 May be substituted for ACCT 243.

ACCT 245	Payroll Procedures	5 CR
ACCT 246	Computerized Accounting	5 CR
ACCT 275	Field-Based Experience	5-7 CR
ACCT& 203	Principles of Accounting III	5 CR
BUS 100	Electronic Math Applications	3 CR
BUS& 101	Introduction to Business	5 CR
BUS& 201	Business Law	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 142	MS Excel	5 CR

ELECTIVE COURSES: 6 CREDITS

Students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Courses taken to meet the general education, or program core requirements may not be used for electives. Additional Field-Based Experience (ACCT 275) credits above 5 may be used for elective credits. Students may need to take additional electives to total a minimum of 90 credits towards the degree.

GENERAL EDUCATION COURSES: 20 CREDITS

BUS 150	Math for Business	5 CR
BUS 171	Technical Communications	5 CR
BUS 188	Business English	5 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS:	**90**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Accounting Technician, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

ACCT 141	Practical Accounting I	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 59 CREDITS

ACCT 141	Practical Accounting I	5 CR
ACCT 242	Practical Accounting II	5 CR

ACCT& 201 May be substituted for ACCT 141 and ACCT 242; student will need to take an additional 5 credits of electives.

ACCT 243	Practical Accounting III	5 CR

ACCT& 202 May be substituted for ACCT 243.

ACCT 245	Payroll Procedures	5 CR
ACCT 246	Computerized Accounting	5 CR
ACCT 275	Field-Based Experience	5-7 CR
ACCT& 203	Principles of Accounting III	5 CR
BUS 100	Electronic Math Applications	3 CR
BUS& 201	Business Law	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 142	MS Excel	5 CR

ELECTIVES COURSES: 11 CREDITS

Students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Courses taken to meet the general education, or program core requirements may not be used for electives. Additional Field-Based Experience (ACCT 275) credits above 5 may be used for elective credits. Students may need to take additional electives to total a minimum of 90 credits towards the degree.

GENERAL EDUCATION COURSES: 20 CREDITS

ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR

OR approved alternative from the AAS-T Math course options list.

PSYC& 100	General Psychology	5 CR
OR		
SOC& 101	Introduction to Sociology	5 CR
OR		
CMST& 210	Interpersonal Communication	5 CR
BUS& 101	Introduction to Business	5 CR

TOTAL PROGRAM CREDITS:	**90**

<div style="column 1">

CERTIFICATE
Accounting Assistant Certificate

PROGRAM REQUIREMENTS

QUARTER 1

ACCT 141	Practical Accounting I	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 39 CREDITS

ACCT	141 Practical Accounting I	5 CR
ACCT	242 Practical Accounting II	5 CR

ACCT& 201 May be substituted for ACCT 141 and ACCT 242; the student would take an additional 5 credits in electives.

ACCT 246	Computerized Accounting	5 CR
BUS 100	Electronic Math Applications	3 CR
BUS& 101	Introduction to Business	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 142	MS Excel	5 CR

ELECTIVES COURSES: 5 CREDITS

Students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Courses taken to meet the general education, or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 20 CREDITS

BUS 150	Math for Business	5 CR
BUS 171	Technical Communications	5 CR
BUS 188	Business English	5 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **64**

</div>

<div style="column 2">

ADMINISTRATIVE ASSISTANT

OVERVIEW

Train for a career as an administrative assistant, administrative secretary, office administrator, or office manager and work in your choice of business and office settings. BTC's Administrative Assistant program will prepare you for success in today's business world, as you use your math, communication, and technical reading skills—and discover your personal strengths. The Administrative Assistant program will give you the hands-on and classroom instruction that all kinds of employers need. You could work in service firms like education and health, legal and finance, insurance or real estate. Manufacturing, construction, and transportation companies also hire skilled administrative assistants.

PROGRAM OUTCOMES

After successfully completing this program, students will be able to:

- Type 35 words per minute with no more than four errors on a three-minute timed writing.
- Produce accurate business documents in a variety of file formats using computer technology and applying editing and language skills.
- Use a spreadsheet program to solve business problems using formulas, functions, lists, and charts.
- Apply techniques for managing time, records, and meetings in an office environment.
- Organize records according to ARMA rules and procedures.
- Use Microsoft Outlook to create electronic messages and contacts, manage multiple calendars, and track tasks.
- Design and create a relational database that includes tables, multiple form types, simple and action queries, and reports
- Integrate Microsoft Access and Word to prepare a mail merge for form letters, mailing labels, and envelopes.
- Apply communication and interpersonal skills while providing effective administrative support in an office environment.

PROGRAM ENTRY INFORMATION

Students may begin this program any quarter.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

PRE-PROGRAM COURSE REQUIREMENTS

- Students must have an ACCUPLACER score of 50 in Arithmetic or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Administrative Assistant Degree and Certificate students must have a C in all degree classes (required and elective), but there is no minimum overall GPA expectation.

</div>

Bellingham Technical College

ASSOCIATE OF APPLIED SCIENCE
Administrative Assistant, AAS

PROGRAM REQUIREMENTS

QUARTER 1

BUS 188	Business English	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 70 CREDITS

ACCT 141	Practical Accounting I	5 CR
BUS 100	Electronic Math Applications	3 CR
BUS 123	Records Management	3 CR
BUS 188	Business English	5 CR
BUS 232	Office Procedures	5 CR
BUS 276	Field-Based Experience	5 CR
OR		
LGL 225	Field-Based Experience	5-7 CR
BUS& 101	Introduction to Business	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
CAP 114	MS Outlook	2CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CAP 200	Integrated Computer Applications	5 CR

ELECTIVES COURSES: 5 CREDITS
Administrative Assistant students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Field-Based Experience courses may not be used as elective. Courses taken to meet the general education or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 15 CREDITS

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

TOTAL PROGRAM CREDITS:	**90**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Administrative Assistant, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
ENGL& 101	English Composition I	5 CR

TECHNICAL CORE: 55 CREDITS

ACCT 141	Practical Accounting I	5 CR
BUS 100	Electronic Math Applications	3 CR
BUS 123	Records Management	3 CR
BUS 232	Office Procedures	5 CR
BUS 276	Field-Based Experience	5 CR
OR		
LGL 225	Field-Based Experience	5-7 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 146	MS Access	5 CR
CAP 200	Integrated Computer Applications	5 CR

ELECTIVES COURSES: 15 CREDITS
Administrative Assistant students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Field-Based Experience courses may not be used as elective. Courses taken to meet the general education, or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 20 CREDITS

ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR

OR approved alternative from the AAS-T Math course options list.

PSYC& 100	General Psychology	5 CR
OR		
SOC& 101	Introduction to Sociology	5 CR
OR		
CMST& 210	Interpersonal Communication	5 CR
BUS& 101	Introduction to Business	5 CR

TOTAL PROGRAM CREDITS:	**90**

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

OVERVIEW

Love cars and want to make fixing them your career? Bellingham Technical College's Automotive Collision Repair Technology program will give you training for a career as an automotive collision repair technician, automotive glass specialist, painter, or auto body repair shop manager. BTC's automotive classes will train you for all aspects of automotive repair, using the latest technological processes and equipment in our full-service shop. Your training will include trade-specific skills, such as how to repair and refinish damaged vehicles.

BTC's Auto Collision Repair program will train you with hands-on instruction that will earn you top jobs with employers such as independent automotive repair shops, car detailing shops, automotive manufacturers, automotive recyclers, and more.

The Auto Collision Repair Technology program is an I-CAR Industry Training Alliance member.

PROGRAM OUTCOMES

Graduates of the Automotive Collision Repair Technology AAS and AAS-T Degree Program will be able to:

- Use basic industry tools, equipment and hazardous materials safely;
- Diagnose and repair basic non-structural auto body damage to I-CAR standards;
- Assess damaged vehicles and perform structural auto body repairs to I-CAR standards;
- Diagnose and repair various types of plastic and composites used in the automotive industry;
- Refinish various substrates to pre-accident condition;
- Obtain I-CAR aluminum welding certification;
- Obtain I-CAR steel welding certification.

Graduates of the Automotive Collision Repair Technology Non-Structural Repair Certificate Program will be able to:

- Use basic industry tools, equipment and hazardous materials safely;
- Diagnose and repair basic non-structural auto body damage to I-CAR standards;
- Diagnose and repair various types of plastic and composites used in the automotive industry;
- Apply basic refinishing concepts to industry standards.

PROGRAM ENTRY INFORMATION

This program admits students in fall quarter.

- A driver's license is not required to enroll in the program.
- Driving citations will not restrict, or prevent students from enrolling in the Automotive Collision Repair Technology Program; however, citations may prevent some internship and/or employment opportunities.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Automotive Collision Repair Technology Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C- for CRT courses and a minimum grade of C/2.0 for academic courses.

ASSOCIATE OF APPLIED SCIENCE

Automotive Collision Repair Technology, AAS

PROGRAM REQUIREMENTS

QUARTER 1

CRT 101	Introduction to Shop Safety	3 CR
CRT 102	Automotive Refinishing Basics	10 CR
CRT 103	New Technology and Exterior Trim	3 CR
AENGL 100	Applied English	5 CR

QUARTER 2

CRT 121	Removable Panels & Glass	3 CR
CRT 122	Non-Structural Body Repair	8 CR
CRT 123	Auto Collision Exterior Lighting and Plastics	4 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 3

CRT 131	Ferrous Auto Collision Welding	4 CR
CRT 132	Non-Ferrous Auto Collision Welding	5 CR
CRT 133	Alternative Exterior Panel Replacement	4 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 4

CRT 201	Advanced Collision Concepts I	5 CR
CRT 202	Admin Industry Simulation	6 CR
CRT 203	Non-Structural Industry Simulation	6 CR

QUARTER 5

CRT 221	Advanced Collision Concepts II	5 CR
CRT 222	Structural Industry Simulation	6 CR
CRT 223	Refinish Industry Simulation	6 CR

QUARTER 6

CRT 231	Final Industry Certification	2 CR
CRT 232	Weld Certification Aluminum	3 CR
CRT 233	Weld Certification Steel	3 CR
CRT 234	Field-Based Experience	7 CR

TOTAL PROGRAM CREDITS: 108

AUTOMOTIVE TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Automotive Collision Repair Technology, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
CRT 101	Introduction to Shop Safety	3 CR
CRT 102	Automotive Refinishing Basics	10 CR
CRT 103	New Technology and Exterior Trim	3 CR
ENGL& 101	English Composition I	5 CR

QUARTER 2
CRT 121	Removable Panels & Glass	3 CR
CRT 122	Non-Structural Body Repair	8 CR
CRT 123	Auto Collision Exterior Lighting and Plastics	4 CR
MATH& 141	Precalculus I	5 CR

QUARTER 3
CRT 131	Ferrous Auto Collision Welding	4 CR
CRT 132	Non-Ferrous Auto Collision Welding	5 CR
CRT 133	Alternative Exterior Panel Replacement	4 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 4
CRT 201	Advanced Collision Concepts I	5 CR
CRT 202	Admin Industry Simulation	6 CR
CRT 203	Non-Structural Industry Simulation	6 CR
SOC& 101	Introduction to Sociology	5 CR

QUARTER 5
CRT 221	Advanced Collision Concepts II	5 CR
CRT 222	Structural Industry Simulation	6 CR
CRT 223	Refinish Industry Simulation	6 CR

QUARTER 6
CRT 231	Final Industry Certification	2 CR
CRT 232	Weld Certification Aluminum	3 CR
CRT 233	Weld Certification Steel	3 CR
CRT 234	Field-Based Experience	7 CR

TOTAL PROGRAM CREDITS: 113

CERTIFICATE
Non-Structural Repair Certificate

PROGRAM REQUIREMENTS

QUARTER 1
CRT 101	Introduction to Shop Safety	3 CR
CRT 102	Automotive Refinishing Basics	10 CR
CRT 103	New Technology and Exterior Trim	3 CR

QUARTER 2
CRT 121	Removable Panels & Glass	3 CR
CRT 122	Non-Structural Body Repair	8 CR
CRT 123	Auto Collision Exterior Lighting and Plastics	4 CR

TOTAL PROGRAM CREDITS: 31

OVERVIEW

If you're interested in how cars and trucks run and how you can service and repair them, choose BTC's automotive technician training program, which will help prepare you for top jobs in the automotive field.

Career choices are extensive in the field of automotive technology; you'll be well-qualified for automotive technician or service technician jobs. Or you can work as a specialist in automatic transmission, brake, engine performance, or electrical systems. If you're looking for an Automotive Technology associate degree program or certificate program that provides a wide range of high-demand skills sought by top employers (including automotive dealerships, auto rental companies, federal and local government repair shops, and fleet maintenance businesses), then check out the program at Bellingham Technical College.

PROGRAM OUTCOMES

After successfully completing this program, students will be able to:

- Comply with personal and environmental safety practices specific to the automotive industry.
- Evaluate and use technical information and testing procedures from a variety of sources to diagnose and repair various automotive system failures.
- Perform maintenance and light repair common to the automotive industry.
- Diagnose and repair common electrical and electronic system failures.
- Perform diagnostics and repairs consistent with an entry-level automotive technician.
- Communicate and document work performed using trade specific language.
- Demonstrate positive work traits and excellent customer service skills as a member of a technical team.

PROGRAM ENTRY INFORMATION

This program admits students once a year in the fall quarter.

PROGRAM START

Prior to registering for program classes, students are required to submit the following documentation to the Admissions Office:

1. Copy of your valid Driver's License (with no restrictions due to driving offenses);
2. Current complete 3-year driving record from Washington State DOL. This copy of your driving record will be kept on file for advising purposes only;
3. Signed Industry Expectations form indicating that you understand program admission requirements and industry hiring standards.

IMPORTANT PROGRAM NOTES

1. You are required to maintain a valid driver's license as long as you are enrolled in this program;
2. Many employers, in this field, will only hire applicants who have a clean driving record;

3. Driving records (abstracts) can be obtained for a fee. It is the responsibility of the applicant to pay for and order his/her driving records. You may obtain a copy of your current "Abstract of Driving Record" at your local Department of Licensing or by accessing the Washington State Department of Licensing on the web at www.dol.wa.gov

4. A renewed copy of your valid driver's license (with no restrictions due to driving offenses) will again be required at the start of your second year in the program;

5. All General Education courses must be completed prior to the beginning of the 2nd year.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Automotive Technology AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE
Automotive Technology, AAS

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR
AMATH 100	Applied Occupational Math	5 CR
AENGL 100	Applied English	5 CR

QUARTER 2

AUTO 104	Engines Light Mechanical	7 CR
AUTO 105	Engines Major Mechanical	5 CR
AUTO 106	Applied Engines Technology	6 CR
AUTO 151	Electricity/Electronics	2 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 3

AUTO 107	Brakes	6 CR
AUTO 113	HVAC	4 CR
AUTO 122	Basic Drive Train	4 CR
AUTO 161	Steering and Suspension	6 CR

QUARTER 4

AUTO 219	Field-Based Experience I	12 CR

QUARTER 5

AUTO 229	Field-Based Experience II	5 CR
AUTO 255	Electricity/Electronics 2	7 CR
AUTO 265	Engine Performance 2	3 CR

QUARTER 6

AUTO 250	Automatic Transmissions/Transaxles	7 CR
AUTO 260	Manual Transmission/Transaxle	3 CR
AUTO 259	Field-Based Experience III	5 CR

QUARTER 7

AUTO 275	Engine Performance 3	11 CR
AUTO 279	Field-Based Experience IV	5 CR

See instructor regarding alternative options for AUTO 229, AUTO 259 and AUTO 279.

ELECTIVES
Requirement is to complete THREE of the Field-Based Experience or Shop Practicum classes listed below.

AUTO 229	Field-Based Experience II	5 CR
AUTO 259	Field-Based Experience III	5 CR
AUTO 279	Field-Based Experience IV	5 CR
AUTO 291	Shop Practicum 1	8 CR
AUTO 292	Shop Practicum 2	8 CR
AUTO 293	Shop Practicum 3	8 CR

TOTAL PROGRAM CREDITS: **125**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Automotive Technology, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR
ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR

QUARTER 2

AUTO 104	Engines Light Mechanical	7 CR
AUTO 105	Engines Major Mechanical	5 CR
AUTO 106	Applied Engines Technology	6 CR
AUTO 151	Electricity/Electronics	2 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 3

AUTO 107	Brakes	6 CR
AUTO 113	HVAC	4 CR
AUTO 122	Basic Drive Train	4 CR
AUTO 161	Steering and Suspension	6 CR
PSYC& 100	General Psychology	5 CR

Note: Five (5) credits from AAS-T Acceptable Transferable Courses List in Humanities, Social Science or Natural Science.

QUARTER 4

AUTO 219	Field-Based Experience I	12 CR

QUARTER 5

AUTO 229	Field-Based Experience II	5 CR
AUTO 255	Electricity/Electronics 2	7 CR
AUTO 265	Engine Performance 2	3 CR

QUARTER 6

AUTO 250	Automatic Transmissions/Transaxles	7 CR
AUTO 259	Field-Based Experience III	5 CR
AUTO 260	Manual Transmission/Transaxle	3 CR

QUARTER 7

AUTO 275   Engine Performance 3   11 CR
AUTO 279   Field-Based Experience IV   5 CR
See instructor regarding alternative options for AUTO 229, AUTO 259 and AUTO 279.

ELECTIVES
Requirement is to complete THREE of the Field-Based Experience or Shop Practicum classes listed below.

AUTO 229   Field-Based Experience II   5 CR
AUTO 259   Field-Based Experience III   5 CR
AUTO 279   Field-Based Experience IV   5 CR
AUTO 291   Shop Practicum 1   8 CR
AUTO 292   Shop Practicum 2   8 CR
AUTO 293   Shop Practicum 3   8 CR

TOTAL PROGRAM CREDITS: **130**

CERTIFICATE
General Automotive Repair Certificate

PROGRAM REQUIREMENTS

QUARTER 1
TRANS 101   Basic Transportation Service & Systems 101   5 CR
TRANS 102   Basic Transportation Service & Systems 102   5 CR
TRANS 103   Basic Transportation Service & Systems 103   5 CR
AMATH 100   Applied Occupational Math   5 CR
AENGL 100   Applied English   5 CR

QUARTER 2
AUTO 104   Engines Light Mechanical   7 CR
AUTO 105   Engines Major Mechanical   5 CR
AUTO 106   Applied Engines Technology   6 CR
AUTO 151   Electricity/Electronics   2 CR
CMST& 210   Interpersonal Communication   5 CR

QUARTER 3
AUTO 107   Brakes   6 CR
AUTO 113   HVAC   4 CR
AUTO 122   Basic Drive Train   4 CR
AUTO 161   Steering and Suspension   6 CR

TOTAL PROGRAM CREDITS: **70**

Vehicle Service Technician Certificate

PROGRAM REQUIREMENTS

QUARTER 1
TRANS 101   Basic Transportation Service & Systems 101   5 CR
TRANS 102   Basic Transportation Service & Systems 102   5 CR
TRANS 103   Basic Transportation Service & Systems 103   5 CR

TOTAL PROGRAM CREDITS: **15**

BUSINESS

OVERVIEW
Bellingham Technical College offers your first step toward a successful career in business and finance. Earn your associate degree and a solid foundation at BTC in two years, and be ready to transfer to a four-year college or university to earn your bachelor's degree in business management to build a career in a field that is experiencing strong growth in Washington and nationwide.

BTC's Associate in Business transfer degree is designed for students who want to transfer to major in business at a Washington State college or university. After completing the 90-credit-hour associate degree program at BTC, you may transfer as a junior into a Bachelor of Arts (BA) or Bachelor of Science (BS) program in business administration, accounting, management information systems, and more.

At BTC you'll begin building your core of business knowledge with academic coursework in English, economics, business law, and accounting. You'll also develop top interpersonal and communication skills that will prepare you for today's global, diverse, and competitive business environment.

PROGRAM ENTRY INFORMATION
For questions, please contact Admissions at 360.752.8345 or email us at admissions@btc.edu

PROGRAM START
This program accepts students quarterly.

TESTING REQUIREMENTS
Placement testing in Reading, Math and Writing. Test scores or transcripts from another college may also be accepted along with the Evaluation Request Form

DEGREE AND CERTIFICATE REQUIREMENTS
Business DTA/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS
  • Admissions Application

PLANNING GUIDE
  • Associate in Business (DTA/MRP) Planning Guide

ASSOCIATE IN BUSINESS, DIRECT TRANSFER AGREEMENT/
MAJOR RELATED PROGRAM

Direct Transfer Agreement/
Major Related Program

ADVISING NOTES

- Students must complete at least 90 quarter hours of transferable credit to receive a DTA degree

- Students must complete a minimum of 60 credits of general education course work to receive a DTA degree

- Any specific course may be credited toward no more than one distribution or skill area requirement

- Students should make early contact with their potential transfer institution(s) regarding specific course choices within distribution areas

- Students should check with their potential transfer institution(s) about requirements for overall minimum GPA, or higher GPA on a subset of courses

- No more than 10 credits per discipline area, five credits maximum in world languages or ASL, and no more than five credits in performance/skills classes are allowed

- Some universities require specific classes. Please check with intended bachelor's institution. Classes may only be applied to one distribution area.

COMMUNICATION SKILLS: 10 CREDITS
Both English classes listed below are required.

- ENGL& 101 English Composition I 5 CR

- ENGL& 102 English Composition II 5 CR

NOTE 1:
To meet current EWU requirements, the second English Composition course must be equivalent to EWU's English 201- College Composition: Analysis, Research, and Documentation

QUANTITATIVE/SYMBOLIC REASONING SKILLS: 10 CREDITS
The class below is required:

MATH& 151	Calculus I	5 CR

Choose an additional class from the following options:

MATH& 107	Math in Society	5 CR
MATH& 141	Precalculus I	5 CR
MATH& 142	Precalculus II	5 CR
MATH& 152	Calculus II	5 CR
MATH& 163	Calculus 3	5 CR

HUMANITIES: 15 CREDITS
Choose three classes from at least two subject areas. No more than 5 credits in world language at the 100 level.

CMST& 210	Interpersonal Communication	5 CR
CMST& 220	Public Speaking	5 CR
HIST& 146	United States History I	5 CR
HIST& 147	United States History II	5 CR
HIST& 148	United States History III	5 CR
HUM& 101	Introduction to Humanities	5 CR
SPAN& 121	Spanish I	5 CR
SPAN& 122	Spanish II	5 CR

NOTE 2:
Students intending the international business major should consult their potential transfer institution(s) regarding the level of world language required for admission to the major. Five (5) credits in world languages may apply to the Humanities requirement.

NOTE 3:
Students are encouraged to include a speech or oral communication course (not small group communication).

SOCIAL SCIENCES: 15 CREDITS
ECON& 201 Micro Economics and ECON& 202 Macro Economics are required; choose one additional class from options provided.

BUS& 101	Introduction to Business	5 CR
POLS& 202	American Government	5 CR
PSYC& 100	General Psychology	5 CR
PSYC& 200	Lifespan Psychology	5 CR
SOC& 101	Introduction to Sociology	5 CR

NATURAL SCIENCES: 15 CREDITS
The class below is required:

MATH& 146	Introduction to Statistics	5 CR

Choose two additional classes in Physical, Biological and/or Earth Sciences, including at least one lab science course from the following options:

BIOL& 160	General Biology with Lab	5 CR
BIOL& 260	Microbiology	5 CR
CHEM& 110	Chemical Concepts w/Lab	5 CR
CHEM& 121	Intro to Chemistry	5 CR
CHEM& 131	Introduction to Organic/Bio-Chemistry	5 CR
NUTR& 101	Nutrition	5 CR
PHYS& 110	Physics for Non-Science Majors w/Lab	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
PHYS& 222	Engineering Physics II w/Lab	5 CR
PHYS& 223	Engineering Physics III w/Lab	5 CR

NOTE 4:
Students considering the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

BUSINESS: 20 CREDITS
All Business courses listed below are required.

ACCT& 201	Principles of Accounting I	5 CR
ACCT& 202	Principles of Accounting II	5 CR
ACCT& 203	Principles of Accounting III	5 CR
BUS& 201	Business Law	5 CR

NOTE 5:
International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in U.S. business law.

ELECTIVES: 5 CREDITS
Five credits of non-business electives except as noted below.

NOTE 6:
Four institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective University Course Equivalent to:

- **WSU** (all campuses): Management Information Systems MIS 250

- **Gonzaga**: Management Information Systems MIS 235
- **PLU**: Computer applications CSCE 120, either an equivalent course or skills test
- **WWU:** Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)

TOTAL PROGRAM CREDITS: 90

BUSINESS MANAGEMENT

OVERVIEW
Choose Bellingham Technical College's two-year Associate in Applied Science-Transfer degree in Business Management as a pathway to BTC's Bachelor of Applied Science – Operations Management degree. Or choose the two-year Associate of Applied Science degree and go right to work after graduation.

Graduates are prepared for entry-level positions in industry, government, and non-profit organizations. Students will acquire a background in basic business including accounting, business law, marketing, and economics as well as practical supervisory skills.

In addition to the required core classes, students choose from one of three specialty tracks (Social Media Marketing, Human Resources Specialist, and Operations Management) each comprising three specialty classes.

PROGRAM OUTCOMES
Students will learn core business practices, principles, and theories allowing them to make immediate and significant contributions in the workplace. Students will gain the knowledge, skills, and abilities necessary to coordinate human, financial and material resources to achieve organizational objectives while adhering to government guidelines.

Upon completing the Business Management AAS-T or AAS degree, students will be able to:

- Effectively communicate in the context of business and in a business environment;
- Use data to engage in effective decision-making;
- Apply ethical and legal principles to the business environment;
- Demonstrate mastery of the core functional areas of business including accounting, economics/finance, marketing, management, and planning & strategy.

Students completing the Social Media Marketing track will also be able to:

- Describe SMART social media goals to achieve successful online campaigns;
- Evaluate a company's current situation, isolate social media issues and provide solutions by identifying appropriate social media marketing portals to influence consumer and improve the company's reputation;
- Create a social media marketing plan and track progress in achieving goals with a variety of measurement tools, services, and metrics;
- Use analytics to monitor and evaluate progress.

Students completing the Human Resources Specialist track will also be able to:

- Describe the unique roles of Human Resources professionals and their impact on the organization;
- Explain the primary processes of workforce planning, job analysis and design, training and development, compensation and benefits, and performance appraisal;
- Identify the key federal and Washington state employment laws, regulations, and terminology;
- Develop a written strategic compensation plan.

Students completing the Operations Management track will also be able to:

- Analyze individual and group behavior, and understand the implications of organizational behavior on the process of management;
- Demonstrate an optimized approach to planning, executing, monitoring and controlling projects;
- Describe and discuss the mechanics of operating a small business (pricing, human relations, purchasing, inventory, financial controls;
- Analyze and apply strategies to maintain quality and stability within operations.

PROGRAM START
Students may begin this program in any quarter.

ENTRY REQUIREMENTS
These requirements are for the AAS-T degree and are higher than those for the AAS degree. Please see AAS Entry Page for AAS requirements.

- BTC College-level Math score of 75 or MATH 099 with a C or better;
- ACCUPLACER Reading Comprehension score of 85 or RDG 085 with a B or better;
- ACCUPLACER Sentence Skills score of 86 or ENGL 092 with a B or better or AENGL 100 with a C or better.

ASSOCIATE OF APPLIED SCIENCE
Business Management, AAS

PROGRAM REQUIREMENTS

TOTAL CREDITS: 90

GENERAL EDUCATION CORE COURSES: 15 CREDITS

BUS 188	Business English	5 CR
AMATH 111 (or higher)	Applied Technical Math	5 CR
CMST& 210 OR	Interpersonal Communication	5 CR
PSYC& 100 OR	General Psychology	5 CR
SOC& 101	Introduction to Sociology	5 CR

PROGRAM CORE: 45–50 CREDITS

ACCT 141	Practical Accounting I	5 CR
AND		
ACCT 242	Practical Accounting II	5 CR
OR		
ACCT& 201	Principles of Accounting I	5 CR
BUS 171	Technical Communications	5 CR
BUS 120	Principles of Marketing	5 CR
BUS 285	Organizational Behavior	5 CR
BUS& 101	Introduction to Business	5 CR
BUS& 201	Business Law	5 CR
CAP 101	Introduction to Computer Applications	5 CR
ECON& 201	Micro Economics	5 CR
MGMT 210	Human Resource Management	5 CR

PROGRAM SPECIALTY: 15 CREDITS
Choose either Social Media Marketing OR Human Resources Specialist OR Operations Management

Social Media Marketing:

BUS 127	Social Media Marketing	5 CR
BUS 128	Search Engine Marketing	5 CR
BUS 129	Social Media Marketing Campaign	5 CR

Human Resources Specialist:

BUS 137	Introduction to Human Resources	5 CR
BUS 138	Introduction to Compensation & Benefits	5 CR
BUS 139	Introduction to Employment Law & Labor Relations	5 CR

Operations Management:

BUS 152	Introduction to Operations Management	5 CR
BUS 153	Introduction to Lean Management	5 CR
MGMT 154	Creating and Managing a Small Business	5 CR

REQUIRED ELECTIVE CREDITS: 10–15 CREDITS
Choose any college-level course with a prefix of ACCT, BUS, CAP, ECON&, OR MGMT to total a minimum of 90 credits for the degree. Courses taken to meet the General Education, Program Core, or Specialty Track Requirements may not be used to meet the Elective Requirement.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Business Management, AAS-T

PROGRAM REQUIREMENTS

TOTAL CREDITS: 90

GENERAL EDUCATION CORE COURSES: 25 CREDITS

ENGL& 101	English Composition I	5 CR
MATH& 146	Introduction to Statistics (This class is required)	5 CR
Any two Humanities or Social Science courses from Approved Transfer Course List		10 CR
Any Natural Science with a Lab from Approved Transfer Course List		5 CR

PROGRAM CORE: 45 CREDITS

ACCT& 201	Principles of Accounting I	5 CR
BUS 120	Principles of Marketing	5 CR
BUS 171	Technical Communications	5 CR
BUS 285	Organizational Behavior	5 CR
BUS& 101	Introduction to Business	5 CR
BUS& 201	Business Law	5 CR
CAP 101	Introduction to Computer Applications	5 CR
ECON& 201	Micro Economics	5 CR
MGMT 210	Human Resource Management	5 CR

PROGRAM SPECIALTY: 15 CREDITS
Choose either Social Media Marketing or Human Resources Specialist or Operations Management

Social Media Marketing:

BUS 127	Social Media Marketing	5 CR
BUS 128	Search Engine Marketing	5 CR
BUS 129	Social Media Marketing Campaign	5 CR

Human Resources Specialist:

BUS 137	Introduction to Human Resources	5 CR
BUS 138	Introduction to Compensation & Benefits	5 CR
BUS 139	Introduction to Employment Law & Labor Relations	5 CR

Operations Management:

BUS 152	Introduction to Operations Management	5 CR
BUS 153	Introduction to Lean Management	5 CR
MGMT 154	Creating and Managing a Small Business	5 CR

REQUIRED ELECTIVE CREDITS: 5 CREDITS
Choose any college-level course with a prefix of ACCT, BUS, CAP, ECON&, OR MGMT to total a minimum of 90 credits for the degree. Courses taken to meet the General Education, Program Core, or Specialty Track Requirements may not be used to meet the Elective Requirement.

CERTIFIED PRODUCTION TECHNICIAN

OVERVIEW
The Certified Production Technician certificate program is a national program provided by the Manufacturing Skill Standards Council (MSSC). This nationally recognized certificate is based on industry-defined and federally endorsed national standards.

The purpose of the Certified Production Technician (CPTAE) program is to recognize through certification individuals who demonstrate mastery of the core competencies of manufacturing production at the front-line (entry-level through front-line supervisor) through successful completion of the certification assessments. The goal of the CPTAE certification program is to raise the level of performance of production workers both to assist the individuals in finding higher-wage jobs and to help employers ensure their workforce increases the company's productivity and competitiveness.

The CPTAE program consists of four individual certificate modules: Safety; Quality Practices & Measurement; Manufacturing Processes & Production; and Maintenance Awareness.

PROGRAM OUTCOMES
The Manufacturing Skill Standards Council (MSSC) credentialing system leading to a CPT covers the four critical production functions common to all sectors of manufacturing: Safety, Quality & Continuous Improvement, Manufacturing Processes &Production, and Maintenance Awareness. Each area is addressed with a separate assessment. An individual can earn a Certificate if they pass one or more assessments. However, they must pass all four assessments to earn the full CPT certification.

CPT is the only certification in manufacturing which has been accredited by the American National Standards Institute under ISO standard 17024. The CPTAE credential sets the gold standard in our nation's factories. Benefits include

- A new ISO standard in certification companies can use as a common practice throughout their global operations and supply chains

- Prepares job candidates with industry-recognized credentials

PROGRAM ENTRY INFORMATION
The four Certified Production Technician (CPT) courses are online courses offered each quarter.

TESTING REQUIREMENTS
To attain the full CPT certification, students must pass each of the four course final assessments. The cost of the course final assessments is included in the course registration fees. If a student doesn't pass a final assessment on the first try, they may re-take the final assessments after 15 calendar days for an additional $60 fee.

Course assessments must be proctored by an approved testing facility. At BTC, the Testing Center is in Building H.

DEGREE AND CERTIFICATE REQUIREMENTS
The Certified Production Technician (CPT) program is authorized and managed by the Manufacturing Skills Standard Council (MSSC). To pass the CPT program, MSSC requires minimum passing scores for proctored tests for each of the four CPT courses.

PRE-PROGRAM COURSE REQUIREMENTS
ACCUPLACER testing is not required for this certificate.

The Manufacturing Skill Standards Council (MSSC) strongly recommends that individuals be at the 9th grade level of math and 10th grade level of English before attempting MSSC courses and assessments.

PROGRAM APPLICATION/FORMS
Students may enroll in this certificate program without program application or admission.

CERTIFICATE

Certified Production Technician Certificate

PROGRAM REQUIREMENTS

QUARTER 1

CPT 101	Safety in Manufacturing Production	3 CR
CPT 102	Quality Practices and Measurements	3 CR
CPT 103	Manufacturing Processes and Production	3 CR
CPT 104	Maintenance Awareness	3 CR

TOTAL PROGRAM CREDITS: **12**

COMPUTER NETWORKING

OVERVIEW
The rapid expansion of the computer industry has generated a growing need for highly skilled workers to repair, network, and support these complex computer systems. Employment of computer networking engineers is expected to increase much faster than average as information technology becomes more sophisticated and organizations continue to adopt and integrate these technologies. The computer networking field requires specialists who continually learn new skills to keep pace with the rapidly changing IT industry.

BTC's degrees and certificates in the Computer Networking Program are ideal for students with skillsets and interests in information technology, working with and troubleshooting computers, assisting the public, customer service, and more. Your computer networking career training will help you learn in-demand skills for a rewarding career in the fast-paced world of modern business.

PROGRAM OUTCOMES
After successfuly completing this program, students will be able to:

- 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 professional setting.
- Design and implement a group project.
- Demonstrate industry competency in fundamental concepts used by computer networking professionals.

PROGRAM ENTRY INFORMATION
Students may begin this program in any quarter.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Computer Network Technology AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE
Computer Networking, AAS

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 99
Meet with your Program Advisor to establish an Academic Plan and ensure classes are taken in the correct order.

PROGRAM CORE: 64 CREDITS

IT 105	Using Networked Computer Systems	3 CR
IT 106	IT Support Skills	3 CR
IT 107	Using Cloud Services	3 CR
IT 112	A+ Hardware	5 CR
IT 120	Command Line Interface & Scripting	5 CR
IT 141	A+ Operating Systems	5 CR
IT 142	Windows Desktop I	5 CR
IT 160	Network Technology I	5 CR
IT 161	Network Technology II	5 CR
IT 210	Information Security	5 CR
IT 240	Linux Server Administration	5 CR
IT 242	Windows Server I	5 CR
IT 250	Cloud & IOT Fundamentals	5 CR
IT 270	Field-Based Experience	5 CR

PROGRAM SPECIALTY: 15 CREDITS
Choose One of Five Tracks: Cloud Computing, Network Management, Computer Programming, Health Information Technology, or Generalist.

Cloud Computing:

IT 252	Amazon Cloud	5 CR
IT 253	Microsoft Cloud	5 CR
IT 254	Web Applications	5 CR

Network Management:

IT 241	Windows Desktop II	5 CR
IT 243	Windows Server II	5 CR
IT 260	Network Technology III	5 CR

Computer Programming:

IT 121	Introduction to Programming	5 CR
CS& 131	Computer Science I C++	5 CR
CS 132	Computer Science II C++	5 CR

Health Information Technology:

HT 180	Healthcare & Technology	5 CR
HT 190	Health Information Management Systems	5 CR
HT 200	Health Technology Professional	5 CR

Generalist:

Students may select any three classes from the Cloud Computing, Network Management, Computer Programming, or Health Information Technology tracks to complete the Generalist track.

REQUIRED ELECTIVE CREDITS: 5 CREDITS
Classes taken as part of a Specialty Track may not be counted towards the Elective Requirement.

IT 121	Introduction to Programming	5 CR
IT 241	Windows Desktop II	5 CR
IT 243	Windows Server II	5 CR
IT 252	Amazon Cloud	5 CR
IT 253	Microsoft Cloud	5 CR
IT 254	Web Applications	5 CR
IT 260	Network Technology III	5 CR
CS& 131	Computer Science I C++	5 CR
CS 132	Computer Science II C++	5 CR

HT 180	Healthcare & Technology	5 CR
HT 190	Health Information Management Systems	5 CR
HT 200	Health Technology Professional	5 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 143	Adobe Acrobat & Electronic File Management	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CAP 200	Integrated Computer Applications	5 CR
CIS 160	Computer User Support I	5 CR
MGMT 154	Creating and Managing a Small Business	5 CR
PMP 100	Project Management Fundamentals	1 CR
PMP 120	Project Management Prep	3 CR
PMP 130	PMP Integration	1 CR

GENERAL EDUCATION CORE COURSES: 15 CREDITS

AENGL 100	Applied English	5 CR
OR		
BUS 171	Technical Communications	5 CR
OR		
ENGL& 101	English Composition I	5 CR
OR		
ENGL& 102	English Composition II	5 CR
AMATH 100	Applied Occupational Math	5 CR
OR		
BUS 150	Math for Business	5 CR
OR		
MATH& 107 (or higher)	Math in Society	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
PSYC& 100	General Psychology	5 CR
OR		
SOC& 101	Introduction to Sociology	5 CR

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Computer Networking, AAS-T

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 99
Meet with your Program Advisor to establish an Academic Plan and ensure classes are taken in the correct order.

PROGRAM CORE: 64 CREDITS

IT 105	Using Networked Computer Systems	3 CR
IT 106	IT Support Skills	3 CR
IT 107	Using Cloud Services	3 CR
IT 112	A+ Hardware	5 CR
IT 120	Command Line Interface & Scripting	5 CR
IT 141	A+ Operating Systems	5 CR
IT 142	Windows Desktop I	5 CR
IT 160	Network Technology I	5 CR
IT 161	Network Technology II	5 CR
IT 210	Information Security	5 CR
IT 240	Linux Server Administration	5 CR
IT 242	Windows Server I	5 CR
IT 250	Cloud & IOT Fundamentals	5 CR
IT 270	Field-Based Experience	5 CR

PROGRAM SPECIALTY: 15 CREDITS
Choose One of Five Tracks: Cloud Computing, Network Management, Computer Programming, Health Information Technology, or Generalist

Cloud Computing:

IT 252	Amazon Cloud	5 CR
IT 253	Microsoft Cloud	5 CR
IT 254	Web Applications	5 CR

Network Management:

IT 241	Windows Desktop II	5 CR
IT 243	Windows Server II	5 CR
IT 260	Network Technology III	5 CR

Computer Programming:

IT 121	Introduction to Programming	5 CR
CS& 131	Computer Science I C++	5 CR
CS 132	Computer Science II C++	5 CR

Health Information Technology:

HT 180	Healthcare & Technology	5 CR
HT 190	Health Information Management Systems	5 CR
HT 200	Health Technology Professional	5 CR

Generalist:

Students may select any three classes from the Cloud Computing, Network Management, Computer Programming, or Health Information Technology tracks to complete the Generalist track.

REQUIRED ELECTIVE CREDITS: 0 CREDITS
No Elective requirement.

GENERAL EDUCATION CORE COURSES: 20 CREDITS

ENGL& 101 OR	English Composition I	5 CR
ENGL& 102	English Composition II	5 CR
CMST& 210 OR	Interpersonal Communication	5 CR
PSYC& 100 OR	General Psychology	5 CR
SOC& 101	Introduction to Sociology	5 CR
MATH& 107 OR higher	Math in Society	5 CR

Choose five credits of Humanities, Social Science, or Natural Science from the approved Transfer Course list: 5 CR

CERTIFICATE
Cloud Computing Certificate

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 15

PROGRAM CORE: 15 CREDITS
Students in the Computer Network Technology program can earn the Cloud Computing Certificate by completing just three Information Technology courses:

IT 252	Amazon Cloud	5 CR
IT 253	Microsoft Cloud	5 CR
IT 254	Web Applications	5 CR

Computer Network Support Certificate

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 54

PROGRAM CORE: 39 CREDITS

IT 105	Using Networked Computer Systems	3 CR
IT 106	IT Support Skills	3 CR
IT 107	Using Cloud Services	3 CR
IT 112	A+ Hardware	5 CR
IT 120	Command Line Interface & Scripting	5 CR
IT 141	A+ Operating Systems	5 CR
IT 142	Windows Desktop I	5 CR
IT 160	Network Technology I	5 CR
IT 161	Network Technology II	5 CR

GENERAL EDUCATION CORE COURSES: 15 CREDITS

AENGL 100 OR	Applied English	5 CR
BUS 171 OR	Technical Communications	5 CR
ENGL& 101 OR	English Composition I	5 CR
ENGL& 102	English Composition II	5 CR
AMATH 100 OR	Applied Occupational Math	5 CR
BUS 150 OR	Math for Business	5 CR
MATH& 107 or higher	Math in Society	5 CR
CMST& 210 OR	Interpersonal Communication	5 CR
PSYC& 100 OR	General Psychology	5 CR
SOC& 101	Introduction to Sociology	5 CR

Computer Programming Certificate

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 15

PROGRAM CORE: 15 CREDITS
Students in the Computer Network Technology program can earn the Computer Programming Certificate by completing just one Information Technology and two Computer Science courses:

IT 121	Introduction to Programming	5 CR
CS& 131	Computer Science I C++	5 CR
CS 132	Computer Science II C++	5 CR

Health Information Technology Certificate

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 15

PROGRAM CORE: 15 CREDITS
Students in the Computer Network Technology program can earn the Health Information Technology Certificate by completing just three Information Technology courses:

HT 180	Healthcare & Technology	5 CR
HT 190	Health Information Management Systems	5 CR
HT 200	Health Technology Professional	5 CR

Network Management Certificate

PROGRAM REQUIREMENTS

TOTAL PROGRAM CREDITS: 15

PROGRAM CORE: 15 CREDITS
Students in the Computer Network Technology program can earn the Network Management Certificate by completing just three Information Technology courses:

IT 241	Windows Desktop II	5 CR
IT 243	Windows Server II	5 CR
IT 260	Network Technology III	5 CR

COMPUTER SCIENCE

OVERVIEW
Bellingham Technical College offers your first step toward a successful career in Computer Science. Earn your associate degree and a solid foundation at BTC in two years, and be ready to transfer to a four-year college or university to earn your bachelor's degree in computer science to build a career in a field that is experiencing strong growth in Washington and nationwide. BTC's Associate in Computer Science transfer degree is designed for students who want to transfer and major in computer science at a Washington State college or university. After completing the 90-credit-hour associate degree program at BTC, you may transfer as a junior into a Bachelor of Science (BS) program in computer science.

PROGRAM OUTCOMES
- Apply quantitative analysis to solve problems
- Apply appropriate logic, tools and processes to write software programs that solve given problems.
- Critically evaluate computer technical reports, updates and information
- Effectively communicate technical processes

PROGRAM ENTRY INFORMATION
For questions, please contact Admissions at 360.752.8345 or email us at admissions@btc.edu

PROGRAM START
This program accepts students quarterly.

TESTING REQUIREMENTS
Placement testing in Reading, Math and Writing. Test scores or transcripts from another college may also be accepted along with the Evaluation Request Form

DEGREE AND CERTIFICATE REQUIREMENTS
Computer Science DTA/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS
- Admissions Application

PLANNING GUIDE
- Associate in Technology (DTA/MRP) Planning Guide

DIRECT TRANSFER AGREEMENT/
MAJOR RELATED PROGRAM

Associate in Computer Science, Direct Transfer Agreement/Major Related Program

ADVISING NOTES
- Students must complete at least 90 quarter hours of transferable credit to receive a DTA degree
- Students must complete a minimum of 60 credits of general education course work to receive a DTA degree
- Any specific course may be credited toward no more than one distribution or skill area requirement
- Students should make early contact with their potential transfer institution(s) regarding specific course choices within distribution areas
- Students should check with their potential transfer institution(s) about requirements for overall minimum GPA, or higher GPA on a subset of courses
- No more than 10 credits per discipline area, five credits maximum in world languages or ASL, and no more than five credits in performance/skills classes are allowed
- Some universities require specific classes. Please check with intended bachelor's institution. Classes may only be applied to one distribution area.

COMMUNICATION SKILLS: 10 CREDITS
ENGL& 101 is required by all.
Choose one additional class from options provided:

CMST& 210	Interpersonal Communication	5 CR
ENGL& 102	English Composition II	5 CR
ENGL& 235	Technical Writing	5 CR

QUANTITATIVE/SYMBOLIC REASONING SKILLS: 5 CREDITS

MATH& 151	Calculus I	5 CR

HUMANITIES: 15 CREDITS
Selected from at least two disciplines. No more than 10 credits allowed from any one discipline. No more than five credits in foreign language.

CMST& 210	Interpersonal Communication	5 CR
CMST& 220	Public Speaking	5 CR
HIST& 146	United States History I	5 CR
HIST& 147	United States History II	5 CR
HIST& 148	United States History III	5 CR
HUM& 101	Introduction to Humanities	5 CR
SPAN& 121	Spanish I	5 CR
SPAN& 122	Spanish II	5 CR

SOCIAL SCIENCES: 15 CREDITS

BUS& 101	Introduction to Business	5 CR
ECON& 201	Micro Economics	5 CR

Required by WSU Vancouver.

ECON& 202	Macro Economics	5 CR

Required by WSU Vancouver.

POLS& 202	American Government	5 CR
PSYC& 100	General Psychology	5 CR
PSYC& 200	Lifespan Psychology	5 CR
SOC& 101	Introduction to Sociology	5 CR

NATURAL SCIENCES: 15 CREDITS

MATH& 152	Calculus II	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
PHYS& 222	Engineering Physics II w/Lab	5 CR

MAJOR REQUIREMENTS: 20 CREDITS

CS& 131	Computer Science I C++	5 CR

Required by all.

CS 132	Computer Science II C++	5 CR

Required by all.

IT 121	Introduction to Programming	5 CR

Required by all.

MATH& 146	Introduction to Statistics	5 CR

Required by UW Bothell.

MATH& 163	Calculus 3	5 CR

Required by WSU.

UNIVERSITY SPECIFIC REQUIREMENTS: 10 CREDITS
Physical, Biological and/or Earth Sciences with lab required by Pacific Lutheran-Seattle, WSU and WWU.

BIOL& 160	General Biology with Lab	5 CR
BIOL& 260	Microbiology	5 CR
CHEM& 110	Chemical Concepts w/Lab	5 CR
CHEM& 121	Intro to Chemistry	5 CR
CHEM& 131	Introduction to Organic/Bio-Chemistry	5 CR
CHEM& 161	General Chemistry w/ Lab I	5 CR
CHEM& 162	General Chemistry w/Lab II	5 CR
PHYS& 110	Physics for Non-Science Majors w/Lab	5 CR
PHYS& 223	Engineering Physics III w/Lab	5 CR

Required by Gonzaga, Heritage, Whitworth and WWU.

TOTAL PROGRAM CREDITS:	**90**

COMPUTER SOFTWARE SUPPORT

OVERVIEW
In a world where everyday items are increasingly dependent upon computers – from phones to televisions to medical equipment – the need for skilled workers who can troubleshoot computer software issues is growing. If you enjoy combining technical and customer service skills in a variety of business and office settings, Bellingham Technical College's Computer Software Support Technology associate degree could be a good fit to get your tech career started. BTC's Computer Software Support Technology program will train you for top jobs in computer support, software, help desk support, PC support, and training and software support coordination.

BTC's classes will train you in valuable software and computer support skills needed by companies big and small, including hospitals, financial institutions, large corporations, school districts, and universities. Computer hardware and software manufacturers also hire BTC's program graduates to work as customer service representatives and help desk personnel.

Students in the Computer Software Support associate degree program at Bellingham Technical College will receive training in word processing, spreadsheets and databases; teaching others how to use computers and software; basic computer programming and website building; operating system installation and configuration; and more.

PROGRAM OUTCOMES
After successfully completing this program, students will be able to:

- Apply industry standard IT networking solutions to understand and troubleshoot networking issues.
- Design and develop an IT Helpdesk disaster recovery plan.
- Troubleshoot operating systems or software problems.
- Design and develop a hardware-based user needs assessment.
- Use a variety of scripting tools or languages to automate routine tasks.
- Provide satisfactory helpdesk solutions to problems or scenarios with Word, Excel, Access, or PowerPoint using industry standard helpdesk procedures.
- Provide efficient and effective IT technical support to clients in a manner that promotes safe computing practices and encourages effective working relationships.

PROGRAM ENTRY INFORMATION
Studens may begin this program in any quarter.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Computer Software Support Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

ASSOCIATE OF APPLIED SCIENCE
Computer Software Support, AAS

PROGRAM REQUIREMENTS

QUARTER 1
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
BUS 150	Math for Business	5 CR

TECHNICAL CORE: 61 CREDITS
BUS& 101	Introduction to Business	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CIS 160	Computer User Support I	5 CR
CIS 276	Field-Based Experience	6 CR
IT 112	A+ Hardware	5 CR
IT 120	Command Line Interface & Scripting	5 CR
OR		
IT 121	Introduction to Programming	5 CR
IT 141	A+ Operating Systems	5 CR
IT 160	Network Technology I	5 CR

ELECTIVES COURSES: 14 CREDITS
Computer Software Support students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Courses taken to meet the general education or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 15 CREDITS
BUS 150	Math for Business	5 CR
BUS 171	Technical Communications	5 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **90**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Computer Software Support, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
MATH& 141	Precalculus I	5 CR

TECHNICAL CORE: 56 CREDITS
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CIS 160	Computer User Support I	5 CR
CIS 276	Field-Based Experience	6 CR
IT 112	A+ Hardware	5 CR
IT 120	Command Line Interface & Scripting	5 CR
OR		
IT 121	Introduction to Programming	5 CR
IT 141	A+ Operating Systems	5 CR
IT 160	Network Technology I	5 CR

ELECTIVES COURSES: 14 CREDITS
Computer Software Support students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Courses taken to meet the general education, or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 20 CREDITS
ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR

OR approved alternative from the AAS-T Math course options list.

PSYC& 100	General Psychology	5 CR
OR		
SOC& 101	Introduction to Sociology	5 CR
OR		
CMST& 210	Interpersonal Communication	5 CR
BUS& 101	Introduction to Business	5 CR

TOTAL PROGRAM CREDITS: **90**

CERTIFICATE
Computer Applications Specialist Certificate

PROGRAM REQUIREMENTS

QUARTER 1

BUS 150	Math for Business	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CMST& 210	Interpersonal Communication	5 CR

TECHNICAL CORE: 35 CREDITS

CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CIS 160	Computer User Support I	5 CR
IT 112	A+ Hardware	5 CR
OR		
IT 141	A+ Operating Systems	5 CR
OR		
IT 160	Network Technology I	5 CR

ELECTIVES COURSES: 8 CREDITS

Computer Software Support students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, or MGMT. Courses taken to meet the general education, or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 15 CREDITS

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

TOTAL PROGRAM CREDITS: **58**

COSMETOLOGY

OVERVIEW

Cosmetology classes give students experience in such customer services as shampooing, skin care, nail care, modern hair cutting and styling, tinting and bleaching, permanent waving, chemical relaxing, wig care, artificial hair, blow drying and iron curling. Also included in the instruction are safety measures in the handling and use of chemicals, sterilization of equipment, various disorders/diseases of the hair, skin, and nails and their proper treatment, salon management, retail selling, cosmetic chemistry, electricity, and anatomy and physiology. The curriculum meets requirements established by the State of Washington for cosmetology for both theory and practical applications.

Classes are taught in a laboratory setting at the College's School of Cosmetology located 1411 Railroad Ave, Bellingham, WA. During Fall, Winter, Spring and Summer Quarters, hours of operation are 8am – 5pm, Monday-Friday. Hours and days may be adjusted as necessary. Summer session is required. This program is designed to be completed full-time in five academic quarters including summer instruction. Altered academic plans that include some part-time instruction may be approved in collaboration with academic advising and program faculty.

DEGREE OPTIONS

Bellingham Technical College (BTC) offers an Associate of Applied Science (AAS) degree. The cosmetology degree may be earned through a sequence of courses over five quarters, covering at least 2,000 clock hours of instruction. A sixth quarter may be needed to complete any missing clock hours. The degree program prepares students to take the Washington State licensing exams.

BTC does not offer programs in Barbering, Nail Technology or Esthetics at this time.

GENERAL INFORMATION

Bellingham Technical College Cosmetology School is located at:
1411 Railroad Avenue
Bellingham, WA 98225
360-752-8789
cosmetology@btc.edu
This school is licensed under chapter 18.16 RCW. Inquiries, concerns, or complaints regarding this school can be made to the Washington State Department of Licensing:

Mailing Address:
Department of Licensing
Cosmetology
PO Box 9026
Olympia, WA 98507
360-664-6626
Street Address:
Department of Licensing Business and Occupations
405 Blake Lake BLVD Building 2
Olympia, WA 98502
Please Note:

RCW 18.16.200 Disciplinary Action-Grounds: Any applicant or licensee under this chapter may be subject to disciplinary action by the director if the licensee or applicant: Has engaged in the commercial practice of cosmetology, barbering, manicuring, esthetics, or instructed in or operated a school without first obtaining the license required by this chapter.

PROGRAM OUTCOMES

The BTC Cosmetology graduate will be able to:

- Perform hair care services for all types of hair including hair analysis, hair cutting, hairstyling, hair coloring and lightening, permanent waving, and chemical relaxing.

- Perform natural nail services including manicuring and pedicuring.

- Perform basic skin care services including skin analysis, facials, makeup application, and superfluous hair removal.

- Demonstrate customer service skills, self-growth, and personal development.

- Perform salon business such as front desk operations, dispensary inventory and loss prevention, resume building and interviewing skills, self-marketing, and the basic knowledge of starting one's own salon business.

- Demonstrate knowledge of decontamination control, public hygiene, and special sanitation procedures used for the protection of the client and the operator.

- Demonstrate skills to pass the Washington State licensure written and practical exams required for a professional license to work in the Cosmetology industry.

ENTRY REQUIREMENTS

Applicants must be at least 16 years of age, of good mental and physical health, and have a high degree of manual dexterity. The ability to read, write and interpret the English language is a priority. A pleasing personality and the ability to communicate and work well with others are important, as is stamina and good health since professionals must be on their feet the majority of time, and, in many cases, around chemicals.

ASSOCIATE OF APPLIED SCIENCE
Cosmetology

PROGRAM REQUIREMENTS

GENERAL EDUCATION CORE: 15 CREDITS

AENGL 100	Applied English	5 CR
AMATH 100	Applied Occupational Math	5 CR
CMST& 210	Interpersonal Communication	5 CR

PROGRAM CORE: 98–114 CREDITS

COSMT 101	Cosmetology Basic Skills and Salon Practice	15 CR
COSMT 110	Trichology, Dermatology, and Onychology	5 CR
COSMT 111	Salon Management	5 CR
COSMT 112	Salon Safety, Chemistry, and Electricity	5 CR
COSMT 201	Haircutting and Styling Lab and Salon Practice I	8 CR
COSMT 202	Haircutting and Styling Lab and Salon Practice II	8 CR
COSMT 203	Haircutting and Beard Design Lab and Salon Practice I	8 CR
COSMT 204	Haircutting and Beard Design Lab and Salon Practice II	8 CR
COSMT 205	Color Lab and Salon Practice I	8 CR
COSMT 206	Color Lab and Salon Practice II	8 CR
COSMT 207	Textured Hair Services Lab and Salon Practice I	8 CR
COSMT 208	Textured Hair Services Lab and Salon Practice II	8 CR
COSMT 220	Cosmetology Capstone	2 CR

The following course is optional for additional practice hours:

COSMT 210	Cosmetology Lab & Shop Practice	2-18 CR

TOTAL PROGRAM CREDITS: **111–129**

CULINARY ARTS AND PASTRY ARTS

OVERVIEW

If you love cooking, have a passion for food and have always dreamed of being a chef, then Bellingham Technical College's Culinary Arts associate degree program is for you. BTC's programs and certificates in Culinary Arts and Pastry Arts are ideal for students with cooking skills and an interest in the fast-growing food service industry. You'll receive training from an award-winning faculty in state-of-the-art kitchens and get the skills and experience you'll need to get top jobs in the fast-paced culinary field. Hone your culinary arts skills and gain training in every aspect of food service – from chef to restaurant manager to hostess – at BTC's Café Culinaire, where students run the International Buffet in winter quarter and a full-service a la carte restaurant in spring. To expand on your cooking skills, you can also take classes for your pastry arts certificate and get training for the best pastry chef jobs.

PROGRAM OUTCOMES

After successfully completing the Culinary Arts program, students will be able to:

- Conform and comply with health standards based on US Food and Drug Administration, Washington State, and local health department sanitation and hygiene codes and laws.

- Apply fundamentals and advanced skills in sustainable design and purchasing, butchery, Garde Manger, classical sauce, soups and stocks, farinaceous foods, classical cookery techniques in international cuisine, American regional cuisines, define product specifications, and food and beverage service.

- Plan, prepare, and cook foods a la carte and buffet style 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, artisan breads, classical 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, facility design, menu design, cost analysis, marketing plan, and projected profit and loss statements.

After successfully completing the Pastry Arts program, students will be able to:

- Conform and comply with health standards based on US Food & Drug Administration, Washington State, and local health department sanitation and hygiene codes and laws.

- Demonstrate proficiency in the use of baking and pastry industry- specific equipment.

- Apply basic cuisine foundational skills.

- Demonstrate basic measuring, conversion, food costing, and yield management practices.

- Analyze the functions of ingredients used in producing baked goods and pastries.

- Produce a variety of classical and contemporary breads, pastry items, and desserts, with the ability to correctly evaluate finished products for texture, color, palatability, shape and doneness.

- Demonstrate advanced skills with sour dough breads and bread art, chocolate and sugar art, and specialty cakes.

- Utilize fundamental techniques creatively to modify standard recipes and formulate new recipes.

PROGRAM ENTRY INFORMATION
The program typically starts in Fall Quarter on a space available basis

PROGRAM START
- Culinary Arts & Pastry Arts Classes: A grade of C- will be the minimum passing grade for any Culinary and Pastry class.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Culinary Arts AAS Degree and Pastry Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for culinary and pastry courses. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for culinary and pastry courses and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE
Culinary Arts, AAS

PROGRAM REQUIREMENTS

QUARTER 1
CUL 110	Sanitation & Safety	3 CR
CUL 112	Introduction to Hospitality	2 CR
CUL 114	Culinary Skill Development I	6 CR
CUL 116	Meat Identification and Fabrication	4 CR
CUL 118	Commercial Kitchen Equipment	2 CR

QUARTER 2
PST 202	Pastry Basic I	3 CR
PST 206	Pastry Basics II	3 CR
CUL 122	Culinary Skill Development II	6 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 3
PST 204	Introduction to Artisan Breads & Laminated Dough	3 CR
PST 208	Introduction to Cakes, Desserts, Chocolate & Sugar Decorations	4 CR
CUL 144	American Regional à la carte Cookery	6 CR
AENGL 100	Applied English	5 CR

QUARTER 4
CUL 150	Field-Based Experience	7 CR
OR		
CUL 152	Culinary Competition Fundamentals	7 CR

QUARTER 5
CUL 142	Nutrition	3 CR
CUL 218	Garde Manger	5 CR
CUL 222	Hospitality Supervision	3 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 6
CUL 220	Restaurant Management	5 CR
CUL 224	Food and Beverage Service	2 CR
CUL 226	International Cuisine	6 CR
CUL 228	Banquet and Catering Management	3 CR

QUARTER 7
CUL 230	Northwest à la carte Cookery	7 CR
CUL 232	Food and Beverage Service Lab	2 CR
CUL 234	Capstone Project & Practical Exam	1 CR
CUL 236	Wine Appreciation	2 CR

TOTAL PROGRAM CREDITS: **103**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Culinary Arts, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
CUL 110	Sanitation & Safety	3 CR
CUL 112	Introduction to Hospitality	2 CR
CUL 114	Culinary Skill Development I	6 CR
CUL 116	Meat Identification and Fabrication	4 CR
CUL 118	Commercial Kitchen Equipment	2 CR

QUARTER 2
PST 202	Pastry Basic I	3 CR
PST 206	Pastry Basics II	3 CR
CUL 122	Culinary Skill Development II	6 CR
MATH& 107	Math in Society	5 CR

QUARTER 3
PST 204	Introduction to Artisan Breads & Laminated Dough	3 CR
PST 208	Introduction to Cakes, Desserts, Chocolate & Sugar Decorations	4 CR
CUL 144	American Regional à la carte Cookery	6 CR
ENGL& 101	English Composition I	5 CR

QUARTER 4
CUL 150	Field-Based Experience	7 CR
OR		
CUL 152	Culinary Competition Fundamentals	7 CR

QUARTER 5
CUL 142	Nutrition	3 CR
CUL 218	Garde Manger	5 CR
CUL 222	Hospitality Supervision	3 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 6
CUL 220	Restaurant Management	5 CR
CUL 224	Food and Beverage Service	2 CR
CUL 226	International Cuisine	6 CR
CUL 228	Banquet and Catering Management	3 CR

QUARTER 7

CUL 230	Northwest à la carte Cookery	7 CR
CUL 232	Food and Beverage Service Lab	2 CR
CUL 234	Capstone Project & Practical Exam	1 CR
CUL 236	Wine Appreciation	2 CR
SOC& 101	Introduction to Sociology	5 CR

TOTAL PROGRAM CREDITS: **108**

CERTIFICATE
Culinary Arts Certificate

PROGRAM REQUIREMENTS

QUARTER 1

CUL 110	Sanitation & Safety	3 CR
CUL 112	Introduction to Hospitality	2 CR
CUL 114	Culinary Skill Development I	6 CR
CUL 116	Meat Identification and Fabrication	4 CR
CUL 118	Commercial Kitchen Equipment	2 CR

QUARTER 2

PST 202	Pastry Basic I	3 CR
PST 206	Pastry Basics II	3 CR
CUL 122	Culinary Skill Development II	6 CR
AMATH 100	Applied Occupational Math	5 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 3

PST 204	Introduction to Artisan Breads & Laminated Dough	3 CR
PST 208	Introduction to Cakes, Desserts, Chocolate & Sugar Decorations	4 CR
CUL 142	Nutrition	3 CR
CUL 144	American Regional à la carte Cookery	6 CR
AENGL 100	Applied English	5 CR

TOTAL PROGRAM CREDITS: **60**

Pastry Arts Certificate

PROGRAM REQUIREMENTS

QUARTER 1

PST 100	Basic Cuisine Foundation	4 CR
PST 101	Pastry & Baking Orientation	3 CR
PST 110	Sanitation & Safety	3 CR
PST 130	Introduction to Commercial Baking	5 CR

QUARTER 2

PST 202	Pastry Basic I	3 CR
PST 204	Introduction to Artisan Breads & Laminated Dough	3 CR
PST 206	Pastry Basics II	3 CR
PST 220	Advanced Artisan & Decorative Breads	3 CR

QUARTER 3

NUTR& 101	Nutrition	5 CR
OR		
CUL 142	Nutrition	3 CR
PST 208	Introduction to Cakes, Desserts, Chocolate & Sugar Decorations	4 CR
PST 222	Chocolate/Sugar Confections & Introduction to Basic Showpieces	3 CR
PST 224	Specialty Cakes I	5 CR

TOTAL PROGRAM CREDITS: **42–44**

DATA ENTRY SPECIALIST

OVERVIEW
Choose this program to train as a data entry specialist, clerk typist, note reader, or word processor. With BTC's Data Entry Specialist program, you'll have valuable skills needed by employers in nearly every sector. Many data specialists telecommute, working from their homes on computers linked to their employer's main office.

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

PROGRAM ENTRY INFORMATION
Students may begin this program in any quarter.

PROGRAM START
A Bellingham Technical College Admission Application is required before a student can register for the Data Entry Specialist certificate.

TESTING REQUIREMENTS
These requirements are for the Certificate.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Data Entry Specialist Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PRE-PROGRAM COURSE REQUIREMENTS
Students must have an ACCUPLACER score of 50 in Arithmetic or MATH 090 with a C or better.

CERTIFICATE
Data Entry Specialist Certificate

PROGRAM REQUIREMENTS

QUARTER 1

CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

REQUIRED COURSES FOR PROGRAM

BUS 100	Electronic Math Applications	3 CR
BUS 123	Records Management	3 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
CAP 142	MS Excel	5 CR
CAP 146	MS Access	5 CR

TOTAL REQUIRED COURSE CREDITS: 30

ELECTIVES

ACCT 141	Practical Accounting I	5 CR
ACCT 242	Practical Accounting II	5 CR
ACCT 243	Practical Accounting III	5 CR

ACCT 245	Payroll Procedures	5 CR
ACCT 246	Computerized Accounting	5 CR
ACCT& 201	Principles of Accounting I	5 CR
ACCT& 202	Principles of Accounting II	5 CR
ACCT& 203	Principles of Accounting III	5 CR
BUS 150	Math for Business	5 CR
BUS 171	Technical Communications	5 CR
BUS 188	Business English	5 CR
BUS 230	Medical Office Procedures	5 CR
BUS 232	Office Procedures	5 CR
BUS& 101	Introduction to Business	5 CR
BUS& 201	Business Law	5 CR
CAP 109	Computerized Keyboard Skill Building II	3 CR
CAP 138	MS Word	5 CR
CAP 143	Adobe Acrobat & Electronic File Management	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CAP 200	Integrated Computer Applications	5 CR
CIS 145	Website Development	5 CR
LGL 127	Legal Office Procedures	5 CR
LGL 132	Legal Terminology	5 CR
LGL 211	Legal Document Processing	5 CR
MGMT 154	Creating and Managing a Small Business	5 CR
MGMT 210	Human Resource Management	5 CR

TOTAL ELECTIVE COURSE CREDITS: 13

TOTAL PROGRAM CREDITS: **43**

DENTAL: ASSISTING

OVERVIEW
Choose BTC's Dental Assisting program to train for a position as a dental assistant. Learn how to provide patient care, perform office duties and lab work, while working alongside dentists as they examine and treat their patients. Graduates will find employment opportunities with dental, orthodontic, and periodontal offices, as well as hospitals, public health departments, or in clinics.

PROGRAM OUTCOMES
- 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.

PROGRAM ENTRY INFORMATION
This program typically starts in Spring and Fall Quarters on a space available basis.

PROGRAM START
- To be eligible for admission to the program, applicants must meet college admission requirements.

- To be eligible for the program ready list, all general education courses must be successfully completed with a 2.0 or above. General education courses/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.

- After acceptance and prior to Registration for Quarter 1 of the Dental Assisting Program, students must submit proof of the following: 1) Be 18 years of age 2) Demonstrate satisfactory oral health by dental examination 3) Demonstrate satisfactory health status by physical examination and current immunization status 4) Provide evidence of negative test for tuberculosis from physician or health department 5) Complete hepatitis B immunization series (students should note that the cost of this immunization is estimated to be approximately $150.00) 6) Possess and maintain a current CPR card. Minimum CPR required is HO 127-Healthcare Provider (5-hour). 7) Students will be required to create an online account with Certified Background and pay a fee of approximately $119.00 for the background check, Drug Screen and tracking of required health documents.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 or ABE 050 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Dental Assisting Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of B/3.0 for all clinical courses, and minimum grade of C/2.0 for all other required courses.

PRE-PROGRAM COURSE REQUIREMENTS
- AENGL 100 Applied English or ENGL& 101 English Composition I
- AMATH 100 Applied Occupational Math (or higher)
- BIO 105 Essentials of Anatomy Physiology (this MUST be no older than 5-years at the time you are eligible for placement on the Dental Assisting Program ready list)
- CMST& 210 Interpersonal Communication
- DEN 100 Introduction to Dental Assisting
- The Test of Essential Academic Skills (TEAS V). (Given in the DEN 100 course)
- DEN 105 Head and Neck Anatomy
- HLTH 133 HIV/AIDS: For Healthcare Professional
- HO 127 Healthcare Provider CPR or HLTH 154 HealthCare Provider First Aid and CPR. CPR NOTE: Certification should be obtained one quarter prior to program application in

order to prevent certification from expiring prior to program completion.

- PSYC& 100 General Psychology

PROGRAM APPLICATION/FORMS
- Application Completion Form
- Criminal History Background Check Notification Form

ASSOCIATE OF APPLIED SCIENCE
Dental Assisting, AAS

PROGRAM REQUIREMENTS

QUARTER 1
DEN 110	Dental Foundations	5 CR
DEN 112	Chairside Assisting I	7 CR
DEN 114	Dental Sciences	4 CR
DEN 115	Dental Clinic Practicum I	6 CR

QUARTER 2
DEN 120	Patient Assessment	8 CR
DEN 122	Chairside Assisting II	6 CR
DEN 124	Radiography	3 CR
DEN 125	Dental Clinic Practicum II	4 CR

QUARTER 3
DEN 130	Preventative Dentistry	3 CR
DEN 132	Dental Specialties	1 CR
DEN 134	Laboratory Procedures	2 CR
DEN 135	Dental Clinic Practicum III	4 CR
DEN 137	Extramural Practicum	8 CR

PRE-PROGRAM
AENGL 100	Applied English	5 CR
OR		
ENGL& 101	English Composition I	5 CR
AMATH 100	Applied Occupational Math	5 CR
BIO 105	Essentials of Anatomy Physiology	5 CR
CMST& 210	Interpersonal Communication	5 CR
DEN 100	Introduction to Dental Assisting	1 CR
DEN 105	Head and Neck Anatomy	2 CR
HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR
HLTH 154	HealthCare Provider First Aid and CPR	1 CR
PSYC& 100	General Psychology	5 CR

TOTAL PROGRAM CREDITS: **91**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Dental Assisting, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
DEN 110	Dental Foundations	5 CR
DEN 112	Chairside Assisting I	7 CR
DEN 114	Dental Sciences	4 CR
DEN 115	Dental Clinic Practicum I	6 CR

QUARTER 2
DEN 120	Patient Assessment	8 CR
DEN 122	Chairside Assisting II	6 CR
DEN 124	Radiography	3 CR
DEN 125	Dental Clinic Practicum II	4 CR

QUARTER 3
DEN 130	Preventative Dentistry	3 CR
DEN 132	Dental Specialties	1 CR
DEN 134	Laboratory Procedures	2 CR
DEN 135	Dental Clinic Practicum III	4 CR
DEN 137	Extramural Practicum	8 CR

PRE-PROGRAM
AENGL 100	Applied English	5 CR
OR		
ENGL& 101	English Composition I	5 CR
AMATH 100	Applied Occupational Math	5 CR
BIO 105	Essentials of Anatomy Physiology	5 CR
CMST& 210	Interpersonal Communication	5 CR
DEN 100	Introduction to Dental Assisting	1 CR
DEN 105	Head and Neck Anatomy	2 CR
HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR
HLTH 154	HealthCare Provider First Aid and CPR	1 CR
PSYC& 100	General Psychology	5 CR

TOTAL PROGRAM CREDITS: **91**

CERTIFICATE
Dental Assisting Certificate

PROGRAM REQUIREMENTS

QUARTER 1
DEN 110	Dental Foundations	5 CR
DEN 112	Chairside Assisting I	7 CR
DEN 114	Dental Sciences	4 CR
DEN 115	Dental Clinic Practicum I	6 CR

QUARTER 2
DEN 120	Patient Assessment	8 CR
DEN 122	Chairside Assisting II	6 CR
DEN 124	Radiography	3 CR
DEN 125	Dental Clinic Practicum II	4 CR

QUARTER 3
DEN 130	Preventative Dentistry	3 CR
DEN 132	Dental Specialties	1 CR
DEN 134	Laboratory Procedures	2 CR
DEN 135	Dental Clinic Practicum III	4 CR
DEN 137	Extramural Practicum	8 CR

PRE-PROGRAM
AENGL 100	Applied English	5 CR
OR		
ENGL& 101	English Composition I	5 CR
AMATH 100	Applied Occupational Math	5 CR
BIO 105	Essentials of Anatomy Physiology	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
PSYC& 100	General Psychology	5 CR
DEN 100	Introduction to Dental Assisting	1 CR
DEN 105	Head and Neck Anatomy	2 CR
HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR
HLTH 154	HealthCare Provider First Aid and CPR	1 CR

TOTAL PROGRAM CREDITS: **86**

DENTAL: EXPANDED FUNCTION DENTAL AUXILIARY CERTIFICATE

OVERVIEW

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 EFDÀ s 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.

PROGRAM ENTRY INFORMATION

The program only starts in Fall Quarter.

PROGRAM START
- Completed BTC admissions application;
- Evidence of high school graduation or equivalent; acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate;
- Evidence of completion of a Dental Assisting Education Program accredited by the ADA Council on Dental Accreditation (CODA) or…Dental Assisting National Board (DANB) certified Dental Assistant OR Dental Hygienist with limited license;
- Provide evidence that you have completed seven hours of HIV/AIDS training;
- Possess and maintain a current CPR card. Minimum CPR required is HO 127 Healthcare Provider CPR (6-hr);
- 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;
- Provide evidence that you have a Dentist willing to sponsor you as a mentor and provide clinical experience;
- Upon acceptance into the program, students are required to provide evidence of negative test for tuberculosis from physician or health department;
- Upon acceptance into the program, students are required to complete Hepatitis B immunization series (students should note that the cost of this immunization is estimated to be approximately $225.00).

TESTING REQUIREMENTS
- ACCUPLACER sentence skills of 86 and reading comprehension score of 85 or completion of AENGL 100 Applied English or ENGL& 101 English Composition I with a C or above.

DEGREE AND CERTIFICATE REQUIREMENTS

Dental: Expanded Function Dental Auxiliary Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS
- Information & Application Packet
- Expanded Function Dental Auxiliary Application Completion Form

CERTIFICATE

Dental Expanded Function Dental Auxiliary Certificate

PROGRAM REQUIREMENTS

QUARTER 1

EFDA 100	Dental Anatomy	1 CR
EFDA 101	Restorative Dentistry I	3 CR
EFDA 102	Restorative Lab I	2 CR

QUARTER 2

EFDA 110	Principles of Dental Assisting	2 CR
EFDA 111	Restorative Dentistry II	2 CR
EFDA 112	Restorative Lab II	2 CR

QUARTER 3

EFDA 120	Final Impressions	1 CR
EFDA 122	Restorative Lab III	2 CR
EFDA 123	Restorative Clinical Practice	3 CR

TOTAL PROGRAM CREDITS: **18**

DENTAL: HYGIENE

OVERVIEW

If you are interested in pursuing a career in the health care industry as a dental hygienist, then look into BTC's Dental Hygiene program. You'll learn the clinical skills and core professional values needed to launch a rewarding career in private and public settings, such as dental offices and public health clinics. Dental hygiene students learn under the supervision of licensed dentists and dental hygienists on state-of-the-art equipment in BTC's on-campus dental clinic. Program graduates are well-positioned for employment, with the hands-on clinical experience employers need today.

PROGRAM OUTCOMES
- Demonstrate positive work ethics, team skills and

professional values integral the profession of Dental Hygiene.

- Utilize wellness, health determinants, & characteristics of various patient populations to promote oral health and reduce health risks in a variety of settings.

- Apply current dental hygiene techniques, instruments, and materials to provide preventive and therapeutic services in accordance with all safety and health standards.

- Assess, plan, implement & evaluate community based health promotion and prevention programs and activities to benefit the general population

- Demonstrate cognitive retention of dental terminology, theory, and science.

- Identify and access opportunities for professional growth and development.

- Apply the principles of evidence-based research and decision-making in the planning and implementation of dental hygiene care.

- Qualify for all national and regional examinations required to practice as a Registered Dental Hygienist in the State of Washington.

- Manage medical emergencies and provide appropriate life support measures using professional judgement.

PROGRAM ENTRY INFORMATION
This program will admit students again in the 2018-2019 year. This program has a selective admissions process.

Students are typically offered enrollment in Dental Hygiene once every other year.

PROGRAM START
- Admissions Information
- Financial Aid Notice
- Prerequisite Course Equivalency Chart

TESTING REQUIREMENTS
These requirements are for the AAS-T degree.

- 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.

- BTC College-Level Math score of 75 or a C grade in MATH 099.

DEGREE AND CERTIFICATE REQUIREMENTS
Dental Hygiene Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PRE-PROGRAM COURSE REQUIREMENTS
Prospective students must complete the following prerequisites with a 2.7 GPA or better in each course prior to applying to the program:

- BIOL& 241 Human A & P 1
- BIOL& 242 Human A & P 2
- BIOL& 260 Microbiology
- CHEM& 121 Intro to Chemistry

- CHEM& 131 Introduction to Organic/Bio-Chemistry

- CMST& 210 Interpersonal Communication or CMST& 220 Public Speaking or CMST& 101 Introduction to Communications

- ENGL& 101 English Composition I

- ENGL& 102 English Composition II

- MATH& 141 Precalculus I or MATH& 107 Math in Society or MATH& 146 Introduction to Statistics

- NUTR& 101 Nutrition

- PSYC& 100 General Psychology

- SOC& 101 Introduction to Sociology

PROGRAM APPLICATION/FORMS
- Dental Hygiene Application Packet

PHYSICAL REQUIREMENTS
- Physical Requirements and Warnings
- Blood-borne Pathogen Policy

OTHER APPLICATION FORMS
- Notice of Privacy Practices

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Dental Hygiene, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

DHYG 112	Dental Hygiene Clinical Practice I	5 CR
DHYG 114	Principles of Dental Hygiene I	3 CR
DHYG 115	Oral & Dental Anatomy	2 CR
DHYG 116	Oral Radiology I	4 CR
DHYG 118	Histology & Embryology	2 CR
DHYG 125	Medical Emergencies	3 CR
HLTH 154	HealthCare Provider First Aid and CPR	1 CR

QUARTER 2

DHYG 122	Dental Hygiene Clinical Practice II	5 CR
DHYG 124	Principles of Dental Hygiene II	3 CR
DHYG 126	Oral Radiology II	2 CR
DHYG 128	General Pathology	4 CR
DHYG 113	Dental Materials	4 CR

QUARTER 3

DHYG 131	Restorative Dentistry I	4 CR
DHYG 132	Dental Hygiene Clinical Practice III	5 CR
DHYG 134	Principles of Dental Hygiene III	3 CR
DHYG 137	Pharmacology	3 CR
DHYG 138	Periodontology	3 CR

QUARTER 4

DHYG 141	Restorative Dentistry II	1 CR
DHYG 142	Hygiene Clinical Practice IV	5 CR
DHYG 144	Principles of Dental Hygiene IV	3 CR
DHYG 149	Pain Management	4 CR

QUARTER 5

DHYG 211	Restorative Dentistry III	2 CR
DHYG 214	Principles of Dental Hygiene V	3 CR
DHYG 216	Community Oral Health I	4 CR
DHYG 219	Oral Pathology	3 CR

| DHYG 212 | Dental Hygiene Clinical Practice V | 8 CR |

QUARTER 6

DHYG 221	Restorative Dentistry IV	2 CR
DHYG 222	Dental Hygiene Clinical Practice VI	8 CR
DHYG 224	Principles of Dental Hygiene VI	3 CR
DHYG 226	Community Oral Health II	4 CR
DHYG 228	Oral Therapy	3 CR
DHYG 229	Dental Hygiene Seminar	1 CR

QUARTER 7

DHYG 231	Restorative Dentistry V	1 CR
DHYG 232	Dental Hygiene Clinical Practice VII	8 CR
DHYG 234	Principles of Dental Hygiene VII	3 CR
DHYG 236	Community Oral Health III	2 CR

| **TOTAL PROGRAM CREDITS:** | **124** |

DIESEL TECHNOLOGY

OVERVIEW

If you'd like a high-paying career upon graduating from BTC, then you should consider Diesel. You'll be prepared to work right away as a diesel technician, repairing and maintaining heavy trucks, buses, and road equipment like bulldozers and graders. Other positions you would qualify for are diesel engine specialist, truck technician, marine technician, and construction and industrial machinery repair technician.

You will learn how to use leading-edge diesel technology, and work hands-on in an actual shop. Employers who hire graduates from the Diesel program include diesel automotive and trucking companies, rental companies, marine dealers, highway contractors, and farm and heavy equipment companies

PROGRAM OUTCOMES

After successfully completing this program, students will be able to:

- Comply with personal and environmental safety practices specific to the diesel industry.
- Evaluate and apply technical information and testing procedures from a variety of sources to troubleshoot diesel equipment.
- Maintain and repair the following systems: engine, electrical, hydraulic, drive train, brakes, and steering/suspension.
- Communicate and document work performed using trade specific language and digital images.
- 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.
- Apply research techniques to identify emerging heavy equipment technologies.

PROGRAM ENTRY INFORMATION

This program admits students once a year, in the fall quarter.

PROGRAM START

Prior to registering for program classes, students are required to submit the following documentation to the Admissions Office:

1. Copy of your valid Driver's License (with no restrictions due to driving offenses);

2. Current complete 3-year driving record from Washington State DOL This copy of your driving record will be kept on file for advising purposes only;

3. Signed Industry Expectations form indicating that you understand program admissions requirements and industry hiring standards.

Important Program Notes:

1. You are required to maintain a valid driver's license as long as you are enrolled in this program;

2. Many employers, in this field, will only hire applicants who have a clean driving record;

3. Driving records (abstracts) can be obtained for a fee. It is the responsibility of the applicant to pay for and order his/her driving records. You may obtain a copy of your current "Abstract of Driving Record" at your local Department of Licensing or by accessing the Washington State Department of Licensing on the web at www.dol.wa.gov

4. A renewed copy of your valid driver's license (with no restrictions due to driving offenses) will again be required at the start of your second year in the program;

5. All General Education courses must be completed prior to the beginning of the 2nd year.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Diesel Technology Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

ASSOCIATE OF APPLIED SCIENCE
Diesel Technology, AAS

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR
AENGL 100	Applied English	5 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 2

| DET 129 | Shop Simulation | 15 CR |
| CMST& 210 | Interpersonal Communication | 5 CR |

QUARTER 3

| DET 116 | Electrical/Electronics II | 6 CR |

| DET 201 | Hydraulics | 9 CR |
| DET 208 | Preventive Maintenance | 6 CR |

QUARTER 4

| DET 139 | Field-Based Experience I | 12 CR |

QUARTER 5

DET 104	Hydraulic Brakes	2 CR
DET 106	Electrical/Electronics I	6 CR
DET 202	Diesel Engines 1	3 CR

QUARTER 6

| DET 239 | Field-Based Experience II | 12 CR |

QUARTER 7

DET 126	Electrical/Electronics III	6 CR
DET 203	Drive Train	5 CR
DET 204	Air Brakes	5 CR
DET 205	Suspension/Steering	5 CR

REQUIRED ELECTIVE CREDITS: 24 CR

DET 139	Field-Based Experience I	12 CR
DET 239	Field-Based Experience II	12 CR
DET 240	Current Diesel Industry Topics I	7 CR
DET 242	Current Diesel Industry Topics II	8 CR

Electives with Instructor permission. These 24 Elective Credits may include up to 15 credits of approved college-level classes determined by your faculty advisor.

TOTAL PROGRAM CREDITS: **132**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Diesel Technology - Transfer, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR
ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR

QUARTER 2

DET 129	Shop Simulation	15 CR
CMST& 210	Interpersonal Communication	5 CR
PSYC& 100	General Psychology	5 CR

QUARTER 3

DET 116	Electrical/Electronics II	6 CR
DET 201	Hydraulics	9 CR
DET 208	Preventive Maintenance	6 CR

QUARTER 4

| DET 139 | Field-Based Experience I | 12 CR |

QUARTER 5

DET 104	Hydraulic Brakes	2 CR
DET 106	Electrical/Electronics I	6 CR
DET 202	Diesel Engines	13 CR

QUARTER 6

| DET 239 | Field-Based Experience II | 12 CR |

QUARTER 7

DET 126	Electrical/Electronics III	6 CR
DET 203	Drive Train	5 CR
DET 204	Air Brakes	5 CR
DET 205	Suspension/Steering	5 CR

REQUIRED ELECTIVE CREDITS: 24 CR

DET 139	Field-Based Experience I	12 CR
DET 239	Field-Based Experience II	12 CR
DET 240	Current Diesel Industry Topics I	7 CR
DET 242	Current Diesel Industry Topics II	8 CR

Electives with Instructor permission. These 24 Elective Credits may include up to 15 credits of approved college-level classes determined by your faculty advisor.

TOTAL PROGRAM CREDITS: **137**

CERTIFICATE

Diesel Drive Train Certificate

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR
AENGL 100	Applied English	5 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 2

DET 126	Electrical/Electronics III	6 CR
DET 203	Drive Train	5 CR
DET 204	Air Brakes	5 CR
DET 205	Suspension/Steering	5 CR

TOTAL PROGRAM CREDITS: **46**

Diesel Hydraulics Certificate

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR
AENGL 100	Applied English	5 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 2

DET 116	Electrical/Electronics II	6 CR
DET 201	Hydraulics	9 CR
DET 208	Preventive Maintenance	6 CR

TOTAL PROGRAM CREDITS: **46**

Engine & Electronic Systems Certificate

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR

| AENGL 100 | Applied English | 5 CR |
| AMATH 100 | Applied Occupational Math | 5 CR |

QUARTER 2

DET 104	Hydraulic Brakes	2 CR
DET 106	Electrical/Electronics I	6 CR
DET 202	Diesel Engines	13 CR

TOTAL PROGRAM CREDITS: **46**

Vehicle Service Technician Certificate

PROGRAM REQUIREMENTS

QUARTER 1

TRANS 101	Basic Transportation Service & Systems 101	5 CR
TRANS 102	Basic Transportation Service & Systems 102	5 CR
TRANS 103	Basic Transportation Service & Systems 103	5 CR

TOTAL PROGRAM CREDITS: **15**

EARLY LEARNING

OVERVIEW

The Early Learning certificate is designed to educate and support individuals in their role as nurturers and caregivers for young children.

The program incorporates positive parenting/teaching skills with a child development knowledge base that promotes developmentally appropriate practices with children & 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

- 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

PROGRAM ENTRY INFORMATION

A variety of Adult/Child and Adult-Only Parenting Discussion courses are offered each quarter. Participants can register for their course of interest. Half scholarships are generally available. 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 partially or fully online.

PRE-PROGRAM COURSE REQUIREMENTS

Students begin the Program by registering for the certificate courses on a space available basis.

DEGREE AND CERTIFICATE REQUIREMENTS

Certificate completion requires a cumulative GPA of 2.0 or greater.

PROGRAM APPLICATION/FORMS

Students who complete a combination of 12 credits of early learning/parenting courses can apply for the Early Learning certificate. Students need to complete a minimum of 2 credits in Early Learning discussion courses with a maximum of 10 credits in Adult/Child courses with a study of at least two different age groups. It is anticipated that it will take two-three years for students to complete this certificate.

PROGRAM START

A Bellingham Technical College Admission Application is required before a student can register for the Early Learning certificate.

CERTIFICATE

Early Learning Certificate

PROGRAM REQUIREMENTS

ELECTIVES

Take 8–10 credits from the following coursework towards the certificate:

ECED 130	Adult/Infant: The Developing Infant	2 CR
ECED 131	Adult/Infant: Approaching Toddlerhood	2 CR
ECED 134	Adult/Child: One Year Old Development - Summer	1 CR
ECED 135	Adult/Child: One Year Old Development - Fall	2 CR
ECED 136	Adult/Child: One Year Old Development - Winter	2 CR
ECED 137	Adult/Child: One Year Old Development - Spring	2 CR
ECED 139	Adult/Child: Two Year Old Development - Summer	1 CR
ECED 140	Adult/Child: Two Year Old Development - Fall	2 CR
ECED 141	Adult/Child: Two Year Old Development - Winter	2 CR
ECED 142	Adult/Child: Two Year Old Development - Spring	2 CR
ECED 154	Adult/Child: Toddler & Preschooler Development - Summer	1 CR
ECED 155	Adult/Child: Toddler & Preschooler Development - Fall	2 CR
ECED 156	Adult/Child: Toddler & Preschooler Development - Winter	2 CR
ECED 157	Adult/Child: Toddler & Preschooler Development - Spring	2 CR

Take 2–4 credits of the following coursework towards the certificate:

ECED 160	Positive Discipline	1 CR
ECED 161	Raising Toddlers and Preschoolers	1 CR
ECED 163	Raising School Age Children	1 CR
ECED 167	Raising Teens	1 CR
ECED 170	Love & Logic for Successful Parenting	2 CR

TOTAL PROGRAM CREDITS: **12**

ELECTRICIAN

OVERVIEW

Choose this program to prepare for an exciting career as an electrician. Students become registered "electrician trainees" with the State of Washington Department of Labor and Industries and are awarded work experience hours upon completion. Occupational choices are extensive in the field; many graduates work in the construction industry, while others work in manufacturing or maintenance.

In BTC's Electrician program, you'll learn how to install, maintain, and repair residential, commercial, industrial and renewable electrical systems. You will also learn how to read blueprints and schematics, bend and install conduits, program VFDs and PLCs, and troubleshoot circuits.

PROGRAM OUTCOMES

After successfully completing this program, students will be able to:

- 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.

- Design, analyze, and diagnose basic electrical systems through the application of electrical theory fundamentals.

- Utilize proper tools, materials, and test equipment to construct a variety of code compliant service and branch circuits found in a typical residential setting.

- Utilize proper tools, materials, and test equipment to construct a variety of code compliant branch and lighting circuits found in a typical commercial setting.

- Utilize proper tools, materials, and test equipment to construct a variety of code compliant branch, signal, and control circuits found in a typical industrial setting.

- Summarize the financial and regulatory scope of the electrical industry including government fees, jobsite overhead, business operating expenses, time management, and cost of materials.

- Communicate clearly and effectively with team members, supervisors, and others in the workplace, using trade terminology, drawings, blueprints, and other documents.

- Demonstrate professional conduct conducive to the work environment including punctuality, safety, reliability and customer service.

- Inspect electrical systems, equipment, or components to identify hazards, defects, or the need for adjustment, repair, or updating and to ensure compliance with codes.

PROGRAM START

This program is scheduled to accept new students in the following quarters: Fall 2018, Winter 2019 and Spring 2019. Program seats are offered to students who meet the testing requirements on a first-come-first-serve basis.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

- ACCUPLACER Reading Comprehension score of 71 or a RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Electrician AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

PRE-PROGRAM COURSE REQUIREMENTS

Graduates can be credited with up to 1,472 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.

PHYSICAL REQUIREMENTS

Electricians deal with color-coded wires on a daily basis, making it vital for all electricians to be able to see color.

ASSOCIATE OF APPLIED SCIENCE

Electrician, AAS

PROGRAM REQUIREMENTS

QUARTER 1

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

QUARTER 2

CMST& 210	Interpersonal Communication	5 CR
ELCN 102	AC Circuits	3 CR
ELCN 112	Introduction to National Electrical Code	4 CR
ELCN 132	AC Circuit Lab	3 CR
ELCN 142	Residential Wiring Projects	6 CR

QUARTER 3

AENGL 100	Applied English	5 CR
ELCN 104	Grounding & Bonding	2 CR
ELCN 105	Transformers, Motors & Generators	4 CR
ELCN 113	Advanced NEC Calculations	3 CR
ELCN 143	Electrical Distribution	3 CR
ELCN 151	Commercial Wiring Methods & Materials	5 CR

QUARTER 4

ELCN 201	Electronics for Electricians	2 CR
ELCN 202	Machine Control Fundamentals	5 CR
ELCN 251	Commercial & Renewable Energy Projects	5 CR
ELCN 261	Industrial Control Wiring Methods & Materials	6 CR
ELCN 280	Renewable Electrical Sources	4 CR

QUARTER 5

ELCN 203	PLCs & VFDs	5 CR
ELCN 214	Special Occupancies, Equipment & Conditions	3 CR
ELCN 262	Specialty Industrial Wiring Projects	5 CR
ELCN 263	Automated Control Projects	6 CR
ELCN 281	Electrical Estimating & Design	3 CR

TOTAL PROGRAM CREDITS: **108**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Electrician, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

ELCN 100	Trade Safety	2 CR
ELCN 101	DC Circuits	4 CR
ELCN 103	Electrical Drawings & Blueprints	2 CR
ELCN 125	Electrical Applied Mechanics	4 CR
ELCN 131	DC Circuit Lab	4 CR
MATH& 141	Precalculus I	5 CR
PSYC& 100	General Psychology	5 CR

QUARTER 2

CMST& 210	Interpersonal Communication	5 CR
ELCN 102	AC Circuits	3 CR
ELCN 112	Introduction to National Electrical Code	4 CR
ELCN 132	AC Circuit Lab	3 CR
ELCN 142	Residential Wiring Projects	6 CR

QUARTER 3

ELCN 104	Grounding & Bonding	2 CR
ELCN 105	Transformers, Motors & Generators	4 CR
ELCN 113	Advanced NEC Calculations	3 CR
ELCN 143	Electrical Distribution	3 CR
ELCN 151	Commercial Wiring Methods & Materials	5 CR
ENGL& 101	English Composition I	5 CR

QUARTER 4

ELCN 201	Electronics for Electricians	2 CR
ELCN 202	Machine Control Fundamentals	5 CR
ELCN 251	Commercial & Renewable Energy Projects	5 CR
ELCN 261	Industrial Control Wiring Methods & Materials	6 CR
ELCN 280	Renewable Electrical Sources	4 CR

QUARTER 5

ELCN 203	PLCs & VFDs	5 CR
ELCN 214	Special Occupancies, Equipment & Conditions	3 CR
ELCN 262	Specialty Industrial Wiring Projects	5 CR
ELCN 263	Automated Control Projects	6 CR
ELCN 281	Electrical Estimating & Design	3 CR

TOTAL PROGRAM CREDITS: **113**

CERTIFICATE

Electrical Construction Certificate

PROGRAM REQUIREMENTS

QUARTER 1

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

QUARTER 2

CMST& 210	Interpersonal Communication	5 CR
ELCN 102	AC Circuits	3 CR
ELCN 112	Introduction to National Electrical Code	4 CR
ELCN 132	AC Circuit Lab	3 CR
ELCN 142	Residential Wiring Projects	6 CR

QUARTER 3

AENGL 100	Applied English	5 CR
ELCN 104	Grounding & Bonding	2 CR
ELCN 105	Transformers, Motors & Generators	4 CR
ELCN 113	Advanced NEC Calculations	3 CR
ELCN 143	Electrical Distribution	3 CR
ELCN 151	Commercial Wiring Methods & Materials	5 CR

TOTAL PROGRAM CREDITS: **64**

EMERGENCY MEDICAL TECHNICIAN

OVERVIEW

This intensive 3-course program includes lectures, hands-on practice and techniques for: introduction to emergency care, bleeding and shock, soft tissue injuries, environmental emergencies, lifting and moving patients, emergency childbirth, and much, much more. At the end of the training, successful participants are qualified for the National Registry of EMT's examination.

PROGRAM OUTCOMES

- Apply knowledge of the EMS system, safety/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.

PROGRAM ENTRY INFORMATION

Applications for program entry are typically due 6 weeks prior to the start of the quarter. Candidates from sponsored agencies are given priority consideration for program admission.

Applications may be mailed or hand delivered to:

Bellingham Technical College
Attn: Therese Williams, H1
3028 Lindbergh Avenue
Bellingham, WA 98225

PROGRAM START

Students are typically admitted for fall and spring quarters.

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 taking the EMT Program.

PRE-PROGRAM COURSE 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. (We require infant, child, adult CPR and training on an AED.)

- Current First Aid card.

- 4-hour Infectious Disease Prevention for EMS Provider's class, or 7 hours HIV/AIDS education.

PROGRAM APPLICATION/FORMS

- Proof of immunization or positive titer for the following: (SJH Contractual Requirement for all students) Rubeola (two immunizations or positive titer), Mumps (two immunizations or positive titer), Rubella (one immunization or positive titer), Varicella (two immunizations or positive titer), One TDAP immunization, Annual Influenza immunization – (to include location and date immunization was done). Record of Hepatitis B vaccine series (or declination form available at BTC)

- Emergency Medical Technician Application

- Successfully pass a national criminal background check.

- Must have a current Driver's License.

- Verification of health insurance, either personal or through an employer.

- Basic Urine Drug Test

- Tuberculin PPD test within last 12 months.

- 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 requirement 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.

PHYSICAL REQUIREMENTS

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 have access to a computer with high-speed internet as many program components and testing are done online.

Students, either prior to entering the program, or before course three (EMS 123), are encouraged to have taken a Hazardous Materials Awareness course. It is also recommended only that students complete the IS 100.a and IS 700.a courses, available from the FEMA website (http://training.fema.gov/IS/) as the NREMT exam will address these areas in more depth than in covered in the EMT Program.

DEGREE AND CERTIFICATE REQUIREMENTS

Emergency medical technician certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

CERTIFICATE
Emergency Medical Technician Certificate

PROGRAM START

A Bellingham Technical College Admission Application is required before a student can register for the Emergency Medical Technician certificate (After approval by EMS council).

PROGRAM REQUIREMENTS

QUARTER 1

EMS 121	EMT I: Fundamentals of Emergency Care	4 CR
EMS 122	EMT II: Medical Disorders and Emergencies	4 CR
EMS 123	EMT III: Traumatic Emergencies and Special Circumstances	4 CR

TOTAL PROGRAM CREDITS:		**12**

ENGINEERING TECHNOLOGY: BACHELOR OF APPLIED SCIENCE

OVERVIEW

BTC's Bachelor of Applied Science in Engineering Technology (BASET) degree has been designed to meet the needs of students who want to work in the engineering field. The program focuses on providing hands-on technical education that prepares graduates to be productive professionals who make meaningful contributions to the engineering industry. Our curriculum balances theoretical content, robust applied laboratory work, and engaging classroom experiences. Intensive engineering design projects provide students with a strong foundation of engineering technology knowledge and skills that align with traditional and emerging careers in the engineering industry.

PROGRAM OUTCOMES

- An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

- An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

- An ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

- An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

- An ability to function effectively as a member or leader on a technical team.

PROGRAM START

The program will be offered starting Fall Quarter 2018.

WHAT ARE THE MINIMUM ENTRY REQUIREMENTS?

Students must complete an accredited associate degree or higher, and if necessary take these additional courses before applying to the BASET program:

- Completed Accredited Associate Degree or Higher

- ENGL& 101 English Composition I

- HUMANITIES VAR - Any Humanities Course

- MATH& 141 - Precalculus I

- ENGR& 114 or ENGR 180 or Equivalent

- Engineering Graphics or Parametric Modeling or Program Director approval

Bridge Courses — up to 15 credits — are required for entry into the Technical Core Courses.

Students must complete these courses before being admitted to the 300-level Technical Core courses:

- MATH& 142 Precalculus II

- PHYS& 114 or PHYS& 221 General Physics I w/lab or Engineering Physics I w/lab

- CHEM& 161 General Chemistry w/lab I

PROGRAM APPLICATION/FORMS

For More Information: Contact our program office coordinator, Andrea Schuman, at 360.752.8580 or baset@btc.edu.

DEGREE REQUIREMENTS

Engineering Technology BAS degree completion requires a minimum grade of C/2.0 for all program courses.

Engineering Technology, BAS

PROGRAM REQUIREMENTS

ACADEMIC CORE COURSES

ENGL 310	Business Communications	5 CR
PSYC 310	Organizational Psychology	5 CR
PHIL 310	Professional Ethics	5 CR
ECON 310	Managerial Economics	5 CR
Total General Education Course Credits:		**20**

TECHNICAL CORE COURSES

ENGT 311	Fundamental Principles of Manufacturing Processes	3 CR
ENGT 312	Applied Electricity and Electronics	5 CR
ENGT 313	Applied Statics	5 CR
ENGT 314	Applied Strength of Materials	5 CR
ENGT 316	Applied Fluid Mechanics and Heat Transfer	5 CR
AMAT 301	Programming for Technologists	2 CR
AMAT 312	Applied Linear Algebra	2 CR
AMAT 313	Technical Calculus	2 CR
AMAT 314	Applied Differential Equations	2 CR
AMAT 316	Numerical Methods for Technologists	2 CR
AMAT 490	Statistical Methods for Technologists	2 CR
Total Technical Core Course Credits:		**35**

PROJECT AND SEMINAR COURSES

ENGT 301	Introduction to Engineering Technology	1 CR
ENGT 390	Project Planning and Management	1 CR
ENGT 391	Introduction to Analysis and Design	3 CR
ENGT 490	Engineering Technology Capstone I	2 CR
ENGT 491	Engineering Technology Capstone II	5 CR
ENGT 492	Engineering Technology Capstone III	5 CR
Total Project and Seminar Course Credits:		**17**

ELECTIVE COURSES

ENGT 395	Field-Based Experience/Internship	2–5 CR
ENGT 352	Process Safety	5 CR
ENGT 415	Technical Dynamics	5 CR
ENGT 441	Applied Process Control	5 CR
ENGT 465	Applied Environmental Engineering	5 CR
ENGT 481	Special Topics in Engineering Technology	5 CR
ENGT 495	Field-Based Experience/Internship	2–5 CR
ENGT 499	Special Problems	2–5 CR
OPM 313	Quality Management	5 CR
OPM 315	Lean Concepts and Applications	5 CR
OPM 411	Facility Layout and Materials Handling	5 CR
OPM 413	Measurement and Statistical Process Control	5 CR
Total Elective Course Credits:		**20**
TOTAL PROGRAM CREDITS:		**92**

ENGINEERING TECHNOLOGY: CIVIL SPECIALIZATION

Engineering Technology: Civil Specialization, AAS

PROGRAM REQUIREMENTS

ACADEMIC CORE

AMATH 111	Applied Technical Math	5 CR
OR		
MATH& 141	Precalculus I	5 CR
OR		
MATH& 142	Precalculus II	5 CR
ENGL& 101	English Composition I	5 CR
CMST& 220	Public Speaking	5 CR
OR		
CMST& 210	Interpersonal Communication	5 CR
CTE 108	Job Skills	1 CR
Total Academic Core Course Credits:		**16**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
ENGT 135	AutoCAD II	5 CR
ENGT 215	Applied Statics	5 CR
ENGT 216	Applied Mechanics Of Materials	5 CR
Total Engineering Core Course Credits:		**32**

CIVIL CORE

CET 102	Fundamentals Of Surveying I	5 CR
CET 110	Construction And Highway Surveys	5 CR
CET 120	Zoning, Permitting & Platting	5 CR
CET 141	Fundamentals Of GIS & GPS	5 CR
CET 142	Intermediate GIS	5 CR
CET 230	Estimating And Scheduling	5 CR
CET 235	Construction Materials	5 CR
CET 240	Earthmoving Fundamentals	5 CR
CET 251	AutoCAD Civil 3D I	5 CR
CET 252	AutoCAD Civil 3D II	5 CR
Total Civil Core Course Credits:		**50**

ENGINEERING ELECTIVES

- Any ENGR, ENGT, or CET course 100 level or higher
- Any Math class MATH& 141 Precalculus I or higher (cannot be used for both general core and elective)
- Any Chemistry course 100 level or higher
- Any Physics course 100 level or higher

Total Engineering Electives Course Credits:	**10**

TOTAL PROGRAM CREDITS:	**108**

OVERVIEW

This program will prepare you for a career as a civil engineering technician, computer aided drafter, construction manager, transportation technician, or GIS technician. You'll learn valuable skills like civil drawing, design, geographic information systems (GIS) and field engineering.

If you're looking for a program that will put you on a solid career track with employers such as high-tech industries, civil engineering and surveying firms, the Department of Transportation, or civil construction companies, then look into Civil Engineering at BTC.

PROGRAM OUTCOMES

- 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.
- 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.
- Solve engineering problems using a variety of mathematical processes and quantitative reasoning.

PROGRAM ENTRY INFORMATION

PROGRAM START
Students may begin working toward this degree quarterly.

TESTING REQUIREMENTS
Admissions application and assessment testing in Reading, Math, and Sentence Skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact Admissions at 360.752.8345 or at admissions@btc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence Skills, and Arithmetic portions of the ACCUPLACER Placement Test prior to enrolling for classes.

DEGREE AND CERTIFICATE REQUIREMENTS
Engineering Technology: Civil Specialization AAS-T degree, AAS degree and certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Engineering Technology: Civil Specialization, AAS-T

PROGRAM REQUIREMENTS

ACADEMIC CORE

MATH& 141	Precalculus I	5 CR
MATH& 142	Precalculus II	5 CR
ENGL& 101	English Composition I	5 CR
ENGL& 235	Technical Writing	5 CR
CHEM& 161	General Chemistry w/ Lab I	5 CR
CTE 108	Job Skills	1 CR

Total Academic Core Course Credits: **26**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
ENGT 135	AutoCAD II	5 CR
ENGT 215	Applied Statics	5 CR
OR		
ENGR& 214	Engineering Statics	5 CR
ENGT 216	Applied Mechanics Of Materials	5 CR

Total Engineering Core Course Credits: **32**

CIVIL CORE

CET 102	Fundamentals Of Surveying I	5 CR
CET 141	Fundamentals Of GIS & GPS	5 CR
CET 142	Intermediate GIS	5 CR
CET 230	Estimating And Scheduling	5 CR
CET 235	Construction Materials	5 CR
CET 240	Earthmoving Fundamentals	5 CR
CET 251	AutoCAD Civil 3D I	5 CR
CET 252	AutoCAD Civil 3D II	5 CR

Total Civil Core Course Credits: **40**

ENGINEERING ELECTIVES

Any ENGR, ENGT, or CET course 100 level or higher

MATH& 151	Calculus I	5 CR
MATH& 152	Calculus II	5 CR

Total Engineering Electives Course Credits: **10**

TOTAL PROGRAM CREDITS: **108**

ENGINEERING TECHNOLOGY: CLEAN ENERGY SPECIALIZATION

OVERVIEW

According to the US Energy Information Administration, global energy consumption has significantly increased and is expected to continue rising through 2035 (Energy Outlook, 2012). The energy industry is working to increase energy efficiency and looking toward innovative technologies to meet the growing demand. Prominent energy companies like BP and Phillips 66 are starting new departments focused on alternative energy and investing in technology development and production.

New energy technology career categories are emerging at an unprecedented pace, and skill sets associated with energy technology cut across both traditional and emerging industries. The number of green jobs in Washington rose 32% in the last few years, and these trends are expected to continue as the demand for energy increases and resources decrease. In Whatcom County alone, there are over 3,600 green jobs (Source: WA Employment Security Department, 2010). Many emerging green energy jobs will be technical jobs that require more than a high school diploma but less than a bachelor's degree.

This two-year degree prepares graduates to enter into the industry for wide variety of job titles including, but not limited to, the following:

- Engineering Technician *
- Electronics Technician
- Electronics Engineering Technician *
- Solar Installer
- Wind Energy Technician
- Wind Turbine Service Technician

* Indicates careers that are currently considered "in demand" by the Washington State Employment Security Department.

Graduates of this program can also choose to transfer into the Western Washington University Institute for Energy Studies program.

PROGRAM OUTCOMES

- Describe and evaluate the impact of renewable energy within the context of sustainability, economics, policy, and society.
- Describe and apply a working knowledge of energy resources and their technological systems.
- Service/repair renewable energy systems and assist engineers with the design of renewable systems by applying basic knowledge of electrical, electronics, heat/power, and basic engineering concepts.
- Apply basic principles of math, science, and design theory to solve engineering problems.
- Utilize equipment, instruments, software and technical reference materials currently used in industry.
- Function effectively as a member of a technical team.
- Engage in, and recognize the need for, self-directed continuing professional development.

- Demonstrate critical thinking as well as technical and information literacy skills.
- Communicate effectively using writing, speaking, and graphics skills.
- Qualify for employment in the renewable energy field as an engineering technician or related job title.
- Apply ethical and professional practice within the field of renewable energy and engineering technology.

PROGRAM START
Students may begin working toward this degree quarterly.

TESTING REQUIREMENTS
Admissions application and assessment testing in Reading, Math, and Sentence Skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact Admissions at 360-752-8345 or at admissions@btc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence Skills, and Arithmetic portions of the ACCUPLACER Placement Test prior to enrolling for classes.

DEGREE AND CERTIFICATE REQUIREMENTS
Engineering Technology: Clean Energy Specialization AAS-T Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Engineering Technology: Clean Energy Specialization, AAS-T

ACADEMIC CORE

MATH& 151	Calculus I	5 CR
PHYS& 114	General Physics I w/lab	5 CR
OR		
PHYS& 221	Engineering Physics I w/Lab	5 CR
CHEM& 161	General Chemistry w/ Lab I	5 CR
ENGL& 101	English Composition I	5 CR
ECON& 201	Micro Economics	5 CR
Total Academic Core Course Credits:		**25**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
Total Engineering Core Course Credits:		**12**

TECHNOLOGY COURSE WORK

CENG 101	Energy & Society	3 CR
CENG 201	Energy Politics and Policy	5 CR
CENG 220	Energy Generation and Conservation	5 CR
ENET 100	Direct Current	5 CR
ENET 120	Alternating Current	5 CR
ENET 130	Semi-Conductors	5 CR
ENET 140	Operational Amplifier	5 CR
ENET 150	Digital	5 CR
ENET 160	Electronic Communication	5 CR
OR		
ENET 264	Emerging Technology	5 CR
Total Clean Energy Core Course Credits:		**43**

ENGINEERING ELECTIVES
Any ENGR, ENGT, or ENET class 100 level or higher

ACCT& 201	Principles of Accounting I	5 CR
ACCT& 202	Principles of Accounting II	5 CR
BIOL& 160	General Biology with Lab	5 CR
POLS& 202	American Government	5 CR
CS& 131	Computer Science I C++	5 CR
PTEC 195	Biodiesel Fundamentals	3 CR
PTEC 196	Green Energy	3 CR
ENVS& 101	Fundamentals of Environmental Science	5 CR
ENGL& 235	Technical Writing	5 CR
Total Engineering Electives Course Credits:		**15**

TOTAL PROGRAM CREDITS:		**95**

CERTIFICATE

Engineering Technology: Clean Energy Certificate

PROGRAM REQUIREMENTS

CENG 101	Energy & Society	3 CR
CENG 201	Energy Politics and Policy	5 CR
CENG 220	Energy Generation and Conservation	5 CR
TOTAL PROGRAM CREDITS:		**13**

ENGINEERING TECHNOLOGY: COMPOSITES SPECIALIZATION

Engineering Technology: Composites Specialization, AAS

OVERVIEW

The field of engineering technology develops, processes, and tests the efficiency, production quality, and safety of nearly every product available on the market. In particular, composites technicians work with innovative, lightweight composite materials that are in demand by the aerospace and high-tech industries. These associate degree programs provide excellent job and career training for students who are mechanically inclined, good at math, or interested in how the products we use every day are designed and developed.

At Bellingham Technical College, the new Composites and Process Engineering associate degree programs teach top skills that are in-demand for such positions as assembler, fabricator, machine operator, production worker, or supervisor in leading American industries.

PROGRAM OUTCOMES

- Create fully dimensioned orthographic and isometric CAD drawings that adhere to national standards (i.e. ANSI) and industry conventions.

- Interpret rough sketches/drawings/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.

PROGRAM START

Student may begin working toward this degree quarterly.

TESTING REQUIREMENTS

Admissions application and assessment testing in Reading, Math and Sentence Skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact Admissions at 360.752.8345 or at admissions@btc. edu for assistance with academic planning.

- Students are required to take the Reading, Sentence Skills and Arithmetic portions of the ACCUPLACER Placement Test prior to enrolling for classes.

DEGREE AND CERTIFICATE REQUIREMENTS

Engineering Technology: Composites Specialization AAS-T Degree, AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

PROGRAM REQUIREMENTS

ACADEMIC CORE

AMATH 111	Applied Technical Math	5 CR
ENGL& 101	English Composition I	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
CMST& 220	Public Speaking	5 CR
CHEM& 121	Intro to Chemistry	5 CR
OR higher level Chemistry		

Total Academic Core Course Credits: **20**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
ENGR 180	Parametric Modeling	5 CR

Total Engineering Core Course Credits: **17**

COMPOSITES CORE

COMP 101	Survey of Composites	2 CR
COMP 121	Composites Design & Fabrication I	5 CR
COMP 222	Composites Design & Fabrication II	5 CR
COMP 290	Tool Design	5 CR
COMP 235	Inspect, Test & Repair	5 CR
ENGT 233	Intro To CATIA	5 CR
MACH 191	Manual Machining for non-Majors	5 CR
MACH 193	CNC Machining for non-Majors	5 CR

Total Composites Core Course Credits: **37**

ENGINEERING ELECTIVES

Any ENGR, ENGT, or COMP course 100 level or higher

MATH& 151	Calculus I	5 CR
MATH& 152	Calculus II	5 CR
CHEM& 161	General Chemistry w/ Lab I	5 CR
CHEM& 162	General Chemistry w/Lab II	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
CS& 131	Computer Science I C++	5 CR
ENGL& 235	Technical Writing	5 CR

Total Engineering Electives Course Credits: **20**

TOTAL PROGRAM CREDITS: **94**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Engineering Technology:
Composites Specialization, AAS-T

PROGRAM REQUIREMENTS

ACADEMIC CORE

MATH& 151	Calculus I	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
CHEM& 161	General Chemistry w/ Lab I	5 CR
CHEM& 162	General Chemistry w/Lab II	5 CR
ENGL& 101	English Composition I	5 CR
ENGL& 235	Technical Writing	5 CR

Total Academic Core Course Credits: 30

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
ENGT 233	Intro To CATIA	5 CR
OR		
ENGR 180	Parametric Modeling	5 CR
ENGR& 214	Engineering Statics	5 CR
ENGR 270	Introduction To Materials Science	5 CR

Total Engineering Core Course Credits: 27

COMPOSITES CORE

COMP 101	Survey of Composites	2 CR
COMP 121	Composites Design & Fabrication I	5 CR
COMP 222	Composites Design & Fabrication II	5 CR
COMP 290	Tool Design	5 CR
COMP 235	Inspect, Test & Repair	5 CR
MACH 191	Manual Machining for non-Majors	5 CR
MACH 193	CNC Machining for non-Majors	5 CR

Total Composites Core Course Credits: 32

ENGINEERING ELECTIVES

Any ENGR, ENGT, or COMP course 100 level or higher

MATH& 152	Calculus II	5 CR
CS& 131	Computer Science I C++	5 CR

Total Engineering Electives Course Credits: 10

TOTAL PROGRAM CREDITS: 99

ENGINEERING TECHNOLOGY: ELECTRONICS SPECIALIZATION

OVERVIEW

Electronics technicians are in high demand as engineering assistants, field service technicians, electronic equipment technicians, service technicians, and broadcast technicians.

In this program you'll learn the latest electronics processes and systems, like instrumentation, industrial electronics, NANO/Micro Systems, robotics, lasers, automated equipment, fiber optics, and wireless communications. You can put your valuable skills to work in manufacturing companies, processing plants, computer service firms, telephone and wireless communications companies, or in the biomedical equipment field.

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.
- Analyze and troubleshoot components at the system level.
- Calibrate, align, and adjust electronic devices.
- National certification through Electronics Technicians Association International (ETA-i).

PROGRAM START

Students may begin working toward this degree quarterly.

TESTING REQUIREMENTS

Admissions application and assessment testing in Reading, Math, and Sentence Skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact Admissions at 360.752.8345 or at admissions@btc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence Skills, and Arithmetic portions of ACCUPLACER Placement Test prior to enrolling for classes.

DEGREE AND CERTIFICATE REQUIREMENTS

Engineering Technology: Electronics Specialization AAS-T Degree, AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

PRE-PROGRAM COURSE REQUIREMENTS

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

ASSOCIATE OF APPLIED SCIENCE
Engineering Technology: Electronics Specialization, AAS

PROGRAM REQUIREMENTS

ACADEMIC CORE

MATH& 142	Precalculus II	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
CMST& 220	Public Speaking	5 CR
CTE 108	Job Skills	1 CR
CS& 131	Computer Science I C++	5 CR
ENGL& 101	English Composition I	5 CR
Total Academic Core Course Credits:		**21**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
OR		
ENGT 134	AutoCAD I	5 CR
Total Engineering Core Course Credits:		**12**

TECHNOLOGY COURSE WORK

ENET 100	Direct Current	5 CR
ENET 120	Alternating Current	5 CR
ENET 130	Semi-Conductors	5 CR
ENET 140	Operational Amplifier	5 CR
ENET 150	Digital	5 CR
ENET 160	Electronic Communication	5 CR
ENET 212	Micro-Controller System I	5 CR
ENET 213	Micro-Controller System II	5 CR
ENET 245	Mechatronics I	5 CR
ENET 246	Mechatronics II	5 CR
ENET 250	Wireless Communication	5 CR
ENET 264	Emerging Technology	5 CR
ENET 281	Robotics	5 CR
ENET 282	Certified Electronics Technician Test Prep	3 CR
ENET 290	Capstone Project I	2 CR *
ENET 291	Capstone Project II	2 CR *
ENET 292	Capstone Project III	2 CR *

*May substitute ENGT 295 Field-Based Experience 3–6 CR for one Capstone class

Total Technology Core Course Credits:		**74**

TOTAL PROGRAM CREDITS:		**107**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Engineering Technology: Electronics Specialization, AAS-T

PROGRAM REQUIREMENTS

ACADEMIC CORE

MATH& 152	Calculus II	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
PHYS& 222	Engineering Physics II w/Lab	5 CR

CS& 131	Computer Science I C++	5 CR
ENGL& 101	English Composition I	5 CR
Total Academic Core Course Credits:		**25**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
Total Engineering Core Course Credits:		**12**

TECHNOLOGY COURSE WORK

ENET 100	Direct Current	5 CR
ENET 120	Alternating Current	5 CR
ENET 130	Semi-Conductors	5 CR
ENET 140	Operational Amplifier	5 CR
ENET 150	Digital	5 CR
ENET 160	Electronic Communication	5 CR
ENET 290	Capstone Project I	2 CR *
ENET 291	Capstone Project II	2 CR *
ENET 292	Capstone Project III	2 CR *

* May substitute ENGT 295 Field-Based Experience 3–6 CR for one Capstone class

Total Electronics Core Course Credits:		**36**

ENGINEERING ELECTIVES
Any ENGR, CENG, or ENGT course 100 level or higher or any ENET course 200 level or higher

CHEM& 161	General Chemistry w/ Lab I	5 CR
ENGL& 235	Technical Writing	5 CR
MATH& 163	Calculus 3	5 CR
PHYS& 223	Engineering Physics III w/Lab	5 CR
Total Engineering Electives Course Credits:		**20**

TOTAL PROGRAM CREDITS:		**93**

CERTIFICATE
Electronics Engineering Technician Certificate

PROGRAM REQUIREMENTS

QUARTER 1

ENET 100	Direct Current	5 CR
ENET 120	Alternating Current	5 CR

QUARTER 2

ENET 130	Semi-Conductors	5 CR
ENET 140	Operational Amplifier	5 CR

QUARTER 3

ENET 150	Digital	5 CR
ENET 160	Electronic Communication	5 CR

QUARTER 4

ENET 282	Certified Electronics Technician Test Prep	3 CR
TOTAL PROGRAM CREDITS:		**33**

ENGINEERING TECHNOLOGY: GEOMATICS SPECIALIZATION

ASSOCIATE OF APPLIED SCIENCE
Engineering Technology: Geomatics Specialization, AAS

OVERVIEW

If you'd like to prepare for a career in a growing field that won't confine you to an office, then check out the Geomatics Engineering Technology associate degree program at Bellingham Technical College. You can put your math and computer skills to work as a surveying and mapping technician or land surveyor in a construction firm; a surveying and engineering firm; a mining, oil or gas company; a public utility; or a government agency, such as U.S. Geological Survey, Department of Natural Resources, the Bureau of Land Management, or the U.S. Forestry Service.

BTC's associate degree in Geomatics includes training in GIS, AutoCAD and GPS skills, as well as gain a working knowledge of Washington laws and standards related to surveying, boundaries and map preparation.

PROGRAM OUTCOMES

- Graduates will demonstrate competency in basic GIS and surveying and mapping skills;

- Graduates will prepare for the Level I Survey Technical Exam given by the Career Development Committee of LSAW;

- Graduates will possess the ability to prepare a topographic map of a parcel of property that is evaluated by WAC 332-130 standards;

- Graduates will demonstrate entry level competency in using CAD skills;

- Graduates will 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;

- Graduates will receive, interpret, and convey written, verbal, and graphic information.

PROGRAM START

Students may begin working toward this degree quarterly.

TESTING REQUIREMENTS

Admissions application and assessment testing in Reading, Math and Sentence Skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact Admissions at 360.752.8345 or at admissions@btc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence Skills and Arithmetic portions of the ACCUPLACER Placement Test prior to enrolling for classes.

DEGREE AND CERTIFICATE REQUIREMENTS

Engineering Technology: Geomatics Specialization AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

PROGRAM REQUIREMENTS

ACADEMIC CORE

AMATH 111 Applied Technical Math		5 CR
(Can substitute MATH 141 and MATH 142 for AMATH 111)		
ENGL& 101	English Composition I	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
CMST& 220	Public Speaking	5 CR
Total Academic Core Course Credits:		**15**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR 115	Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
ENGT 135	AutoCAD II	5 CR
Total Engineering Core Course Credits:		**17**

TECHNOLOGY COURSE WORK

CET 102	Fundamentals Of Surveying I	5 CR
CET 103	Fundamentals Of Surveying II	5 CR
CET 110	Construction And Highway Surveys	5 CR
CET 120	Zoning, Permitting & Platting	5 CR
CET 141	Fundamentals Of GIS & GPS	5 CR
CET 142	Intermediate GIS	5 CR
CET 143	Advanced GIS Applications	5 CR
CET 205	Survey of Public Lands	5 CR
CET 210	Boundary Law & Land Description	5 CR
CET 215	Environmental Mapping	5 CR
CET 220	GPS Systems	5 CR
CET 225	Advanced Survey Seminar	5 CR
CET 251	AutoCAD Civil 3D I	5 CR
Total Geomatics Core Course Credits:		**65**

ENGINEERING ELECTIVES

CET 230	Estimating And Scheduling	5 CR
CET 252	AutoCAD Civil 3D II	5 CR
BUS 123	Records Management	3 CR
Total Engineering Electives Course Credits:		**3**

TOTAL PROGRAM CREDITS:		**100**

ENGINEERING TECHNOLOGY: MECHANICAL DESIGN SPECIALIZATION

Engineering Technology: Mechanical Design Specialization, AAS

OVERVIEW

Prepare for your engineering and design career through this program. Then, work in an engineering office environment at structural engineering companies, manufacturing firms, architectural firms, refineries, construction companies.

Learn drawing and design skills to use as a mechanical engineering technician, mechanical drafter, computer aided drafter, engineering technician, or production planner.

PROGRAM OUTCOMES

- Create fully dimensioned orthographic and isometric CAD drawings that adhere to national standards (i.e. ANSI) and industry conventions.

- Interpret rough sketches/drawings/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.

PROGRAM START

Students may begin working toward this degree quarterly.

TESTING REQUIREMENTS

Admissions application and assessment testing in Reading, Math and Sentence Skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact Admissions at 360.752.8345 or at admissions@btc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence Skills, and Arithmetic portions of the ACCUPLACER Placement Test prior to enrolling for classes.

DEGREE AND CERTIFICATE REQUIREMENTS

Engineering Technology: Mechanical Design Specialization AAS-T Degree, AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

PROGRAM REQUIREMENTS

ACADEMIC CORE

MATH& 141	Precalculus I	5 CR
MATH& 142	Precalculus II	5 CR
AENGL 100	Applied English	5 CR
OR		
ENGL& 101	English Composition I	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
CMST& 220	Public Speaking	5 CR
CTE 108	Job Skills	1 CR
Total Academic Core Course Credits:		**21**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
ENGR 180	Parametric Modeling	5 CR
Total Engineering Core Course Credits:		**17**

MECHANICAL CORE

ENGT 116	Advanced Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
ENGT 135	AutoCAD II	5 CR
ENGT 208	CAD Project 3D	5 CR
ENGT 215	Applied Statics	5 CR
ENGT 216	Applied Mechanics Of Materials	5 CR
ENGT 222	Advanced Parametric Modeling	5 CR
ENGT 250	Capstone Project	5 CR
MACH 191	Manual Machining for non-Majors	5 CR
MACH 193	CNC Machining for non-Majors	5 CR
Total Mechanical Design Core Course Credits:		**50**

ENGINEERING ELECTIVES

Any ENGR, ENGT, or COMP class 100 level or higher

MATH& 151	Calculus I	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
CS& 131	Computer Science I C++	5 CR
Total Engineering Electives Course Credits:		**10**

TOTAL PROGRAM CREDITS:		**98**

Engineering Technology: Mechanical Design Specialization, AAS-T

PROGRAM REQUIREMENTS

ACADEMIC CORE

MATH& 151	Calculus I	5 CR
PHYS& 221	Engineering Physics I w/Lab	5 CR
CHEM& 161	General Chemistry w/ Lab I	5 CR
ENGL& 101	English Composition I	5 CR
ENGL& 235	Technical Writing	5 CR
OR any Humanities course		

Total Academic Core Course Credits:	**25**

ENGINEERING CORE

ENGR 100	Engineering Orientation	2 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 115	Graphics	5 CR
ENGR 180	Parametric Modeling	5 CR
ENGR& 214	Engineering Statics	5 CR
ENGR 270	Introduction To Materials Science	5 CR
OR		
ENGT 216	Applied Mechanics Of Materials	5 CR

Total Engineering Core Course Credits:	**27**

MECHANICAL CORE

ENGT 116	Advanced Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
ENGT 135	AutoCAD II	5 CR
ENGT 222	Advanced Parametric Modeling	5 CR
ENGT 233	Intro To CATIA	5 CR
ENGT 250	Capstone Project	5 CR
MACH 191	Manual Machining for non-Majors	5 CR
MACH 193	CNC Machining for non-Majors	5 CR

Total Mechanical Design Core Course Credits:	**40**

ENGINEERING ELECTIVES

Any ENGR, ENGT, CENG, or COMP course 100 level or higher

MATH& 152	Calculus II	5 CR
MATH& 163	Calculus 3	5 CR
CHEM& 162	General Chemistry w/Lab II	5 CR
PHYS& 222	Engineering Physics II w/Lab	5 CR
PHYS& 223	Engineering Physics III w/Lab	5 CR
CS& 131	Computer Science I C++	5 CR

Total Engineering Electives Course Credits:	**10**

TOTAL PROGRAM CREDITS:	**102**

Engineering Technology: AutoCAD Certificate

PROGRAM REQUIREMENTS

ENGINEERING CORE

ENGR 115	Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
ENGT 116	Advanced Graphics	5 CR
ENGT 135	AutoCAD II	5 CR

TOTAL PROGRAM CREDITS:	**20**

Engineering Technology: SolidWorks Certificate

PROGRAM REQUIREMENTS

ENGINEERING CORE

ENGR 115	Graphics	5 CR
ENGR 180	Parametric Modeling	5 CR
ENGT 222	Advanced Parametric Modeling	5 CR

TOTAL PROGRAM CREDITS:	**15**

Mechanical Engineering Drafting Certificate

PROGRAM REQUIREMENTS

QUARTER 1

ENGR 115	Graphics	5 CR
ENGT 134	AutoCAD I	5 CR
MATH& 141	Precalculus I	5 CR

QUARTER 2

AENGL 100	Applied English	5 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
ENGR 180	Parametric Modeling	5 CR
MATH& 142	Precalculus II	5 CR

QUARTER 3

ENGT 116	Advanced Graphics	5 CR
ENGT 208	CAD Project 3D	5 CR
CMST& 210	Interpersonal Communication	5 CR
ENGT 135	AutoCAD II	5 CR

TOTAL PROGRAM CREDITS:	**55**

FISHERIES & AQUACULTURE SCIENCES

OVERVIEW

If you have a love for the great outdoors and an interest in biology and wildlife, consider earning a certificate or an associate degree in Fisheries & Aquaculture Science at Bellingham Technical College. You can prepare for a rewarding career as a fish hatchery specialist, fish culturist, fisheries technician, net pen worker, shellfish hatchery worker, scientific aide, water quality technician, or habitat restoration specialist. In BTC's Fisheries and Aquaculture Science programs, you'll learn top skills such as fish culture, aquaculture, and fish spawning that will position you for the best aquatic science jobs in the fisheries industry. Hands-on courses take place in the classroom as well as at the Whatcom Creek Hatchery at the Maritime Heritage Park in Bellingham, which is operated by Bellingham Technical College's Fisheries & Aquaculture Science program.

PROGRAM OUTCOMES

After successfully completing this program, students will be able to:

- Demonstrate competency in hatchery methods and apply appropriate techniques to spawn, incubate, rear and release fish.

- Utilize proper tools, equipment and protective devices to safeguard against injury to self, others and workplace facilities.

- Act responsibly and ethically as an employee by being punctual, adhering to company policies and interacting positively and appropriately with co-workers and supervisors.

- Receive, interpret, and convey written, verbal, and graphic information to communicate effectively with co-workers, management and the general public.

- Compute, calculate, and convert standard and metric measurements for purposes of disease treatment and prevention, and rearing of fish.

- Observe and comply with environmental laws and regulations related to the rearing of fish and the use and disposal of chemicals and drugs.

- Use current and emerging computerized systems or software to operate equipment, calculate results, keep records, and enter data on proper forms and records.

- Attend industry workshops, conferences, and research, to stay current with new and emerging equipment and techniques.

PROGRAM OUTCOMES FOR FISHERIES AND AQUATIC SCIENCES

See BTC's Fisheries and Aquatic Sciences web site program page for outcomes.

PROGRAM ENTRY INFORMATION

This program typically starts in Fall Quarter on a space available basis.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.

- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

- The Fisheries and Aquaculture Sciences program AAS degree requires students to complete either AMATH 111, MATH& 107 or a higher-level transferable Math class prior to graduation and preferably in the student's second quarter. These Math classes require higher math placement scores than the program entry requirements. If your ACCUPLACER algebra score is less than 75, please meet with either a general advisor or a program instructor to receive assistance in planning the appropriate Math class sequence.

- The Fisheries and Aquaculture Sciences program AAS-T and the WWU AAS-T degrees require students to complete MATH& 107 or a higher level transferable Math class prior to graduation and preferably in the student's second quarter. These Math classes require higher math placement scores than the program entry requirements. If your ACCUPLACER College-level Math score is less than 75, please meet with either a general advisor or a program instructor to receive assistance in planning the appropriate Math class sequence.

DEGREE AND CERTIFICATE REQUIREMENTS FOR FISHERIES AND AQUACULTURE SCIENCES

Fisheries and Aquaculture Sciences AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

DEGREE AND CERTIFICATE REQUIREMENTS FOR FISHERIES AND AQUATIC SCIENCES

Fisheries and Aquatic Sciences AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE

Fisheries & Aquaculture Sciences, AAS

PROGRAM REQUIREMENTS

QUARTER 1

AQUA 100	Lab and Field Safety	1 CR
AQUA 110	Water Quality	3 CR
AQUA 120	Aquatic Biodiversity	4 CR
AQUA 130	Reproduction	2 CR
AQUA 135	Practicum I	4 CR

QUARTER 2

AQUA 140	Growth and Nutrition	3 CR
AQUA 150	Fundamentals of Aquaculture	3 CR
AQUA 160	Fundamentals of Fisheries Biology	3 CR
AQUA 165	Practicum II	3 CR
MATH& 107	Math in Society	5 CR
OR		
AMATH 111	Applied Technical Math	5 CR

QUARTER 3

AQUA 170	Freshwater Ecology	3 CR
AQUA 180	Oceanography	3 CR
AQUA 190	Toxicology and Diseases	3 CR
AQUA 195	Practicum III	4 CR

QUARTER 4

AQUA 200	Genetics in Fisheries and Aquaculture	3 CR
AQUA 210	Practicum IV	3 CR
BUS 171	Technical Communications	5 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 5

AQUA 220	Professional Development	2 CR
AQUA 230	Current Topics	3 CR
AQUA 240	Independent Project	2 CR
AQUA 250	Advanced Sampling Techniques	4 CR
AQUA 260	Natural Resource Management	4 CR

QUARTER 6

AQUA 270	Introduction to GIS for Fisheries & Aquaculture	4 CR
AQUA 280	Field-Based Experience	4 CR

REQUIRED ELECTIVE CREDITS: 7 CR

Additional elective credits may be needed to meet the 90-credit minimum for the degree:

AQUA 290	Advanced Hatchery Techniques	1-2 CR
BIOL& 160	General Biology with Lab	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CHEM& 110	Chemical Concepts w/Lab	5 CR
CHEM& 121	Intro to Chemistry	5 CR
CMST& 220	Public Speaking	5 CR
ENGL& 235	Technical Writing	5 CR
ENVS& 101	Fundamentals of Environmental Science	5 CR
MATH& 146	Introduction to Statistics	5 CR

TOTAL PROGRAM CREDITS: **90**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Fisheries & Aquaculture Sciences, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

AQUA 100	Lab and Field Safety	1 CR
AQUA 110	Water Quality	3 CR
AQUA 120	Aquatic Biodiversity	4 CR
AQUA 130	Reproduction	2 CR
AQUA 135	Practicum I	4 CR

QUARTER 2

AQUA 140	Growth and Nutrition	3 CR
AQUA 150	Fundamentals of Aquaculture	3 CR
AQUA 160	Fundamentals of Fisheries Biology	3 CR
AQUA 165	Practicum II	3 CR
MATH& 107	Math in Society	5 CR

QUARTER 3

AQUA 170	Freshwater Ecology	3 CR
AQUA 180	Oceanography	3 CR
AQUA 190	Toxicology and Diseases	3 CR
AQUA 195	Practicum III	4 CR

QUARTER 4

AQUA 200	Genetics in Fisheries and Aquaculture	3 CR
AQUA 210	Practicum IV	3 CR

CMST& 210	Interpersonal Communication	5 CR
ENGL& 101	English Composition I	5 CR

QUARTER 5

AQUA 220	Professional Development	2 CR
AQUA 230	Current Topics	3 CR
AQUA 240	Independent Project	2 CR
AQUA 250	Advanced Sampling Techniques	4 CR
AQUA 260	Natural Resource Management	4 CR

QUARTER 6

AQUA 270	Introduction to GIS for Fisheries & Aquaculture	4 CR
AQUA 280	Field-Based Experience	4 CR

Choose five credits of Humanities, Social Science, or Natural Science from Approved Transfer Course List 5 CR

REQUIRED ELECTIVE CREDITS: 2 CR

Elective choices for the degree:

AQUA 290	Advanced Hatchery Techniques	1-2 CR
BIOL& 160	General Biology with Lab	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CHEM& 110	Chemical Concepts w/Lab	5 CR
CHEM& 121	Intro to Chemistry	5 CR
CMST& 220	Public Speaking	5 CR
ENGL& 235	Technical Writing	5 CR
ENVS& 101	Fundamentals of Environmental Science	5 CR
MATH& 146	Introduction to Statistics	5 CR

TOTAL PROGRAM CREDITS: **90**

Fisheries & Aquatic Sciences Articulation to WWU & NWIC, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

AQUA 100	Lab and Field Safety	1 CR
AQUA 110	Water Quality	3 CR
AQUA 120	Aquatic Biodiversity	4 CR
AQUA 130	Reproduction	2 CR
AQUA 135	Practicum I	4 CR

QUARTER 2

AQUA 140	Growth and Nutrition	3 CR
AQUA 150	Fundamentals of Aquaculture	3 CR
AQUA 160	Fundamentals of Fisheries Biology	3 CR
AQUA 165	Practicum II	3 CR
MATH& 107	Math in Society	5 CR

QUARTER 3

AQUA 170	Freshwater Ecology	3 CR
AQUA 180	Oceanography	3 CR
AQUA 190	Toxicology and Diseases	3 CR
AQUA 195	Practicum III	4 CR

QUARTER 4

AQUA 200	Genetics in Fisheries and Aquaculture	3 CR
AQUA 210	Practicum IV	3 CR
BUS 171	Technical Communications	5 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 5

AQUA 240	Independent Project	2 CR
AQUA 250	Advanced Sampling Techniques	4 CR
AQUA 260	Natural Resource Management	4 CR
BIOL& 160	General Biology with Lab	5 CR

QUARTER 6

AQUA 270	Introduction to GIS for Fisheries & Aquaculture	4 CR
CHEM& 121	Intro to Chemistry	5 CR

Choose five credits of Humanities, Social Science, or Natural Science from Approved Transfer Course List 5 CR

REQUIRED ELECTIVE CREDIT: 1 CR

Additional elective credits from the below list may be needed to meet the 90-credit minimum for the degree:

AQUA 290	Advanced Hatchery Techniques	1-2 CR
CAP 101	Introduction to Computer Applications	5 CR
CMST& 220	Public Speaking	5 CR
ENGL& 235	Technical Writing	5 CR
ENVS& 101	Fundamentals of Environmental Science	5 CR
MATH& 146	Introduction to Statistics	5 CR

TOTAL PROGRAM CREDITS: 90

CERTIFICATE
Fisheries & Aquaculture Techniques Certificate

PROGRAM REQUIREMENTS

QUARTER 1

AQUA 100	Lab and Field Safety	1 CR
AQUA 110	Water Quality	3 CR
AQUA 120	Aquatic Biodiversity	4 CR
AQUA 130	Reproduction	2 CR
AQUA 135	Practicum I	4 CR

QUARTER 2

AQUA 140	Growth and Nutrition	3 CR
AQUA 150	Fundamentals of Aquaculture	3 CR
AQUA 160	Fundamentals of Fisheries Biology	3 CR
AQUA 165	Practicum II	3 CR

QUARTER 3

AQUA 170	Freshwater Ecology	3 CR
AQUA 180	Oceanography	3 CR
AQUA 190	Toxicology and Diseases	3 CR
AQUA 195	Practicum III	4 CR

TOTAL PROGRAM CREDITS: 39

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION TECHNOLOGY (HVAC)

OVERVIEW
BTC's Heating, Ventilation, Air Conditioning and Refrigeration program will prepare you for a career as an HVAC & Refrigeration Technician. You'll learn new, higher-efficiency technologies and practices, with the valuable hands-on training that employers are looking for.

In two years, you can be well-positioned for high-wage employment with heating and air conditioning contractors, refrigeration contractors, hotels, school systems, or industrial processing plants.

PROGRAM OUTCOMES
After successfully completing this program, students will be able to:

- Safely and properly, install and service systems adhering to environmental laws and regulations as they apply to the HVAC/R industry.
- Demonstrate positive work traits and good customer service skills as a member of a technical team.
- Diagnose and repair common electrical and mechanical problems in HVAC/R residential, commercial and industrial systems.
- Communicate effectively in writing and verbally with customers, managers, and co-workers.
- Identify and use appropriate technical literature to install, maintain and service HVAC/R systems.

PROGRAM START
This program admits students in Fall Quarter.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Heating, Ventilation, Air Conditioning & Refrigeration AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE
Heating, Ventilation, Air Conditioning & Refrigeration Technology (HVAC), AAS

PROGRAM REQUIREMENTS

QUARTER 1
HVACR 101	Fundamentals of Refrigeration	8 CR
HVACR 102	Basic Electricity for HVACR	8 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 2
HVACR 121	Commercial Self-Contained Systems	7 CR
HVACR 122	Commercial Ice Systems	7 CR
AENGL 100	Applied English	5 CR

QUARTER 3
HVACR 131	Furnace Technology	7 CR
HVACR 132	Boilers and Hydronic Heat	7 CR

QUARTER 4
HVACR 201	A/C & Airflow	8 CR
HVACR 202	Applied Heat Pump Systems	5 CR

QUARTER 5
HVACR 221	Commercial Refrigeration	8 CR
HVACR 222	Industrial Refrigeration	7 CR

QUARTER 6
HVACR 231	Control Theory for HVAC/R	8 CR
HVACR 232	Commercial & Industrial Boilers	2 CR
HVACR 233	Employment Preparation	1 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **98**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Heating, Ventilation, Air Conditioning & Refrigeration Technology (HVAC), AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
HVACR 101	Fundamentals of Refrigeration	8 CR
HVACR 102	Basic Electricity for HVACR	8 CR
MATH& 107	Math in Society	5 CR

QUARTER 2
HVACR 121	Commercial Self-Contained Systems	7 CR
HVACR 122	Commercial Ice Systems	7 CR
ENGL& 101	English Composition I	5 CR

QUARTER 3
HVACR 131	Furnace Technology	7 CR
HVACR 132	Boilers and Hydronic Heat	7 CR

QUARTER 4
HVACR 201	A/C & Airflow	8 CR
HVACR 202	Applied Heat Pump Systems	5 CR
Choose five credits of Humanities, Social Science, or Natural Science from the Approved Transfer Course List		5 CR

QUARTER 5
HVACR 221	Commercial Refrigeration	8 CR
HVACR 222	Industrial Refrigeration	7 CR

QUARTER 6
HVACR 231	Control Theory for HVAC/R	8 CR
HVACR 232	Commercial & Industrial Boilers	2 CR
HVACR 233	Employment Preparation	1 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **103**

HYPNOTHERAPY

OVERVIEW

Here's a program to consider if you enjoy helping people and like variety in your career. BTC's Hypnotherapy program will lead you to a rewarding career as a hypnotherapist, using hypnosis techniques to support clients with pain management, behavior modification, and other concerns.

You'll learn valuable skills to use in your own private practice, or in a variety of healthcare settings, working 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.

- Upon successful completion of the program, students are eligible to apply to become a registered Hypnotherapist with Washington State through the Department of Health (DOH).

PROGRAM START

This program starts in the winter quarter.

Courses must be taken in sequence.

PRE-PROGRAM COURSE REQUIREMENTS

It is recommended that students have good basic academic skills.

DEGREE AND CERTIFICATE REQUIREMENTS

Hypnotherapy Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for Hypnotherapy courses and P/Pass HLTH 103 and HLTH 133.

PROGRAM APPLICATION/FORMS

Students are encouraged to submit an admissions application but may enroll Winter Quarter without program application or admission. Courses are held one evening per week plus one Saturday per quarter.

PROGRAM START

A Bellingham Technical College Admission Application is required before a student can register for the Hypnotherapy certificate.

CERTIFICATE

Hypnotherapy Certificate

PROGRAM REQUIREMENTS

QUARTER 1

HYPN 101	Basic Hypnosis - Learning for Healthcare Field	5 CR
HLTH 131	HIV/AIDS: for Counselors and Hlth Professionals	0.5 CR
HLTH 103	CPR: Adult Heartsaver	0.5 CR

QUARTER 2

HYPN 102	Intermediate Hypnotherapy for Healthcare Field	5 CR

QUARTER 3

HYPN 103	Advanced Hypnotherapy Techniques	5 CR

TOTAL PROGRAM CREDITS:	**16**

The following course is optional and open to program graduates:

HYPN 104	Preparing for a Hypnotherapy Practice	2 CR

INDUSTRIAL MAINTENANCE & MECHATRONICS

OVERVIEW

BTC's Industrial Maintenance & Mechatronics program places graduates in solid careers as industrial electricians, millwrights or instrument technicians. Demand for skilled workers is strong in high-growth industries such as refining, water treatment, petrochemical, pharmaceutical, and power generation.

As an Industrial Maintenance & Mechatronics graduate, you'll possess a broad range of highly-sought skills and knowledge. BTC's program will teach you to troubleshoot, maintain, repair, and analyze sophisticated equipment in advanced manufacturing operations. Electro-Mechanical is a great program choice if you want a high-wage career with local employers.

PROGRAM OUTCOMES

- 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
- Communicate clearly with team members, supervisor, and others in the workplace, effectively using oral communication as well as drawings, blueprints, and other documents.
- Exhibit professional personal conduct and appearance appropriate to the workplace.

PROGRAM START

This program admits students once a year, in the fall quarter.

TESTING REQUIREMENTS

These requirements are for the AAS degree.

- ACCUPLACER Algebra score of 75 or MATH 098 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Industrial Maintenance & Mechatronics AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses and minimum grade of C-/1.7 for program courses.

ASSOCIATE OF APPLIED SCIENCE
Industrial Maintenance & Mechatronics, AAS

PROGRAM REQUIREMENTS

QUARTER 1/QUARTER 4

AENGL 100	Applied English	5 CR
EMTEC 105	Trade Safety	3 CR
EMTEC 125	Applied Mechanics	5 CR
EMTEC 237	Computerized Maintenance & Management Systems	3 CR

QUARTER 2/QUARTER 5

EMTEC 121	Fundamentals Of Hydraulic & Pneumatics	5 CR
EMTEC 126	Engineering Graphics	4 CR
EMTEC 131	Rigging	4 CR
EMTEC 231	Bearings & Drives	5 CR

QUARTER 3/QUARTER 6

EMTEC 123	Hydraulics & Pneumatics Circuits	5 CR
EMTEC 180	Manufacturing Computer Applications	4 CR
EMTEC 232	Drive Alignment-Conveyors & Machining Systems	4 CR
EMTEC 234	Valves, Pumps & Traps	5 CR

QUARTER 4/QUARTER 1

CMST& 210	Interpersonal Communication	5 CR
EMTEC 110	DC Circuits	6 CR
EMTEC 210	AC Circuits	6 CR
EMTEC 218	Introduction to National Electrical Code	2 CR
EMTEC 225	Solid State Components	4 CR

QUARTER 5/QUARTER 2

AMATH 111	Applied Technical Math	5 CR
EMTEC 205	Programmable Logic Controllers	5 CR
EMTEC 211	Electrical Controls I	5 CR
EMTEC 217	Instrumentation & Controls	4 CR
EMTEC 215	Programmable Logic Controllers II	5 CR

QUARTER 6/QUARTER 3

EMTEC 133	Introduction to Machinery Skills	4 CR
EMTEC 220	Micro-Controllers	5 CR
EMTEC 230	Problem Solving for Manufacturing & the Trades	3 CR
EMTEC 260	Automated Manufacturing Systems	4 CR
WLD 173	Basic Welding	2 CR

TOTAL PROGRAM CREDITS:	**117**

CERTIFICATE
Machine Maintenance Certificate

PROGRAM REQUIREMENTS

QUARTER 1

AMATH 111	Applied Technical Math	5 CR
CMST& 210	Interpersonal Communication	5 CR
EMTEC 105	Trade Safety	3 CR
EMTEC 125	Applied Mechanics	5 CR
EMTEC 237	Computerized Maintenance & Management Systems	3 CR

QUARTER 2

AENGL 100	Applied English	5 CR
EMTEC 121	Fundamentals Of Hydraulic & Pneumatics	5 CR
EMTEC 126	Engineering Graphics	4 CR
EMTEC 131	Rigging	4 CR
EMTEC 231	Bearings & Drives	5 CR

TOTAL PROGRAM CREDITS:	**44**

INSTRUMENTATION & CONTROL TECHNOLOGY

OVERVIEW

Instrumentation and process control technicians install, maintain, repair, and adjust the measuring and controlling instruments that make plants run safely. Bellingham Technical College's Instrumentation & Control program will give you training for a career as an instrumentation technician for high-tech industries such as power generation plants, water treatment facilities, chemical manufacturing plants, canneries, aerospace plants, bio-pharmaceutical plants, semiconductor manufacturing plants, and pulp and paper mills.

BTC's classes in the Instrumentation & Control program will train you to maintain, repair, and troubleshoot instruments and control systems in industries that increasingly rely on automation. Instrumentation & Control is a great program choice if you're looking for a high-wage career with employment potential across the nation and beyond.

PROGRAM OUTCOMES

- Communication - Communicates and expresses thoughts across a variety of mediums (verbal, written, visually) to effectively persuade, inform, and clarify ideas with colleagues.

- Time Management - Arrives on time and prepared to work; budgets time an meets deadlines when performing technical tasks and projects.

- Safety - Complies with national, state, and local safety regulations when repairing, calibrating, and installing instruments.

- Diagnose and Repair Existing Instruments - Assesses, diagnoses, and repairs faulty instruments in measurement and control systems using logical procedures and appropriate test equipment.

- Install and Configure New Instruments - Builds, configures, and installs new instrument systems according to plans, applying industry construction standards, and ensuring correct system operation when complete.

- Process Control Optimization - Improve system functions by evaluating control system performance; implements strategies to tune and stabilize control systems.

- Instrument Calibration - Assesses instrument accuracy and correct inaccuracies using appropriate calibration procedures and test equipment.

- Documents Instrument Systems - Interprets and creates technical documents (electronic schematics, loop diagrams, and P&IDs) according to industry (EIA, ISA) standards.

- Self-Directing Learning - Selects and researches relevant information sources to learn new principles, technologies, and techniques.

- Career Development - Researches and seeks opportunities for promotion and job advancements in work and career settings.

PROGRAM START

This program admits students approximately two times a year.

Students are encouraged to have their high school diploma or GED

by graduation, because many employers require this credential as a condition of employment.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- BTC College-level Math score of 75 or a C grade in MATH 099.

- 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 AENGL 100.

DEGREE AND CERTIFICATE REQUIREMENTS
Instrumentation & Control Technology AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater, a minimum grade of C/2.0 for MATH& 141 Precalculus I, and a minimum grade of C-/1.7 for all other required courses. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for all required program courses and minimum grade of C/2.0 for all academic courses.

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

ASSOCIATE OF APPLIED SCIENCE

Instrumentation & Control Technology, AAS

PROGRAM REQUIREMENTS

QUARTER 1
INST 100	Direct Current 1	4 CR
INST 106	Direct Current II	4 CR
INST 110	Alternating Current I	4 CR
INST 115	Alternating Current II	4 CR
MATH& 141	Precalculus I	5 CR

QUARTER 2
AENGL 100	Applied English	5 CR
INST 120	Semiconductors I	5 CR
INST 125	Semiconductors II	5 CR
INST 130	Op-Amps I	3 CR
INST 135	Op-Amps II	3 CR

QUARTER 3
CMST& 210	Interpersonal Communication	5 CR
INST 140	Digital I	5 CR
INST 141	Motor Controls	4 CR
INST 142	PLC Programming	4 CR
INST 143	PLC Systems	4 CR

QUARTER 4
INST 200	Introduction to Instrumentation	2 CR
INST 240	Pressure and Level Measurement	6 CR
INST 241	Temperature & Flow Measurement	6 CR
INST 242	Analytical Measurement	5 CR

QUARTER 5
INST 205	Job Preparation I	1 CR
INST 250	Final Control Elements	5 CR
INST 251	PID Control	5 CR
INST 252	Loop Tuning	4 CR

QUARTER 6
ENGT 134	AutoCAD I	5 CR
INST 206	Job Preparation II	1 CR
INST 260	Data Acquisition Systems	4 CR
INST 262	Digital Control Systems	5 CR
INST 263	Control Strategies	5 CR

ELECTIVES
INST 233	Protective Relays	4 CR
INST 290	Internship	5 CR
INST 292	Internship	10 CR

TOTAL PROGRAM CREDITS: **118**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Instrumentation & Control Technology, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
INST 100	Direct Current 1	4 CR
INST 106	Direct Current II	4 CR
INST 110	Alternating Current I	4 CR
INST 115	Alternating Current II	4 CR
MATH& 141	Precalculus I	5 CR

QUARTER 2
INST 120	Semiconductors I	5 CR
INST 125	Semiconductors II	5 CR
INST 130	Op-Amps I	3 CR
INST 135	Op-Amps II	3 CR
ENGL& 101	English Composition I	5 CR

QUARTER 3
INST 140	Digital I	5 CR
INST 141	Motor Controls	4 CR
INST 142	PLC Programming	4 CR
INST 143	PLC Systems	4 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 4
INST 200	Introduction to Instrumentation	2 CR
INST 240	Pressure and Level Measurement	6 CR
INST 241	Temperature & Flow Measurement	6 CR
INST 242	Analytical Measurement	5 CR

QUARTER 5
INST 205	Job Preparation I	1 CR
INST 250	Final Control Elements	5 CR
INST 251	PID Control	5 CR
INST 252	Loop Tuning	4 CR
PSYC& 100	General Psychology	5 CR

QUARTER 6
INST 206	Job Preparation II	1 CR
INST 260	Data Acquisition Systems	4 CR
INST 262	Digital Control Systems	5 CR
INST 263	Control Strategies	5 CR
ENGT 134	AutoCAD I	5 CR

ELECTIVES
INST 233	Protective Relays	4 CR
INST 290	Internship	5 CR
INST 292	Internship	10 CR

TOTAL PROGRAM CREDITS: **123**

LEGAL ADMINISTRATIVE ASSISTANT

OVERVIEW
If you have a high attention to detail, and are looking for a solid career in the legal field, choose this program to prepare to be a legal administrative assistant, legal receptionist, or legal secretary. Employment choices are many for highly skilled workers in this field. BTC's Legal Administrative Assistant Program will provide you a wide range of skills to use with employers such as law firms, government offices, real estate firms, and corporate offices.

PROGRAM OUTCOMES
After successfully completing this program, students will be able to:

- Type 35 words per minute with no more than four errors on a three-minute timed writing.
- Apply legal terminology and knowledge of legal resources to produce and analyze legal documents.
- Produce accurate business documents in a variety of file formats using computer technology and applying editing and language skills.
- Use a spreadsheet program to solve business problems using formulas, functions, lists, and charts.
- Analyze, calculate, and interpret financial data.
- Apply techniques for managing time, records, and meetings in an office environment.
- Use Microsoft Outlook to create electronic messages and contacts, manage multiple calendars, and track tasks.
- Apply communication and interpersonal skills while providing effective administrative support in a legal office environment.

PROGRAM ENTRY INFORMATION
Students may begin this program in any quarter.

TESTING REQUIREMENTS
These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Legal Administrative Assistant Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

ASSOCIATE OF APPLIED SCIENCE
Legal Administrative Assistant, AAS

PROGRAM REQUIREMENTS

QUARTER 1

BUS 188	Business English	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 64 CREDITS

BUS 123	Records Management	3 CR
BUS 232	Office Procedures	5 CR
BUS& 101	Introduction to Business	5 CR
BUS& 201	Business Law	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
CAP 114	MS Outlook	2 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 143	Adobe Acrobat & Electronic File Management	5 CR
LGL 132	Legal Terminology	5 CR
LGL 211	Legal Document Processing	5 CR
LGL 225	Field-Based Experience	5–7 CR

ELECTIVES COURSES: 6 CREDITS
Legal Administrative Assistant students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, OR MGMT. Students may also take HT 126 and HT 275. Courses taken to meet the general education, or program core requirements may not be used for electives. Additional Field-Based Experience (LGL 225) credits above 5 may be used for elective credits. Students may need to take additional electives to total a minimum of 90 credits towards the degree.

GENERAL EDUCATION COURSES: 20 CREDITS

BUS 150	Math for Business	5 CR
BUS 171	Technical Communications	5 CR
BUS 188	Business English	5 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS:	**90**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Legal Administrative Assistant, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
ENGL& 101	English Composition I	5 CR

TECHNICAL CORE: 59 CREDITS

BUS 123	Records Management	3 CR
BUS 232	Office Procedures	5 CR
BUS& 201	Business Law	5 CR

CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
CAP 114	MS Outlook	2 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 143	Adobe Acrobat & Electronic File Management	5 CR
LGL 132	Legal Terminology	5 CR
LGL 211	Legal Document Processing	5 CR
LGL 225	Field-Based Experience	5–7 CR

ELECTIVES COURSES: 11 CREDITS

Legal Administrative Assistant students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, and MGMT. Students may also take HT 126 and HT 275. Courses taken to meet the general education, or program core requirements may not be used for electives. Additional Field-Based Experience (LGL 225) credits above 5 may be used for elective credits. Students may need to take additional electives to total a minimum of 90 credits towards the degree.

GENERAL EDUCATION COURSES: 20 CREDITS

ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR

OR approved alternative from the AAS-T Math course options list.

CMST& 210	Interpersonal Communication	5 CR
OR		
PSYC& 100	General Psychology	5 CR
OR		
SOC& 101	Introduction to Sociology	5 CR
BUS& 101	Introduction to Business	5 CR

TOTAL PROGRAM CREDITS: **90**

CERTIFICATE
Legal Administrative Assistant Certificate

PROGRAM REQUIREMENTS

QUARTER 1

CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 2

BUS 232	Office Procedures	5 CR
CAP 114	MS Outlook	2 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
LGL 132	Legal Terminology	5 CR

QUARTER 3

BUS 123	Records Management	3 CR
BUS 150	Math for Business	5 CR
BUS 171	Technical Communications	5 CR
LGL 211	Legal Document Processing	5 CR

TOTAL PROGRAM CREDITS: **49**

MACHINING

OVERVIEW

If you're interested in working with your hands to turn designs into the parts and products that make the world work, then a career in machining could be for you. Bellingham Technical College's Machining program will give you training for top jobs in aerospace, manufacturing, fabricating, and CNC custom shops. You'll be prepared to work right away as a machinist; with experience you can advance to journey-level machining, tool programming, CNC operating, or engineering.

Bellingham Technical College's labs will train you for your career with high-tech machining equipment. In your classes, you'll learn how to use machine tools such as lathes, drill presses, and milling machines, in addition to blueprint reading, basic CNC programming and machine processes. Employers who hire graduates from BTC's Machining program include aircraft, boat, and automobile manufacturers, industrial machinery firms, and machine shops.

PROGRAM OUTCOMES

- 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

PROGRAM START

This program typically admits students once a year in the Fall quarter.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

1. ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.
2. ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Precision Machining AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE
Machining, AAS

PROGRAM REQUIREMENTS

QUARTER 1
MACH 101	Machine Shop Fundamentals I	3 CR
MACH 141	Introduction to Manual Lathe	5 CR
MACH 151	Introduction to Manual Mill	5 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 2
MACH 102	Machine Shop Fundamentals II	3 CR
MACH 142	Advanced Manual Lathe	5 CR
MACH 152	Advanced Manual Mill	5 CR
AENGL 100	Applied English	5 CR

QUARTER 3
MACH 103	Machine Shop Fundamentals III	3 CR
MACH 171	Introduction to CNC Machining	6 CR
ENGR 180	Parametric Modeling	5 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 4
MACH 241	Introduction to CNC Lathe Operation	5 CR
MACH 251	Introduction to CNC Mill Operation	5 CR
MACH 261	Introduction to CAD/CAM for Machining	3 CR
QA 110	Introduction to Quality Assurance for Machining	3 CR

QUARTER 5
MACH 242	Advanced CNC Lathe Operation	5 CR
MACH 252	Advanced CNC Mill Operation	5 CR
MACH 263	Intermediate CAD/CAM for Machining	3 CR
QA 115	Intermediate Quality Assurance for Machining	3 CR

QUARTER 6
MACH 264	Advanced CAD/CAM for Machining	3 CR
MACH 273	Advanced CNC Machining	6 CR
QA 120	Advanced Quality Assurance for Machining	3 CR

TOTAL PROGRAM CREDITS: **99**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Machining, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
MACH 101	Machine Shop Fundamentals I	3 CR
MACH 141	Introduction to Manual Lathe	5 CR
MACH 151	Introduction to Manual Mill	5 CR
MATH& 141	Precalculus I	5 CR

QUARTER 2
MACH 102	Machine Shop Fundamentals II	3 CR
MACH 142	Advanced Manual Lathe	5 CR
MACH 152	Advanced Manual Mill	5 CR
ENGL& 101	English Composition I	5 CR

QUARTER 3
MACH 103	Machine Shop Fundamentals III	3 CR
MACH 171	Introduction to CNC Machining	6 CR
ENGR 180	Parametric Modeling	5 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 4
MACH 241	Introduction to CNC Lathe Operation	5 CR
MACH 251	Introduction to CNC Mill Operation	5 CR
MACH 261	Introduction to CAD/CAM for Machining	3 CR
ENGR& 104	Introduction to Engineering & Design	5 CR
QA 110	Introduction to Quality Assurance for Machining	3 CR

QUARTER 5
MACH 242	Advanced CNC Lathe Operation	5 CR
MACH 252	Advanced CNC Mill Operation	5 CR
MACH 263	Intermediate CAD/CAM for Machining	3 CR
QA 115	Intermediate Quality Assurance for Machining	3 CR

QUARTER 6
MACH 264	Advanced CAD/CAM for Machining	3 CR
MACH 273	Advanced CNC Machining	6 CR
QA 120	Advanced Quality Assurance for Machining	3 CR
MATH& 142	Precalculus II	5 CR

TOTAL PROGRAM CREDITS: **109**

CERTIFICATE
Principles of Machining and CNC Operation Certificate

PROGRAM REQUIREMENTS

QUARTER 1
MACH 101	Machine Shop Fundamentals I	3 CR
MACH 141	Introduction to Manual Lathe	5 CR
MACH 151	Introduction to Manual Mill	5 CR
AMATH 100	Applied Occupational Math	5 CR

QUARTER 2
MACH 102	Machine Shop Fundamentals II	3 CR
MACH 142	Advanced Manual Lathe	5 CR
MACH 152	Advanced Manual Mill	5 CR
AENGL 100	Applied English	5 CR

QUARTER 3
MACH 103	Machine Shop Fundamentals III	3 CR
MACH 171	Introduction to CNC Machining	6 CR
ENGR 180	Parametric Modeling	5 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **55**

Quality Assurance Certificate

PROGRAM REQUIREMENTS

QA 110	Introduction to Quality Assurance for Machining	3 CR
QA 115	Intermediate Quality Assurance for Machining	3 CR
QA 120	Advanced Quality Assurance for Machining	3 CR
AENGL 100	Applied English	5 CR
AMATH 100	Applied Occupational Math	5 CR

TOTAL PROGRAM CREDITS: **19**

MEDICAL CODING & BILLING GENERALIST

OVERVIEW
Train for a career as a medical records and health information technician, or a billing and posting clerk, through BTC's Medical Coding & Billing Generalist program. 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 graduates typically work for hospitals, physician offices, insurance companies, extended care facilities and home health care firms.

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.

PROGRAM ENTRY INFORMATION
Students are typically offered enrollment in the Medical Coding & Billing Generalist Program full-time once a year or in the part-time program at the start of each quarter on a space available basis. 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 (4) quarters.

PROGRAM START
This program typically begins in the fall quarter.

TESTING REQUIREMENTS
- ACCUPLACER Reading Comprehension minimum score of 71 or a C grade in RDG 085.
- ACCUPLACER Sentence Skills minimum score of 71 or a C grade in ENGL 092.
- ACCUPLACER Arithmetic Test score of 50 or higher or a grade of C or better in MATH 090.

PRE-PROGRAM COURSE REQUIREMENTS
- None

DEGREE AND CERTIFICATE REQUIREMENTS
Medical Coding & Billing Generalist certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

CERTIFICATE

Medical Coding & Billing Generalist Certificate

PROGRAM REQUIREMENTS

QUARTER 1

BIO 105	Essentials of Anatomy Physiology	5 CR
BIO 127	Diseases of the Human Body	4 CR
BUS 100	Electronic Math Applications	3 CR
CAP 105	Computerized Touch Keyboarding	2 CR

Students can take either CAP 103 or CAP 105, with CAP 103 being the minimum requirement.

HT 126	Fundamentals of Medical Terminology	5 CR

QUARTER 2

HT 120	Medical Insurance Billing	5 CR
HT 135	Pharmacology for the Medical Office	2 CR
HT 230	Medical Coding ICD-10	3 CR
HT 240	Medical Coding - CPT	4 CR
CAP 101	Introduction to Computer Applications	5 CR

QUARTER 3

BUS 230	Medical Office Procedures	5 CR
HT 265	Medical Coding and Billing Practicum	5 CR
HT 270	Excel for the Medical Office	3 CR
HT 275	Medical Ethics	5 CR

TOTAL PROGRAM CREDITS:	**56**

MEDICAL RECEPTIONIST

OVERVIEW
If you like working with people in a medical setting with lots of variety, then choose the Medical Receptionist program. You'll gain the knowledge and valuable skills employers in the health care industry need. You might work in a hospital, physician's office, dental office, or health care clinic.

PROGRAM OUTCOMES
- Graduates will be able to demonstrate the skills and competencies necessary to operate medical office software and to perform daily office functions.

PROGRAM ENTRY INFORMATION
While students may begin this program in any quarter, it is recommended that students meet with an advisor to identify the best quarter start and create an academic plan specific to their chosen electives. There are some classes that are only offered once a year which, if not taken in the appropriate quarter, may impact the ability to complete the certificate in three consecutive quarters.

TESTING REQUIREMENTS
These requirements are for the Certificate.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

Medical Receptionist Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

CERTIFICATE

Medical Receptionist Certificate

PROGRAM REQUIREMENTS

QUARTER 1

BUS 230	Medical Office Procedures	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 22 CREDITS

BUS 123	Records Management	3 CR
BUS 230	Medical Office Procedures	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR

ELECTIVES COURSES: 15 CREDITS

Medical Receptionist students may choose elective credits from any 100-level or higher courses with the following prefixes: HT 126 (recommended), ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, MGMT, and PMP. Field-Based Experience courses may not be used as electives. Courses taken to meet the general education, or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 5 CREDITS

CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS:	**42**

NURSING

OVERVIEW

Bellingham Technical College Nursing Program is nationally accredited through the Accreditation Commission for Education in Nursing (ACEN)

ACEN

3343 Peachtree Rd. NE, Ste. 850 Atlanta, GA 30326
(404) 975-5000
www.acenursing.org
If you're interested in building a rewarding career in the high-demand field of nursing, then Bellingham Technical College's nursing program is for you!

PROGRAM OPTIONS

There is one Nursing Program at BTC that has two degree options. The two-year associate degree Nursing Program is an Associate Degree in Nursing Direct Transfer Agreement/Major Ready Pathway (DTA/MRP) and uses a concept-based curriculum with a full-time option only. Advanced placement students who are Licensed Practical Nurses (LPNs) are accepted into the second year (4th quarter) of the program on a space available basis. These advanced placement students complete the same curriculum and graduate ready to sit for their National Council Licensure Examination – Registered Nurse (NCLEX-RN), but their degree is an Associate in Applied Science – Transfer (AAS-T) degree. Academic preparation includes core courses in arts and sciences and those focusing on basic nursing skills and knowledge.

DEGREE OPTIONS

Associate Degree in Nursing DTA/MRP: The Associate in Nursing DTA/MRP has been collaboratively developed by the Washington State community and technical colleges, in conjunction with the four-year universities in Washington State to create a shorter, smoother pathway to the Bachelors of Science in Nursing (BSN) degree. The Associate Degree in Nursing DTA/MRP is a 3+1 pathway. This means that students spend 1 year (3 quarters full-time) completing prerequisite coursework. They then spend 2 years (6 quarters full-time) completing core nursing courses. Between prerequisites and nursing courses, students will spend 3 years earning their Associate Degree. Upon graduation from BTC, students will be prepared to test for licensure as a Registered Nurse. Graduates will be eligible to apply for admission to state-approved RN-BSN programs at WA state colleges and universities where they will spend 1 year (4 quarters full-time) completing their BSN. DTA/MRP credits are transferable to Washington state RN-BSN programs and will meet most if not all General University Requirements (GUR). Applicants are encouraged to plan early for Baccalaureate Degree completion by meeting with an admissions advisor at their school of choice.

The Nursing Program enters cohorts of 20 students in Fall, 20 students in Winter, and 20 students in Spring quarter for a total of 60 available cohort seats every academic year. Applicants must also have healthcare experience and submit an Assessment Technologies Institute (ATI) Test of Essential Academic Skills (TEAS) transcript showing proficient or higher scores in all four assessment areas.

Associate Degree in Nursing Advanced placement (LPN-RN): This pathway is designed for Licensed Practical Nurses (LPNs) who wish to complete their Associate Degree in Registered Nursing. LPNs holding an active WA license may apply for advanced placement into a

second year RN cohort. LPN students take three quarters of second year nursing classes. Upon completion, students are prepared to test for licensure as a Registered Nurse and can apply for admission to state-approved RN-BSN programs at Washington State colleges and universities. Currently the Nursing Program enters LPN students as advanced placement into a second year cohort (4th quarter) on a space-available basis.

Starting in Spring Quarter 2019 the Nursing Program has been granted provisional approval to start a part-time evening LPN-RN completion option. These students will be able to graduate with the Nursing DTA/MRP and meet the college and state goal to increase seamless academic progression for all nursing students. This option will be six quarters part-time (18 months) and cohorts will start every two years as demand dictates. As of May 1, 2018, LPN-RN applicants will no longer be offered advanced placement into the second year of the two-year program. LPN-RN applications received after this date will be applying to the part-time cohort.

Over the next two academic years, the Nursing Program will be phasing out the AAS-T degree and all nursing students will graduate with the DTA/MRP.

GENERAL INFORMATION
The Associate Degree Nursing program is approved by the Washington State Nursing Care Quality Assurance Commission (NCQAC). The NCQAC may be reached at PO Box 47864 Olympia, WA 98504-7864 360-236-4700 nursing@doh.wa.gov.

Bellingham Technical College is an equal opportunity institution. Auxiliary aids and services are available upon requests to individuals with disabilities – please contact Accessibility Resources at 360-752-8576 for information.

2-YEAR RN DTA/MRP PROGRAM START
The application window for all three cohorts (Fall, Winter and Spring) will open each year in mid-July. Completed application packets will be accepted at a designated time and students will be added to the Annual Program List for Nursing (APL-N) on a first-come first-served basis. Please refer to the Nursing Program webpage for current deadlines and dates.

Each academic year, Applicants on the APL-N will be offered cohort seats for Fall, Winter and Spring quarters in mid-August. The APL-N will remain open for complete applications through Fall and Winter, closing at the beginning of Spring quarter. Once the APL-N is closed at the beginning of Spring quarter, it will be cleared and students will need to reapply. Applications will not be retained past the academic year applied for.

LPN ADVANCED PLACEMENT PROGRAM START
LPN's who are interested in applying to the Nursing program should meet with the Nursing Student Navigator and attend a Nursing Info Session to plan a course of study. Please call Jennifer Tachiyama at 360-752-8481 or email at jennifer.tachiyama@btc.edu to make an appointment.

The program will no longer be entering LPNs into the second year of the full-time program beginning May 1, 2018. After that date, all advanced placement LPN students will apply to the new part-time evening cohort. This cohort will enter 20 students in Spring quarter every two years as demand indicates. The next cohort entering students will begin Spring 2019.

LPN - RN Admissions Process Frequently Asked Questions (FAQ)

LPN – RN Admission Guidelines

TESTING REQUIREMENTS
The ATI Test of Essential Academic Skills version 6 (ATI TEAS v. 6) is required for admission into the Nursing Program. Applicants must score at the "PROFICIENT" level or higher in each of the four areas. See the detailed table in the ATI TEAS handout.

PRE-PROGRAM COURSE REQUIREMENTS
Meet with the Nursing Student Navigator to plan a course of study.

Each prerequisite must achieve a B (3.0) or higher unless otherwise indicated.

Prerequisites marked with * must achieve a C (2.0) or higher

All courses must be a minimum of 5 quarter credits or 3 semester credits.

- Intro to Statistics (MATH& 146)
- Human A & P 1 (BIOL& 241)
- Human A & P 2 (BIOL& 242)
- Microbiology (BIOL& 260)
- Introduction to Chemistry (CHEM& 121 or CHEM& 161)
- English Composition I (ENGL& 101)
- Lifespan Psychology (PSYC& 200)
- General Psychology (PSYC& 100)*
- General Biology w/Lab (BIOL& 160)*
- 5 credits of Communications*
- 10 credits of Humanities*

PROGRAM APPLICATION/FORMS
- First Year Nursing Program Application (For DTA/MRP 2-year Program Entry Only)
- Healthcare Experience Verification Form (For DTA/MRP 2-year Program Entry Only)
- Second Year Nursing Program (LPN) Application (For LPN-RN Second Year Entry Only)
- Verification of Work Experience Form (For LPN-RN Second Year Entry Only)
- Transcript evaluation must be complete before the application is submitted for either degree option. This means that students must have official transcripts sent to BTC and request a transcript evaluation before they apply. Include completed transcript evaluation form and unofficial transcripts from all colleges attended in the application packet.

OTHER APPLICATION FORMS
After Admissions acceptance into the program and prior to beginning Nursing classes, students must submit proof of the following:

- Be at least 18 years of age at the time classes start
- Physical Exam and Specified Immunizations
- Tuberculosis (TB) Handout
- Criminal Background Check
- 10-Panel Drug Screen
- Current American Heart Association BLS for Healthcare Provider CPR

- HIV/AIDS Certification (7 Hours)
- Medical Insurance Coverage
- Create an online account with Castle Branch and pay a fee of approximately $90.00 for the background check and drug screen.

Program Tuition/Fees: Program fees address distinct and specified costs such as lab assistants, supplies, materials, equipment, rentals, software licensing, replacement and upgrade, maintenance, and other operational costs.

PROGRAM OUTCOMES

The BTC Associate Degree Nursing graduate will be able to:

- Nursing Care: Integrate the nursing process to deliver individualized culturally competent care.
- Self-Care Promotion: Formulate strategies to promote the health of self and others.
- Professionalism: Model integrity through professional boundaries, ethical behaviors, and respectful communication.
- Collaborative Leadership: Maximize positive health outcomes through the promotion of evidence-based clinical care within the interdisciplinary team.
- Clinical Judgment: Model safe nursing care by integrating critical thinking, evidence-based practice, and prioritization.

DEGREE AND CERTIFICATE REQUIREMENTS

Nursing DTA/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of B- /2.7 for all Program Core courses, and minimum grade of B/3.0 for all academic courses.

DIRECT TRANSFER AGREEMENT/
MAJOR RELATED PROGRAM

Associate in Nursing, DTA/MRP

PROGRAM REQUIREMENTS

QUARTER 1

NURS 110	Introduction to Health Concepts	4 CR
NURS 115	Introduction to Health Concepts- Clinical Lab	6 CR
NUTR 115	Nutrition in Healthcare I	1 CR
PHIL 115	Ethics and Policy in Healthcare I	1 CR
PSYC 115	Psychosocial Issues in Healthcare I	1 CR

QUARTER 2

NURS 120	Health and Illness Concepts 1	5 CR
NURS 125	Health & Illness Concepts 1- Clinical Lab	6 CR
NUTR 116	Nutrition in Healthcare II	1 CR
PSYC 116	Psychosocial Issues in Healthcare II	1 CR

QUARTER 3

NURS 130	Health & Illness Concepts 2	3 CR
NURS 135	Health & Illness Concepts 2- Clinical Lab	6 CR
PSYC 117	Psychosocial Issues in Healthcare III	2 CR
NUTR 117	Nutrition in Healthcare III	1 CR

QUARTER 4

NURS 210	Acute Health Concepts	5 CR
NURS 215	Acute Health Concepts- Clinical Lab	6 CR
NUTR 215	Nutrition in Healthcare IV	1 CR
PHIL 215	Ethics & Policy in Healthcare II	1 CR

QUARTER 5

NURS 220	Complex Health Concepts	4 CR
NURS 225	Complex Health Concepts- Clinical Lab	6 CR
NUTR 216	Nutrition in Healthcare V	1 CR
PSYC 215	Psychosocial Issues in Healthcare IV	1 CR

QUARTER 6

NURS 230	Professional Nursing Concepts	3 CR
NURS 235	Professional Nursing Concepts- Clinical Lab	6 CR
PHIL 216	Ethics & Policy in Healthcare III	3 CR

PRE-PROGRAM

BIOL& 160	General Biology with Lab	5 CR
BIOL& 241	Human A & P 1	5 CR
BIOL& 242	Human A & P 2	5 CR
BIOL& 260	Microbiology	5 CR
CHEM& 121	Intro to Chemistry	5 CR
ENGL& 101	English Composition I	5 CR
MATH& 146	Introduction to Statistics	5 CR
PSYC& 100	General Psychology	5 CR
PSYC& 200	Lifespan Psychology	5 CR
Communications (elective)		5 CR
Humanities (electives)		10 CR

TOTAL PROGRAM CREDITS: 135

NURSING ASSISTANT

OVERVIEW

Choose BTC's Nursing Assistant program and work in a wide variety of medical settings. The knowledge and skills you'll gain are highly valued by health care industry employers such as hospitals, assisted living facilities, nursing homes, and home health agencies.

The Nursing Assistant program is approved by the State of Washington, Department of Health, Nursing Care Quality Assurance Commission.

Students who complete the Nursing Assistant program will be eligible to take their state certification exam.

PROGRAM OUTCOMES

- Demonstrate clinical competencies defined in WAC 246-841
- Identify and apply nursing knowledge necessary in the nursing assistant role

PROGRAM ENTRY INFORMATION

Students are offered enrollment in the Nursing Assistant Program on a space-available basis.

PROGRAM START

Students are admitted in the Summer, Fall, Winter, and Spring Quarters.

TESTING REQUIREMENTS
- Reading Comprehension: Test Score of 50 or higher or Essential Reading (ABE 054)
- ACCUPLACER Arithmetic: Test score of 38 or higher or Basic Math (ABE 050)

PRE-PROGRAM COURSE REQUIREMENTS
There are no pre-program requirements. Healthcare Provider CPR and HIV may be taken before the program starts but this is not required.

DEGREE AND CERTIFICATE REQUIREMENTS
Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of 2.0 (C) for required courses.

PROGRAM APPLICATION/FORMS
- Nursing Assistant Program Application Form
- Medical Policy Statement of Agreement
- Criminal History Background Check Notification Form
- $10 Payment for the Criminal Background Check Processing Fee
- Documentation of a two-step tuberculin skin test (TB) completed within the last year. TB must be current through Nursing Assistant enrollment.
- Student Tuberculosis (TB) Test Form
- Official transcripts documenting prerequisite completion (if applicable).

OTHER APPLICATION FORMS
- Nursing Assistant Certification Exam

CERTIFICATE

Nursing Assistant Certificate

PROGRAM REQUIREMENTS

QUARTER 1

NA 101	Nursing Assistant Essentials	6 CR
NA 102	Nursing Assistant Clinical	5 CR
HO 127	Healthcare Provider CPR	0.5 CR
HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR

TOTAL PROGRAM CREDITS: **12.5**

PRE-NURSING

OVERVIEW
Have you always wanted to be a nurse? Are you currently employed in healthcare and want to advance your education and expand your career opportunities? Then BTC's Associate in Pre-Nursing (Transfer) program is for you! This program includes instruction in English, psychology, mathematics, and science, and will prepare you to enter select Washington State four-year pre-licensure Nursing programs as a junior, where you may complete your Bachelor of Science in Nursing (BSN) degree.

Have you always wanted to be a nurse? Are you currently employed in healthcare and want to advance your education and expand your career opportunities? Then BTC's Associate in Pre-Nursing DTA/MRP program is for you!

The Associate in Pre-Nursing DTA/MRP program includes instruction in English, psychology, mathematics, and science and will position you to enter select Washington State four-year pre-licensure nursing programs as a junior, where you may complete your Bachelor of Science in Nursing (BSN) degree.

Direct Transfer Agreement/Major Related Program (DTA/MRP)

Upon completion of BTC's Associate in Pre-Nursing DTA/MRP degree, students are eligible to transfer to a number of Washington State institutions including Northwest University, Pacific Lutheran University, University of Washington, Walla Walla College, Washington State University, and Western Washington University.

Important note: Admission into many schools is competitive and higher grade point averages and course grades are often required. Completion of the general Pre-Nursing DTA/MRP degree does not necessarily satisfy all transfer requirements; some institutions may have additional course requirements. Check individual schools for the most up-to-date admission requirements and recommendations.

PROGRAM ENTRY INFORMATION
For questions, please contact Admissions at 360.752.8345 or email us at admissions@btc.edu

PROGRAM START
This program accepts students quarterly.

TESTING REQUIREMENTS
Placement testing in Reading, Math and Writing. Test scores or transcripts from another college may also be accepted along with the Evaluation Request Form

DEGREE AND CERTIFICATE REQUIREMENTS
Nursing DTA/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of B- /2.7 for all Program Core courses, and minimum grade of B/3.0 for all academic courses.

PROGRAM APPLICATION/FORMS
- Admissions Application

PLANNING GUIDE
Associate in Pre-Nursing (DTA/MRP) Planning Guide

DIRECT TRANSFER AGREEMENT/
MAJOR RELATED PROGRAM

Associate in Pre-Nursing, Direct Transfer Agreement/Major Related Program

Advising notes:

- Students must complete at least 90 quarter hours of transferable credit to receive a DTA degree.

- Students must complete a minimum of 60 credits of general education course work to receive a DTA degree.

- Any specific course may be credited toward no more than one distribution or skill area requirement.

- Students should make early contact with their potential transfer institution(s) regarding specific course choices within distribution areas.

- Students should check with their potential transfer institution(s) about requirements for overall minimum GPA, or higher GPA on a subset of courses.

- No more than 10 credits per discipline area, five credits maximum in world languages or ASL, and no more than five credits in performance/skills classes are allowed.

Notes on application to a university or college:

- Admissions application deadlines vary; students must meet the deadline for the university or universities to which they plan to apply for admission to transfer

- For admission to nursing as a major it is critical to note that grade point average requirements vary and admission is competitive across the several programs in Nursing

- Certain schools may have additional "university-specific" requirements not pre-requisites to admission to the Nursing major that will need to be completed prior to graduation. Contact with advisors from individual schools for institutional requirements in highly recommended since this DTA may not meet every institution-specific graduation requirements.

- Certain schools may have additional "university-specific" requirements of readmission to the institution not pre-requisites specifically identified in the DTA requirements.

Associate degrees developed under this agreement shall:

- Meet the requirements of the statewide Direct Transfer Agreement as it applies to both for the institutions party to the agreement and other institutions party to the statewide DTA agreement. If admitted to the baccalaureate institution, students will have junior status. Student seeking admission to public institutions will be given priority in the admission decision for admission to the institution over similarly qualified transfer applicants without a Direct Transfer Associate degree. Admission to an institution does not guarantee admission to a specific program or major.

- Be issued only to students who have earned a cumulative grade point average of at least 2.00, as calculated by the degree awarding institution. Specific grade requirements vary from course to course and among transfer institutions. Students must check with the transfer institution. Note that admission to the BSN upper division nursing programs is very competitive; therefore, no particular GPA can guarantee admission to any specific nursing program.

PROGRAM REQUIREMENTS

COMMUNICATION SKILLS
ENGL& 101	English Composition I	5 CR
ENGL& 102	English Composition II	5 CR
Total Credits:		**10**

HUMANITIES
A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). Credits in the humanities distribution area provide one opportunity for such a curriculum. See the humanities choices in the WSU "Diversity Course Identification Guidelines" for possible selection or choose courses that include minority, non-western, ethnic or other "area" studies.

CMST& 220	Public Speaking	5 CR
HIST& 146	United States History I	5 CR
SPAN& 121	Spanish I	5 CR
Total Credits:		**15**

PHYSICAL AND NATURAL SCIENCES
BIOL& 160	General Biology with Lab	5 CR
BIOL& 241	Human A & P 1	5 CR
BIOL& 242	Human A & P 2	5 CR
BIOL& 260	Microbiology	5 CR
CHEM& 121	Intro to Chemistry	5 CR
CHEM& 131	Introduction to Organic/Bio-Chemistry	5 CR
NUTR& 101	Nutrition	5 CR
Total Credits:		**35**

QUANTITATIVE/SYMBOLIC REASONING SKILLS
MATH& 146	Introduction to Statistics	5 CR
Total Credits:		**5**

SOCIAL SCIENCES
PSYC& 100	General Psychology	5 CR
PSYC& 200	Lifespan Psychology	5 CR
SOC& 101	Introduction to Sociology	5 CR
Total Credits:		**15**

ELECTIVES
Elective		5 CR
Elective		5 CR
Total Credits:		**10**

TOTAL PROGRAM CREDITS:	**90**

OFFICE ASSISTANT

Office Assistant Certificate

OVERVIEW
Choose this program to train for a career as a receptionist or office assistant. Employers such as physician's offices, law firms, temporary help agencies, and consulting firms are in need of skilled office staff. You could also work for manufacturing and industrial firms, telecommunications companies, and retail and wholesale organizations, plus many other businesses that need office clerical support.

PROGRAM OUTCOMES
- Graduates will be able to demonstrate competency in touch keyboarding at 40 wpm on a three-minute timing with a three-error limit.

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

PROGRAM ENTRY INFORMATION
Students may begin this program in any quarter.

TESTING REQUIREMENTS
These requirements are for the Certificate.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.

- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM REQUIREMENTS

QUARTER 1

BUS 188	Business English	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR

TECHNICAL CORE: 37 CREDITS

BUS 100	Electronic Math Applications	3 CR
BUS 123	Records Management	3 CR
BUS 188	Business English	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR
CAP 114	MS Outlook	2 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR

ELECTIVES COURSES: 5 CREDITS
Office Assistant students may choose elective credits from any 100-level or higher courses with the following prefixes: ACCT, BUS, CAP, CIS, ECON, HRM, LGL, IT, and MGMT. Field-Based Experience courses may not be used as electives. Courses taken to meet the general education or program core requirements may not be used for electives.

GENERAL EDUCATION COURSES: 15 CREDITS

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

TOTAL PROGRAM CREDITS:	**57**

OPERATIONS MANAGEMENT

OVERVIEW

BTC's Bachelor of Applied Science degree in Operations Management (BASOPS) is design to meet the needs of students who want to advance their careers into supervisory and management roles in industries such as manufacturing, IT, transportation, and retail/wholesale. During the BASOPS degree, students will learn about operations management tools and techniques, develop their business skills, and apply them to solve practical problems in their chosen industry.

The delivery model for this degree has been designed to meet the educational needs of the working adults who are expected to be the largest group of students. It is based on a combination of asynchronous and synchronous web-based instruction with face-to-face meetings at times convenient to students. Mentored "focused study" courses and individual and group capstones will be used to develop students' independent thought and critical thinking skills to the level expected in a baccalaureate degree and as required for a successful career in an operations management role. Online options will also be provided for students whose circumstances prevent them from attending the face-to-face sessions.

PROGRAM OUTCOMES

Graduates of the BASOPS program will be able to:

1. Demonstrate a mastery of the mathematical tools required for operations management.

2. Apply qualitative and quantitative forecasting techniques to the selection of processes and facility layouts that will optimize production and/or service delivery.

3. Plan a comprehensive quality management program for use within an organization.

4. Apply mathematical approaches to solve typical make/buy and outsourcing problems.

5. Assess the value of Lean concepts, including Value Stream Mapping, Workplace Organization and Standardization, 5-S and Cellular Flow, Kan Ban and Total Production Maintenance to operations management.

6. Demonstrate the application of project management techniques to develop realistic and comprehensive project plans; identify risk areas; monitor the plans; and deal with problems.

7. Develop clear and coherent technical reports, proposals, memoranda, and e-mails; and deliver presentations to groups.

8. Analyze projects, compare alternatives, and make business decisions based on economic principles such as time value of money, internal rate of return, and cost-benefit ratios.

9. Demonstrate the ability to identify and then develop acceptable resolution of ethical dilemmas that might occur in the workplace.

10. Analyze how leadership skills, recruitment and retention practices, motivation and team building, the management of change, and conflict resolution affect the behavior and interaction of people at work.

11. Demonstrate a level of critical thinking, teamwork, communication, and technical and information literacy commensurate with an operations management position.

PROGRAM ENTRY INFORMATION

To be admitted to the BASOPS program, students must have a completed AAS degree (or equivalent) and a minimum of 15 credits of generally transferable General Education including ENGL& 101 (or equivalent); Intermediate Algebra (or equivalent); and 5 credits of Social Science or Humanities.

The "Academic Bridge" is designed to facilitate entry of students from diverse academic backgrounds into the program by addressing some of the preparatory General Education requirements that might not have been covered during students' associate degrees.

At the end of the Academic Bridge, before students enter the junior year of the BASOPS degree, they will have completed a total of at least 35 credits of General Education. This will therefore involve them taking up to 25 credits of coursework during the Bridge, depending on the General Education component of the student's associate degree.

Minimum required for admission to the BASOPS program:

- Completion of Associate of Applied Science Degree (or equivalent)
- General Education English: 5 credits of ENGL& 101 (or equivalent)
- General Education Math: Intermediate Algebra or higher (minimum grade 2.5/C+) or equivalent ACCUPLACER scores (within the past 2 years)
- General Education Humanities or Social Science: 5 CR

Courses to be taken during the Bridge if not already completed by the applicant:

- Math: MATH& 146 : Introduction to Statistics 5 CR (minimum grade 2.5/C+)
- Humanities and Social Science: 10 CR (minimum grade 2.5/C+)
- Natural Sciences with Lab: 5 CR (minimum grade 2.5/C+)
- General Education: Any additional general education course in communications, math (college-level), natural sciences, humanities, or social science 5 CR (minimum grade 2.5/C+)

Minimum required at entry to the Junior Year, whether from prior experience or Bridge:

- General Education English: ENGL& 101 5 CR (minimum grade 2.5/C+)
- General Education Math: College-level math class with Intermediate Algebra as a prerequisite 5 CR (minimum grade 2.5/C+)
- Mathematics: MATH& 146, Introduction to Statistics, 5 CR (minimum grade 2.5/ C+)
- Humanities and Social Science: 15 CR – at least 5 credits each of Social Science and Humanities (minimum grade 2.5/C+)
- Natural Sciences with lab: 5 CR (minimum grade 2.5/C+)

TESTING REQUIREMENTS

See Program Entry Information.

DEGREE AND CERTIFICATE REQUIREMENTS

Operations Management BAS degree completion requires a minimum grade of C/2.0 for all program courses.

BACHELOR OF APPLIED SCIENCE
Operations Management, BAS

PROGRAM REQUIREMENTS

ACADEMIC CORE COURSES

ENGL 310	Business Communications	5 CR
PSYC 310	Organizational Psychology	5 CR
PHIL 310	Professional Ethics	5 CR
ECON 310	Managerial Economics	5 CR
BUS 310	Project Management	5 CR
Total General Education Course Credits:		**25**

TECHNICAL CORE COURSE WORK

OPM 311	Mathematical Techniques for Operations Management	5 CR
OPM 312	Forecasting and System Design	5 CR
OPM 313	Quality Management	5 CR
OPM 314	Logistical Planning and Supply Chain Management	5 CR
OPM 315	Lean Concepts and Applications	5 CR
OPM 491	Focused Study I	5 CR
OPM 492	Focused Study II	5 CR
OPM 493	Focused Study III	5 CR
OPM 498	Individual Capstone Project	5 CR
OPM 499	Group Capstone Project	5 CR
Total Technical Core Course Work Credits:		**50**

PROGRAM ELECTIVES

MANUFACTURING SPECIALIZATION ELECTIVES

OPM 411	Facility Layout and Materials Handling	5 CR
OPM 412	Workplace Health and Safety Management	5 CR
OPM 413	Measurement and Statistical Process Control	5 CR

IT SPECIALIZATION ELECTIVES

OPM 421	IT Strategy, Management and Delivery	5 CR
OPM 422	Business Continuity and Disaster Recovery	5 CR
OPM 423	Managing Vendors and Contracts	5 CR
Total Elective Credits: (selected from list depending on area of Specialization)		**15**
TOTAL PROGRAM CREDITS:		**90**

PERSONAL FITNESS TRAINER

OVERVIEW

If you have an interest in the health and fitness industry and would like to prepare for a career as a Personal Fitness Trainer, this program is for you!

This program is designed for people currently employed or seeking employment in the fitness industry, or individuals wanting a better understanding of health & fitness.

Completion of the program will prepare students for jobs working in the fitness industry, both in a fitness facility and as a private trainers.

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

- Demonstrate proficient methods of developing and leading group exercise programs and complete personal guided training programs.
- Effectively manage gym operations or a training facility.
- Provide the tools needed to develop healthy lifestyle habits professionally and personally.
- Successfully pass the NFPT Personal Fitness Trainer Certification test.

PROGRAM START

This hybrid program starts in the Fall quarter and courses must be taken in sequential order. Program classes meet two evenings per week (Tuesday and Thursdays), and the rest of the time instruction and study is done online.

PRE-PROGRAM COURSE REQUIREMENTS

It is recommended that students have good basic academic skills.

Before taking the hybrid courses, students should be confident about computer and study skills. Students will need access to a computer and the internet several days a week, for a total of 3-5 hours a week for each six-credit class.

DEGREE AND CERTIFICATE REQUIREMENTS

Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS

This state-funded program charges tuition based on residency. To establish residency, apply to BTC at www.btc.edu/apply. State "Personal Fitness Trainer" as your intended program of study.

PROGRAM START

A Bellingham Technical College Admission Application is required before a student can register for the Personal Fitness Trainer certificate.

CERTIFICATE
Personal Fitness Trainer Certificate

PROGRAM REQUIREMENTS

QUARTER 1

PFT 100	Foundations of Health and Fitness	6 CR
HLTH 155	First Aid Fundamentals	1 CR

QUARTER 2

PFT 110	Program Development and Training Principles	6 CR

QUARTER 3

PFT 120	Facility Management and Marketing for a Fitness Trainer	6 CR
TOTAL PROGRAM CREDITS:		**19**

PHLEBOTOMY

OVERVIEW

A certificate in Phlebotomy will provide the student a background in basic anatomy/physiology, medical terminology, medical office procedures, and phlebotomy skills. This program also includes an externship experience at a clinical facility where students 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.

PROGRAM OUTCOMES

- 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 outline in WAC 246-826-130.

- Properly administer appropriate approved drugs per topical, rectal, otic, ophthalmic, and inhaled routes.

- 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), 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; 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.

PROGRAM START

This program typically admits students for the Winter and Summer Quarters.

TESTING REQUIREMENTS

- ACCUPLACER Reading Comprehension and Sentence Skills score of 71 or higher.

- Computerized Touch Keyboarding (CAP 105) can be satisfied by passing the Office Proficiency Assessment & Certification (OPAC) test with a score of 35 WPM.

PRE-PROGRAM COURSE REQUIREMENTS

- Essentials of Anatomy & Physiology (BIO 105) or Human A & P 1 (BIOL& 241) and Human A & P 2 (BIOL& 242)

- Diseases of the Human Body (BIO 127) or General Biology with Lab (BIOL& 160)

- Fundamentals of Medical Terminology (HT 126) or Comprehensive Medical Terminology (HT 129) or Human A & P I (BIOL& 241) and Human A & P II (BIOL& 242)

- Medical Office Procedures (BUS 230)

- Computerized Touch Keyboarding (CAP 105)

- HIV/AIDS: Healthcare Professional- 7 Hour (HLTH 133)

- First Aid Fundamentals (HLTH 155)

DEGREE AND CERTIFICATE REQUIREMENTS

Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS

- Phlebotomy Application Completion Form

- Essential Skills and Functional Abilities Form

- Criminal History Background Check Notification Form

- Official transcripts documenting prerequisite completion, including unofficial BTC transcripts.

- OPAC Test Score (if applicable)

Students who have successfully completed: General Biology w/Lab (BIOL& 160), Human A&P 1 (BIOL& 241) and Human A&P 2 (BIOL& 242) will have satisfied BIO 105, HT 126 and BIO 127.

Prior to registration for HO 157 Introduction to Phlebotomy Skills, admitted students must complete and submit evidence of the following requirements:

- Criminal background check

- 11-panel drug screen

Students will be required to create an online account with Certified Background and pay a fee of $89.00 for the background check and drug screen.

Students may be required to travel to Skagit County for clinical placement.

<div style="text-align:center">CERTIFICATE</div>

Phlebotomy Certificate

PROGRAM REQUIREMENTS

QUARTER 1

HO 157	Introduction to Phlebotomy Skills	4 CR

QUARTER 2

HT 160	Phlebotomy Externship	3 CR

PRE-PROGRAM

BIO 105	Essentials of Anatomy Physiology	5 CR
OR		
BIOL& 241	Human A & P 1	5 CR
AND		
BIOL& 242	Human A & P 2	5 CR
BIO 127	Diseases of the Human Body	4 CR
OR		
BIOL& 160	General Biology with Lab	5 CR
BUS 230	Medical Office Procedures	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR

Students can take either CAP 103 or CAP 105, with CAP 103 being the minimum requirement. For Phlebotomy only, students can test out at 35 wpm and not take either class.

HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR
HLTH 155	First Aid Fundamentals	1 CR
HT 126	Fundamentals of Medical Terminology	5 CR
OR		
BIOL& 241	Human A & P 1	5 CR
AND		
BIOL& 242	Human A & P 2	5 CR

TOTAL PROGRAM CREDITS:	**30**

PROCESS TECHNOLOGY

OVERVIEW

At Bellingham Technical College, the Process Technology Program will prepare you for a position as a process technician or operator for employers in power generation, refining, manufacturing, and many other industries. Process technicians work to ensure the safety standards of production and assembly lines, and oversee quality for an employer's processes. Currently, our primary employers in Washington State are the four refineries in Whatcom and Skagit counties. Graduates have also gone to work in other water treatment, power generation, and manufacturing facilities in our region, across Washington State, and beyond.

Manufacturing is the most diverse sector of the U.S. economy, from the immense variety of goods produced to the technology used to create them. Turning ideas and materials into valuable products requires highly skilled employees who are trained in advanced manufacturing. BTC's programs in advanced manufacturing are ideal for students with mechanical aptitude or a strong foundation in math, science, and technology. You'll learn skills needed for a career in high demand, dynamic industries such as manufacturing, aerospace, biotechnology, and energy

PROGRAM OUTCOMES

- Appraise the typical hazards found in process plants, basic PPE, and know the requirements of regulating bodies regarding safety, health, and environmental issues (OSHA, DOT, EPA).
- Combine mathematics, chemistry physics theory to apply to process applications such as fluid flow, the nature of heat, chemical reaction, boing points, vapor pressure and electrical currents.
- Recognize typical organizational structures, economics, and quality control systems of the process industry.
- Apprise fundamentals of refining and power generation processes; know core functions and principles of operation of typical process equipment such as pumps, compressors, filters and dryers, lubrication systems, valves, piping systems, and draw from memory Process Flow Diagrams.
- Integrate the principles of process automatic control and Data Control Systems (DSC) to manage simulated DCS scenarios.
- Graduates will have the ability to compare actual process plant experience versus preconceived notions.

PROGRAM START

This program has rolling admission.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Algebra score of 75 or MATH 098 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

- CAP 101 with C grade or higher or passing scores in the Internet and Computing Core Certification (IC3) test battery or successful completion of Digitools or Tech Connections completed at Whatcom County high schools.

DEGREE AND CERTIFICATE REQUIREMENTS

Process Technology AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for AMATH 111 course. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE

Process Technology, AAS

PROGRAM REQUIREMENTS

QUARTER 1

AMATH 111	Applied Technical Math	5 CR
PTEC 101	Introduction to Process Technology	5 CR
PTEC 102	Process Technology I (Equipment)	5 CR

QUARTER 2

CMST& 210	Interpersonal Communication	5 CR
CTE 108	Job Skills	1 CR
PTEC 103	Safety, Health & Environment I	5 CR
PTEC 104	Process Drawings	2 CR
PTEC 105	Process Technology II (Systems)	5 CR

QUARTER 3

AENGL 100	Applied English	5 CR
CHEM& 110	Chemical Concepts w/Lab	5 CR
PTEC 110	Process Instrumentation	5 CR
PTEC 19_	Program Elective (PTEC 190 series)	3 CR

QUARTER 4

PHYS& 110	Physics for Non-Science Majors w/Lab	5 CR
PTEC 203	Safety, Health & Environment II	5 CR
PTEC 211	Troubleshooting	5 CR
PTEC 19_	Program Elective (PTEC 190 series)	3 CR

QUARTER 5

PTEC 205	Dynamic Process Control	5 CR
PTEC 212	Industrial Processes & Equipment	5 CR
PTEC 270	Process Technology Project I	5 CR
(or PTEC 290 Internship I in summer)		

QUARTER 6

PTEC 207	Quality Control	5 CR
PTEC 215	Process Technology III (Operations)	5 CR
PTEC 272	Process Technology Project II	5 CR
(or PTEC 291 Internship II in summer)		

ELECTIVES

PROGRAM ELECTIVES

PTEC 190	Food Processing	3 CR
PTEC 191	Non-Refining Processes	3 CR
PTEC 192	Pulp & Paper Processing	3 CR
PTEC 193	Upstream Process	3 CR
PTEC 194	Wastewater Treatment	3 CR
PTEC 195	Biodiesel Fundamentals	3 CR
PTEC 196	Green Energy	3 CR
PTEC 197	Cooperative Education	3 CR
PTEC 198	Basic Mechanical Skills	3 CR
PTEC 199	Power Generation	3 CR

PTEC 290	Process Technology Practicum/Internship I	5 CR
PTEC 291	Process Technology Practicum/Internship II	5 CR

TOTAL PROGRAM CREDITS: **99**

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Process Technology, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

PTEC 101	Introduction to Process Technology	5 CR
PTEC 102	Process Technology I (Equipment)	5 CR
ENGL& 101	English Composition I	5 CR
MATH& 141	Precalculus I	5 CR

QUARTER 2

CMST& 210	Interpersonal Communication	5 CR
CTE 108	Job Skills	1 CR
PTEC 103	Safety, Health & Environment I	5 CR
PTEC 104	Process Drawings	2 CR
PTEC 105	Process Technology II (Systems)	5 CR

QUARTER 3

CHEM& 110	Chemical Concepts w/Lab	5 CR
OR		
CHEM& 121	Intro to Chemistry	5 CR
OR		
CHEM& 161	General Chemistry w/Lab I	5 CR
ENGL& 235	Technical Writing	5 CR
OR Humanities course		
PTEC 110	Process Instrumentation	5 CR

QUARTER 4

PHYS& 110	Physics for Non-Science Majors w/Lab	5 CR
OR		
PHYS& 114	General Physics I w/Lab	5 CR
OR		
PHYS& 221	Engineering Physics I w/Lab	5 CR
PTEC 203	Safety, Health & Environment II	5 CR
PTEC 211	Troubleshooting	5 CR
MATH& 142	Precalculus II	5 CR

QUARTER 5

PTEC 205	Dynamic Process Control	5 CR
PTEC 212	Industrial Processes & Equipment	5 CR
PTEC 270	Process Technology Project I	5 CR
MATH& 151	Calculus I	5 CR

QUARTER 6

PTEC 207	Quality Control	5 CR
PTEC 215	Process Technology III (Operations)	5 CR

TOTAL PROGRAM CREDITS: **103**

<div style="text-align:center">CERTIFICATE</div>

Process Technology Certificate

PROGRAM REQUIREMENTS

QUARTER 1

AMATH 111	Applied Technical Math	5 CR
PTEC 101	Introduction to Process Technology	5 CR
PTEC 102	Process Technology I (Equipment)	5 CR

QUARTER 2

CMST& 210	Interpersonal Communication	5 CR
CTE 108	Job Skills	1 CR
PTEC 103	Safety, Health & Environment I	5 CR
PTEC 104	Process Drawings	2 CR
PTEC 105	Process Technology II (Systems)	5 CR

QUARTER 3

CHEM& 110	Chemical Concepts w/Lab	5 CR
AENGL 100	Applied English	5 CR
PTEC 110	Process Instrumentation	5 CR

TOTAL PROGRAM CREDITS: **48**

RADIOLOGIC TECHNOLOGY

OVERVIEW

If you enjoy working with people in a medical setting, you should check out the Radiologic Technology program at BTC! BTC's programs in Health Careers are geared for students with an interest in health, wellness, and medical fields.

Choose this program to prepare for a rewarding career as a radiologic technologist. You'll learn the latest technologies used in the field and gain skills that are in demand by hospitals, imaging centers, and clinics.

This workforce solution is partially funded by an $11.7m grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information linked on sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability or ownership.

Bellingham Technical College is an equal opportunity institution.

Auxiliary aids and services are available upon request to individuals with disabilities, please contact Accessibility Resources at 360-752-8576.

PROGRAM OUTCOMES

- 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 assess and apply required corrections when correcting suboptimal images.
- Interact in a compassionate, respectful manner assessing patient condition and concerns; provide for patient safety, comfort, confidentiality, and modesty.
- Conduct herself/himself in a professional manner according to ARRT and ASRT standards—assess situations; exercise care with discretion and judgment; assume responsibility for professional decisions; support colleagues; and act in the best interest of the patient.

PROGRAM START

This program admits students once a year in the Fall Quarter.

TESTING REQUIREMENTS

- 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 AENGL 100.
- BTC College-Level Math score of 75 or a C grade in MATH 099.
- Passing scores in the Internet and Computing Core Certification (IC3) test battery or successful completion of Digitools or Tech Connections completed at Whatcom County high schools. (Not required for students who complete CAP 101 or equivalent course).

PRE-PROGRAM COURSE REQUIREMENTS

- Human A & P 1 (BIOL& 241) Must be taken within 3 years of being placed on the wait list. Note: Requires a 2.7 GPA (B-grade) or better.
- Human A & P 2 (BIOL& 242) Must be taken within 3 years of being placed on the wait list. Note: Requires a 2.7 GPA (B-grade) or better.
- Public Speaking (CMST& 220)
- English Composition 1 (ENGL& 101)*
- HIV/AIDS Education (HLTH 133)
- Current Healthcare Provider CPR Card (HO 127). Please note that Healthcare provider CPR certification must remain current throughout program. Students should obtain certification in July, August or September prior to program acceptance. More details to be provided at Radiologic Technology program orientation.
- Fundamentals of Medical Terminology (HT 126)*
- Math in Society (MATH& 107) preferred, will accept higher*
- General Psychology (PSYC& 100)*

*requires minimum 2.0 GPA or higher

DEGREE AND CERTIFICATE REQUIREMENTS

Radiologic Technology AAS-T Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS

- Radiologic Technology Application Completion Form.
- Criminal History Background Check Notification Form.
- Official transcripts documenting prerequisite completion, including BTC unofficial records.

The program is planned with a regional focus in collaboration with

Edmonds Community College, Everett Community College, North Seattle Community College, Peninsula College, Skagit Valley College, and Whatcom Community College. As part of the admissions process, you will be asked to select and rank your preference for placement at the Bellingham or Everett cohort sites.

Bellingham cohort students attend classes at Bellingham Technical College.

Everett cohort students attend classes at the Everett Community 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.

Prior to registration for Radiologic Technology program classes, admitted students must be eighteen (18) years of age and submit evidence of the following requirements:

1. Physical exam and specified immunizations
2. Criminal background check
3. 11-panel drug screen
4. Current American Heart Association BLS for Healthcare Provider CPR
5. Medical insurance coverage

NOTE: Students will be charged a fee of approximately $119.00 for the background check, drug screen, and tracking of required health documents.

Prior to registration for Quarter 5, second-year students must complete a second criminal background check for a $22 fee.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Radiologic Technology, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
RT 101	Radiographic Positioning I	6 CR
RT 112	Patient Care in Radiology	4 CR
RT 120	Imaging & Processing	4 CR
RT 114	Leadership Seminar	2 CR

QUARTER 2
RT 102	Radiographic Positioning & Anatomy II	6 CR
RT 121	Radiographic Physics I	4 CR
RT 131	Radiographic Clinic I	7 CR

QUARTER 3
RT 103	Radiographic Positioning and Anatomy III	5 CR
RT 132	Radiographic Clinic II	7 CR
RT 123	Radiographic Physics II	4 CR

QUARTER 4
RT 133	Radiographic Clinic III	8 CR
RT 205	Pharmacology	3 CR

QUARTER 5
RT 231	Radiographic Clinic IV	10 CR
BIO 130	Sectional Anatomy	4 CR
RT 108	Medical Informatics	4 CR

QUARTER 6
RT 201	Advanced Patient Procedures and Pathology I	4 CR
RT 210	Radiation Biology	4 CR
RT 232	Radiographic Clinic V	10 CR

QUARTER 7
RT 230	Registry Review and Employment Readiness	4 CR
RT 233	Radiographic Clinic VI	10 CR
RT 202	Advanced Patient Procedures and Pathology II	4 CR

PRE-PROGRAM
BIOL& 241	Human A & P 1	5 CR
BIOL& 242	Human A & P 2	5 CR
CMST& 220	Public Speaking	5 CR
ENGL& 101	English Composition I	5 CR
HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR
HO 127	Healthcare Provider CPR	0.5 CR
HT 126	Fundamentals of Medical Terminology	5 CR
MATH& 107	Math in Society	5 CR
PSYC& 100	General Psychology	5 CR

TOTAL PROGRAM CREDITS: **150.5**

RECEPTIONIST

OVERVIEW
Choose this program to train for a career as a receptionist or office assistant. Employers such as physician's offices, law firms, temporary help agencies, and consulting firms are in need of skilled office staff. You could also work for manufacturing and industrial firms, telecommunications companies, and retail and wholesale organizations, plus many other businesses that need office clerical support.

PROGRAM OUTCOMES
- Graduates will be able to demonstrate competency in touch keyboarding at 40 wpm on a three minute timing with a three error limit.
- Graduates will be able to demonstrate 73 percent competency in word processing, written business communication, business math, effective oral communication skills, office skills and procedures, and MS Windows.

PROGRAM ENTRY INFORMATION
Students may begin this program in any quarter.

TESTING REQUIREMENTS
These requirements are for the Certificate.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS
Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

Receptionist Certificate

PROGRAM REQUIREMENTS

QUARTER 1

BUS 100	Electronic Math Applications	3 CR
BUS 188	Business English	5 CR
CAP 101	Introduction to Computer Applications	5 CR
CAP 105	Computerized Touch Keyboarding	2 CR
CAP 106	Formatting with MSWord	4 CR
CMST& 210	Interpersonal Communication	5 CR

REQUIRED COURSES FOR PROGRAM

BUS 100	Electronic Math Applications	3 CR
BUS 123	Records Management	3 CR
BUS 171	Technical Communications	5 CR
CAP 107	Computerized Keyboard Skillbuilding I	3 CR

Total Required Course Credits: **35**

ELECTIVES

ACCT 141	Practical Accounting I	5 CR
ACCT 242	Practical Accounting II	5 CR
ACCT 243	Practical Accounting III	5 CR
ACCT 245	Payroll Procedures	5 CR
ACCT 246	Computerized Accounting	5 CR
ACCT& 201	Principles of Accounting I	5 CR
ACCT& 202	Principles of Accounting II	5 CR
ACCT& 203	Principles of Accounting III	5 CR
BUS 150	Math for Business	5 CR
BUS 230	Medical Office Procedures	5 CR
BUS 232	Office Procedures	5 CR
BUS& 101	Introduction to Business	5 CR
BUS& 201	Business Law	5 CR
CAP 109	Computerized Keyboard Skill Building II	3 CR
CAP 138	MS Word	5 CR
CAP 142	MS Excel	5 CR
CAP 143	Adobe Acrobat & Electronic File Management	5 CR
CAP 146	MS Access	5 CR
CAP 148	MS PowerPoint	3 CR
CAP 200	Integrated Computer Applications	5 CR
CIS 145	Website Development	5 CR
LGL 127	Legal Office Procedures	5 CR
LGL 132	Legal Terminology	5 CR
LGL 211	Legal Document Processing	5 CR
MGMT 154	Creating and Managing a Small Business	5 CR
MGMT 210	Human Resource Management	5 CR

Total Elective Course Credits: **6**

TOTAL PROGRAM CREDITS: **41**

RESIDENTIAL HOME INSPECTION

OVERVIEW
If you'd like a fast-track option to setting up your own profession-al home inspection business—or a career with a home inspection company—then you should consider this course.

As of September 1, 2009, Washington State requires all home inspec-tors in the state to be licensed. BTC's Fundamentals of Home Inspec-tion Course was the first to receive approval from the Department of Licensing. This intensive, full-time course combines classroom in-struction with hands-on lab and inspection work, including training on the topic of identifying wood destroying organisms.

Home inspectors examine and report on a home's systems and structure—from the roof to the substructure crawl space, basement or slab foundation. Typically, inspectors set up their own inspection business and work for real-estate purchasers or are hired by home inspection companies or firms specializing in architectural, engi-neering, and related services.

If you enjoy the challenge of working with homes of all ages, sizes, and conditions, this is the program for you!

This four-week course is offered several times during the year.

PROGRAM OUTCOMES
The goal of this program is to prepare entry-level home inspectors who are able to pass the state licensing exam and successfully work in the field of residential home inspection. Adhering to the core curriculum for residential home inspection, the student will gain expertise in the theory and application of professional methods of performing building inspections.

- RHI 111: Students will be able to describe the systems and components found in homes and be prepared to carry out noninvasive home inspections per WA State laws at residential properties while employing special training and education.

- RHI 112: Students will complete five thorough home inspection reports that meets state standards.

PROGRAM ENTRY INFORMATION
The Residential Home Inspection program is offered each quarter. The program consists of two core courses: RHI 111 and RHI 112. For schedule information, please visit the take-a-class section of BTC's website and search by Department Residential Home Inspection. This Program is offered on the BTC campus. For questions, contact lead Instructor Steve Smith at ssmith@btc.edu or 360.752.8796.

PRE-PROGRAM COURSE REQUIREMENTS
- A personal laptop that is Windows compatible with Wi-Fi and Word processing capability is required for participants.

- It is recommended that students have good basic academic skills.

- For field training (RHI 112), students must have flashlight(s), protective coveralls and basic respirators or face masks.

DEGREE AND CERTIFICATE REQUIREMENTS
Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

PROGRAM APPLICATION/FORMS

Students may enroll in this part-time program's classes without program application or admission. Keyboard, typing and computer skills are necessary to complete program requirements.

PHYSICAL REQUIREMENTS

Anyone interested in becoming a home inspector should be aware that it is a very "physical" job that requires some amount of dexterity and strength, as well as a willingness/ability to get in tight spaces such as crawl spaces and attics, within industry standards. Traversing roofs is expected of home inspectors when it is safe to do so and this sometimes requires moving cumbersome ladders around the home. Home inspectors must be able and willing to work in all kinds of weather conditions and be prepared to do so.

PROGRAM START

A Bellingham Technical College Admission Application is required before a student can register for the Residential Home Inspection certificate.

CERTIFICATE

Residential Home Inspection Certificate

PROGRAM REQUIREMENTS

QUARTER 1

RHI 111	Fundamentals of Home Inspection	12 CR
RHI 112	Home Inspection Field Training	3 CR

TOTAL PROGRAM CREDITS: 15

SOCIAL MEDIA MARKETING

OVERVIEW

According to the 2015 Social Media Marketing Industry Report by Social Media Examiner, marketers place a very high value on social media for growing and promoting their businesses. 96% of marketers surveyed indicate that social media is important for their business, while more than 91% want to know the most effective social tactics, and the best ways to engage with social media. From Facebook to LinkedIn, Twitter to YouTube companies and individuals embrace social media platforms to attract and retain customers. The program addresses the many benefits and challenges of social media usage, and provides a roadmap to help individuals and companies navigate social media for competitive advantage. Our program addresses the top social media subjects marketers want to learn about including tactics, engagement, measurement, tools and audience, helping individuals and their companies navigate the social media landscape, and gain a competitive edge.

PROGRAM OUTCOMES

Students completing the Social Media Marketing track will be able to:

- Describe SMART social media goals to achieve successful online campaigns;

- Evaluate a company's current situation, isolate social media issues and provide solutions by identifying appropriate social media marketing portals to influence consumer and improve the company's reputation;

- Create a social media marketing plan and track progress in achieving goals with a variety of measurement tools, services, and metrics;

- Use analytics to monitor and evaluate progress.

PROGRAM ENTRY INFORMATION

Students may begin this program any quarter.

TESTING REQUIREMENTS

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.

- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

- ACCUPLACER Arithmetic score of 50 or MATH 090 or ABE 050 with a C or better.

DEGREE AND CERTIFICATE REQUIREMENTS

This program is open to all students.

CERTIFICATE

Social Media Marketing Certificate

PROGRAM REQUIREMENTS

QUARTER 1

BUS 129	Social Media Marketing Campaign	5 CR

QUARTER 2

BUS 128	Search Engine Marketing	5 CR

QUARTER 3

BUS 127	Social Media Marketing	5 CR

TOTAL PROGRAM CREDITS: 15

SURGERY TECHNOLOGY

OVERVIEW

If you are interested in being a valuable part of surgery teams, working beside surgeons, nurses, and other medical professionals, you can train for an exciting career as a Surgery Technologist.

With BTC's high quality education and hands-on training, you'll gain the valuable skills needed now by hospitals, outpatient surgery centers, and dental surgery offices.

BTC's students graduate prepared for top jobs: 100 percent of program graduates passed the National Certification of Surgical Technology Exam in 2010, 2011, 2013, 2014 and 2015.

This surgery technology education program is approved by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The CAAHEP may be reached at 1361 Park Street Clearwater, FL 33756. Phone 727-210-2350. Http://www.caahep.org/.

PROGRAM OUTCOMES

The goal of this program is to prepare competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Adhering to the Core Curriculum for Surgical Technologists, 6e and employer and instructor's expectations, upon completion of the Surgery Technology program, the student will:

- Demonstrate proficiency in the care of the operative environment preoperatively, intraoperatively, and postoperatively.

- Provide safe patient care with strict adherence to sterile technique and aspsis.

- Demonstrate critical thinking relating to prioritization, anticipation, problem analysis and evaluation of solutions.

- Apply the principles of effective verbal, non-verbal, and written communication.

- Compile completed Clinical Case Experience Log of surgical procedure assistance in accordance with the Core Curriculum for Surgery Technology, 6e.

- Demonstrate knowledge and experience by successful completion of the National Certification Examination for Surgical Technologists.

PROGRAM START

This program admits students once a year in the Fall Quarter.

TESTING REQUIREMENTS

- Effective Fall 2018 applicants to the Surgery Technology Program must complete the ATI TEAS (Test of Essential Academic Skills) exam with a score of "proficiency" or higher in each of the four areas (reading, mathematics, science and English language and usage) prior to program application.

- 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 AENGL 100.

- BTC College-Level Math score of 32 or a C grade in MATH 099.

PRE-PROGRAM COURSE REQUIREMENTS

Effective Fall 2019 applicants to the Surgery Technology program will need to meet a new minimum GPA for the the following six pre-program courses: ENGL& 101, MATH& 107, CHEM& 121, BIOL& 241, BIOL& 242, BIOL& 260. There is no change to the grade requirements for the other pre-program courses.

Answer this question to determine the minimum GPA that applies to you: Will you submit a complete application packet before September 18, 2018?

If you answered YES, you must meet a minimum GPA of 2.0 (C) in each of the six prerequisite courses listed above.

OR

If you answered NO, then you will be required to meet the higher minimum GPA of 3.0 (B) in each of the six prerequisite courses listed above.

The following courses must be completed with a 3.0 (B) grade or better:

- Intro to Surgery Technology (SURG 100)

The following courses must be completed with a 2.0 (C) grade or better:

- General Biology with Lab (BIOL& 160)

- Interpersonal Communications (CMST& 210) or General Psychology (PSYC& 100)

- HIV/AIDS: Healthcare Professional (HLTH 133)

- Fundamentals of Medical Terminology (HT 126)

The following courses must be completed with the appropriate grade as described above:

- Human A & P 1 (BIOL& 241) ** (Must be no older than 5 years at the time you are eligible for placement on the program ready list)

- Human A & P 2 (BIOL& 242) ** (Must be no older than 5 years at the time you are eligible for placement on the program ready list)

- Microbiology (BIOL& 260)

- Intro to Chemistry (CHEM& 121)

- English Composition I (ENGL& 101)

- Math in Society (MATH& 107) or any math course from the AAS-T alternate course list will be accepted.

DEGREE AND CERTIFICATE REQUIREMENTS

Surgery Technology AAS-T Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of B/3.0 for SURG 100 and minimum grade of C+/2.3 for all other Surgery courses and minimum grades as described above for all other required courses.

PROGRAM APPLICATION/FORMS

- Surgery Technology Application Completion Form

- Criminal History Background Check Notification Form

- Official transcripts documenting prerequisite completion, including BTC unofficial records.

- Evidence of high school graduation or equivalent.

Prior to registration for SURG 120, admitted students must be eigh-

teen (18) years of age and submit evidence of the following requirements:

1. Physical exam and specified immunizations,
2. Criminal background check,
3. 11-panel drug screen,
4. Current American Heart Association BLS for Healthcare Provider CPR,
5. Medical insurance coverage.

NOTE: Students will be charged a fee of approximately $119.00 for the background check, drug screen, and tracking of required health documents.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Surgery Technology, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
SURG 120	Surgery Technology I	12 CR
SURG 125	Surgery Technology Lab I	10 CR

QUARTER 2
SURG 133	Surgery Technology II	10 CR
SURG 136	Surgery Technology Clinical Practice I	12 CR

QUARTER 3
SURG 143	Surgery Technology III	6 CR
SURG 145	Surgery Technology Clinical Practice II	10 CR

Complete the prerequisites listed below with a 2.0 (C grade or better) in each course:

PRE-PROGRAM
BIOL& 160	General Biology with Lab	5 CR
BIOL& 241	Human A & P 1	5 CR
BIOL& 242	Human A & P 2	5 CR
BIOL& 260	Microbiology	5 CR
CHEM& 121	Intro to Chemistry	5 CR
CMST& 210	Interpersonal Communication	5 CR
ENGL& 101	English Composition I	5 CR
HLTH 133	HIV/AIDS: For Healthcare Professional	1 CR
HT 126	Fundamentals of Medical Terminology	5 CR
MATH& 107	Math in Society	5 CR
SURG 100	Intro to Surgery Technology	2 CR

TOTAL PROGRAM CREDITS: **108**

VETERINARY TECHNICIAN

OVERVIEW
Turn your love of animals into a satisfying career! BTC's Veterinary Technician program is ideal if you have an aptitude for math and science, and are interested in being a valuable part of the veterinary care team. You'll work with animals and people, in a job that is different every day.

With BTC's high quality education and hands-on training, you'll gain the valuable skills needed now by veterinary hospitals, surgery centers, specialty care providers, zoos, and wildlife facilities.

Prior to the first day of the first quarter, students must be 18 years of age.

PROGRAM OUTCOMES
Graduates of this program will be prepared to:

- Care for animals in a manner that is safe for both animals and humans;
- Promote public health;
- Accept the responsibilities of his/her profession, to provide compassionate, competent, ethical care in a professional, conscientious manner;
- Pursue lifelong learning to advance his/her knowledge of veterinary care;
- Take the Veterinary Technician National Examination (VTNE);
- Take the state exam and fulfill requirements for licensure as a veterinary technician;
- Understand normal anatomy, physiology and behavior of health for the species studied;
- Understand and participate in the process of diagnosis, therapy and prevention of animal disease;
- Understand the profession of veterinary technician including: occupational safety, public health, client and colleague communication, ethics of animal welfare, and the human-animal bond;
- Provide critical thinking skills to reason through clinical situations and take appropriate action;
- Provide social interactive skills to facilitate excellent communication with clients and colleagues;
- Provide psychomotor skills to facilitate quality, efficient diagnostic and therapeutic interventions;
- Provide learning skills and tools to promote learning throughout career and lifetime.

PROGRAM START
- The program will be admitting new students in Fall Quarter 2019.
- Please refer any pre-program questions such as course transfers, observation hour requirements or pre-requisite course requirements to Mark O'Connor, Vet Tech pre-program advisor. Mark can be reached at moconnor@btc.edu. To schedule an in-person meeting please call 360.752.8345.

TESTING REQUIREMENTS

- ACCUPLACER Reading Comprehension score of 85 or B grade in RDG 085.
- ACCUPLACER Sentence Skills score of 86 or B grade in ENGL 092.
- BTC College-Level Math score of 75 or a C grade in MATH 099.

PRE-PROGRAM COURSE REQUIREMENTS

- Students must complete each pre-program course requirement with a C grade (2.0 GPA) or higher.
- English Composition (ENGL& 101)
- Math in Society (MATH& 107) preferred, will accept 107 or higher
- General Psychology (PSYC& 100) or Interpersonal Communications (CMST& 210)
- General Biology with Lab (BIOL& 160)
- Introduction to Chemistry (CHEM& 121) preferred, will accept other courses in the following fields: BIOL, CHEM, OCEA, ZOOL
- Entering students are expected to have basic computer skills necessary to use word processing, email, and the Internet. Students who need to acquire these basic skills should enroll in CAP 101 prior to starting the program.

DEGREE AND CERTIFICATE REQUIREMENTS

Veterinary Technician AAS-T Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for Veterinary courses and minimum grade of C/2.0 for all academic courses.

PROGRAM APPLICATION/FORMS

- Veterinary Technician Application Completion Form
- Veterinary Technician Observation Form
- Veterinary Technician Informed Acknowledgement and Consent to Hazards and Risks
- Criminal History Background Check Notification Form
- Official transcripts documenting prerequisite completion (BTC transcripts can be unofficial)
- Evidence of high school graduation or equivalent (copy of high school diploma, high school transcript, GED certificate, or GED transcript)

Prior to registration for Vet Tech program classes, admitted students must be 18 years of age and submit evidence of the following requirements:

1. Physical exam and recommended immunizations
2. 11-panel drug screen
3. Criminal background check
4. Medical insurance coverage (personal or student coverage).

Students will pay a fee of approximately $119.00 for the background check, drug screen, and tracking of health documents.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER

Veterinary Technician, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1

VETT 101	Veterinary Nursing I	5 CR
VETT 102	Veterinary Anatomy & Physiology I	6 CR
VETT 103	Veterinary Medical Terminology	3 CR
VET 120	Medical Dosages and Calculations	4 CR
VETT 201	Mentorship Lab I	3 CR

QUARTER 2

VETT 104	Veterinary Nutrition I	3 CR
VETT 105	Learning for a Lifetime	2 CR
VETT 106	Microbiology, Virology, & Mycology	3 CR
VETT 107	Small Animal Parasitology	4 CR
VETT 108	Radiology I	5 CR
VETT 202	Mentorship Lab II	3 CR

QUARTER 3

VETT 109	Clinical Laboratory Sciences	5 CR
VETT 110	Veterinary Anatomy & Physiology II	3 CR
VETT 111	Small Animal Medicine I	3 CR
VETT 112	Veterinary Nursing II: Surgical	5 CR
VETT 203	Mentorship Lab III	3 CR

QUARTER 4

VETT 117	Veterinary Nursing III: Large Animal	5 CR
VETT 118	Small Animal Medicine II	3 CR
VETT 119	Advanced Clinical Lab Sciences	4 CR
VETT 120	Anesthesia	5 CR
VETT 204	Mentorship Lab IV	3 CR

QUARTER 5

VETT 113	Immunology & Pharmacology I	3 CR
VETT 114	Dentistry	4 CR
VETT 115	Radiology II	5 CR
VETT 116	Large Animal Medicine	3 CR
VETT 125	Humanity of Veterinary Medicine	2 CR
VETT 205	Mentorship Lab V	3 CR

QUARTER 6

CTE 108	Job Skills	1 CR
VETT 121	Exotic Animal Medicine	3 CR
VETT 122	Veterinary Nutrition II	2 CR
VETT 123	Veterinary Nursing IV: Critical Care	5 CR
VETT 124	Specialty Medicine	3 CR
VETT 126	Pharmacology II	3 CR
VETT 206	Mentorship Lab VI	3 CR

QUARTER 7

VETT 130	Veterinary Clinical Work Experience	12 CR

PRE-PROGRAM

ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR
CHEM& 121	Intro to Chemistry	5 CR
BIOL& 160	General Biology with Lab	5 CR
CMST& 210	Interpersonal Communication	5 CR
OR		
PSYC& 100	General Psychology	5 CR

TOTAL PROGRAM CREDITS:	**157**

Veterinary Assistant Certificate

PROGRAM REQUIREMENTS

QUARTER 1

VETT 101	Veterinary Nursing I	5 CR
VETT 102	Veterinary Anatomy & Physiology I	6 CR
VETT 103	Veterinary Medical Terminology	3 CR
VET 120	Medical Dosages and Calculations	4 CR
VETT 201	Mentorship Lab I	3 CR

QUARTER 2

VETT 104	Veterinary Nutrition I	3 CR
VETT 105	Learning for a Lifetime	2 CR
VETT 106	Microbiology, Virology, & Mycology	3 CR
VETT 107	Small Animal Parasitology	4 CR
VETT 108	Radiology I	5 CR
VETT 202	Mentorship Lab II	3 CR

PRE-PROGRAM

ENGL& 101	English Composition I	5 CR
MATH& 107	Math in Society	5 CR
BIOL& 160	General Biology with Lab	5 CR
CHEM& 121	Intro to Chemistry	5 CR
PSYC& 100	General Psychology	5 CR
OR		
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **66**

WATER AND WASTEWATER TREATMENT

OVERVIEW

Bellingham Technical College's Water and Wastewater Treatment program will train you for top jobs at water and wastewater treatment plants, including positions as water and wastewater treatment operators. WWT operators work to ensure that the safety, environmental and water quality standards for an employer's treatment system are met. Currently, our primary employers in Washington State are municipalities and private contractors who run fresh water and wastewater treatment plants.

The water and wastewater treatment sector of the U.S. economy has 114,770 jobs, with an average of 7,500 positions opening per year. All municipalities are required to meet rigorous fresh water and wastewater treatment standards, and these facilities require highly skilled employees who are trained in advanced treatment methods. BTC's Water and Wastewater Treatment program gives you training in technical skills and interpersonal skills to get you ready for top jobs in the field of water treatment.

PROGRAM OUTCOMES

- Appraise the typical hazards found in water and wastewater treatment plants, basic PPE, and know the requirements of regulating bodies regarding safety, health, and environmental issues (OSHA, DOT, EPA).
- Combine mathematics, chemistry physics theory to apply to process applications such as fluid flow, the nature of heat, chemical reaction, boing points, vapor pressure and electrical currents.
- Recognize typical organizational structures, economics, and quality control systems of the water and wastewater treatment industry.
- Apprise fundamentals of water and wastewater treatment processes; know core functions and principles of operation of typical process equipment such as pumps, compressors, filters and dryers, lubrication systems, valves, piping systems, and draw from memory Process Flow Diagrams.
- Integrate the principles of process automatic control and Data Control Systems (DSC) to manage simulated DCS scenarios.
- Graduates will have the ability to compare actual water and wastewater plant experience versus preconceived notions.

PROGRAM START

This program has rolling admission.

TESTING REQUIREMENTS

These requirements are for the AAS degree.

- ACCUPLACER Algebra score of 75 or MATH 098 with a C or better.
- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- CAP 101 with C grade or higher OR passing scores in the Internet and Computing Core Certification (IC3) test battery or successful completion of Digitools or Tech Connections completed at Whatcom County high schools.

DEGREE AND CERTIFICATE REQUIREMENTS
Water and Wastewater Treatment AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for AMATH 111 course.

ASSOCIATE OF APPLIED SCIENCE

Water and Wastewater Treatment, AAS

PROGRAM REQUIREMENTS

QUARTER 1
PTEC 101	Introduction to Process Technology	5 CR
PTEC 102	Process Technology I (Equipment)	5 CR
AMATH 111	Applied Technical Math	5 CR

QUARTER 2
PTEC 103	Safety, Health & Environment I	5 CR
PTEC 104	Process Drawings	2 CR
AENGL 100	Applied English	5 CR
PTEC 109	Intro to WWT	5 CR

QUARTER 3
PTEC 110	Process Instrumentation	5 CR
BIOL& 160	General Biology with Lab	5 CR
CMST& 210	Interpersonal Communication	5 CR

QUARTER 4
PTEC 203	Safety, Health & Environment II	5 CR
PTEC 211	Troubleshooting	5 CR
PTEC 221	Prelim & Sec WWT Stage 1	5 CR

QUARTER 5
PTEC 222	Solids & Regs WWT Stage 2	5 CR
PTEC 290	Process Technology Practicum/Internship I	5 CR
CHEM& 110	Chemical Concepts w/Lab	5 CR

QUARTER 6
PTEC 223	Water & Adv WWT Stage 3	5 CR
PTEC 291	Process Technology Practicum/Internship II	5 CR
PTEC 224	WWT Test Preparation	3 CR
PHYS& 110	Physics for Non-Science Majors w/Lab	5 CR

TOTAL PROGRAM CREDITS: **95**

CERTIFICATE

Water and Wastewater Treatment, Certificate

PROGRAM REQUIREMENTS

QUARTER 1
PTEC 101	Introduction to Process Technology	5 CR
PTEC 102	Process Technology I (Equipment)	5 CR
AMATH 111	Applied Technical Math	5 CR

QUARTER 2
PTEC 103	Safety, Health & Environment I	5 CR
PTEC 104	Process Drawings	2 CR
PTEC 109	Intro to WWT	5 CR
AENGL 100	Applied English	5 CR

QUARTER 3
PTEC 110	Process Instrumentation	5 CR
PTEC 224	WWT Test Preparation	3 CR
BIOL& 160	General Biology with Lab	5 CR
CMST& 210	Interpersonal Communication	5 CR

TOTAL PROGRAM CREDITS: **50**

WELDING & FABRICATING TECHNOLOGY

OVERVIEW
Any industry that creates goods and structures from metal will rely on skilled welders to create strong products, whether in aerospace, automotive, or construction fields. Turning ideas and materials into valuable products takes highly skilled employees who are trained in such specialized areas as welding technology. BTC's degrees and certificates in the Welding Technology Program are ideal for students with mechanical aptitude or a strong foundation in math, science, and technology.

Prepare for your welding career through BTC's Welding Technology Program. You will get premier job training for skills in high demand by the metal and construction trades for work as a welder, cutter, or welding machine operator. Students choose to specialize in one of two areas: structural steel fabrication or pipe welding.

In our state-of-the-art welding and fabrication facility, you'll learn valuable skills that high-wage employers are looking for. From safety practices and blueprint reading to technical skills like metallurgy, MIG, and TIG welding, BTC's hands-on job training will prepare you for a career in boat manufacturing, steel manufacturing, refining, and transportation, or with federal, state, or local governments.

PROGRAM OUTCOMES
When you successfully complete BTC's Welding Technology Program, you will be fully prepared to:

- Exhibit & 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.

PROGRAM ENTRY INFORMATION
This program typically starts in Fall Quarter.

TESTING REQUIREMENTS

These requirements are for the AAS degree and are lower than those for the AAS-T degree. Please see the AAS-T Entry Page for AAS-T requirements.

- ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better.
- ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.
- ACCUPLACER Arithmetic score of 50 or MATH 090 or ABE 050 with a C or better.

PRE-PROGRAM COURSE REQUIREMENTS

It is highly recommended that students take these courses prior to program entry:

- CMST& 210 Interpersonal Communication
- AENGL 100 Applied English
- AMATH 100 Applied Occupational Math

CERTIFICATE REQUIREMENTS FOR BASIC WELDING SKILLS

Welding Technology - Basic Welding Skills Certificate completion requires a cumulative GPA of 2.0 or greater, and a minimum grade of C-/1.7 for all required program courses.

DEGREE REQUIREMENTS FOR WELDING & FABRICATING TECHNOLOGY: PIPE SPECIALIZATION

Welding Technology - Pipe Welding & Fabricating AAS Degree completion requires a cumulative GPA of 2.0 or greater, and a minimum grade of C-/1.7 for all required program courses. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for all required program courses and minimum grade of C/2.0 for all academic courses.

DEGREE REQUIREMENTS FOR WELDING & FABRICATING TECHNOLOGY: GENERAL

Welding Technology - Welding & Fabricating AAS Degree completion requires a cumulative GPA of 2.0 or greater, and a minimum grade of C-/1.7 for all required program courses. AAS-T Degree requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for all required program courses and minimum grade of C/2.0 for all academic courses.

ASSOCIATE OF APPLIED SCIENCE

Welding & Fabricating Technology: General, AAS

PROGRAM REQUIREMENTS

QUARTER 1

AMATH 100	Applied Occupational Math	5 CR *
WLD 101	Welding Safety	2 CR
WLD 105	Thermal Cutting Processes	4 CR
WLD 110	SMAW I	4 CR
WLD 120	GMAW I	4 CR

QUARTER 2

AENGL 100	Applied English	5 CR *
WLD 106	Print Reading I	2 CR
WLD 130	FCAW I	4 CR
WLD 140	GTAW I	4 CR
WLD 150	Introduction to Metal Fabricating	4 CR

QUARTER 3

CMST& 210	Interpersonal Communication	5 CR*
WLD 121	GMAW Aluminum I	4 CR
WLD 141	GTAW Aluminum I	4 CR
WLD 116	SMAW Practice	2 CR
WLD 131	FCAW Practice	2 CR

QUARTER 4

WLD 206	Print Reading II - Welding & Fabrication	3 CR
WLD 230	FCAW II	3 CR
WLD 242	GTAW & GMAW Alloy	4 CR
WLD 252	Alloy Fabrication	6 CR

QUARTER 5

WLD 213	Print Reading III	3 CR
WLD 232	FCAW Practices II	4 CR
WLD 254	Steel Fabrication	5 CR
WLD 220	SMAW Test Practice II	4 CR

QUARTER 6

WLD 209	Codes & Standards	3 CR
WLD 271	Welder Testing	6 CR
Welding Elective		6 CR

ELECTIVES

AAS students are required to take 6 Elective Credits

WLD 291	Capstone Project I	3 CR
WLD 292	Capstone Project II	6 CR
WLD 293	Welding Internship I	3 CR
WLD 294	Welding Internship II	6 CR

NON-PROGRAM CLASSES

WLD 281	Welding Upgrade 20hr	1 CR
WLD 282	Welding Upgrade 50hr	2 CR
WLD 283	Welding Upgrade 70hr	3 CR

TOTAL PROGRAM CREDITS: **102**

    * Minimum requirement.

Welding & Fabricating Technology: Pipe Specialization, AAS

PROGRAM REQUIREMENTS

QUARTER 1
AMATH 100	Applied Occupational Math	5 CR *
WLD 101	Welding Safety	2 CR
WLD 105	Thermal Cutting Processes	4 CR
WLD 110	SMAW I	4 CR
WLD 120	GMAW I	4 CR

QUARTER 2
AENGL 100	Applied English	5 CR *
WLD 106	Print Reading I	2 CR
WLD 130	FCAW I	4 CR
WLD 140	GTAW I	4 CR
WLD 150	Introduction to Metal Fabricating	4 CR

QUARTER 3
CMST& 210	Interpersonal Communication	5 CR *
WLD 121	GMAW Aluminum I	4 CR
WLD 141	GTAW Aluminum I	4 CR
WLD 116	SMAW Practice	2 CR
WLD 131	FCAW Practice	2 CR

QUARTER 4
WLD 210	SMAW II	6 CR
WLD 211	SMAW III	6 CR

QUARTER 5
WLD 205	Print Reading II - Pipe	3 CR
WLD 215	SMAW Pipe	6 CR
WLD 256	Pipe Fabrication I	6 CR

QUARTER 6
WLD 213	Print Reading III	3 CR
WLD 257	Pipe Fabrication II	5 CR
WLD 262	GTAW Pipe Welding	4 CR
WLD 230	FCAW II	3 CR

QUARTER 7
WLD 209	Codes & Standards	3 CR
WLD 271	Welder Testing	6 CR
Welding Elective		6 CR

ELECTIVES
AAS students are required to take 6 Elective Credits

WLD 293	Welding Internship I	3 CR
WLD 294	Welding Internship II	6 CR
WLD 295	Pipe Capstone Project I	3 CR
WLD 296	Pipe Capstone Project II	6 CR

NON-PROGRAM CLASSES
WLD 281	Welding Upgrade 20hr	1 CR
WLD 282	Welding Upgrade 50hr	2 CR
WLD 283	Welding Upgrade 70hr	3 CR

TOTAL PROGRAM CREDITS: **112**
 * Minimum requirement.

ASSOCIATE OF APPLIED SCIENCE - TRANSFER
Welding & Fabricating Technology: General, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
MATH& 107	Math in Society	5 CR *
WLD 101	Welding Safety	2 CR
WLD 105	Thermal Cutting Processes	4 CR
WLD 110	SMAW I	4 CR
WLD 120	GMAW I	4 CR

QUARTER 2
ENGL& 101	English Composition I	5 CR *
WLD 106	Print Reading I	2 CR
WLD 130	FCAW I	4 CR
WLD 140	GTAW I	4 CR
WLD 150	Introduction to Metal Fabricating	4 CR

QUARTER 3
PSYC& 100	General Psychology	5 CR *
WLD 121	GMAW Aluminum I	4 CR
WLD 141	GTAW Aluminum I	4 CR
WLD 116	SMAW Practice	2 CR
WLD 131	FCAW Practice	2 CR

QUARTER 4
Humanities, Social Science, or Natural Science		5 CR
WLD 206	Print Reading II - Welding & Fabrication	3 CR
WLD 230	FCAW II	3 CR
WLD 242	GTAW & GMAW Alloy	4 CR
WLD 252	Alloy Fabrication	6 CR

QUARTER 5
WLD 213	Print Reading III	3 CR
WLD 232	FCAW Practices II	4 CR
WLD 254	Steel Fabrication	5 CR
WLD 220	SMAW Test Practice II	4 CR

QUARTER 6
WLD 209	Codes & Standards	3 CR
WLD 271	Welder Testing	6 CR
Welding Elective		6 CR

ELECTIVES
AAS-T students are required to take 6 Elective Credits

WLD 291	Capstone Project I	3 CR
WLD 292	Capstone Project II	6 CR
WLD 293	Welding Internship I	3 CR
WLD 294	Welding Internship II	6 CR

NON-PROGRAM CLASSES
WLD 281	Welding Upgrade 20hr	1 CR
WLD 282	Welding Upgrade 50hr	2 CR
WLD 283	Welding Upgrade 70hr	3 CR

TOTAL PROGRAM CREDITS: **107**
 * Minimum requirement.

Welding & Fabricating Technology: Pipe Specialization, AAS-T

PROGRAM REQUIREMENTS

QUARTER 1
MATH& 107	Math in Society	5 CR *
WLD 101	Welding Safety	2 CR
WLD 105	Thermal Cutting Processes	4 CR
WLD 110	SMAW I	4 CR
WLD 120	GMAW I	4 CR

QUARTER 2
ENGL& 101	English Composition I	5 CR *
WLD 106	Print Reading I	2 CR
WLD 130	FCAW I	4 CR
WLD 140	GTAW I	4 CR
WLD 150	Introduction to Metal Fabricating	4 CR

QUARTER 3
PSYC& 100	General Psychology	5 CR *
WLD 121	GMAW Aluminum I	4 CR
WLD 141	GTAW Aluminum I	4 CR
WLD 116	SMAW Practice	2 CR
WLD 131	FCAW Practice	2 CR

QUARTER 4
Humanities, Social Science, or Natural Science		5 CR
WLD 210	SMAW II	6 CR
WLD 211	SMAW III	6 CR

QUARTER 5
WLD 205	Print Reading II - Pipe	3 CR
WLD 215	SMAW Pipe	6 CR
WLD 256	Pipe Fabrication I	6 CR

QUARTER 6
WLD 213	Print Reading III	3 CR
WLD 257	Pipe Fabrication II	5 CR
WLD 262	GTAW Pipe Welding	4 CR
WLD 230	FCAW II	3 CR

QUARTER 7
WLD 209	Codes & Standards	3 CR
WLD 271	Welder Testing	6 CR
Welding Elective		6 CR

ELECTIVES

AAS-T students please see program advisor for quarter electives

WLD 293	Welding Internship I	3 CR
WLD 294	Welding Internship II	6 CR
WLD 295	Pipe Capstone Project I	3 CR
WLD 296	Pipe Capstone Project II	6 CR

NON-PROGRAM CLASSES
WLD 281	Welding Upgrade 20hr	1 CR
WLD 282	Welding Upgrade 50hr	2 CR
WLD 283	Welding Upgrade 70hr	3 CR

TOTAL PROGRAM CREDITS: **117**

    * Minimum requirement.

CERTIFICATE
Basic Welding Skills Certificate

PROGRAM REQUIREMENTS

QUARTER 1
AMATH 100	Applied Occupational Math	5 CR *
WLD 101	Welding Safety	2 CR
WLD 105	Thermal Cutting Processes	4 CR
WLD 110	SMAW I	4 CR
WLD 120	GMAW I	4 CR

QUARTER 2
AENGL 100	Applied English	5 CR *
WLD 106	Print Reading I	2 CR
WLD 130	FCAW I	4 CR
WLD 140	GTAW I	4 CR
WLD 150	Introduction to Metal Fabricating	4 CR

QUARTER 3
CMST& 210	Interpersonal Communication	5 CR *
WLD 121	GMAW Aluminum I	4 CR
WLD 141	GTAW Aluminum I	4 CR
WLD 116	SMAW Practice	2 CR
WLD 131	FCAW Practice	2 CR

TOTAL PROGRAM CREDITS: **55**

    * Minimum requirement.

COURSE DESCRIPTIONS

6

ACCOUNTING

ACCT 141
PRACTICAL ACCOUNTING I   **5 CR**
Covers the accounting cycle through a study of sole proprietorship and the use of accounts, the general journal, and the general ledger.

Prerequisite(s): ACCUPLACER Scores: 71 Reading, 50 Arithmetic, or Instructor permission.

ACCT& 201
PRINCIPLES OF ACCOUNTING I   **5 CR**
This course is the first of a series of three accounting courses in the Business DTA sequence. It provides an introduction to financial accounting as an essential part of business decision-making. It includes the vocabulary and fundamental concepts of accounting as well as analysis of common business activities and interpretation primary financial statements.

Prerequisite(s): ACCUPLACER Score: 75 in Algebra or a grade of C or higher in MATH 098; or Instructor permission.

ACCT& 202
PRINCIPLES OF ACCOUNTING II   **5 CR**
This is the second of a series of three accounting courses in the Business DTA sequence and is a continuation of ACCT& 201. The emphasis of this class is on fixed assets, intangibles, investments and financing, stockholder's equity, cash flow analysis and financial statement analysis.

Prerequisite(s): ACCT& 201 with a C or higher; or Instructor permission.

ACCT& 203
PRINCIPLES OF ACCOUNTING III   **5 CR**
This is the third course of the series of three accounting courses in the Business DTA sequence and is also a required course for the Accounting AAS and AAS-T degree students. This course 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. This 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.

Prerequisite(s): ACCT& 202 or ACCT 243 with a C or better or Instructor permission.

ACCT 242
PRACTICAL ACCOUNTING II   **5 CR**
This course is the second in the series of three accounting courses. Course work focuses on learning bookkeeping procedures for a merchandising business as well as accounting for valuation of receivables, inventory, and plant and equipment.

Prerequisite(s): ACCT 141 with a C or better or Instructor permission.

ACCT 243
PRACTICAL ACCOUNTING III   **5 CR**
This course is the third in a series of three accounting courses. Course work focuses on learning bookkeeping procedures for partnerships and corporations, how to prepare the statement of cash flows and financial statement analysis.

Prerequisite(s): ACCT 242 with a C or better or Instructor permission.

ACCT 245
PAYROLL PROCEDURES   **5 CR**
Covers payroll records and procedures. Students complete assignments about federal and state laws that affect compensation of employees.

Prerequisite(s): ACCT 141 or Instructor permission.

ACCT 246
COMPUTERIZED ACCOUNTING   **5 CR**
A comprehensive 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. Topics include creating a chart of accounts, recording customer and vendor transactions, processing payroll, and printing reports. In addition, establishing a new company is covered as well as the advanced topic of exporting to Excel software.

Prerequisite(s): ACCT 141 or Instructor permission. It is highly recommended that ACCT 242 - Practical Accounting II be taken either prior to taking ACCT 246 or taken concurrently with ACCT 246.

ACCT 275
FIELD-BASED EXPERIENCE   **5–7 CR**
Students will arrange to work in a college approved professional setting where they will apply business and accounting knowledge and skills in a variety of accounting related activities.

Prerequisite(s): Instructor permission.

AUTO COLLISION REPAIR

CRT 101
INTRODUCTION TO SHOP SAFETY   **3 CR**
Students will learn the essentials of shop safety and how to perform tasks in an auto collision repair facility safely without endangering themselves or others.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better or Instructor permission.

Completion Of or Concurrent Enrollment In: CRT 102 with a C- or better and CRT103 with a C- or better, or concurrent enrollment in CRT 102 and CRT103 or Instructor permission.

Note: This class must be taken concurrently with CRT 102 and CRT 103.

CRT 102
AUTOMOTIVE REFINISHING BASICS   **10 CR**
Learn the essentials of prepping, masking and refinishing with HVLP or compliant refinish equipment to return a surface to pre-accident appearance. Surfaces refinished consist of all materials used to build modern day vehicles including, and not limited to, ferrous and non-ferrous metals, as well as most types of composites and plastics. A strong emphasis on refinish equipment maintenance will also be covered in this course. Students will study the proper procedures of mixing undercoats and top coats to achieve the correct perceived color match.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better or Instructor permission.

Completion Of or Concurrent Enrollment In: CRT 101 with a C- or better and CRT 103 with a C- or better or concurrent enrollment in CRT 101 and CRT 103 or Instructor permission.

Note: This class must be taken concurrently with CRT 101 and CRT 103.

CRT 103
NEW TECHNOLOGY AND EXTERIOR TRIM   **3 CR**
This course will provide instruction on how to properly remove and install various interior and exterior trim to industry standards, using specialty tools specifically designed for that task. Students will also use multiple computer-based programs to look-up procedures for removing and installing interior and exterior trim without causing damage to the surrounding area or part. This course will also introduce new technology used in the newly released vehicles from a variety of manufacturers.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or

better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better or Instructor permission.

Completion Of or Concurrent Enrollment In: CRT 101 with a C- or better and CRT 102 with a C- or better or concurrent enrollment in CRT 101 and CRT 102 or Instructor permission.

Note: This class must be taken concurrently with CRT 101 and CRT 102.

CRT 121
REMOVABLE PANELS & GLASS   3 CR
In this course, students will learn how to remove and install various types of automotive exterior bolt on panels and glass to industry standards. This course has a high emphasis on matching panel gaps and fitment to duplicate the appearance of pre-accident condition to complete a quality, undetectable repair.

Prerequisite(s): CRT 101 with a C- or better or Instructor permission.

Corequisite(s): CRT 122 and CRT 123.

CRT 122
NON-STRUCTURAL BODY REPAIR   8 CR
In this course students will learn how to asses and repair various types of non-structural damage to ferrous and non-ferrous vehicle exterior panels using a multitude of tools and techniques best suited for the repair needing to be performed.

Prerequisite(s): CRT 101 with a C- or better or Instructor permission.

Corequisite(s): CRT 121 and CRT 123.

CRT 123
**AUTO COLLISION EXTERIOR
LIGHTING AND PLASTICS   4 CR**
This course covers the repairs of plastics and compounds used in the collision repair field. Part of this course will also focus on the diagnosis and repair of lighting systems commonly damaged in a collision.

Prerequisite(s): CRT 101 with a C- or better or Instructor permission.

Corequisite(s): CRT 121 and CRT 122.

CRT 131
**FERROUS AUTO
COLLISION WELDING   4 CR**
This course covers Metal Inert Gas (MIG) welding of ferrous 10g to 22g metals for the auto collision industry, including assembly and disassembly of the major components of a GMAW welder. Students will also learn how to troubleshoot welder malfunctions and welding defects to produce a quality weld.

Prerequisite(s): CRT 101 with a C- or better or Instructor permission.

Corequisite(s): CRT 132 and CRT 133.

CRT 132
**NON-FERROUS AUTO
COLLISION WELDING   5 CR**
This course covers Metal Inert gas (MIG) welding of non-ferrous 1mm to 2.5mm aluminum for the auto collision industry, including assembly and disassembly of the major components of a GMAW welder. Students will also learn how to troubleshoot welder malfunctions and welding defects to produce a quality weld.

Prerequisite(s): CRT 101 with a C- or better or Instructor permission.

Corequisite(s): CRT 131 and CRT 133.

CRT 133
**ALTERNATIVE EXTERIOR
PANEL REPLACEMENT   4 CR**
This course introduces the various types of exterior panel materials used in the automotive industry to improve vehicle strength while reducing weight. Students will learn multiple repair and attachment methods to maintain the integrity of the vehicle without compromising strength or increasing weight.

Prerequisite(s): CRT 101 with a C- or better or Instructor permission.

Corequisite(s): CRT 131 and CRT 132.

CRT 201
**ADVANCED COLLISION
CONCEPTS I   5 CR**
This course introduces the inspection and diagnosis process of the auto collision industry. Students will learn how to identify hidden damages to structural components of a vehicle involved in a major collision, identify prior damage and repairs, diagnose body control modules and repair the associated circuits.

Prerequisite(s): CRT 101, CRT 102, CRT 103, CRT 121, CRT 122, CRT 123, CRT 131, CRT 132 and CRT 133 all with a C- or better or Instructor permission.

Corequisite(s): CRT 202 and CRT 203.

CRT 202
ADMIN INDUSTRY SIMULATION   6 CR
This course will focus on the administrative workflow of the auto collision repair industry. Students will learn how to create accurate estimates, estimate supplements, parts lists, and develop customer service and communication skills.

Prerequisite(s): CRT 101, CRT 102, CRT 103, CRT 121, CRT 122, CRT 123, CRT 131, CRT 132 and CRT 133 all with a C- or better or Instructor permission.

Corequisite(s): CRT 201 and CRT 203.

CRT 203
**NON-STRUCTURAL INDUSTRY
SIMULATION   6 CR**
This course simulates an auto collision shop environment. Students will apply the knowledge, skills and abilities acquired during the first year of the program to make non-structural repairs to a vehicle in the time allotted by an estimating program.

Prerequisite(s): CRT 101, CRT 102, CRT 103, CRT 121, CRT 122, CRT 123, CRT 131, CRT 132 and CRT 133 all with a C- or better or Instructor permission.

Corequisite(s): CRT 201 and CRT 202.

CRT 221
**ADVANCED COLLISION
CONCEPTS II   5 CR**
This course focuses on advanced safety related components ranging from the vehicle structure to the safety restraint system.

Prerequisite(s): CRT 101 and CRT 102 and CRT 103 and CRT 121 and CRT 122 and CRT 123 and CRT 131 and CRT 132 and CRT 133 all with a C- or better or Instructor permission.

Corequisite(s): CRT 222 and CRT 223.

CRT 222
**STRUCTURAL INDUSTRY
SIMULATION   6 CR**
This course simulates an auto collision shop environment. Students will apply the knowledge, skills and abilities acquired during the first year of the program to make structural adjustments to a vehicle that is not within its factory build tolerances.   Students will repair the damaged components in the time allotted by an estimating program.

Prerequisite(s): CRT 101, CRT 102, CRT 103, CRT 121, CRT 122, CRT 123, CRT 131, CRT 132 and CRT 133 all with a C- or better or Instructor permission.

Corequisite(s): CRT 221 and CRT 223.

CRT 223
REFINISH INDUSTRY SIMULATION   6 CR
This course focuses on advanced refinishing techniques including color tinting, color blends and increasing productivity in the refinishing process.

Prerequisite(s): CRT 101, CRT 102, CRT 103, CRT 121, CRT 122, CRT 123, CRT 131, CRT 132 and CRT 133 all with a C- or better or Instructor permission.

Corequisite(s): CRT 221 and CRT 222.

CRT 231
FINAL INDUSTRY CERTIFICATION   2 CR
This course is a final review of non-structural body and refinishing core program content. Students will achieve I-CAR Level One certification in non-structural body and refinish roles.

Prerequisite(s): All first-year program classes with a C- or better and CRT 201, CRT 202, CRT 203, CRT 221, CRT 222 and CRT 223 all with a C- or better, or Instructor permission.

CRT 232
WELD CERTIFICATION ALUMINUM 3 CR
This course prepares students to obtain the I-CAR aluminum welding certification; this is a pass or fail course.

Prerequisite(s): All first-year program classes with a C- or better and CRT 201, CRT 202, CRT 203, CRT 221, CRT 222 and CRT 223 all with a C- or better, or Instructor permission.

CRT 233
WELD CERTIFICATION STEEL   3 CR
This course prepares students to obtain the I-CAR steel welding certification; this is a pass or fail course.

Prerequisite(s): All first-year program classes with a C- or better and CRT 201, CRT 202, CRT 203, CRT 221, CRT 222 and CRT 223 all with a C- or better, or Instructor permission.

CRT 234
FIELD-BASED EXPERIENCE   7 CR
This course provides industry training at a functioning repair facility approved by the instructor. Students will apply the skills learned in the program to a specific area of the industry.

Prerequisite(s): Instructor permission.

AUTOMOTIVE

AUTO 104
ENGINES LIGHT MECHANICAL   7 CR
An introductory look at the 4 stoke gasoline engine followed by in depth study and practice of industry standard minor engine service procedures including gasketing and sealing. This course will also cover theory, diagnosis and repairs to the cooling and lubrication systems.

Prerequisite(s): TRANS 103 .

AUTO 105
ENGINES MAJOR MECHANICAL   5 CR
An in depth practice of diagnostic methods relating to mechanical component failures within the engine such as power balance testing, compression and leak down testing. This course will center on a thorough exploration of internal engine components, measurements and major repairs to those components.

Prerequisite(s): TRANS 103.

AUTO 106
APPLIED ENGINES TECHNOLOGY   6 CR
This lab-based course will cover diagnosis and repairs to the cooling system, lubrication system and all major mechanical systems relating to the engine. This course will serve to apply theories learned in other engine related coursework.

AUTO 107
BRAKES   6 CR
Students will be introduced to the theory and operation of vehicle braking systems. Students will demonstrate the understanding of these systems. Students will then diagnose and perform the needed repairs to the brake and anti-lock brake system on customer vehicles.

Prerequisite(s): TRANS 103.

AUTO 113
HVAC   4 CR
Students will be introduced to the operation of a heating, circulation and air conditioning systems. Students will demonstrate the understanding of these systems. Students will then diagnose and perform the needed repairs to the vehicle HVAC systems on customer vehicles.

Prerequisite(s): TRANS 103.

AUTO 122
BASIC DRIVE TRAIN   4 CR
Students will be introduced to the operation of vehicle drive train systems. Students will demonstrate the understanding of these systems. Students will then diagnose and perform the needed repairs to the drive train system on customer vehicles.

Prerequisite(s): TRANS 103.

AUTO 151
ELECTRICITY/ELECTRONICS   2 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.

Prerequisite(s): TRANS 103.

AUTO 161
STEERING AND SUSPENSION   6 CR
Students will be introduced to the operation of a vehicles steering and suspension system. Students will demonstrate the understanding of these systems. Students will then diagnose and perform the needed repairs to the steering and suspension system on customer vehicles.

Prerequisite(s): TRANS 103.

AUTO 219
FIELD-BASED EXPERIENCE I   12 CR
This is the first in a series of four internships for the program. Students interview for, obtain and maintain an internship experience at an automotive repair (or related industry) business. The student is normally working under the direct supervision of an experienced, journeyman-level technician. The student will report weekly via a blog post that includes personal reflection. The internship site is a real-world extension of the classroom and the student will be able to apply knowledge gained previously in the program to an actual workplace environment. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

Prerequisite(s): All General Education (Related Instruction) courses required by degree and Instructor permission.

AUTO 229
FIELD-BASED EXPERIENCE II   5 CR
This is the second in a series of internships required by the program and builds on the industry skills and experiences acquired in the first internship (AUTO 219). Students interview for, obtain and maintain an internship experience at an automotive repair (or related industry) business. The student is normally working under the direct supervision of an experienced, journeyman-level technician. The student will report weekly via a blog post that includes personal reflection. The internship site is a real-world extension of the classroom and the student will be able to apply knowledge gained previously in the program to an actual workplace environment. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

Prerequisite(s): Instructor permission.

AUTO 250
**AUTOMATIC TRANSMISSIONS/
TRANSAXLES   7 CR**
This course will focus on theory, description and operation of automatic drive systems. This will include diagnosis and trouble-shooting hydraulic, electrical/electronic controls and mechanical systems and practicing proper R&R techniques.

Prerequisite(s): AUTO 122, AUTO 265, AENGL 100, CMST& 210, and AMATH 100.

AUTO 255
ELECTRICITY/ELECTRONICS 2   7 CR
An introduction to a variety of electronic systems found on a modern vehicle. AUTO 255 provides an in-depth study of starting & charging systems. This course will also cover body and chassis control systems such as ABS, body computers, low tire pressure warning and airbags. Extensive troubleshooting practice by the application of industry standard troubleshooting techniques will be provided.

Prerequisite(s): AUTO 151, AENGL 100, CMST& 210, and AMATH 100.

AUTO 259
FIELD-BASED EXPERIENCE III   5 CR
This is the third in a series of internships required by the program and builds on the industry skills and experience acquired in the first two internships. Students also continue to expand their classroom experience by applying skills learned in previous quarters to this internship. Students interview for, obtain and maintain an internship experience at an automotive repair (or related industry) business. The student is normally working under the direct supervision of an experienced, journeyman-level technician. The student will report weekly via a blog post that includes personal reflection. The internship site is a real-world extension of the classroom and the student will be able to apply knowledge gained previously in the program to an actual workplace environment. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

Prerequisite(s): Instructor permission.

AUTO 260
**MANUAL TRANSMISSION/
TRANSAXLE   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.

Prerequisite(s): AUTO 122, AENGL 100, CMST& 210, and AMATH 100.

AUTO 265
ENGINE PERFORMANCE 2   3 CR
AUTO 265 will cover computerized engine management systems including OBD2 and diagnostic trouble code interpretation. This course will also cover vehicle computer networks including typical topologies and troubleshooting techniques.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100.

Corequisite(s): AUTO 255.

AUTO 275
ENGINE PERFORMANCE 3   11 CR
This course will offer instruction in the operation, diagnosis and repair of fuel systems, ignition systems and emission control systems. 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.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100 all with a D or better.

AUTO 279
FIELD-BASED EXPERIENCE IV   5 CR
This is the fourth in a series of internships required by the program and builds on the industry skills and experience acquired in the other three internships. Students also continue to expand their classroom experience by applying skills learned in previous quarters to this internship. Students interview for, obtain and maintain an internship experience at an automotive repair (or related industry) business. The student is normally working under the direct supervision of an experienced, journeyman-level technician. The student will report weekly via a blog post that includes personal reflection. The internship site is a real-world extension of the classroom and the student will be able to apply knowledge gained previously in the program to an actual workplace environment. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

Prerequisite(s): Instructor permission.

AUTO 291
SHOP PRACTICUM 1   8 CR
Students will work in the automotive lab on various projects as assigned, under the direct instruction of the instructor and shop manager. This is a self-paced course, allowing students to apply the fundamental principles and competencies in the coursework up to and including the current quarter of enrollment. The lab will attempt to duplicate a working shop environment including all aspects of industry employability. This course is taken in lieu of an off-campus internship.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100.

AUTO 292
SHOP PRACTICUM 2   8 CR
Students will work in the automotive lab on various projects as assigned, under the direct instruction of the instructor and shop manager. This is a self-paced course, allowing students to apply the fundamental principles and competencies in the coursework up to and including the current quarter of enrollment. The lab will attempt to duplicate a working shop environment including all aspects of industry employability. This course is taken in lieu of an off-campus internship.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100.

AUTO 293
SHOP PRACTICUM 3   8 CR
Students will work in the automotive lab on various projects as assigned, under the direct instruction of the instructor and shop manager. This is a self-paced course, allowing students to apply the fundamental principles and competencies in the coursework up to and including the current quarter of enrollment. The lab will attempt to duplicate a working shop environment including all aspects of industry employability. This course is taken in lieu of an off-campus internship.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100.

BIOLOGY

BIO 105
**ESSENTIALS OF ANATOMY
AND PHYSIOLOGY   5 CR**
The student will develop a basic knowledge of the structure and function of the various body systems. The course emphasizes the essential structure and function of the normal human body, which will serve as a foundation of general understanding for future study in health occupations. Integration of each system to other systems and the whole organism as well as application of key concepts to health and disease are emphasized.

Prerequisite(s): ACCUPLACER Reading Comprehension and Sentence Skills score of 71 or higher.

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.

Corequisite(s): BIO 105 (or BIOL& 241 and BIOL& 242) and HT 126.

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.

Prerequisite(s): RT 103 for BTC Radiologic Technology Program Students. ARRT Registered Radiographers may also take this class with permission from the Radiologic Technology Coordinator.

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.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 85 or RDG 085 with a B or better, and ACCUPLACER Sentence Skills score of 86 or ENGL 092 with a B or better or AENGL 100 with a C or better and ACCUPLACER Algebra score of 75 or MATH 098 with a C or better.

BIOL& 241
HUMAN A & P 1 **5 CR**
This course emphasizes understanding of the normal human, which will serve as a foundation of general understanding as well 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 is emphasized. BIOL& 241 includes anatomy survey; tissues; and integumentary, skeletal, muscular, nervous, and endocrine systems.

Prerequisite(s): BIOL& 160 and CHEM& 121 with a C or better.

BIOL& 242
HUMAN A & P 2 **5 CR**
This course emphasizes understanding of the normal human, which will serve as a foundation of general understanding as well 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 is emphasized. BIOL& 242 includes circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems.

Prerequisite(s): BIOL& 241 with a C or better.

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.

Prerequisite(s): BIOL& 160 and CHEM& 121 with a C or better.

BUSINESS

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.

Prerequisite(s): ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better; or Instructor permission.

BUS& 101
INTRODUCTION TO BUSINESS **5 CR**
Students are introduced to the broad field of business and its organization, operation and management. Business opportunities, ownership, marketing, physical factors, human resource, finance, regulations and decision-making processes are emphasized. Other topics include problems of organization, strategic management and controls. Fulfills the social science requirements at Bellingham Technical College.

Prerequisite(s): Recommended experience in Word processing, spreadsheets, and presentation software.

BUS 120
PRINCIPLES OF MARKETING **5 CR**
This course explores the basic principles of marketing and its role in business. Topics include marketing plans and strategies, marketing research, target market segments and promotional strategies.

Prerequisite(s): BUS& 101 with a C or better or Instructor permission.

BUS 123
RECORDS MANAGEMENT **3 CR**
Introduces students to basic terminology and the scope of records and information management, employment opportunities, and legal and ethical matters associated with records. The life cycle of non-electronic and electronic records are surveyed from creation to retention and destruction.

BUS 127
SOCIAL MEDIA MARKETING **5 CR**
This course provides an introduction to social media marketing (SMM). Special emphasis is placed on creating a social media marketing plan which uses social media platforms to positively influence consumers toward a brand, product, or service. Explore and practice managing social networks like Facebook, Twitter, LinkedIn, Tumblr as well as emerging platforms.

Prerequisite(s): Basic understanding of web technologies and marketing concepts is expected.

BUS 128
SEARCH ENGINE MARKETING **5 CR**
Search Engine Marketing is the process of promoting a website, product or company through both search engine optimization and search advertising. This course examines ways to improve traffic to the web site by improving the ranking in search engine results and paid advertising. Become familiar with different types of marketing data and learn to combine them to answer business questions. Develop a measurement plan for a marketing campaign, and learn to set up the plan so it generates actionable data.

Prerequisite(s): Basic understanding of web technologies and marketing concepts is expected.

BUS 129
SOCIAL MEDIA MARKETING CAMPAIGN **5 CR**
Students will complete a social media marketing campaign for an organization. By identifying the organizations target market and the social media portals where the organization participates. Students will learn to set measurable goals; design innovative strategies and select appropriate social media portals, craft compelling content to attract and influence the intended audience, monitor and measure progress on a regular basis, and tune the social media marketing campaign to account for the ever changing nature of consumer tastes and the social web.

Prerequisite(s): Basic understanding of web technologies and marketing concepts is expected.

BUS 137
INTRODUCTION TO HUMAN RESOURCES **5 CR**
Students will be introduced to the field of Human Resources, the roles and impact of Human Resources in the organization, and the principles underlying effective Human Resources. The class will provide an overview of the major functions of the HR field, common acronyms, HR professional certifications and the competencies required of HR professionals to be successful.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

BUS 138
INTRODUCTION TO COMPENSATION & BENEFITS **5 CR**
This course provides an introduction to the total rewards system and describes common employment compensation practices. Students will explore the primary forms of cash and non-cash compensation, the development of compensation strategy and evaluate the use of compensation and benefits in supporting the organization's goals and objectives.

Prerequisite(s): ACCUPLACER Reading Comprehension of 71 or RDG 085 with a C or better and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

BUS 139
INTRODUCTION TO EMPLOYMENT LAW & LABOR RELATIONS   5 CR

This course examines the major federal and Washington state employment laws. Students will learn the fundamentals of federal employment laws, including FMLA, FLSA, OSHA, WARN Act, and Title VII of the Civil Rights Act of 1964. This course will also provide an overview of Washington state employment laws and regulations, such as unlawful discrimination, wage and hour regulations, and workplace safety. This course will also provide an overview of employee and labor relations, including the rights and responsibilities of employees, employers, and the collective bargaining process.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

BUS 150
MATH FOR BUSINESS   5 CR

Students will apply math concepts to business applications in the areas of banking, business statistics, markup/markdown, payroll, debt, credit cards, investments, and insurance. It is recommended that students have a calculator with the exponent function.

Prerequisite(s): ACCUPLACER Arithmetic score of 50 or MATH 090 with a C or better; or Instructor permission.

BUS 152
INTRODUCTION TO OPERATIONS MANAGEMENT   5 CR

This course provides students with concepts, techniques and tools to design, analyze, and improve core operational capabilities, and apply them to a broad range of application domains and industries. It emphasizes the effect of uncertainty in decision-making, as well as the interplay between high-level financial objectives and operational capabilities. Topics covered include production control, risk pooling, quality management, process design, and revenue management.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

BUS 153
INTRODUCTION TO LEAN MANAGEMENT   5 CR

This course offers a practical introduction to lean management principles and techniques. Students will learn how to implement lean management techniques in a business environment to improve productivity, business resilience and to reduce waste.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

BUS 171
TECHNICAL COMMUNICATIONS   5 CR

This course introduces students to effective written and oral business communication. Students will learn to compose effective business writings including letters, memos, technical descriptions and procedures, reports, and employment documents. Students will learn effective oral presentation and job interviewing skills. Students will use various forms of technology including email, online file sharing and live web conferencing. Students will need access to web cam and audio. It is recommended that BUS 188 (Business English) and CAP106 (Formatting with MS Word) be taken before BUS 171 (Technical Communications). NOTE: When this course is taught online, students will be expected to participate in two synchronous web conferences.

Prerequisite(s): ACCUPLACER scores: 71 Reading or a C or better in RDG 085; 71 Sentence Skills or a C or better in ENGL 092; CAP 101 with a C or better and CAP 105 with a C or better.

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. Specific tools include proofreading, parts of speech, sentence structure, capitalization, abbreviation, number usage, punctuation, and word choice. It is recommended that BUS 188 (Business English) be taken before BUS 171 Technical Communications.

Prerequisite(s): ACCUPLACER Scores: 71 Reading or a C grade in RDG 085, 71 Sentence Skills or a C grade in ENGL 092; or Instructor permission.

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.

Prerequisite(s): 71 Reading ACCUPLACER score.

BUS 230
MEDICAL OFFICE PROCEDURES   5 CR

Medical Office Procedures is an introduction to healthcare administration. This course gives students transferable skills that will aid them in attaining employment within healthcare, as well as a global understanding of the differences within the various healthcare systems. A strong emphasis will be placed on interpersonal skills, appropriate communication and customer service skills when working in a diverse office team environment. The student will learn the duties in the medical office, computerized medical office procedures as well as exercises in judgment, independent action, and coping with interruptions. In addition to computerized appointment scheduling and billing, students learn about the major insurances with ICD and CPT coding. This course is designed to give an overview of the various areas within healthcare administration that most healthcare professionals will be expected to understand and know when seeking a job. Although healthcare operations may vary, a basic level of understanding in administration is vital for all healthcare professionals. (Note: this course meets the communications general education requirement for the medical coding and billing generalist program only).

Prerequisite(s): ACCUPLACER Reading Comprehension and Sentence Skills score of 71 or higher.

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. The 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.

Prerequisite(s): CAP 106.

BUS 276
FIELD-BASED EXPERIENCE   5 CR

Students will arrange to work in a college approved professional office setting where they will apply business skills and knowledge in an administrative support capacity.

Prerequisite(s): Instructor permission.

BUS 285
ORGANIZATIONAL BEHAVIOR   5 CR

This course integrates the study of management principles and practices with the study of human behavior within organizations. The course will examine the contemporary principles, techniques and research findings in management and organizational behavior that are driving high performance and continuous improvement in business today.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

BUS 310
PROJECT MANAGEMENT   5 CR

Coordination of projects involving multiple tasks and resources, and the resolution of the conflicts that arise is a critical skill in business. This course teaches students some of the techniques necessary to develop realistic and comprehensive project plans; identify risk areas; monitor the plans; and deal with problems. The course will also cover management of the procurement process, and communication with project stakeholders. The course includes the use of Microsoft Project to develop and manage project plans.

Prerequisite(s): Admission to the BASOPS program.

CERTIFIED PRODUCTION TECHNICIAN

CPT 101
SAFETY IN MANUFACTURING PRODUCTION   3 CR
It is important to be safe while you work. This course provides you with an overview of the Occupational Safety and Health Administration General Industry training topics. The course is intended to provide entry level general industry workers a broad awareness on recognizing and preventing hazards in a general industrial setting. The training covers a variety of safety and health hazards that workers may encounter at a general industry site.

CPT 102
QUALITY PRACTICES AND MEASUREMENTS   3 CR
In order to meet a customer's needs, quality consistent products must be produced. This is accomplished through the knowledge of the equipment operator. Each machine operator determines both the quality and quantity of production from his/her equipment. In this course you will learn basic Quality Practices and Measurements that will enable you to produce high quality products.

Prerequisite(s): CPT 101 Safety in Manufacturing Production.

CPT 103
MANUFACTURING PROCESSES AND PRODUCTION   3 CR
At the conclusion of this course, the student should be able to identify the job skills necessary to have a successful career. Topics include listening skills, oral communication, human relations, decision making/problem solving, how to work as a team, and resource management.

Prerequisite(s): CPT 101 Safety in Manufacturing Production.

CPT 104
MAINTENANCE AWARENESS   3 CR
Preventative maintenance and production housekeeping are very important aspects of equipment operations. In this course the student will learn how to monitor production equipment for both routine and preventative maintenance.

Prerequisite(s): CPT 101 Safety in Manufacturing Production.

CHEMISTRY

CHEM& 110
CHEMICAL CONCEPTS W/LAB   5 CR
This course is a broad overview of chemistry concepts useful to technical program education. Topics include basic atomic theory, chemical bonding, solutions, organic chemistry, hydrocarbon reactions, analytical separations, gasses, thermodynamics, and intermolecular forces.

Prerequisite(s): ACCUPLACER College-Level Math score of 75 or MATH 099 or AMATH 111 with a C or better.

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.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 85 or RDG 085 with a B or better, and ACCUPLACER Sentence Skills score of 86 or ENGL 092 with a B or better or AENGL 100 with a C or better and ACCUPLACER College Math score of 75 or MATH 099 with a C or better.

CHEM& 131
INTRODUCTION TO ORGANIC/BIO-CHEMISTRY   5 CR
This course is a continuation of CHEM& 121 and uses those concepts learned to understand the molecular nature of organic molecules. Topics to be covered include the structure, nomenclature, properties and reactions of hydrocarbons, alcohol, ethers, aldehydes, ketones, carboxylic acids, amines and amides with significant emphasis on the biochemical context of these organic molecules. The structure and function of carbohydrates, lipids, proteins, and nucleic acids including the major catabolic and anabolic pathways of carbohydrate, lipid, and protein metabolism is also covered. Lab activities complement theoretical concepts.

Prerequisite(s): CHEM& 121 with a C or better.

CHEM& 161
GENERAL CHEMISTRY W/ LAB I   5 CR
An introductory chemistry course for students in programs requiring one or two quarters of general chemistry. Course covers basic principles of modern chemistry, the structure of atoms and molecules, ions, chemical bonding and molecular geometry, the periodic table, chemical formulas and equations, and stoichiometry of reactions and solutions. Lab work included.

Prerequisite(s): ACCUPLACER College-level Math score of 75 or co-enrolled/completed MATH& 141. Also, recommend completion of CHEM& 121 or one year of high school chemistry.

CHEM& 162
GENERAL CHEMISTRY W/LAB II   5 CR
Second of a two quarter course sequence designed for students in programs needing a second quarter of general chemistry. Covers gases, thermochemistry, states of matter, solution chemistry, kinetics, and chemical equilibrium. Lab work included.

Prerequisite(s): CHEM& 161 with a C or better.

COLLEGE READINESS AND SUCCESS

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.

Prerequisite(s): 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.

Prerequisite(s): 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.

Prerequisite(s): CASAS reading score of 221 or higher. Recommended concurrent registration in Essential Writing.

ABE 055
ESSENTIAL RDG/WR **5 CR**
This intensive course helps students develop English reading and writing skills including comprehension, vocabulary, study skills, organization of ideas and conventions of English language usage (grammar, spelling, sentence structure, and punctuation). Students will apply critical thinking skills such as analyzing and synthesizing ideas from authentic reading, as well as the development of central themes and main ideas in writing. Basic computer use is required.

Prerequisite(s): CASAS Reading score of 221 or higher.

CDEV 100
COLLEGE FOUNDATIONS I **3 CR**
This course introduces students to academic culture. We explore and use the 3 R's for college success: Relationships, Resources, and Routines. Learning develops reflective thinking, study habits, and problem solving skills. Diverse instructional approaches include hands-on practice, technology navigation, as well as individual and team projects. This course is mandatory for students who test into ENGL 092, MATH 090 or RDG 085.

ELA 030
ENGLISH LANGUAGE ACQUISITION: BEGINNING **18 CR**
This course is designed to improve the communication skills for the Limited English Proficient adult who functions with difficulty in situations related to immediate needs such as providing personal information on simple forms. Emphasis is on reading simple material on familiar subjects; interpreting simple directions, schedules, signs, and maps; and conveying ideas in simple notes and messages using present tense "be" verb tenses and present continuous verb tenses. In oral communication, students learn to convey immediate needs in limited social situations using simple learned and often repeated phrases. Emphasis is on listening actively to understand and respond to verbal and non-verbal communication, expressing basic survival needs, and participating in some routine social conversations.

ELA 040
ENGLISH LANGUAGE ACQUISITION: INTERMEDIATE **18 CR**
This course is designed to improve the English skills of adults who can meet basic survival and social needs, follow simple oral and written instructions and have some ability to write related to basic needs. Emphasis in reading is on understanding descriptive narratives and learning basic reading strategies, such as rereading, restating, rephrasing, word decoding, and identifying main ideas. In writing, the emphasis is on creating paragraphs using prewriting and revision strategies. This includes learning appropriate grammar and vocabulary in order to write and edit. In speaking and listening, the emphasis is on understanding and responding to familiar topics, requesting and clarifying, following oral directions, and speaking so others can understand. Critical

thinking and basic math is embedded and contextualized for everyday life and work purposes.

ELA 050
ENGLISH LANGUAGE ACQUISITION: ADVANCED **18 CR**
This course is designed to improve the reading, writing, listening and speaking skills of adults who have a goal to improve their English language skills for college and career purposes. Emphasis is on reading real-life, academic, and workplace materials; using meaning-making strategies with unfamiliar reading materials; and writing and editing multi-paragraph documents for college and workplace. In oral communication, emphasis is on communicating effectively for various purposes while applying critical thinking skills and making effective choices for those settings. Students will use a range of conventions in speaking for distinct audiences and contexts. Basic math is contextualized for everyday life and work purposes, and progress in appropriate technology is expected.

GED 050
GED PREPARATION: IMPACT **18 CR**
This GED preparation course includes instruction in reading, writing and math as well as the content areas of social studies, science, arts and literature. Emphasis is placed on GED test-taking skills, reasoning skills and critical thinking skills.

GED 056
GED PREP **15 CR**
This GED® preparation course includes instruction in reading, writing and math as well as the content areas of social studies, science, arts, and literature. Emphasis is placed on GED® test-taking skills, reasoning skills, and critical thinking skills.

HSC 020
US GOVERNMENT **3 CR**
This is a survey course that satisfies the Washington State Board of Education's requirements for competency in US Government. This course focuses on important themes in American social and political history from Early America to the 21st Century with an emphasis on the United States Constitution and its amendments.

Prerequisite(s): CASAS Reading 236 or higher, or by permission.

HSC 024
WASHINGTON STATE HISTORY **3 CR**
This course will explore Washington State History including the Washington State Constitution, its people (including the Native American peoples), governments, geography, and industries. It will also develop reading strategies for improved comprehension and writing skills for standard academic English in preparation for career and college readiness.

Prerequisite(s): CASAS Reading score 236 or higher, or by permission.

HSC 036
SCIENCE LAB **5 CR**
This course is designed to refine students' understanding of the nature of scientific inquiry and develop the ability to formulate questions, propose hypotheses, and design, conduct, and report on investigations. Additionally, this course will increase their understanding of the kinds of questions that scientists ask and how the results reflect the research methods and the criteria by which scientific arguments are judged.

Prerequisite(s): CASAS Reading 236 or higher, or by permission.

HSC 060
HS 21+ PORTFOLIO **10 CR**
HSC 060 is designed to teach students how to demonstrate high school competencies in fulfillment of HS 21+ diploma requirements through completion of individual portfolio assignments. It guides adult high school students through the process of developing a plan for completing the requirements for their adult high school diploma.

Prerequisite(s): CASAS Reading Score of 236 or higher or permission.

HSC 070
APPLIED MATHEMATICS I **3 CR**
This course presents the first part of mathematics used in the professional/technical occupations. This course is intended to reinforce and extend students' knowledge of basic mathematics skills in operations with whole numbers, decimals and fractions; application of ratio, proportion and percent.

Prerequisite(s): CASAS Math score of 211 or ACCUPLACER Arithmetic score of 38, or ABE 050, or HSC 073, with a C or better, or by permission.

HSC 072
APPLIED MATHEMATICS II **3 CR**
This course presents the second part of mathematics used in the professional/technical occupations. This course is intended to reinforce and extend students' knowledge of basic mathematics skills in U.S Customary Units and metric measurement systems, basic geometry and elementary algebra.

Prerequisite(s): CASAS Math score of 211 or ACCUPLACER Arithmetic score of 38, or ABE 050, or HSC 070, with a C or better, or by permission.

HSC 073
MATHEMATICAL CONCEPTS   5 CR
This course provides basic math foundations for all future mathematical studies in pre-college and college math courses and to pass standardized tests such as the GED math test and ACCUPLACER arithmetic test. 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 solving simple equations.

Prerequisite(s): CASAS Math score of 211 or higher, or by permission.

HSC 074
APPLIED MATHEMATICS I & II   5 CR
This course presents the first part of mathematics used in the professional/technical occupations. This course is intended to reinforce and extend students' knowledge of basic mathematics skills in operations with whole numbers, decimals and fractions; application of ratio, proportion and percent; U.S Customary Units and metric measurement systems; basic geometry and elementary algebra.

Prerequisite(s): CASAS Math score of 211 or ACCUPLACER Arithmetic score of 38, or ABE 050, or HSC 073 with a C or better, or by permission.

HSC 075
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. Students should have a working knowledge of Arithmetic. Included are topics on fractions, sets of numbers, applied problem solving, use of variables, simplifying expressions, and setting up equations to solve.

Prerequisite(s): CASAS Math score of 211 or ACCUPLACER Arithmetic score of 38, or ABE 050, or HSC 073 with a C or better, or by permission.

HSC 078
GEOMETRY   5 CR
In this class students will gain proficiency in basic geometric concepts; properties of triangles, circles, and polygons; transformations including translations, rotations, reflections, and dilations; and working with solids including surface area and volume.

Prerequisite(s): CASAS Math score of 221 or ACCUPLACER Arithmetic score of 50, or ABE 050, or HSC 073, or HSC 075, or MATH 090, with a C or better, or by permission.

COMMERCIAL DRIVING

CODR 125
FORKLIFT DRIVER CERTIFICATION   1 CR
This course provides the student with forklift driving safety knowledge and skills to comply with OSHA/WISHA, and meets WAC 296.863.60005 requirements. Instruction emphasizes prevention of workplace related hazards, accidents, and injuries. Students will be awarded the Ives Mobile Equipment Operator's Certification. Students must be at least 18 years of age and have previous forklift driving experience. Employers must also test an employee's ability and provide additional training on any different conditions specific to a particular job site.

Prerequisite(s): Students must be at least 18 years of age and have previous forklift driving experience of 2–3 hours.

COMMUNICATION STUDIES

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 communicating in a diverse world.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

CMST& 220
PUBLIC SPEAKING   5 CR
Introduction to communication theory and public speaking emphasizing organization, audience analysis, oral styles, and use of visual aids. Includes presentation of various types of public speeches and analyses of contemporary speeches.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

COMPUTER SCIENCES

CS& 131
COMPUTER SCIENCE I C++   5 CR
This course equips students with fundamental programming skills such as effective use of data types, variables, assignment statements, control structures, modular design using procedures, pointers and array data structures in the construction of C++ programs. This course also introduces students to Object Oriented Programming concepts and prepares students for the C++ Institute Certified Associate Programmer exam.

Prerequisite(s): MATH 099 or IT 121 with a C or better or Instructor permission.

CS 132
COMPUTER SCIENCE II C++   5 CR
Advanced software development using the C++ programming language, emphasizing object-oriented concepts and fundamental data structures techniques. Introduces concepts of recursion, modularity, encapsulation, inheritance, templates, polymorphic class design, and self-referential data structures; focuses on fundamental abstract data types (stacks, queues, linked lists, binary trees) and their use.

Prerequisite(s): CS& 131 with a C or better.

COMPUTERS

CAP 101
INTRODUCTION TO COMPUTER APPLICATIONS   5 CR
Students will use a personal computer to demonstrate basic skills in Windows, Word, Excel, Access and PowerPoint. Students will also identify hardware components, demonstrate effective internet usage, and use the tools within the BTC learning management system. For off-campus, a Windows-based computer is required.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or higher.

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. For off-campus work, a Windows-based computer is required.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 50 or higher or RDG 085 with a C or better.

CAP 106
FORMATTING WITH MSWORD   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. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 105; or Instructor permission.

CAP 107
COMPUTERIZED KEYBOARD 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. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 106; or Instructor permission.

CAP 109
COMPUTERIZED KEYBOARD SKILL BUILDING 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. Time will also be spent on data entry fundamentals. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 107; or Instructor permission.

CAP 114
MS OUTLOOK   2 CR
Students will use Microsoft Outlook to learn how to effectively manage settings, incoming and outgoing messages, schedules, and contacts. Students will use various views, create rules for processing emails, create auto-replies, and use search features. Students will create, format, and manage messages including BCC, signature lines, and processing junk emails. Students will share calendars, set appointments, create meetings, and manage a task list. Students will create and use contacts and distribution lists. Students will research email etiquette and corporate email policies, and apply email writing techniques to business scenarios.

CAP 138
MS WORD   5 CR
Students receive hands-on instruction using the commands and features of Word to create simple to complex business documents. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 101 and CAP 105 with a C or better or Instructor permission.

CAP 142
MS EXCEL   5 CR
This course provides a practical hands-on approach to developing the skills to use the powerful spreadsheet application, Excel. Students will use Excel to organize and analyze data, perform numerical calculations, and illustrate relationships in numerical data by displaying charts. For off-campus work, a Windows-based computer is required.

Prerequisite(s): BUS 100 or BUS 150 or AMATH 100 or MATH 107 or higher; and CAP 101 all with a C or better.

CAP 143
ADOBE ACROBAT & ELECTRONIC FILE MANAGEMENT   5 CR
Adobe Acrobat software enables business professionals to easily convert any electronic or paper document into a PDF file that can be reviewed by colleagues, clients and customers. This class covers transferring business documents such as policies, training materials, regulations, or other types of material into a secured PDF format that allows review but protects the material from alteration or deletion. In this class, you will learn the basics of creating a PDF document; add headers and footers; render text searchable and able to edit; utilizing security functions to protect documents; creating and editing forms; and utilizing legal tools available. You will also develop expertise in electronic file management while creating folders and subfolders. Included in the file management portion will be how to find, view, open, copy, move, delete and rename files. Some basic computer and keyboarding skills are recommended.

CAP 146
MS ACCESS   5 CR
This course introduces students to using Microsoft Access to manage data. Students learn and apply rules for table design, establish meaningful relationships between tables, create queries to analyze data, create forms for data entry and data search, and create reports that presents information in professional format.

Prerequisite(s): CAP 101 with a C or better 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. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 101 with a C or better; or Instructor permission.

CAP 200
INTEGRATED COMPUTER APPLICATIONS   5 CR
Students will apply their skills learned in the previous courses to produce professional-looking documents by integrating word processing, spreadsheet, database, and presentation graphics programs. Students will prepare a professional portfolio for use in future job search opportunities. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 138, CAP 142, CAP 146, and CAP 148 all with a C or better; or Instructor permission.

CIS 160
COMPUTER USER SUPPORT I   5 CR
Provides an overview of topics relevant to working at a help desk. Student will learn computer user support skills and strategies, including problem solving, customer service, and call tracking.

Prerequisite(s): CAP 101 with a C or better; or Instructor permission.

CIS 276
FIELD-BASED EXPERIENCE   6 CR
Students will arrange to work in an office solving computer software, hardware or operating system problems for users. The field-based experience may be paid or unpaid at 180 hours of on-site, with an additional 18 hours spent on self-assessment and reporting.

Prerequisite(s): Instructor permission.

IT 105
USING NETWORKED COMPUTER SYSTEMS   3 CR
This course provides an introduction to the use of networked computer systems. Topics include the implementation and use of campus and departmental learning resources, basic operating system use including file system navigation and command line interfaces, basic keyboarding skills, network authentication and networked resource access.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better, and ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better.

IT 106
IT SUPPORT SKILLS   3 CR
This course provides an introduction to the Information Technology career field and the basic support skills necessary for success in industry. Topics include a survey of IT career paths, face-to-face and remote customer service skills, security best practices, ticketing systems, knowledge bases, research techniques, basic legal compliance issues and accessibility.

Completion Of or Concurrent Enrollment In: IT 105 with a D or better or concurrent enrollment in IT 105; or CAP 101 with a C or better or concurrent enrollment in CAP 101; or Instructor permission.

IT 107
USING CLOUD SERVICES   3 CR
This course provides an introduction to Cloud Services. Topics include cloud based storage, virtualization, security, mobile device management, and software as service applications. Students will use cloud services to design documents, forms, and spreadsheets.

Completion Of or Concurrent Enrollment In: IT 105 with a D or better or concurrent enrollment in IT 105; or CAP 101 with a C or better or concurrent enrollment in CAP 101; or Instructor permission.

IT 112
A+ HARDWARE **5 CR**

This course provides an introduction to PC Hardware in coordination with the CompTIA A+ Hardware high-level exam objectives. Topics include computer hardware systems, basic networking, mobile devices and troubleshooting.

Completion Of or Concurrent Enrollment In: IT 105 with a D or better or concurrent enrollment in IT 105; or CAP 101 with a C or better or concurrent enrollment in CAP 101; or Instructor permission.

IT 120
COMMAND LINE INTERFACE & SCRIPTING **5 CR**

This course introduces students to scripting using command line interfaces. Industry standard scripting languages in Linux and Microsoft operating systems will provide the platforms on which to learn syntax, flow control, variables, arrays, basic parsing and text manipulation.

Completion Of or Concurrent Enrollment In: IT 105 with a D or better or concurrent enrollment in IT 105; or CAP 101 with a C or better or concurrent enrollment in CAP 101; or Instructor permission.

IT 121
INTRODUCTION TO PROGRAMMING **5 CR**

This course introduces students to the fundamentals of good program design, coding, testing, and documentation. Students will learn to employ good user interface design, standardization and variable naming, decision operators, looping mechanisms, subroutines and error handling as they build their own programs.

IT 141
A+ OPERATING SYSTEMS **5 CR**

This course provides an introduction to PC Software in coordination with the CompTIA A+ Software high-level exam objectives. Topics include computer operating systems, basic networking utilities, computer security and application troubleshooting.

Completion Of or Concurrent Enrollment In: IT 105 with a D or better or concurrent enrollment in IT 105; or CAP 101 with a C or better or concurrent enrollment in CAP 101; or Instructor permission.

IT 142
WINDOWS DESKTOP I **5 CR**

An introduction to the Windows desktop operating system that includes operating system configuration, installation, device and application management, maintenance, and file and folder controls.

Prerequisite(s): IT 120 with a D or better and IT 141 with a D or better and completion of or concurrent enrollment in IT 160.

IT 160
NETWORK TECHNOLOGY I **5 CR**

This course provides an introduction to the configuration, management and troubleshooting of common wired and wireless network devices. Topics include TCP/IP, DNS, DHCP, OSI Reference Model, cabling fundamentals, network topologies, and network diagramming.

Prerequisite(s): IT 112 with a D or better or IT 141 with a D or better.

IT 161
NETWORK TECHNOLOGY II **5 CR**

This course builds upon the content knowledge gained in IT 160 regarding the configuration, management, and troubleshooting of common wired and wireless network devices. Topics include, switching, VLANs, wireless networking, firewalls, and basic routing.

Prerequisite(s): IT 160 with a D or better and IT 120 with a D or better.

IT 210
INFORMATION SECURITY **5 CR**

This course provides an overview of network security. Topics covered include general security concepts, threat analysis, types of attacks, vulnerabilities, risk management, cryptography, PKI, and legal and ethical issues associated with information security.

Prerequisite(s): IT 141 with a D or better and IT 160 with a D or better.

IT 240
LINUX SERVER ADMINISTRATION **5 CR**

This course introduces students to the administration fundamentals of Linux Servers. Using Linux, students will configure SSH, configure networking, administer user accounts and permissions, secure Linux systems, and monitor system resources, processes and usage.

Prerequisite(s): IT 120 with a D or better and IT 141 with a D or better and IT 160 with a D or better.

IT 241
WINDOWS DESKTOP II **5 CR**

This course facilitates an in-depth study of the Windows desktop operating system found commonly in the business environment. Areas of study include enterprise deployment, centralized configuration, and advanced management and support tools.

Prerequisite(s): IT 120 with a D or better and IT 142 with a D or better.

IT 242
WINDOWS SERVER I **5 CR**

This course focuses on the identity functionality in Windows Server. Topics include installation and configuration of Active Directory Domain Services, Group Policy, Active Directory Certificate Services, Active Directory Federation Services, and Web Application proxy implementations.

Prerequisite(s): IT 120 with a D or better and IT 141 with a D or better and IT 160 with a D or better.

IT 243
WINDOWS SERVER II **5 CR**

In this course, students will learn to install, configure, and perform system administration tasks in Windows Server. Topics include configuring disks, volumes, file sharing and NTFS permissions, storage solutions, maintenance, server monitoring and optimization, failover clustering, virtual machine settings, and Powershell.

Prerequisite(s): IT 242 with a D or better.

IT 250
CLOUD & IOT FUNDAMENTALS **5 CR**

An introduction to cloud models, virtualization, infrastructure, security, resource management and business continuity. Students will also gain experience deploying Internet and cloud connected sensors and effectors.

Prerequisite(s): IT 142 with a D or better and IT 161 with a D or better.

IT 252
AMAZON CLOUD **5 CR**

This class covers design, implementation, and use of AWS cloud services. Topics include Simple Storage Service (S3), Elastic Compute Cloud (EC2), Virtual Private Cloud, Relational Database Service, and Identity and Access Management.

Prerequisite(s): IT 250 with a D or better and IT 240 with a D or better; or IT 250 with a D or better and IT 242 with a D or better; or Instructor permission.

IT 253
MICROSOFT CLOUD **5 CR**

This class covers design, implementation and use of Azure cloud services. Topics include Azure Storage, Azure Virtual Machines, Virtual Network, Azure DNS, and Azure Active Directory.

Prerequisite(s): IT 250 with a D or better and IT 240 with a D or better; or IT 250 with a D or better and IT 242 with a D or better; or Instructor permission.

IT 254
WEB APPLICATIONS **5 CR**

This course utilizes cloud technologies to deploy modern web applications in a fault tolerant way. Topics include System Monitoring, Dynamic Deployment of Services, APIs, and Containerization Software.

Prerequisite(s): IT 240 with a D or better and IT 252 with a D or better; or IT 240 with a D or better and IT 253 with a D or better; or Instructor permission.

IT 260
NETWORK TECHNOLOGY III   5 CR
This course continues the development of skills and knowledge in network communications management into OSI layer 3-5 devices and services including Routers, Advanced Switching, Network Management and Monitoring, and Security Appliances.

Prerequisite(s): IT 161 with a D or better.

IT 270
FIELD-BASED EXPERIENCE   5 CR
Students will work in their new career field applying the 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.

Prerequisite: Instructor permission.

COSMETOLOGY

COSMT 101
COSMETOLOGY BASIC SKILLS AND SALON PRACTICE   15 CR
Instruction/participation class in basic services performed by a cosmetologist. This lecture/lab class is closely supervised in the introduction and practice of shampooing/draping, hair analysis/scalp and hair treatment, haircutting, wet styling, thermal styling, permanent waving, chemical relaxing, hair coloring/lightening, manicuring/pedicuring, basic facials, temporary hair removal, resume writing, safety measures and decontamination control. Students practice on mannequins, models and each other. Emphasis is placed on quality of work and knowledge of procedures, safety and decontamination control.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or a C grade or better in ABE 50;

ACCUPLACER Reading Comprehension score of 71 or a C grade in RDG 085; and ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092.

COSMT 110
TRICHOLOGY, DERMATOLOGY, AND ONYCHOLOGY   5 CR
Introduction to the study of hair, skin and nails and their function, structure and characteristics. Care and treatment of hair, skin, and nail diseases and disorders. Special emphasis on sterilization and sanitation principles and methods.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 111
SALON MANAGEMENT   5 CR
Basic overview of salon business operations, including marketing strategies, financial control, factors affecting salon culture, insurance, business law and health regulations. Special emphasis is placed on finding a mentor in a salon to observe, record and report on salon business practices.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 112
SALON SAFETY, CHEMISTRY, AND ELECTRICITY   5 CR
Includes methods of decontamination, universal precautions and responsibilities of a salon professional. Types and classifications of bacteria, safety measures in the use and storage of chemicals. Basic background in chemistry theories, processes and product ingredients as they relate to the cosmetology industry. Special emphasis on OSHA chemical hazard information. Basic anatomy, physiology and types of electricity will also be covered. Training in First Aid and CPR is included.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 201
HAIRCUTTING AND STYLING LAB AND SALON PRACTICE I   8 CR
This is the first course in a two-course sequence. Students will practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class students will learn about and practice advanced haircutting and styling techniques requested in the salon today. Shears, razors and texturizing shears will be used to accomplish the look. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis placed on safety and quality of work while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 202
HAIRCUTTING AND STYLING LAB AND SALON PRACTICE II   8 CR
This is the second course in a two-course sequence. Students will continue to practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class students will learn about and practice advanced haircutting and styling techniques requested in the salon today. Shears, razors and texturizing shears will be used to accomplish the look. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis placed on safety and quality of work while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 203
HAIRCUTTING AND BEARD DESIGN LAB AND SALON PRACTICE I   8 CR
This is the first course in a two-course sequence. Students will practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class, students will learn about and practice the most current and advanced haircuts, styles and beard designs. Students will learn how to use appropriate barbering tools to achieve the look. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis placed on safety and quality of work while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 204
HAIRCUTTING AND BEARD DESIGN LAB AND SALON PRACTICE II   8 CR
This is the second course in a two-course sequence. Students will continue to practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class, students will learn about and practice the most current and advanced haircuts, styles and beard designs. Students will learn how to use appropriate barbering tools to achieve the look. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis placed on safety and quality of work while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 205
COLOR LAB AND SALON PRACTICE I   8 CR
This is the first course in a two-course sequence. Students will practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class students will learn about and practice the most current and advanced color techniques in the industry including foiling, bleach and tone, balayage and corrective color. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis placed on safety and quality of work while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 206
COLOR LAB AND SALON PRACTICE II   8 CR
This is the first course in a two course sequence. Students will practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class students will learn about and practice the most current and advanced color techniques in the industry including foiling, bleach and tone, balayage and corrective color. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis placed on safety and quality of work while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 207
TEXTURED HAIR SERVICES LAB AND SALON PRACTICE I 8 CR
This is the first course in a two-course sequence. Students will practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class students will learn about and practice the most current and advanced textured hair services requested in the salon. The class will also review how to select the appropriate product used for natural hair styling and as a follow up to chemical textured services. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis is placed on safety and quality of work, while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 208
TEXTURED HAIR SERVICES LAB AND SALON PRACTICE II 8 CR
This is the second course in a two-course sequence. Students will practice salon services on the salon floor under the supervision of a licensed cosmetology instructor. During this class students will learn about and practice the most current and advanced textured hair services requested in the salon. The class will also review how to select the appropriate product used for natural hair styling and as a follow up to chemical textured services. To gain salon experience, students practice on models, mannequins, clients and each other. Emphasis is placed on safety and quality of work, while meeting industry target time.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 210
COSMETOLOGY LAB & SHOP PRACTICE 2–18 CR
This course is used to complete curriculum, for special interest projects, and/or to complete required program clock hours. COSMT 210 is an additional quarter and is optional.

Prerequisite(s): COSMT 101 with a C or better.

COSMT 220
COSMETOLOGY CAPSTONE 2 CR
Designed for fifth-quarter students preparing for the Washington State Written Licensure Exam. Provides theoretical review of facts from previous Cosmetology courses in preparation for in-house computerized exams before applying for WA State Board examination.

Prerequisite(s): Instructor permission.

CULINARY ARTS

CUL 110
SANITATION & SAFETY 3 CR
This course provides students with an understanding of the principles and practices 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. Successful completion of online Managerial Certification testing is required for this program. Students will use the internet to research, use Microsoft Word to create assignments and are required to submit work electronically.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: CUL 112, CUL 114, CUL 116 and CUL 118 all with a C- or better or concurrent enrollment in CUL 112, CUL 114, CUL 116 and CUL 118 or Instructor permission.

Note: This class must be taken concurrently with CUL 112, CUL 114, CUL 116 and CUL 118.

CUL 112
INTRODUCTION TO HOSPITALITY 2 CR
This course provides a background and history of the hospitality industry and introduces students to the broad spectrum of hospitality/food service organizations. The course will also explore the wide variety of career opportunities and job requirements needed for the professional chef in today's job market. Students will be introduced to weights and measures; ingredient yield analysis; recipe reading and writing; and various menu forms used in restaurants. Recipe conversions and pre-costing are covered as well.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: CUL 110, CUL 114, CUL 116 and CUL 118 all with a C- or better or concurrent enrollment in CUL 110, CUL 114, CUL 116 and CUL 118 or Instructor permission.

Note: This class must be taken concurrently with CUL 110, CUL 114, CUL 116 and CUL 118.

CUL 114
CULINARY SKILL DEVELOPMENT I 6 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 derivate 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.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: CUL 110, CUL 112, CUL 116 and CUL 118 all with a C- or better, or concurrent enrollment in CUL 110, CUL 112, CUL 116 and CUL 118, or Instructor permission.

Note: This class must be taken concurrently with CUL 110, CUL 112, CUL 116 and CUL 118.

CUL 116
MEAT IDENTIFICATION AND FABRICATION 4 CR
This course provides an introduction to basic identification and use of hand 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.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better or Instructor permission.

Completion Of or Concurrent Enrollment In: CUL 110, CUL 112, CUL 114 and CUL 118 all with a C- or better, or concurrent enrollment in CUL 110, CUL 112, CUL 114 and CUL 118, or Instructor permission.

Note: This class must be taken concurrently with CUL 110, CUL 112, CUL 114 and CUL 118.

CUL 118
COMMERCIAL KITCHEN EQUIPMENT 2 CR
This course provides comprehensive information about common kitchen equipment used in hotels, restaurants, resorts, and other food service establishments. Emphasis is placed on safety measures used in commercial kitchen, identification of a wide variety of commercial kitchen equipment, the common use in professional kitchens and the correct operation, safety, breakdown and cleaning procedures.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Corequisite(s): CUL 110, CUL 112, CUL 114, CUL 116 with a C- or better.

Completion Of or Concurrent Enrollment In: CUL 110, CUL 112, CUL 114 and CUL 116 all with a C- or better; or concurrent enrollment in CUL 110, CUL 112, CUL

114 and CUL 116; or Instructor permission.

Note: This class must be taken concurrently with CUL 110, CUL 112, CUL 114 and CUL 116.

CUL 122
CULINARY SKILL DEVELOPMENT II   6 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.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118 with a C- or better.

CUL 142
NUTRITION   3 CR
This course provides students with an introduction to nutrition, cultural food pyramids including nutritive value of foods, factors influencing body food requirements, their importance in promoting health and preventing disease, and the body processes and their relation to total nutrition. We will examine nutritional requirements throughout the human life cycle with attention to retaining nutritive values through the cooking process.

CUL 144
AMERICAN REGIONAL À LA CARTE COOKERY   6 CR
This course is an introduction to regional American cuisine. Students will identify 15 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, 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 à la carte production provides students with opportunity to refine fundamental culinary skills and develop à la minute production skills. Upon completion of this course, the student should be able to effectively set-up and operate an à la carte station.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 122 all with a C- or better.

CUL 150
FIELD-BASED EXPERIENCE   7 CR
This course provides students with industry job experience in a college approved professional kitchen, allowing students to apply first year curriculum cooking skills and culinary knowledge to professional restaurants, hotels, clubs, caterers and other hospitality organizations.

Prerequisite(s): Instructor permission.

CUL 152
CULINARY COMPETITION FUNDAMENTALS   7 CR
Students will train using American Culinary Federation student team competition guidelines culminating in participate in the Washington State Student Team Competition (time and date to be determined). Student will exhibit teamwork, professionalism, the ability to analyze and evaluate food quality; develop outstanding knife skills, organization, hot and cold food cooking skills while maintaining strict adherence to sanitation and time lines.

Prerequisite(s): Instructor permission, student membership in the American Culinary Federation, and successful tryout for competition team.

CUL 218
GARDE MANGER   5 CR
This course introduces students to the proper techniques, procedures and implementation of the Garde Manger chef. Students will create and prepare various cold foods, hors d'oeuvres, pates and galantines. Sausage making, cold and hot smoking, curing techniques, preparation of pates, terrines, galantines, canapés, mousses and gelatins are included in the course. Also covered are cold food decoration techniques, cold platter and appetizer buffet design and presentation, and developing skills in centerpieces and show pieces.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, and CUL 122 all with a C- or better.

CUL 220
RESTAURANT MANAGEMENT   5 CR
In this course, students apply advanced concepts related to business and operations management in the culinary industry. Students will plan and develop menus, create a kitchen design and dining room lay out, analyze point of sale operations and create business projections.

Prerequisite(s): AMATH 100, AENGL 100, CMST& 210, all first-year program classes, CUL 142, CUL 218, and CUL 222 all with a C- or better.

CUL 222
HOSPITALITY SUPERVISION   3 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.

Prerequisite(s): AENGL 100 with a C- or better and all first-year program classes with a C- or better.

CUL 224
FOOD AND BEVERAGE SERVICE   2 CR
This course assists students in developing food and beverage service skills based on dining room operations in a wide variety of service styles. The students are instructed in principles of front of the house operations, point of sale systems and guest relations. Students will learn the fundamentals of non-alcoholic and alcoholic beverages, appropriate beverage laws, and service for a variety of food and beverage establishments.

Prerequisite(s): CUL 120 with a C- or better and CUL 124 with a C- or better.

CUL 226
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, ethic influences, indigenous foods and customs, cooking methods used, traditional equipment and each regions overall influence on today's restaurant market. Weekly participation in theme buffet productions enhances student's technical skills.

Prerequisite(s): All first-year Culinary Arts program classes and CUL 218 with a C- or better.

Corequisite(s): CUL 228.

CUL 228
BANQUET AND CATERING MANAGEMENT   3 CR
In Banquet and Catering Management, students will learn the fundamental 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 in setting up and managing a full service buffet event.

Prerequisite(s): All first-year Culinary Arts program classes and CUL 218 with a C- or better.

Corequisite(s): CUL 226.

CUL 230
NORTHWEST À LA CARTE COOKERY   7 CR
This course provides students with an opportunity to apply the vast majority of the Culinary Arts curriculum as students rotate through several stations creating Northwest cuisine in the à la carte restaurant kitchen. Students are expected to manage the responsibilities in setting up and running an à la carte restaurant station including food preparation, planning sheets, organization, portion control, timing, temperature control, teamwork, communication, productivity and sanitary production skills. In addition, students will practice expeditor skills including coordinating and controlling the flow of finished menu items from the station chefs and working closely with student service staff and maître d' positions. Students will study a variety of modern food sourc-

ing topics including buying local, sustainability topics, organic food production, GMO's, irradiation and other staple food production methods.

Prerequisite(s): Successful completion of the first six quarters of the Culinary Arts curriculum with a C- or better in each course or Instructor permission.

CUL 232
FOOD AND BEVERAGE SERVICE LAB   2 CR
In this course students apply service skills, knowledge, guest relations, tableside cookery, point-of-sale operations, cash handling, reservations, seating, and greeting, in Café Culinaire. The students are responsible for excellent customer service under all conditions. Students work in various dining room positions at Bellingham Technical College's Café Culinaire such as; maître d', front server and back server.

Prerequisite(s): Successful competition of the first six quarters of the Culinary Arts curriculum with a C- or better in each course or Instructor permission.

CUL 234
CAPSTONE PROJECT & PRACTICAL EXAM   1 CR
This course is designed to assess the student's overall knowledge and skill level at the completion of all curriculum requirements. Students will research, plan, and supervise two commis in the preparation of a five-course gastronomique menu (prix fixe) for guests using diverse techniques, ingredients and flavors. The menu should show a common theme throughout the course work. Students will prepare a formal menu using assigned proteins and common market list of food products, while employing yield analysis, planning and leadership throughout the examination process.

Prerequisite(s): Successful completion of the first six quarters of the Culinary Arts curriculum with a C- or better in each course or Instructor permission.

CUL 236
WINE APPRECIATION   2 CR
This course provides comprehensive information about wine from all the major wine producing countries in the world. Emphasis is placed on the history of wine, production characteristics and laws, food and wine paring, cooking with wine, wine menus, purchasing, formal wine service and storage requirements. Upon completion, students should be able to determine what wines compliment various cuisines and particular tastes.

Prerequisite(s): Successful completion of first six quarters of the Culinary Arts curriculum with a C- or better in each course or Instructor permission.

Corequisite(s): CUL 230, CUL 232

PST 100
BASIC CUISINE FOUNDATION   4 CR
This course focuses on basic foundation cooking techniques utilized in the culinary industry. Study topics include basic mise en place skills; vegetable cutting and preparation techniques; basic stocks, sauces, and starches; fabrication of chicken, and classic cooking methods. Students will create healthy, organic 30-minute meals utilizing local products. Students will use the internet to conduct research, use Microsoft Word and PowerPoint to create assignments/presentations and are required to submit work electronically.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or better or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or better or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or better or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: PST 101 , PST 110 and PST 130 all with a C- or better or concurrent enrollment in PST 101, PST 110 and PST 130 or Instructor permission.

PST 101
PASTRY & BAKING ORIENTATION   3 CR
This course provides a history of the baking and pastry profession, and introduces the student to the broad spectrum of hospitality/foodservice organizations and career opportunities. Topics include: the baking profession, basic professional skills, bakeshop math, baking and pastry equipment, ingredients, mise en place, plan writing, baking principles, kitchen orientation, and observing bakery or retail baking establishments. Students will conduct informational interviews and explore career opportunities in the pastry industry. Students will use the internet to research, use Microsoft Word and PowerPoint to create assignments/presentations and are required to submit work electronically.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: PST 100, PST 110 and PST 130 all with a C- or better, or concurrent enrollment in PST 100, PST 110 and PST 130, or Instructor permission.

Note: This class must be taken concurrently with PST 100, PST 110 and PST 130.

PST 110
SANITATION & SAFETY   3 CR
This course provides students with an understanding of the principles and practices 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. Successful completion of online Managerial Certification testing is required for this program. Students will use the internet to research, use Microsoft Word

to create assignments, and are required to submit work electronically.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or a C or better in MATH 090 or ABE 050; and ACCUPLACER Reading Comprehension score of 71 or better or a C or better in RDG 085; and ACCUPLACER Sentence Skills score of 71 or better or a C or better in ENGL 092; or Instructor permission.

Completion Of or Concurrent Enrollment In: PST 100, PST 101 and PST 130 all with a C- or better or concurrent enrollment in PST 100, PST 101 and PST 130 or Instructor permission.

Note: This class must be taken concurrently with PST 100, PST 101 and PST 130.

PST 130
INTRODUCTION TO COMMERCIAL BAKING   5 CR
This course provides an introduction to baking and pastry techniques for use in a commercial kitchen. Students will gain an understanding of pastry ingredients and their functions; learn correct baking and frying methods; create a variety of baked goods; exercise accurate assessment of finishing decorations and practice safety and sanitation procedures. Students will use the internet to conduct research, use Microsoft Word and PowerPoint to create assignments/presentations and are required to submit work electronically.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or better or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or better or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or better or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: PST 100, PST 101 and PST 110 all with a C- or better or concurrent enrollment in PST 100, PST 101 and PST 110, or Instructor permission.

PST 202
PASTRY BASIC I   3 CR
This course covers mixing and production methods for Cookies, Quick Breads, Short Doughs, Tart Doughs, Eclair Paste, Strudel, and Phyllo Doughs and Baked Meringues. Students will study ingredients and their functions, learn correct baking methods, exercise accurate assessment of products, and practice safety and sanitation procedures. Students will use the internet to conduct research, use Microsoft Word to create assignments and are required to submit work electronically.

Prerequisite(s): CUL 110.

Corequisite(s): PST 204.

PST 204
INTRODUCTION TO ARTISAN BREADS & LAMINATED DOUGH   **3 CR**

This course covers beginning and intermediate bread baking. Students will be introduced to the terms and techniques of bread production by making direct and indirect bread dough. Proper mixing, fermentation, shaping, proofing and baking of assorted breads will be the focus of this course. Basic bread production, laminated and rich yeast dough will be studied and prepared. Students will study bread ingredients and their function; learn correct baking methods and lamination procedures; exercise accurate assessment of dough; and practice safety and sanitation procedures.

Prerequisite(s): CUL 110.

Corequisite(s): PST 202.

PST 206
PASTRY BASICS II   **3 CR**

This course provides the students with the principles and preparation of pies, custards, puddings, mousses, soufflés, frozen and fruit desserts, and an introduction of baking for special diets. Students will use the Internet to conduct research, use Microsoft Word to create assignments and are required to submit work electronically.

Prerequisite(s): CUL 110, PST 202 and PST 204.

Corequisite(s): PST 208.

PST 208
INTRODUCTION TO CAKES, DESSERTS, CHOCOLATE & SUGAR DECORATIONS   **4 CR**

This course provides a study in the elements of mixing, baking, assembling and decorating simple cakes; introduction to specialty cakes; simple to complex dessert presentation; introduction to chocolate and sugar techniques; and classic and molded chocolate truffles.

Prerequisite(s): CUL 110, PST 202 and PST 204.

Corequisite(s): PST 206.

PST 220
ADVANCED ARTISAN & DECORATIVE BREADS   **3 CR**

This course provides an advanced study in the art and craft of bread making. Topics include pertinent formulas and techniques associated with naturally leavened loaves, sponge and straight dough methods, hearth breads, bagels, flatbreads, decorative breads, and other breads utilizing a variety of grains. Upon completion students should be able to prepare artisan and decorative breads that meet or exceed the expectations of restaurant end retail publics. Students will use the internet to conduct research, use Microsoft Word to create assignments and are required to submit work electronically.

Prerequisite(s): CUL 110, PST 204 with a C- or better.

PST 222
CHOCOLATE/SUGAR CONFECTIONS & INTRODUCTION TO BASIC SHOWPIECES   **3 CR**

Students learn about chocolate and sugar and its use in the pastry world. This course will cover an assortment of chocolate and sugar convections, pastillage as a medium for showpieces, provide an introduction to chocolate showpieces, modeling chocolate, and sugar showpieces using pouring, pulling, and blowing techniques. Students will use the Internet to conduct research, use Microsoft Word to create assignments and are required to submit work electronically.

Prerequisite(s): CUL 110.

Corequisite(s): PST 208.

PST 224
SPECIALTY CAKES I   **5 CR**

This course covers an introduction in the design and decoration of wedding cakes and other specialty cakes. Topics include baking, filling and assembling cakes; cake design; finishing techniques utilizing gum paste, fondant, and royal icing; and advanced piping skills.

Prerequisite(s): CUL 110, PST 200 and PST 202.

Corequisite(s): PST 206 and PST 208.

DENTAL

DEN 100
INTRODUCTION TO DENTAL ASSISTING   **1 CR**

This course provides information relating to the role of the Dental Assistant within the dental team. The history of dental assisting, progress of dentistry, and concepts of dental health are included. In addition, college/program policies and strategies for successful learning are incorporated.

Prerequisite(s): BIO 105 with a minimum C grade.

DEN 105
HEAD AND NECK ANATOMY   **2 CR**

Introduction to structure of head and neck region. Emphasis on anatomical structures of the skeletal, muscular, nervous, cardiovascular, and digestive systems as pertains to the head and neck. Also includes an overview of microbiology and disease.

Prerequisite(s): BIO 105 with a minimum C grade.

DEN 110
DENTAL FOUNDATIONS   **5 CR**

This course provides the student with the foundation necessary to enter into the Bellingham Technical College Dental Clinic. The student will gain the knowledge and skills required to maintain a safe dental environment. Also included are federal and state regulations regarding chemical use, infection control, and medical emergencies in the dental office. This course introduces basic concepts of radiography. Students learn how to correctly and safely evaluate need for x-rays including: expose, process, and mount intraoral radiographs utilizing the bitewing technique.

Prerequisite(s): Dental Assisting Program Admission.

DEN 112
CHAIRSIDE ASSISTING I   **7 CR**

This course provides the student with the knowledge and skills needed to operate and maintain typical equipment found in a dental operatory. The student will gain an understanding of the design, function, and maintenance of handpieces, 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.

Prerequisite(s): Dental Assisting Program Admission.

DEN 114
DENTAL SCIENCES   **4 CR**

This course focuses on related biomedical sciences that are the foundation of the Dental Assistant curriculum. Course content includes basic oral embryology, histology and tooth morphology. Concepts of oral pathology and oral inspection will be introduced. The course covers the impact of blood borne pathogens and how they relate to the field of dentistry.

Prerequisite(s): Dental Assisting Program Admission.

DEN 115
DENTAL CLINIC PRACTICUM I   **6 CR**

This 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, x-ray processing, patient intake, and sterilization. Toward the end of clinical practice phase I, they will begin assisting and documenting dental exams and dental hygiene appointments.

Prerequisite(s): Dental Assisting Program Admission.

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 instruction on dental office administration, concentrating on specific job duties in the Bellingham Technical College Dental Clinic.

Prerequisite(s): DEN 110, DEN 112, DEN 114, and DEN 115 with a minimum grade of C in each course.

DEN 122
CHAIRSIDE ASSISTING II   6 CR
Provides the student with appropriate skills required 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.

Prerequisite(s): DEN 110, DEN 112, DEN 114, and DEN 115 with a minimum grade of C in each course.

DEN 124
RADIOGRAPHY   3 CR
The student will learn to accurately and safely expose, process and mount full mouth periapicals, maxillary and mandibular occlusal films. Also including panoramic radiographs utilizing a variety of techniques. This course will provide the skills necessary to produce films with optimal diagnostic quality on a variety of patient situations including: pedodontics, edentulous and extra oral.

Prerequisite(s): DEN 110, DEN 112, DEN 114, and DEN 115 with a minimum grade of C in each course.

DEN 125
DENTAL CLINIC PRACTICUM II   4 CR
Orients the student and identifies the clinic competencies that must be successfully demonstrated in order for the student to advance to DEN 135. This course provides the hands-on experience required for front office, clinic coordination, and assistive functions with the clinic dentist and dental hygienist.

Prerequisite(s): DEN 110, DEN 112, DEN 114, and DEN 115 with a minimum grade of C in each course.

DEN 130
PREVENTATIVE DENTISTRY   3 CR
This course provides the student with a working knowledge of preventative dentistry, good oral hygiene and nutrition. Students will learn how to promote preventative dentistry in the office and the procedures available to curb oral diseases including: dental caries and periodontal disease.

Prerequisite(s): DEN 120, DEN 122, DEN 124, and DEN 125 with a minimum grade of C in each course.

DEN 132
DENTAL SPECIALTIES   1 CR
Provides the knowledge and skills necessary to assist in dental specialties including: prosthodontics, oral surgery, pediatrics and orthodontics.

Prerequisite(s): DEN 120, DEN 122, DEN 124, and DEN 125 with a minimum grade of C in each course.

DEN 134
LABORATORY PROCEDURES   2 CR
Enables students to develop skills in the use and manipulation of dental materials and lab equipment. Taking, pouring, separating, trimming, and finishing study modules and preparing custom trays will be included in this course.

Completion Of or Concurrent Enrollment In: DEN 132 with a minimum grade of C, pre- or corequisite.

DEN 135
DENTAL CLINIC PRACTICUM III   4 CR
This course is a continuation of DEN 125. It provides the hands-on experience required for front office, clinic coordination, and assistive functions with the clinic dentist and dental hygienist. The student must successfully demonstrate the required clinic competencies in order to be eligible to participate in the extramural experience.

Prerequisite(s): DEN 120, DEN 122, DEN 124, and DEN 125 with a minimum grade of C in each course.

DEN 137
EXTRAMURAL PRACTICUM   8 CR
Allows students to apply knowledge, skills, and attitudes 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.

Prerequisite(s): DEN 120, DEN 122, DEN 124, and DEN 125 with a minimum grade of C in each course.

DHYG 112
DENTAL HYGIENE CLINICAL PRACTICE I   5 CR
First of six (6) 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.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 113
DENTAL MATERIALS   4 CR
A study of materials used in dentistry including practical applications and chairside assisting. Study includes general properties, composition, and manipulation of common dental materials. Ethical situations pertaining to treatment planning and the use of dental materials by dental hygienists.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 114
PRINCIPLES OF DENTAL HYGIENE I 3 CR
First of seven (7) 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 are emphasized.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 115
ORAL & DENTAL ANATOMY   2 CR
Integrated anatomy, histology, and physiology of the head and neck region. Crown anatomy, root morphology and tooth development as applied to clinical situations.

Prerequisite(s): Dental Hygiene Program Admission.

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.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 118
HISTOLOGY & EMBRYOLOGY   2 CR
The study of oral histology including developmental origins and microscopic organization of selected oral and facial structures. The embryonic development of the face and palate will be described and correlated with more common craniofacial malformations. The formation, eruption and histological organization of the teeth and their supporting tissues will be examined in considerable detail, as well as the oral mucosa and salivary glands.

Prerequisite(s): Dental Hygiene Program Admission.

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 procedure and patient education.

Prerequisite(s): DHYG 112 with a minimum grade of C.

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.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 125
MEDICAL EMERGENCIES   3 CR
Equipment, drugs, signs and symptoms of medical emergencies that may occur in dental offices. Individual and team practice in carrying out emergency procedures in timed simulations: pulse, respiration, blood pressure, emergency drug setup, and oxygen.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 126
ORAL RADIOLOGY II   2 CR
Oral radiographic techniques for patients with special needs; extraoral and occlusal projections. Interpretation of potential pathology and recognition of common dental restorative materials. Refinement of exposure techniques and evaluation. Coordinates with DHYG 122.

Prerequisite(s): DHYG 116 with a C or better.

DHYG 128
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.

Prerequisite(s): Dental Hygiene Program Admission.

DHYG 131
RESTORATIVE DENTISTRY I   4 CR
Principles of direct restorative techniques including cavity preparation terminology, outline form, cavosurface margin, and advanced dental anatomy of the tooth crown. Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam and composite restorations on dentoforms. Alginate impressions and model trimming for working and study models. Rubber dam, matrix and wedge application. Case studies for clinic preparation.

Prerequisite(s): DHYG 113 with a minimum grade of C.

DHYG 132
**DENTAL HYGIENE CLINICAL
PRACTICE III   5 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.

Prerequisite(s): DHYG 122 with a C or better.

DHYG 134
**PRINCIPLES OF DENTAL
HYGIENE III   3 CR**
Sequential course providing theoretical background for the clinical practice of dental hygiene. Emphasis on patient education and treatment planning related to patients' age and stage. Nutrition and relationship to oral diseases.

Prerequisite(s): DHYG 124 with a minimum grade of C.

DHYG 137
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.

Prerequisite(s): DHYG 128 with a minimum grade of C.

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.

Prerequisite(s): DHYG 128 with a minimum grade of C.

DHYG 141
RESTORATIVE DENTISTRY II   1 CR
Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam, glass ionomer and composite restorations on dentoforms.

Prerequisite(s): DHYG 131 with a C or better.

DHYG 142
HYGIENE CLINICAL PRACTICE IV   5 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.

Prerequisite(s): DHYG 132 with a C or better.

DHYG 144
**PRINCIPLES OF DENTAL
HYGIENE IV   3 CR**
Sequential course providing theoretical background of dental hygiene skills. Literature review and research reports, oral cancer and tobacco cessation emphasized.

Prerequisite(s): DHYG 134 with a minimum grade of C.

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.

Prerequisite(s): DHYG 137 with a minimum grade of C.

DHYG 211
RESTORATIVE DENTISTRY III   2 CR
Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam and composite restorations on dentoforms.

Prerequisite(s): DHYG 141 with a C or better.

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.

Prerequisite(s): DHYG 142 with a minimum grade of C.

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.

Prerequisite(s): DHYG 144 with a minimum grade of C.

DHYG 216
COMMUNITY ORAL HEALTH I   4 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, mouth guards. Lesson plans. Steps in program planning. Health Education theories.

Prerequisite(s): DHYG 144 with a minimum grade of C.

DHYG 219
ORAL PATHOLOGY   3 CR
A study of oral diseases and manifestations of systemic diseases. Utilizes independent learning and internet resources.

Prerequisite(s): DHYG 128 with a minimum grade of C.

DHYG 221
RESTORATIVE DENTISTRY IV   2 CR
Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam and composite restorations on dentoforms.

Prerequisite(s): DHYG 211 with a minimum grade of C.

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.

Prerequisite(s): DHYG 212 with a minimum grade of C.

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.

Prerequisite(s): DHYG 214 with a minimum grade of C.

DHYG 226
COMMUNITY ORAL HEALTH II   4 CR
Assessment indices, dental hygiene diagnosis. Program planning, funding and budgets; legislation. Cultural issues in public health. Implementation of a team community oral health project. Epidemiology and biostatistics related to community oral health.

Prerequisite(s): DHYG 216 with a minimum grade of C.

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.

Prerequisite(s): DHYG 219 with a minimum grade of C.

DHYG 229
DENTAL HYGIENE SEMINAR   1 CR
Review and practice for the National Dental Hygiene Board Examination.

Corequisite(s): DHYG 221, DHYG 222, DHYG 224, DHYG 226 and DHYG 228.

DHYG 231
RESTORATIVE DENTISTRY V   1 CR
Case studies and special project designed to enhance student understanding of clinical restorative practice. Application of research in dental materials.

Prerequisite(s): DHYG 221 with a minimum grade of C.

DHYG 232
DENTAL HYGIENE CLINICAL PRACTICE VII   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.

Prerequisite(s): DHYG 222 with a minimum grade of C.

DHYG 234
PRINCIPLES OF DENTAL HYGIENE VII   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.

Prerequisite(s): DHYG 224 with a minimum grade of C.

DHYG 236
COMMUNITY ORAL HEALTH III   2 CR
Careers in Public Health, table clinics or poster presentations. Involvement in local projects; community health program completion and evaluation. Leadership for community projects. Research.

Prerequisite(s): DHYG 226 with a minimum grade of C.

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.

Prerequisite(s): Admission to 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.

Prerequisite(s): Admission to the EFDA program.

EFDA 102
RESTORATIVE LAB I   2 CR
This course will introduce students to the manipulation and placement of restorative materials. Students will apply concepts from dental anatomy and materials science to restorative procedures.

Prerequisite(s): 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.

Prerequisite(s): 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.

Prerequisite(s): EFDA 101.

EFDA 112
RESTORATIVE LAB II   2 CR
This course is a continuation of EFDA 102. Student will continue to practice skills placing amalgam and composite restorations on typodonts. Students will also practice skills discussed in the concurrent lecture EFDA 110.

Prerequisite(s): 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.

Prerequisite(s): 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.

Prerequisite(s): 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.

Prerequisite(s): 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.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

DET 106
ELECTRICAL/ELECTRONICS I   6 CR
This course will address the basic operation of electrical/electronic systems, with the emphasis on preventive maintenance and logical troubleshooting.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

DET 116
ELECTRICAL/ELECTRONICS II   6 CR
This course will address specific components and operational theory of batteries, including starting and charging, as utilized in modern medium/heavy duty vehicles. It will also address comprehension and use of wiring schematics and diagrams for the previously mentioned components, as well as removal and installation of maintenance items for starters and alternators.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 all with a grade of C or better or Instructor permission.

DET 126
ELECTRICAL/ELECTRONICS III   6 CR
This course will address lighting and instrumentation on systems used on medium/heavy duty vehicles including wiring diagrams and schematics. Component location, testing and diagnostic procedures will be practiced and implemented.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 all with a grade of C or better or Instructor permission.

DET 129
SHOP SIMULATION   15 CR
This course simulates a diesel technology maintenance/repair shop environment under the supervision of the instructor. Students will learn: safety, rigging, drilling, threading, thread repair, strengths of materials, materials identification, metalworking, cutting and welding and the documentation of these skills with a student created learning portfolio, documenting their work experience with narratives and photos and providing an in depth self-reflection. Students from TRANS 101, TRANS 102, TRANS 103 must meet with the instructor to discuss DET 129 requirements.

Prerequisite(s): TRANS 101, TRANS 102, and TRANS 103 all with a C or better or Instructor permission.

DET 139
FIELD-BASED EXPERIENCE I   12 CR
The student will complete an unpaid or paid internship or job shadow at a maintenance/repair facility in the industry. This is the first of two internships the student will complete in the program. It is recommended that the student's experience focus on the subject areas completed the previous three quarters on campus, if practical or possible, thereby making the internship site a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically. Students will create and maintain a field-based learning portfolio, documenting their work experience with narratives and photos and providing an in depth self-reflection.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 and DET 129 all with a C or better and all General Education (Related Instruction) courses required by degree, or Instructor permission.

DET 201
HYDRAULICS   9 CR
This course will address the basic operation of hydraulic/pneumatic systems, with the emphasis on preventive maintenance and logical troubleshooting.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

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.

Prerequisite(s): TRANS 101, TRANS 102, and TRANS 103, all with a grade of C (2.0) or better; or Instructor permission.

DET 203
DRIVE TRAIN   5 CR
This course will address the basic operation of drive train systems, with the emphasis on preventive maintenance and logical troubleshooting.

Prerequisite(s): TRANS 101, TRANS 102, and TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

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.

Prerequisite(s): TRANS 101, TRANS 102, and TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

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.

Prerequisite(s): TRANS 101, TRANS 102, and TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

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.

Prerequisite(s): TRANS 101, TRANS 102, and TRANS 103 all with a grade of C (2.0) or better; or Instructor permission.

DET 239
FIELD-BASED EXPERIENCE II   12 CR
The student will complete an unpaid or paid internship or job shadow at a maintenance/repair facility in the industry. This is the second in a series of two internships within the program. It is recommended that the student's experience focus on the subject areas completed in the most recent quarters on campus. The maintenance/repair facility becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically. Students will create and maintain a field-based learning portfolio, documenting their work experience with narratives and photos and providing an in-depth self-reflection.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 and DET 139 all with a C or better and all General Education (Related Instruction) courses required by degree, or Instructor permission.

DET 240
CURRENT DIESEL INDUSTRY TOPICS I   7 CR
The student is required 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 equipment, 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.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103, AENGL 100, AMATH 100, CMST& 210, and DET 129 all with a grade of C (2.0) or better; or Instructor permission.

DET 242
CURRENT DIESEL INDUSTRY TOPICS II   8 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 equipment, 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.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103, AENGL 100, AMATH 100, CMST& 210, and DET 129 all with a grade of C (2.0) or better; or Instructor permission.

EARLY CHILDHOOD EDUCATION

ECED 130
ADULT/INFANT: THE DEVELOPING INFANT **2 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, and health and illness and safety.

ECED 131
ADULT/INFANT: APPROACHING TODDLERHOOD **2 CR**
Adults and older infants attend this course 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 134
ADULT/CHILD: ONE YEAR OLD DEVELOPMENT - SUMMER **1 CR**
Adults and children attend this course together in an instructional program that focuses on the development of a one-year old child. Developmentally appropriate activities are planned for adults and toddlers to do together in class. This course also incorporates a weekly adult discussion, in which the instructor teaches a variety of topics selected by the students and instructor. Topics may include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety. In order to receive credit, students will complete an independent project/assignment appropriate to this course.

ECED 135
ADULT/CHILD: ONE YEAR OLD DEVELOPMENT - FALL **2 CR**
Adults and children attend this course together in an instructional program that focuses on one year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 136
ADULT/CHILD: ONE YEAR OLD DEVELOPMENT - WINTER **2 CR**
Adults and children attend this course together in an instructional program that focuses on one year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 137
ADULT/CHILD: ONE YEAR OLD DEVELOPMENT - SPRING **2 CR**
Adults and children attend this course together in an instructional program that focuses on one year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 139
ADULT/CHILD: TWO YEAR OLD DEVELOPMENT - SUMMER **1 CR**
Adults and children attend this course together in an instructional program that focuses on the development of a two-year old child. Developmentally appropriate activities are planned for adults and toddlers to do together in class. This course also incorporates a weekly adult discussion, in which the instructor teaches a variety of topics selected by the students and instructor. Topics may include sleep patterns, language and literacy, play, guidance and discipline, nutrition, and health and safety. In order to receive credit, students will complete an independent project/assignment appropriate to this course.

ECED 140
ADULT/CHILD: TWO YEAR OLD DEVELOPMENT - FALL **2 CR**
Adults and children attend this course together in an instructional program that focuses on two year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 141
ADULT/CHILD: TWO YEAR OLD DEVELOPMENT - WINTER **2 CR**
Adults and children attend this course together in an instructional program that focuses on two year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 142
ADULT/CHILD: TWO YEAR OLD DEVELOPMENT - SPRING **2 CR**
Adults and children attend this course together in an instructional program that focuses on two year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 154
ADULT/CHILD: TODDLER & PRESCHOOLER DEVELOPMENT - SUMMER **1 CR**
Adults and children attend this course together in an instructional program that focuses on early child development and caring for and teaching more than one child. Developmentally appropriate activities are planned for adults and children from birth to age five to do together in class. This course also incorporates a weekly adult discussion, in which the instructor teaches a variety of topics selected by the students and instructor. Topics may include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety. In order to receive credit, students will complete an independent project/assignment appropriate to this course.

ECED 155
ADULT/CHILD: TODDLER & PRESCHOOLER DEVELOPMENT - FALL **2 CR**
Adults and children attend this course together in an instructional program that focuses on caring for and teaching more than one and children's development. 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 156
ADULT/CHILD: TODDLER & PRESCHOOLER DEVELOPMENT - WINTER **2 CR**
Adults and children attend this course together in an instructional program that focuses on caring for and teaching more than one and children's development. 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 157
ADULT/CHILD: TODDLER & PRESCHOOLER DEVELOPMENT - SPRING **2 CR**
Adults and children attend this course together in an instructional program that focuses on caring for and teaching more than one and children's development. 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 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 dis-

...cipline (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 your home and classroom and to reduce power struggles.

ECED 161
RAISING TODDLERS AND PRESCHOOLERS   **1 CR**
Raising Toddlers and Preschoolers is an interactive class for parents & teachers to help develop skills to guide and encourage children as they grow. Topics include information on understanding young children and their behavior, building self-esteem, effective communication, cooperation, discipline techniques, and emotional and social development.

ECED 163
RAISING 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 167
RAISING TEENS   **1 CR**
The teen years are full of changes for both the adolescent and the parents. This class will explore the brain changes that are occurring that explain some teen behaviors and give strategies to create and maintain a mutually respectful, loving relationship between parents and their teen. Topics discussed will be decided by the group, but may include communication, respectful listening, sexuality, drug use, suicide prevention, bullying, rebellious behaviors, and positive relationships with peers. This class is also appropriate for teachers or other professionals working with teens.

ECED 170
LOVE & LOGIC FOR SUCCESSFUL PARENTING   **2 CR**
Based on the highly acclaimed Love and Logic philosophy developed by Jim Fay and Foster Cline, this class unlocks the secrets of successful parenting. Participants in this class will learn the specific "how-to's" of successful parenting, not just theoretical concepts. The online discussions and readings will provide parents with specific, tangible skills to use and a mind-set that allows parents to develop a loving relationship while setting limits and boundaries. Love and Logic is empowering to both parents and kids. In this class, you will learn to parent with empathy and logical consequences. Your children will learn to accept responsibility for their actions and come to understand the quality of their lives depends upon the quality of their thinking and their decision-making. Love and Logic principles can be applied for all ages of children. The class will share examples from toddlers to teens.

ECONOMICS

ECON& 201
MICRO ECONOMICS   **5 CR**
Introduction to microeconomics. Presents supply and demand models, consumers and producers choice in the competitive and non-competitive market. Examines the various economic decisions made by firms relating to price, demand, factors or production, and cost.

Prerequisite(s): ACCUPLACER College-Level Math score of 75 or MATH 099 or AMATH 111 with a C or better.

ECON& 202
MACRO ECONOMICS   **5 CR**
Introduction to macroeconomics; elementary analysis of the determination of income through national income accounting. Covers macroeconomic issues including inflation, unemployment, economic growth, recessions, monetary/fiscal policy, and international trade and finance.

Prerequisite(s): ECON& 201 with a C or better.

ECON 310
MANAGERIAL ECONOMICS   **5 CR**
This course focuses on forecasting and estimating techniques; and on tools used to analyze projects, compare alternatives, and make sound business decisions based on economic principles such as time value of money, internal rate of return, and cost-benefit ratios. The course includes the use of Excel as a tool for analysis and decision-making.

Prerequisite(s): Admission to the BASOPS program.

ELECTRICIAN

ELCN 100
TRADE SAFETY   **2 CR**
Course topics will include health and safety core rules, personal protective equipment, material safety data sheets, confined spaces, lock-out tag-out requirements, ladder safety, and portable power tools. Navigating the Washington State Labor and Industries website will also be covered in the course. Students will identify and demonstrate essential safety habits as they relate to the electrical industry.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: ELCN 101, ELCN 103, ELCN 125, ELCN 131 and AMATH 100 all with a D or better or concurrent enrollment in ELCN 101, ELCN 103, ELCN 125, ELCN 131 and AMATH 100, or Instructor permission.

Note: This class must be taken concurrently with ELCN 101, ELCN 103, ELCN 125, ELCN 131 and AMATH 100.

ELCN 101
DC CIRCUITS   **4 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.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: ELCN 100, ELCN 103, ELCN 125, ELCN 131 and AMATH 100 all with a D or better or concurrent enrollment in ELCN 100, ELCN 103, ELCN 125, ELCN 131 and AMATH 100, or Instructor permission.

Note: This class must be taken concurrently with ELCN 100, ELCN 103, ELCN 125, ELCN 131 and AMATH 100.

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.

Prerequisite(s): ELCN 101 and AMATH 100.

ELCN 103
ELECTRICAL DRAWINGS & BLUEPRINTS   **2 CR**
This course will introduce students to the various types of electrical drawings including wiring, schematic, line, and specifications. A general overview of the construction sequence as it relates to other applicable trades, documents and schedules is also included in the course. Students will use computer based tutorial programs to generate scaled drawings and diagrams.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: ELCN 100, ELCN 101, ELCN 125, ELCN 131 and AMATH 100 all with a D or better, or concurrent enrollment in ELCN 100, ELCN 101, ELCN 125, ELCN 131 and AMATH 100, or Instructor permission.

Note: This class must be taken concurrently with ELCN 100, ELCN 101, ELCN 125, ELCN 131 and AMATH 100.

ELCN 104
GROUNDING & BONDING   **2 CR**
Standards, theory and application of grounding and bonding applied to electrical systems.

Prerequisite(s): ELCN 102 and ELCN 112.

Completion Of or Concurrent Enrollment In: ELCN 105 with a D or better or concurrent enrollment in ELCN 105, or Instructor permission.

Note: This class must be taken concurrently with ELCN 105.

ELCN 105
TRANSFORMERS, MOTORS & GENERATORS   **4 CR**
Theory and operation of rotating electrical machines and transformers.

Prerequisite(s): ELCN 102.

Completion Of or Concurrent Enrollment In: ELCN 104 with a D or better or concurrent enrollment in ELCN 104 or Instructor permission.

Note: This class must be taken concurrently with ELCN 104.

ELCN 112
INTRODUCTION TO NATIONAL ELECTRICAL CODE   **4 CR**
Wire, conduit, and box size requirements of the National Electrical Code. Beginning branch circuit calculations.

Prerequisite(s): ELCN 101.

ELCN 113
ADVANCED NEC CALCULATIONS   **3 CR**
National Electrical Code required calculations for occupancy loads, transformer and motor circuits, services, feeders and equipment rooms.

Prerequisite(s): ELCN 112.

ELCN 125
ELECTRICAL APPLIED MECHANICS **4 CR**
This course introduces students to a variety of hand and power tools, fasteners, and other essential components an Electrician uses in the field on a daily basis. Students will utilize practical math skills to calculate the mechanical advantage when using simple and complex machines. Students will also utilize geometry and trigonometry to solve construction related scenarios.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: ELCN 100, ELCN 101, ELCN 103, ELCN 131 and AMATH 100 all with a D or better, or concurrent enrollment in ELCN 100, ELCN 101, ELCN 103, ELCN 131 and AMATH 100, or Instructor permission..

Note: This class must be taken concurrently with ELCN 100, ELCN 101, ELCN 103, ELCN 131 and AMATH 100.

ELCN 131
DC CIRCUIT LAB   **4 CR**
Emphasizing DC Electrical theory and Ohm's law, series and parallel circuits are analyzed with hands-on experiments and commonly used test equipment.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: ELCN 100, ELCN 101, ELCN 103, ELCN 125 and AMATH 100 all with a D or better, or concurrent enrollment in ELCN 100, ELCN 101, ELCN 103, ELCN 125 and AMATH 100, or Instructor permission.

Note: This class must be taken concurrently with ELCN 100, ELCN 101, ELCN 103, ELCN 125 and AMATH 100.

ELCN 132
AC CIRCUIT LAB   **3 CR**
AC electrical theory is examined and verified with hands-on experiments utilizing standard test equipment

Prerequisite(s): ELCN 102 and 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.

Prerequisite(s): ELCN 101, ELCN 103, ELCN 125 or concurrent.

ELCN 143
ELECTRICAL DISTRIBUTION   **3 CR**
Electrical lab installation of services, panelboards, switches, and feeders.

Prerequisite(s): ELCN 104, ELCN 105, ELCN 113 or concurrent.

ELCN 151
COMMERCIAL WIRING METHODS & MATERIALS   **5 CR**
Installation of basic commercial electrical components and systems to meet recognized industry standards utilizing appropriate tools, wiring methods and materials.

Prerequisite(s): ELCN 103 and ELCN 142.

ELCN 201
ELECTRONICS FOR ELECTRICIANS **2 CR**
Diagnose and repair of industrial control devices emphasizing electronic theory and industrial solid state devices.

Prerequisite(s): ELCN 102 and 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.

Prerequisite(s): ELCN 104 and ELCN 105.

ELCN 203
PLCS & 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.

Prerequisite(s): ELCN 201, ELCN 202.

ELCN 214
SPECIAL OCCUPANCIES, EQUIPMENT & 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.

Prerequisite(s): ELCN 112.

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

ELCN 261
INDUSTRIAL CONTROL WIRING METHODS & MATERIALS   **6 CR**
This course is a hand's on lab exploring the design and construction of motor control systems. Control circuits are fabricated in industrial enclosures using control relays, timers, sensors, push-buttons, and motor starters.

Prerequisite(s): ELCN 202 with a D or better.

Completion Of or Concurrent Enrollment In: ELCN 202 with a D or better or concurrent enrollment in ELCN 202 or Instructor permission.

Note: This class must be taken concurrently with ELCN 202.

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.

Prerequisite(s): ELCN 261.

ELCN 263
AUTOMATED CONTROL PROJECTS **6 CR**
This is a hand's on lab, integrating motor controls, programmable logic controllers, variable frequency drives and industrial wiring distribution.

Prerequisite(s): ELCN 203 and 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 & DESIGN 3 CR
Designing and estimating material and labor costs for a variety of electrical projects using catalogs, the internet and estimating software.

Prerequisite(s): ELCN 103.

EMERGENCY MEDICAL SERVICES

EMS 121
EMT I: FUNDAMENTALS OF EMERGENCY CARE 4 CR
This course, first in a 3-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.

Prerequisite(s): Special Permission.

EMS 122
EMT II: MEDICAL DISORDERS AND EMERGENCIES 4 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.

Prerequisite(s): EMS 121.

EMS 123
EMT III: TRAUMATIC EMERGENCIES AND SPECIAL CIRCUMSTANCES 4 CR
In the third and final course in the EMT series, the student will learn how to deal with injuries caused in traumatic accidents, 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.

Prerequisite(s): EMS 122.

ENGINEERING TECHNOLOGY

AMAT 301
PROGRAMMING FOR TECHNOLOGISTS 2 CR
This course introduces concepts and techniques for creating computational solutions to problems in engineering and science. The essentials of computer programming are developed using Excel with VBA and other selected languages, with the goal of enabling the student to use the computer effectively in subsequent courses. Programming topics include problem decomposition, control structures, recursion, arrays and other data structures, file I/O, graphics, and code libraries. Examples will be drawn from relevant engineering fields and may include, root finding, matrix operations, searching and sorting, simulation, and data analysis. "Best practices" programming style and computational efficiency are emphasized.

Prerequisite(s): ENGL& 101 with a C+ or better and MATH& 142 with a C+ or better.

AMAT 312
APPLIED LINEAR ALGEBRA 2 CR
This course presents the fundamental concepts and applications of linear algebra with emphasis on developing structured algorithms and numerical solutions to problems in engineering and science. Topics include systems of linear equations, linear transformations, matrix operations, vector spaces, eigenvalues and eigenvectors, and determinants. Examples may be drawn from areas such as electrical engineering, process optimization, and statistics. This course includes introductions to Excel with VBA and other selected languages.

Prerequisite(s): MATH& 142 with a C+ or better.

Corequisite(s): ENGT 312.

AMAT 313
TECHNICAL CALCULUS 2 CR
This course is designed to develop the topics of differential and integral calculus with the aim of improving student intuition and skill sets associated with advanced engineering problem solving. Emphasis is placed on limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable. Additional topics include multivariable functions, vector calculus, and evaluation methods. Examples may be drawn from areas such as structural engineering, mechanics of materials, and electrical engineering. Scientific computing applications, including Excel with VBA and other selected languages, will be utilized to visualize and solve engineering problems.

Prerequisite(s): MATH& 142 with a C+ or better.

Corequisite(s): ENGT 313.

AMAT 314
APPLIED DIFFERENTIAL EQUATIONS 2 CR
This course is a survey of important applications and solution methods for differential equations, both linear and non-linear, related to engineering technology. Topics include the study of systems of ordinary differential equations using eigenvectors and eigenvalues, numerical solutions of first- and second-order equations and systems of equations, initial value problems, Laplace Transformations, separation of variables, and the solution of elementary partial differential equations using Fourier series. Emphasis will be placed on examples including structural analysis, material properties, vibrations, and fluid dynamics. Scientific computing applications, including Excel with VBA and other selected languages, will be utilized to visualize and solve engineering problems.

Prerequisite(s): AMAT 312 with a C or better and AMAT 313 with a C or better.

Corequisite(s): ENGT 314.

AMAT 316
NUMERICAL METHODS FOR TECHNOLOGISTS 2 CR
A study and analysis of important numerical and computational methods for solving engineering and scientific problems. This course will include methods for solving linear and nonlinear equations, polynomial interpolation and extrapolation, evaluating integrals, solving ordinary differential equations, and determining eigenvalues and eigenvectors of matrices. The student will be required to write and run computer programs using Excel with VBA and other selected languages. Examples will be drawn from a variety of engineering fields and disciplines, including an emphasis on fluid mechanics and heat transfer.

Prerequisite(s): AMAT 301, AMAT 312, AMAT 313, and AMAT 314 all with a C or better.

Corequisite(s): ENGT 316.

AMAT 490
STATISTICAL METHODS FOR TECHNOLOGISTS 2 CR
This course covers the role of statistics in engineering and emphasizes the application of statistical techniques and concepts to maximize the amount and quality of information resulting from analysis of process data. Course topics include descriptive statistics, probability theory, probability distributions, confidence intervals, hypothesis testing, linear regression, ANOVA, design of experiments, and collection and handling of data. The student will be required to write and run computer programs using Excel with VBA and other selected languages.

Prerequisite(s): MATH& 142 with a C+ or better and AMAT 301 with a C or better.

Corequisite(s): ENGT 490.

CENG 101

ENERGY & SOCIETY **3 CR**

Modern society is completely dependent on vast amounts of cheap energy, but the costs are high. Will we have enough usable energy for a planet of nine billion people? How do our choices in energy production impact the global and local environment? We will address these and other questions surrounding human energy use and work to understand the science, technology, and policy of energy use in the 21st century.

CENG 201

ENERGY POLITICS AND POLICY **5 CR**

This course will allow students to understand the history of energy policy within the US; gain an understanding of the major actors in energy policy; and explore the implications for energy policy from local to global levels. A specific focus will be placed on energy issues as they pertain to the Pacific Northwest.

Prerequisite(s): CENG 101 with a C or better.

CENG 220

ENERGY GENERATION AND CONSERVATION **5 CR**

This course introduces the engineering and technical aspects of renewable energy systems. It emphasizes basic generation and conservation technologies of renewable energy generation systems. Topics include heat transfer, power, thermodynamics, energy storage, energy conversion.

Prerequisite(s): CENG 101 with a C or better.

CET 102

FUNDAMENTALS OF SURVEYING I **5 CR**

Emphasis is placed on familiarization with the different types of surveys and their purpose and teaches the student to be able to differentiate between "accuracy" and "precision." It teaches the student to measure distances in a vertical direction and relate these measurements to a datum plane or elevation from sea level. Course also teaches the student how to measure directions from known points to find or establish other points and will enable the student to gain necessary skills in operating surveying instruments.

Prerequisite(s): MATH 098 with a C or better or Instructor permission.

CET 103

FUNDAMENTALS OF SURVEYING II **5 CR**

Emphasis on field work with the Total Station and Digital Level. A traverse will be run and adjusted and a topo made of the enclosed ground.

Prerequisite(s): CET 102 with a C or better.

CET 110

CONSTRUCTION AND HIGHWAY SURVEYS **5 CR**

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

Prerequisite(s): ENGT 134 and CET 102 with a C or better.

CET 120

ZONING, PERMITTING & PLATTING **5 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.

CET 141

FUNDAMENTALS OF GIS & GPS **5 CR**

Students develop knowledge and designing skills in topology, features, attributes, relational operators, data capture, coverage editing, coordinate systems, and map projections.

Prerequisite(s): MATH 098 with a C or better.

CET 142

INTERMEDIATE GIS **5 CR**

An introduction to desktop mapping, focusing on the use of ArcView software in Geographic Information Systems applications.

Prerequisite(s): ENGT 134 and CET 141 with a C or better.

CET 143

ADVANCED GIS APPLICATIONS **5 CR**

An advanced course in desktop mapping focusing on the use of the extensions in Geographic Information Systems applications.

Prerequisite(s): CET 142 with a C or better.

CET 205

SURVEY OF PUBLIC LANDS **5 CR**

This course will cover the basics of the Public Land Survey System (PLSS), when to use different reconstruction methods, and the correct techniques to determine information described on original survey data for the Public Lands.

Prerequisite(s): CET 102 with a C or better.

CET 210

BOUNDARY LAW & LAND DESCRIPTION **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.

Prerequisite(s): CET 103 with a C or better.

CET 215

ENVIRONMENTAL MAPPING **5 CR**

Coursework includes current industry mapping techniques and equipment as it relates to environmental issues such as wetlands mapping and habitat restoration.

Prerequisite(s): ENGT 134 and CET 102 with a C or better.

CET 220

GPS SYSTEMS **5 CR**

Global Positioning System software will be used to adjust raw field data collected with Trimble 4000 SST receivers.

Prerequisite(s): CET 215 with a C or better.

CET 225

ADVANCED SURVEY SEMINAR **5 CR**

Offers opportunities for the second year student to study advanced techniques in GPS, GIS, Data Collection, Research, and Surveying/ Mapping Software. The structure is self-motivated and supports transition from college structure to jobs in the Surveying and Mapping profession.

Prerequisite(s): CET 103 with a C or better.

CET 230

ESTIMATING AND SCHEDULING **5 CR**

An introduction to the construction process, project scheduling, and estimation of concrete, rebar, and earthwork quantities.

Prerequisite(s): CET 251 with a C or better.

CET 235

CONSTRUCTION MATERIALS **5 CR**

An introduction to the practices and procedures for the testing and placement of construction materials. This course covers basic steel stress, strain and thermal expansion. In depth coverage for testing and placing: soil, aggregate, asphalt and concrete. Also, included are standard inspection practices and construction documentation during and after the construction of sewer, water, storm, and roadway civil improvements.

CET 240

EARTHMOVING FUNDAMENTALS **5 CR**

An introduction to earthmoving production fundamentals of construction equipment. The production of heavy equipment, including excavators, scrapers, trucks, bulldozers, and front end loaders is examined from a production prospective. In addition, earthwork conversions to and from loose cubic yards, bank cubic yards, and compacted cubic yards is introduced.

Prerequisite(s): CET 251 with a C or better.

CET 251

AUTOCAD CIVIL 3D I   5 CR

Study and use of the Civil Engineering and Survey industry-specific CAD software for computer aided drafting. Focuses on land development and survey applications with AutoCAD on Civil/Survey specific software applications.

Prerequisite(s): ENGT 134 with a C or better or Instructor permission..

CET 252

AUTOCAD CIVIL 3D II   5 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.

Prerequisite(s): CET 251 with a C or better.

COMP 101

SURVEY OF COMPOSITES   2 CR

This course provides an introduction to the field of Composites Technologies, and provides an overview of workplace readiness skills.

COMP 121

COMPOSITES DESIGN & FABRICATION I   5 CR

Students are introduced to composite design and fabrication utilizing clean-room and post-cure fabrication tools. The purpose of this course is to provide an introduction to hands-on composite fabrication. Within this course, students will gain experience designing and fabricating composite parts utilizing vacuum infusion, closed cavity pressure forming, and pre-preg technologies.

Prerequisite(s): COMP 101 with a C or better and (ACCUPLACER Algebra score of 75 or MATH 098 with a C or better) and (ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better) and (ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better) and (completion of or concurrent enrollment in ENGR 115 or Instructor permission).

COMP 222

COMPOSITES DESIGN & FABRICATION II   5 CR

Students will combine knowledge of advanced composite materials, fabrication methods, design intent, and material testing methods. Students will gain experience in CAD/CAM stress analysis, then perform destructive strength tests and analyze deformation mechanics. Students will build composite parts per Detailed Engineering Drawings as well as design and fabricate original composite product.

Prerequisite(s): COMP 121 with a C or better, and completion of or co-enrollment in ENGR 180 or ENGT 233 with a C or better.

COMP 235

INSPECT, TEST & REPAIR   5 CR

Students will expand on their knowledge of advanced composite materials to include non-destructive inspection (NDI), destructive testing, repair methods, and metrology inspection. Students will also gain experience with 6-Sigma statistical analysis and other lean manufacturing and quality assurance methodology.

Prerequisite(s): COMP 222 with a C or better.

COMP 290

TOOL DESIGN   5 CR

Students apply composite tool design theory. Students will gain experience with design and fabrication composite tools including bladder molds and splash molds. In addition, students will expand on their experience in CNC programming and CNC machining.

Prerequisite(s): COMP 235 with a C or better.

ENET 100

DIRECT CURRENT   5 CR

An introduction to the fundamental properties and applications of electricity. This course covers the basic principles of DC electronics such as; voltage, current and resistance, Ohm's law, Joule's law, Kirchhoff's voltage and current laws, passive devices included resistors, capacitors, and inductors, circuit applications included maximum power transfer, superposition, Thevenin and Norton theorems. An introduction to magnetism which covers; magnetic fields, flux, density, permeability, retentivity, reluctance, and hysteresis. Students also learn how solder and understand the lab safety protocol.

Prerequisite(s): Completion of or co-enrollment in MATH& 141.

ENET 120

ALTERNATING CURRENT   5 CR

An introduction and examination of the principles and applications of alternating current. Topics include period, frequency, phase angle, reactance, impedance, resonance, peak and rms values, resistive, apparent, reactance power, and power factor. Students continue their exploration of AC with transformers and filter circuits (low-pass, high-pass, band-stop and band-pass). Practical labs and project help the students understand circuit constructions and troubleshooting techniques.

Prerequisite(s): ENET 100 with C or better.

ENET 130

SEMI-CONDUCTORS   5 CR

This course introduces semiconductor discrete components such as; diodes, bipolar transistors, FETS, MOSFET, SCR, diacs, triacs, and UJT. Circuit applications include; switching, amplifiers, oscillators, and power supply circuits. Practical labs and project help the students understand circuit constructions and troubleshooting techniques.

Prerequisite(s): ENET 120 with a C or better.

ENET 140

OPERATIONAL AMPLIFIER   5 CR

This course introduces the basic concepts of operational amplifiers. Topics include different configurations such as: comparator, differential amplifier, open and close loop feedback, CMR and CMRR, inverting and non-inverting, voltage/current converter, summer circuit, instrumentation amplifier, precision rectifier, and active filters. Practical labs and project help the students understand circuit constructions and troubleshooting techniques.

Prerequisite(s): ENET 130 with a C or better.

ENET 150

DIGITAL   5 CR

This course introduces basic concepts of logic operations, circuit and functions. Topics include; number systems, digital codes and parity, logic gates, Boolean algebra, Karnaugh map, function of combinational logic, flip-flop, counters, adders, and memory devices. Practical labs and project help the students understand digital circuits and troubleshooting techniques.

Prerequisite(s): ENET 140 with a C or better.

ENET 160

ELECTRONIC COMMUNICATION   5 CR

This course introduces the fundamentals and applications of AM/FM modulation and transmitters/ Receiver circuits. Digital communication techniques, transmission of binary data, and transmission lines. Also introduce Networking and Local-Area networks, and internet technologies. Practical labs and project help the students understand communication circuits and troubleshooting techniques.

Prerequisite(s): ENET 150 and MATH& 141 with a C or better, or Instructor permission.

ENET 212

MICRO-CONTROLLER SYSTEM I   5 CR

This course introduces the students to a simple micro-controller system using Arduino board. The first part is an introduction to system hardware such as; CPU, RAM, Flash, EEPROM, input and out, UART and I2C bus. The second part students write C language to use control structure, functions, array and strings, to control input and output of some electronics devices to do their labs as well as building their project. The C++ and the library codes also examined. Practical labs and project help the students understand both hardware and software and troubleshooting techniques.

Prerequisite(s): MATH& 141 and CS& 131 with a C or better, or Instructor permission.

ENET 213

MICRO-CONTROLLER SYSTEM II   5 CR

The course introduces the ARM microcontroller device. Primary emphasis of using the peripheral features to implement the computer portion of embedded applications such as; memory, arithmetic unit (ALU), registers, timer, counters, serial, UART and I2C, GPIO ports, and clock oscillator. Programming the microcontroller will be based on C language that emphasizes on Reduced In-

struction Set Computer (RISC) instruction set and registers. Students will learn the C writing source codes and compiling the program. Also using vendor's development tools to trace and debug the codes if necessary. Practical labs and project help the students understand both hardware and software and troubleshooting techniques.

Prerequisite(s): ENET 212 and MATH& 141 and CS& 131 with a C or better, or Instructor permission.

ENET 245
MECHATRONICS I **5 CR**
This course introduces the open and close loop control systems, the Microprocessor-Based control and Operational Amplifiers and Signal Conditioning, sensors, switches and relays, direct current motor, stepper motor and alternating current motors, Electric, Hydraulic and Pneumatic actuators, and Mechanical Systems. Practical labs and project help the students to put theories into action and learn troubleshooting techniques.

Prerequisite(s): ENET 150 and MATH& 142 with a C or better, or Instructor permission.

ENET 246
MECHATRONICS II **5 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. Practical labs and project help the students to put theories into action and learn troubleshooting techniques.

Prerequisite(s): ENET 245 and MATH& 142 with a C or better, or Instructor permission.

ENET 250
WIRELESS COMMUNICATION **5 CR**
This course focuses on fundamental concepts that play a key role in the study of telecommunication systems such as transmission of data, voice, and video networks. Through lecture and direct experiments with telecommunications equipment students learn the fundamental techniques of signal transmission and impairment measurement, frequencies, harmonic distortion, voice and data switching, and the fundamental functions of data networking and services. Practical labs and project help the students to put theories into action and learn troubleshooting techniques.

Prerequisite(s): ENET 150 and MATH& 142 with a C or better, or Instructor permission.

ENET 264
EMERGING TECHNOLOGY **5 CR**
This course is designed to keep students current with technology. Currently this course is an introduction to solar technology, nano-technology, and fuel cell (PEM) technologies. Students will learn the characteristics and the efficiency of the solar and PME fuel cell. Emphasis on clean energies and application. This course will change as new emerging technologies move to the forefront. Practical labs and project help the students

to put theories into action and learn troubleshooting techniques.

Prerequisite(s): ENET 150 and MATH& 142 with a C or better, or Instructor permission.

ENET 281
ROBOTICS **5 CR**
In this course students learn about the basic concepts of robot technology including major elements in a robotic system, understanding a robot's linkages, joint-spherical geometry, motion transfer from axis motors, and programming robot motions in open loop and close loop environments. Practical labs and project help the students to put theories into action and learn troubleshooting techniques.

Prerequisite(s): ENET 150 and MATH& 142 and CS& 131 with a C or better, or Instructor permission.

ENET 282
CERTIFIED ELECTRONICS TECHNICIAN TEST PREP **3 CR**
This course prepares students for the nationally recognized Certified Electronics Technician (CET) test.

ENET 290
CAPSTONE PROJECT I **2 CR**
This capstone project I is one of the three part series. This course emphasizes on some of the basic concepts of project management. Topics include: project selection and definition, need assessments, realistic design and implementation methodology, budget and delivery schedule. Students' proposal must be completed and approved by their program instructors before the next capstone project.

Prerequisite(s): ENET 140 with a C or better.

ENET 291
CAPSTONE PROJECT II **2 CR**
This capstone project II is the second phase of the three parts series. This course emphasizes on construction, test and evaluation for the students' projects. Topics include: procurement with critical components, prototype testing and evaluation, a power point presentation to highlight critical paths and challenges, alternative solutions to meet schedule delivery and overall accomplishments.

Prerequisite(s): ENET 290 with a C or better or Instructor permission.

ENET 292
CAPSTONE PROJECT III **2 CR**
This capstone project III is the final phase of the overall project. This course emphasizes on deliverable. Topics include: workable prototype or product, fine tune product specification as defined in the project proposal, packaging, testing and characterization, written report with introduction, table of contents, product description, block diagrams, theory of operations, schematics, program listings, part list and costs. A final project presentation and demonstration will be required to fellow students, program advisors, instructors,

faculty and staffs.

Prerequisite(s): ENET 291 with a C or better or Instructor permission.

ENGR 100
ENGINEERING ORIENTATION **2 CR**
This course explores engineering and technology through class discussion, hands-on activities, and presentations by guest speakers. Topics include engineering disciplines, degree and transfer options, career opportunities, academic success strategies, and planning your program of study.

ENGR& 104
INTRODUCTION TO ENGINEERING & DESIGN **5 CR**
Course explores the role of teamwork, creativity, and communication in innovative engineering design. Topics include engineering design process, collaborative problem solving techniques, and computer applications. Students will develop their knowledge and skills in these areas through a series of hands-on design projects.

Prerequisite(s): ACCUPLACER Algebra score of 75 or MATH 098 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

ENGR& 114
FUNDAMENTALS OF ENGINEERING GRAPHICS & CAD **5 CR**
Methods of depicting three-dimensional objects and communicating design information. Emphasis is on using parametric solid modeling software as a design tool and using freehand sketching to develop visualization skills.

Prerequisite(s): (ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better) and (ACCUPLACER Reading Comp score of 71 or RDG 085 with C or better) and (ACCUPLACER Sentence Skills score of 71 or ENGL 092 with C or better).

ENGR 115
GRAPHICS **5 CR**
This course is an introduction to the use of graphical techniques and standard practices used to communicate engineering design information. Students will learn graphics techniques, visualization skills, standards for object views and drawing sizes, orthographic projection, section views, proper dimensioning techniques, and tolerances. Freehand sketching is used to develop visualization skills and as an instrument for design conceptualization and communication.

Prerequisite(s): ACCUPLACER Arithmetic score of 50 or a C grade or better in MATH 090 or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

ENGR 180
PARAMETRIC MODELING 5 CR
This course is an introduction to 3D CAD (computer aided design) with an emphasis on parametric solid modeling applications and usage. Topics include methods for creating solid model components, joining components to form assemblies, and generation of 2D manufacturing drawings from 3D solid models.

Prerequisite(s): ENGR 115 with a C or better, or MACH 102 with a C or better.

ENGR& 202
DIGITAL CIRCUITS 5 CR
This course introduces students to the skills, methods and theoretical knowledge needed to design, simulate and build combinational and sequential digital logic circuits. Using industry relevant CAD tools and design technologies, students will learn through homework and projects to design and implement a representative collection of digital logic circuits. Upon course completion, students will apply their design and use the same tools that are prevalent in industry to many digital electronics applications.

Prerequisite(s): ENET 130, ENET 150 and MATH 141 with a C or better, or Instructor permission.

ENGR& 204
ELECTRICAL CIRCUITS 5 CR
This course is a basic introduction to electrical engineering and circuit analysis. Topics covered include basic circuit and systems concepts, mathematical models of components, Kirchoff's laws, resistors, sources, capacitors, inductors, and operational amplifiers. The solution of first and second order linear differential equations associated with basic circuit forms is required.

Prerequisite(s): MATH& 151 and PHYS& 220 with a C or better or Instructor permission.

ENGR& 214
ENGINEERING STATICS 5 CR
Engineering Statics introduces students to the mechanics of rigid bodies in static equilibrium. Students will solve practical engineering problems involving the loads carried by structural components using vector analysis (both 2D and 3D) applied to rigid body systems and subsystems. Content includes static equilibrium, force and moment resultants, free body diagrams, distributed loads, trusses, frames and machines, internal forces, shear and moment diagrams, and friction.

Prerequisite(s): MATH& 151 and PHYS& 221 with a C or better.

ENGR& 215
DYNAMICS 5 CR
Principles of dynamics, including Newton's Laws. Analysis of the equations of motion of particles and rigid bodies, kinematics, dynamics, impulse, momentum, work and energy.

Prerequisite(s): ENGR& 214 Engineering Statics and MATH& 142 Precalculus II each with a grade of 2.0 or higher or Instructor permission.

ENGR 270
INTRODUCTION TO MATERIALS SCIENCE 5 CR
An introduction to Materials Science that includes the atomic, molecular, and crystalline structures of materials and their relationship to electrical, mechanical, thermal, and chemical properties, as well as an introduction to materials processing and fabrication techniques.

Prerequisite(s): MATH& 151 and CHEM& 161 with a C or better.

ENGT 116
ADVANCED GRAPHICS 5 CR
This course is a continuation of the mechanical engineering graphic technology foundation. It utilizes CAD to develop advanced drawing techniques in accordance with industry standards. Instruction includes projection techniques for points, lines, and planes; the purpose and application of auxiliary views; methods for developing more advanced principal views; dimensioning and tolerancing of parts for manufacture according to ASME/ANSI standards; and methods for representing threads and fasteners.

Prerequisite(s): ENGR 115 with a C or better, and completion of or concurrent enrollment in ENGT 135 with a C or better.

ENGT 134
AUTOCAD I 5 CR
This course is an introduction to CAD (Computer Aided Drafting), utilizing a "cookbook" approach to instruction. Students have immediate hands-on computer usage while applying basic command concepts and terminology. Basic drawing and editing techniques are reinforced with exercises designed to help the student reach an in-depth understanding.

ENGT 135
AUTOCAD II 5 CR
This course is a continuation of AutoCAD I and utilizes intermediate drawing and editing tools. Coursework includes generating and editing dimensions and tolerances in CAD, methods for creating isometric drawings, paperspace techniques for printing/plotting to scale, applications and procedures for creating attributed blocks, creation of table, and the applications and procedures for using external references.

Prerequisite(s): ENGT115 and ENGT 134 with a C or better.

ENGT 208
CAD PROJECT 3D 5 CR
This is a project oriented design course in which students create a 3D solid model of an existing assembly or one of their own design. Each student will generate a complete working drawing set for their assembly including engineering details and assembly drawings in accordance with industry standards. A portfolio including preliminary sketches, detail drawings, and assembly drawings will be submitted.

Prerequisite(s): ENGR 180 with a C or better, and completion of or concurrent enrollment in ENGT 116 with a C or better.

ENGT 215
APPLIED STATICS 5 CR
This course is an introduction to engineering mechanics, focusing on the analysis of "static" (non-moving) structures. Students will use statics concepts to determine the external reaction loads and internal member forces for trusses, frames, and machines.

Prerequisite(s): MATH& 142 with a C or better (Acceptable substitute: AMATH 111 with a C or better and CET 102 with a C or better).

ENGT 216
APPLIED MECHANICS OF MATERIALS 5 CR
This course explores the effect of forces on engineering structures and the resulting internal stresses and deformations that develop. Students will apply statics and strength of materials concepts to determine size, shape, and material requirements for engineering components. Topics include an introduction to stress and strain, physical characteristics of components (size and shape), mechanical properties of engineering materials (strength, stiffness, etc.), and materials testing and composition.

Prerequisite(s): ENGT 215 with a C or better.

ENGT 222
ADVANCED PARAMETRIC MODELING 5 CR
This course is a continuation of Parametric Modeling. Topics include more advanced methods for the creation of parts, assemblies, and 2D manufacturing drawings.

Prerequisite(s): ENGR 180 with a C or better.

ENGT 223
STRUCTURAL DETAILING 5 CR
This course provides an introductory overview of structural drafting and design. Subject areas include specifications for structural members and ancillary components, design and construction work flow, drafting and design of bolted and welded connections, and standard structural design concepts. Students will utilize Bentley Pro-Steel software to create 3D design models. The 3D design models will be subsequently used to generate structural member detail drawings.

Prerequisite(s): ENGT 116 and ENGT 135 with a C or better.

ENGT 224

PROCESS PIPING DESIGN   **5 CR**

This course provides an introductory overview of process pipe drafting and design. It covers various topics including: piping concepts/terminology, pipe and fitting specifications, piping symbol representation, valves and instrumentation, 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 used to generate a variety of standard pipe drawings including plans/elevations, isometrics, spool drawings.

Prerequisite(s): ENGT 116 and ENGT 135 with a C or better.

ENGT 233

INTRO TO CATIA   **5 CR**

This course is an introduction to solid modeling using CATIA V5 CAD (computer aided design) software. Topics include methods for creating solid model components, joining components to form assemblies, and generating 2D manufacturing drawings from 3D solid models.

Prerequisite(s): ENGR 115 with a C or better.

ENGT 250

CAPSTONE PROJECT   **5 CR**

This is a project oriented design course in which students draw on skills developed throughout the program to complete an instructor selected project. Topics are chosen based on real world significance, relevance and breadth of the skill set required, and available on-campus project opportunities. Projects may be individual or group based and typically involve several or all of the following completion tasks; 2D CAD drafting, 3D solid modeling, statics analysis of structural loads, sizing of members based on strength of materials, geometric and trigonometric calculations, data exchange, etc.

Prerequisite(s): ENGR 180, ENGT 116 and ENGT 135 with a C or better.

ENGT 291

INTERDISCIPLINARY DESIGN PROJECT I   **2 CR**

Design projects open to all students in design and manufacturing related fields. Class structure guides interdisciplinary student teams through a process of conceptualizing a project, developing, and documenting a detailed design, fabricating a prototype, testing, analysis, and reporting. All students are engaged in all aspects of their project regardless of their home program or discipline. Design projects may be oriented toward regional design competitions. Specific project requirements are tailored to student's educational and practical experience levels.

Prerequisite(s): Instructor permission.

ENGT 292

INTERDISCIPLINARY DESIGN PROJECT II   **2 CR**

Design projects open to all students in design and manufacturing related fields. Class structure guides interdisciplinary student teams through a process of conceptualizing a project, developing and documenting a detailed design, fabricating a prototype, testing, analysis, and reporting. All students are engaged in all aspects of their project regardless of their home program or discipline. Design projects may be oriented toward regional design competitions. Specific project requirements are tailored to students' educational and practical levels.

Prerequisite(s): Instructor permission.

ENGT 293

INTERDISCIPLINARY DESIGN PROJECT III   **2 CR**

Design projects open to all students in design and manufacturing related fields. Class structure guides interdisciplinary student teams through a process of conceptualizing a project, developing and documenting a detailed design, fabricating a prototype, testing, analysis, and reporting. All students are engaged in all aspects of their project regardless of their home program or discipline. Design projects may be oriented toward regional design competitions. Specific project requirements are tailored to students' educational and practical levels.

Prerequisite(s): Instructor permission.

ENGT 295

FIELD-BASED EXPERIENCE   **3–6 CR**

This course provides students with industry job experience in a college approved professional setting, allowing students to apply first year curriculum skills and engineering knowledge to engineering and design activities in a variety of organizations. May be repeated for credit.

Prerequisite(s): Instructor permission.

ENGT 301

INTRODUCTION TO ENGINEERING TECHNOLOGY   **1 CR**

This course introduces students to the Bachelor of Applied Science in Engineering Technology (BASET) program at Bellingham Technical College. It is designed to develop student ability to function effectively on teams; identify, analyze and solve technical problems; make effective written and oral communications and presentations; understand professional, ethical and social responsibilities; recognize contemporary professional, social and global issues; and commit to lifelong learning and continuous improvement. The course includes a technology orientation that includes design, programming, and application software packages, such as SolidWorks, Excel with VBA, and Canvas. A workshop and laboratory safety and skills module will prepare students to work safely and effectively on future program related projects.

Prerequisite(s): ENGL& 101 with a C+ or better and MATH& 142 with a C+ or better and (PHYS& 114 or PHYS& 221) with a C+ or better.

ENGT 311

FUNDAMENTAL PRINCIPLES OF MANUFACTURING PROCESSES   **3 CR**

This course is designed to provide a basic understanding of traditional methods of materials processing used in product manufacturing. The fundamental principles behind various manufacturing processes will be discussed with the intent of providing students with the skills to assess process capabilities and limitations. A wide range of manufacturing processes will be introduced, including casting, extruding, forging, molding, forming, joining, machining, heat treating, injection molding, and 3D printing.

Prerequisite(s): ENGL& 101 with a C+ or better and MATH& 142 with a C+ or better.

ENGT 312

APPLIED ELECTRICITY AND ELECTRONICS   **5 CR**

This course covers the fundamental principles of electricity and electronics including electric circuit theory, the nature of electricity, electronic instrumentation and measurement systems, signals, sensors, and transformations. Topics include alternating current (AC) and direct current (DC) components, circuit analysis techniques, semiconductors, electromagnetism, sources, energy conversion, microcontrollers, and electrical instruments. Weekly laboratories will be held during which students will layout, test, and troubleshoot various electronic circuits and devices—laboratories may utilize electronics kits or software simulation.

Prerequisite(s): MATH& 142 with a C+ or better and (PHYS& 114 or PHYS& 221) with a C+ or better.

Corequisite(s): AMAT 312.

ENGT 313

APPLIED STATICS   **5 CR**

This course examines the principle forces, moments, resultants & static equilibrium of force systems, center of gravity, friction, and free body diagram analysis. Problem disentanglement, setup, and development of solution paths are emphasized. Additional topics may also cover the concepts of stress and strain, shear, bending moments, torsion, bending stresses in beams and stress resolution and shear. The course includes a laboratory component.

Prerequisite(s): ENGL& 101 with a C+ or better and MATH& 142 with a C+ or better and ENGT 301 with a C or better.

Corequisite(s): AMAT 313.

ENGT 314
APPLIED STRENGTH OF MATERIALS 5 CR

This course examines both the theory and experimental techniques common in materials engineering with analysis of the relationship between externally applied forces and internal reactions in materials. Topics covered include strength, deformation, fracture, creep, stress-strain relations, and cyclic fatigue properties of engineering materials, such as wood, metals, plastics, composites, and ceramics. Additional topics may include the design and analysis of mechanical components subject to static and fatigue loading conditions, deformation, and buckling. Emphasis will be placed on interpretation of experimental data, comparison of measurements to numerical/analytical predictions, finite element analysis, and engineering report writing. The course includes a laboratory component.

Prerequisite(s): (PHYS& 114 or PHYS& 221) with a C+ or better and ENGT 301, AMAT 301, ENGT 313, and AMAT 313 all with a C or better.

Corequisite(s): AMAT 314.

ENGT 316
APPLIED FLUID MECHANICS AND HEAT TRANSFER 5 CR

This course explores the fundamental concepts of fluid mechanics and heat transfer and their applications in engineering. Fluid mechanics and heat transfer are key to the understanding and improvement of mechanical systems. Topics include analysis of static fluid bodies, fluid dynamics, the effects of viscous and thermal boundary layers, fluid conservation equations, fluid flow through piping systems and external flow analysis, the concept of boundary layer behavior to heat transfer, conduction and convection, the design of heat exchangers, and introduction to process thermodynamics. The course includes a laboratory component.

Prerequisite(s): (PHYS& 114 or PHYS& 221) with a C+ or better and CHEM& 161 with a C+ or better and AMAT 301 with a C or better and AMAT 314 with a C or better and ENGT 301 with a C or better.

Corequisite(s): AMAT 316.

ENGT 352
PROCESS SAFETY 5 CR

The main focus of this course is to cover the broad scope of process safety engineering. An emphasis is placed on how process safety engineering fits into the broader context of risk management and process safety management. Examples will be drawn from a variety of manufacturing industries and production facilities. Topics covered may include, risk analysis, inherently safer design, process hazards analysis, historical incident databases, equipment layout and spacing, monitoring and control, safety instrumented systems, and fire and explosion principles.

Prerequisite(s): ENGT 301 with a C or better and ENGT 391 with a C or better.

ENGT 390
PROJECT PLANNING AND MANAGEMENT 1 CR

This course examines the engineering design process and teaches students techniques necessary to develop realistic and comprehensive project plans. Topics include how to effectively manage resources, coordinate multiple tasks associated with design projects, conflict resolution, and the use of software to develop and manage project plans.

Prerequisite(s): ENGT 301 with a C or better.

ENGT 391
INTRODUCTION TO ANALYSIS AND DESIGN 3 CR

This course explores the role of engineering design and collaborative problem-solving in the context of small scale design projects. Students work in teams to develop their problem-solving and teamwork skills. This course serves as a foundational engineering design experience and leads directly to the year-long Engineering Technology Capstone Project.

Prerequisite(s): ENGT 301 with a C or better and ENGT 390 with a C or better.

ENGT 395
FIELD-BASED EXPERIENCE/ INTERNSHIP 2-5 CR

Engineering internships are not required but serve as a critical experience for students to apply classroom learning to real world experiences and potentially help them to secure full-time positions upon graduation. The aim of this course is to enable students to gain skills needed to negotiate, plan, undertake and communicate the results of an engineering project while working in an industry placement. The project topic will be based on the needs of the industry. The project will be completed under the supervision of an industry professional (preferably with a degree in Engineering, Engineering Technology, or closely related field). The course requires placement of the student in an industry or research internship. Variable credit can be earned for periods of 3-12 weeks of full-time equivalence.

Prerequisite(s): ENGT 301 with a C or better and ENGT 390 with a C or better and ENGT 391 with a C or better.

ENGT 415
TECHNICAL DYNAMICS 5 CR

This course focuses on the study of kinematics, dynamics, and vibrations of particles and rigid bodies, such as mechanical components. Topics include principles of motion of mechanical systems, inertia, work and energy, linear and angular momentum, vibrational analysis, and impact. Emphasis will be placed on 1) kinematic analysis and synthesis of mechanisms, with applications to linkages, cams, and gears, 2) dynamics of reciprocation and rotating machinery, and 3) mechanical vibrations. A laboratory component will focus on

computer-aided design and analysis of kinematic and kinetic models.

Prerequisite(s): (PHYS& 114 or PHYS& 221) with a C+ or better and AMAT 301, ENGT 313, AMAT 313, ENGT 314, and AMAT 314 all with a C or better.

ENGT 441
APPLIED PROCESS CONTROL 5 CR

This course introduces dynamic processes and the engineering tasks of process operations and control. Subject covers modeling the static and dynamic behavior of processes; control strategies; design of feedback, feedforward, and other control structures; and applications to process equipment. Laboratory exercises will reinforce the major concepts, and students will be expected to use and write computer programs.

Prerequisite(s): ENGT 316 with a C or better and AMAT 316 with a C or better.

ENGT 465
APPLIED ENVIRONMENTAL ENGINEERING 5 CR

This course develops and utilizes analytic solutions for environmental process models that can be used in a) reactor design for processes used in the treatment of water, wastewater and hazardous waste and b) process analysis of natural systems, such as streams and groundwater flow. Models facilitate the tracking of contaminants in engineered and natural systems. Includes a laboratory component.

Prerequisite(s): ENGT 316 with a C or better and AMAT 316 with a C or better.

ENGT 481
SPECIAL TOPICS IN ENGINEERING TECHNOLOGY 5 CR

A special topics Engineering Technology course in lieu of or supplementary to a 400-level course as arranged by a Bellingham Technical College faculty member. The course must be approved by the BASET Program Lead in advance of the quarter in which it will be offered. No more than two such courses may be used in satisfaction of requirements of the program electives.

Prerequisite(s): ENGT 314 with a C or better and AMAT 314 with a C or better.

ENGT 490
ENGINEERING TECHNOLOGY CAPSTONE I 2 CR

Senior Project: This is the first in a yearlong, 3-course sequence in which students will work in teams to design, build, and test systems with real world applications. The focus of this course will be on selecting and identifying a project and then developing and documenting a comprehensive plan for completing the project.

Prerequisite(s): ENGT 391 with a C or better.

Corequisite(s): AMAT 490.

ENGT 491
ENGINEERING TECHNOLOGY CAPSTONE II   5 CR

Senior Project: This is the second in a yearlong, 3-course sequence in which students will work in teams to design, build, and test systems with real world applications. The focus of this course will be on applying engineering design processes including defining functional requirements, conceptualization, analysis, identifying risks, materials selection, and fabrication. An emphasis will be placed on student teams designing and building a working prototype.

Prerequisite(s): ENGT 301 with a C or better and ENGT 490 with a C or better and AMAT 490 with a C or better.

ENGT 492
ENGINEERING TECHNOLOGY CAPSTONE III   5 CR

Senior Project: This is the third in a yearlong, 3-course sequence in which students will work in teams to design, build, and test systems with real world applications. The focus of this course will be on applying engineering design processes including defining functional requirements, conceptualization, analysis, identifying risks, materials selection, and fabrication. An emphasis will be placed on student teams developing a simulation model, fully documenting their solution with a technical report, and giving a final project presentation.

Prerequisite(s): ENGT 301 with a C or better and ENGT 491 with a C or better.

ENGT 495
FIELD-BASED EXPERIENCE/ INTERNSHIP   2-5 CR

Engineering internships are not required but serve as a critical experience for students to apply classroom learning to real world experiences and potentially help them to secure full-time positions upon graduation. The aim of this course is to enable students to gain skills needed to negotiate, plan, undertake and communicate the results of an engineering project while working in an industry placement. The project topic will be based on the needs of the industry. The project will be completed under the supervision of an industry professional (preferably with a degree in Engineering, Engineering Technology, or closely related field). The course requires placement of the student in an industry or research internship. Variable credit can be earned for periods of 3-12 weeks of full-time equivalence.

Prerequisite(s): ENGT 301 with a C or better and ENGT 391 with a C or better and ENGT 490 with a C or better.

ENGT 499
SPECIAL PROBLEMS   2-5 CR

This course is designed as an individual research or design project directly related to engineering technology and carried out under the supervision of a member of the Bellingham Technical College faculty. Students electing this course will be required to carry out preliminary reading and complete a scope of work that includes deliverables during the preceding quarter. Students are expected to manage all aspects of their individual project from conceptualization through the planning phase and to the ultimate achievement of the deliverables. A major written report and oral presentation will be submitted for review at the completion of the project.

Prerequisite(s): ENGT 316 with a C or better and AMAT 316 with a C or better and ENGT 490 with a C or better.

ENGLISH

RDG 085
READING SKILLS   5 CR

This course focuses on developing technical/college-level reading. Emphasis is placed on locating main ideas, summarizing, critical thinking skills and digital literacy. Students will document reading strategies for a variety of reading material as well as map navigation process for on-screen readings. Practices include daily reading, group work, vocabulary expansion, critical thinking, and summary writing.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 50 or ABE 054 or ABE 055 with a C or better, and ACCUPLACER Sentence score of 50 or ABE 052 or ABE 055 with a C or better.

AENGL 100
APPLIED ENGLISH   5 CR

This applied English course focuses on the workplace communication skills needed to send, receive, and process oral and written information. Along with a review of writing fundamentals, learners will use principles of clear communication, professionalism, and cultural awareness in occupational contexts. Learners will sharpen their reading, writing, and presentation skills.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better .

ENGL 092
FUNDAMENTALS OF STANDARD WRITTEN ENGLISH   5 CR

This course focuses on the fundamentals of college-level standard written English. Students are introduced to research skills. Course work includes a study of the conventional grammatical rules of English in the construction of effective sentences, paragraphs, and essays.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 50 or ABE 054 or ABE 055 with a C or better, and ACCUPLACER Sentence score of 50 or ABE 052 or ABE 055 with a C or better.

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.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 85 or RDG 085 with a C or better; ACCUPLACER Sentence Skills score of 86 or ENGL 092 with a B or better or AENGL 100 with a C or better.

ENGL& 102
ENGLISH COMPOSITION II   5 CR

Intermediate academic essay writing. Emphasis on critical reading and writing, synthesis of cross-disciplinary texts, documentation of sources and argumentation.

Prerequisite(s): ENGL& 101 with a C or better.

ENGL& 235
TECHNICAL WRITING   5 CR

This course is designed to help students report technical information clearly, completely, and persuasively. Technical writing shares many of the same concerns of other kinds of writing, such as attention to Purpose, Readability, and most significantly, Audience. This course is designed to provide instruction and practice in creating practical and effective documents for students in medical, scientific, technical, and other professional fields.

Prerequisite(s): ENGL& 101 with a C or better.

ENGL 310
BUSINESS COMMUNICATIONS   5 CR

This course focuses on audience-oriented communication in the business environment. Course content includes writing reports, proposals, memoranda, and e-mails; graphical presentation of data using Excel; and developing and delivering presentations using PowerPoint and other visual aids. Students will develop and demonstrate these communication skills individually, in smaller groups, and in presentations to larger audiences.

Prerequisite(s): Admission to the BASOPS program.

ENVIRONMENTAL 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.

Prerequisite(s): 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 AENGL 100 .

ENVS 151
BASIC CSTOP COURSE   **1 CR**
Developed by Construction Safety Professionals to provide superior Safety Training, CSTOP is an industrial and heavy construction safety training and orientation program designed to provide contractor employees with a better than basic understanding of hazards and safety procedures associated with work in highly hazardous work areas.

FISHERIES

AQUA 100
LAB AND FIELD SAFETY   **1 CR**
An introduction to lab and field safety, with an emphasis on workplace ergonomics, hazardous chemical usage and storage, proper handling and maintenance of gear and equipment, and OSHA regulations.

Prerequisite(s): ACCUPLACER Arithmetic score of 75 or MATH 090 with a C or better; ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: AQUA 110, AQUA 120, AQUA 130 and AQUA 135 all with a C- or better or concurrent enrollment in AQUA 110, AQUA 120, AQUA 130 and AQUA 135 or Instructor permission.

Note: This class must be taken concurrently with AQUA 110, AQUA 120, AQUA 130 and AQUA 135.

AQUA 110
WATER QUALITY   **3 CR**
An introduction to water quality principles with an emphasis on aquaculture production systems and environmental habitats. Students will learn standard methods of measuring water quality and managing water quality data. This course also covers common issues with water quality and practical approaches to solving them.

Prerequisite(s): ACCUPLACER Arithmetic score of 75 or MATH 090 with a C or better; ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AQUA 100, AQUA 120, AQUA 130 and AQUA 135 all with a C- or better or concurrent enrollment in AQUA 100, AQUA 120, AQUA 130 and AQUA 135, or Instructor permission.

Note: This class must be taken concurrently with AQUA 100, AQUA 120, AQUA 130 and AQUA 135.

AQUA 120
AQUATIC BIODIVERSITY   **4 CR**
An introduction to the taxonomy, anatomy, and life cycles of plants and animals, with an emphasis on Pacific Northwest algae, shellfish, and finfish. This course will also cover evolutionary adaptations to aquatic environments.

Prerequisite(s): ACCUPLACER Arithmetic score of 75 or MATH 090 with a C or better; ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AQUA 100, AQUA 110, AQUA 130 and AQUA 135 all with a C- or better, or concurrent enrollment in AQUA 100, AQUA 110, AQUA 130 and AQUA 135, or Instructor permission.

Note: This class must be taken concurrently with AQUA 100, AQUA 110, AQUA 130 and AQUA 135.

AQUA 130
REPRODUCTION   **2 CR**
An introduction to reproductive biology with a focus on crustaceans, shellfish, and fish. This course covers the anatomy and physiology of reproductive systems, life history strategies, and spawning techniques for aquaculture.

Prerequisite(s): ACCUPLACER Arithmetic score of 75 or MATH 090 with a C or better; ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: AQUA 100, AQUA 110, AQUA 120 and AQUA 135 all with a C- or better, or concurrent enrollment in AQUA 100, AQUA 110, AQUA 120 and AQUA 135, or Instructor permission.

Note: This class must be taken concurrently with AQUA 100, AQUA 110, AQUA 120 and AQUA 135.

AQUA 135
PRACTICUM I   **4 CR**
This lab course provides hands on training to reinforce the learning objectives in AQUA 110, AQUA 120, and AQUA 130. Students will practice spawning techniques, including wet and dry fertilizations, proper gamete handling, and calculations of reproductive metrics. Students will also apply water quality theory to lab and field projects and taxonomic tools for site surveys, hatchery operations, and aquaculture husbandry.

Prerequisite(s): ACCUPLACER Arithmetic score of 75 or MATH 090 with a C or better; ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C; or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AQUA 100, AQUA 110, AQUA 120 and AQUA 130 all with a C- or better, or concurrent enrollment in AQUA 100, AQUA 110, AQUA 120 and AQUA 130, or Instructor permission.

Note: This class must be taken concurrently with AQUA 100, AQUA 110, AQUA 120 and AQUA 130.

AQUA 140
GROWTH AND NUTRITION   **3 CR**
This course will provide an overview on the nutrition and feeding of aquatic species to promote healthy and sustainable growth. There will be a focus on crustaceans, shellfish, and finfish from an aquaculture perspective.

Prerequisite(s): AQUA 100, AQUA 110, AQUA 120, AQUA 130, and AQUA 135 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AMATH 111 with a C or better or concurrent enrollment in AMATH 111 or Instructor permission.

AQUA 150
FUNDAMENTALS OF AQUACULTURE   **3 CR**
An introduction to culturing aquatic biota for commercial production and fisheries stock enhancement, with an emphasis on commonly used culturing systems, shellfish and finfish husbandry, and hatchery operations.

Prerequisite(s): AQUA 100, AQUA 110, AQUA 120, AQUA 130, and AQUA 135 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AMATH 111 with a C or better or concurrent enrollment in AMATH 111 or Instructor permission.

AQUA 160
FUNDAMENTALS OF FISHERIES BIOLOGY   **3 CR**
An introduction to the principles of fisheries biology and the population dynamics of crustacean, shellfish, and fish species, with an emphasis on Pacific Northwest stocks. The course will include an overview of fisheries gear, technology, sampling techniques, and data collection for stock assessments.

Prerequisite(s): AQUA 100, AQUA 110, AQUA 120, AQUA 130, and AQUA 135 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AMATH 111 with a C or better or concurrent enrollment in AMATH 111 or Instructor permission.

AQUA 165
PRACTICUM II   **3 CR**
This lab course provides hands on training to reinforce the learning objectives in AQUA 140, AQUA 150, and AQUA 160. Students will practice culturing techniques for algae, shellfish, and finfish species, including: stocking systems based on condition factors, recording growth and mortality metrics, monitoring embryonic and juvenile development, and creating feeding schedules. Students will be introduced to aging techniques for shellfish and finfish, practice using common fishing knots to repair and maintain fisheries gear, and manage databases for hatchery operations.

Prerequisite(s): AQUA 100, AQUA 110, AQUA 120, AQUA 130, and AQUA 135 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: AMATH 111 with a C or better or concurrent enrollment in AMATH 111 or Instructor permission.

AQUA 170
FRESHWATER ECOLOGY   **3 CR**
An introduction to the ecology of rivers, lakes, and other freshwater systems with an emphasis on physical and chemical interactions with biotic communities. This course covers the effects of land use practices on freshwater habitats and techniques for mitigating habitat degradation. Students also will examine the habitat, ecology, and management of invertebrate and vertebrate species in freshwater environments.

Prerequisite(s): AQUA 140, AQUA 150, AQUA 160, and AQUA 165 all with a C- or better and AMATH 111 with a C or better or Instructor permission.

AQUA 180
OCEANOGRAPHY   **3 CR**
An introduction to the principles of oceanography, with an overview of the physical, geological, chemical, and biological components of marine environments. This course will cover plate tectonics, circulation and currents, weather events, and coastal and pelagic ecosystems. Students will also learn about issues affecting the Pacific Ocean, such as polar ice cap melting, offshore drilling, and ocean acidification.

Prerequisite(s): AQUA 140, AQUA 150, AQUA 160, and AQUA 165 all with a C- or better and AMATH 111 with a C or better or Instructor permission.

AQUA 190
TOXICOLOGY AND DISEASES   **3 CR**
An introduction to shellfish and finfish diseases and environmental toxicology. This course will cover the biology and ecology of pathogens, including bacteria, fungi, parasites, and viruses. Students will also learn the sources and exposure routes of pollutants and pathogens, lymphatic and behavioral responses, and commonly used diagnostics and treatments.

Prerequisite(s): AQUA 140, AQUA 150, AQUA 160, and AQUA 165 all with a C- or better and AMATH 111 with a C or better or Instructor permission.

AQUA 195
PRACTICUM III   **4 CR**
This lab course provides hands on training to reinforce the learning objectives in AQUA 170, AQUA 180, and AQUA 190. Students will practice techniques for habitat assessments and sampling methodology for aquatic invertebrate and vertebrate species in freshwater and marine environments. This course also covers disease monitoring and implementing treatment plans for sustainable aquaculture, along with advanced husbandry practices for rearing juveniles.

Prerequisite(s): AQUA 140, AQUA 150, AQUA 160, and AQUA 165 all with a C- or better and AMATH 111 with a C or better or Instructor permission.

AQUA 200
GENETICS IN FISHERIES AND AQUACULTURE   **3 CR**
An introduction to the basics of population genetics and the evolutionary principles that determine genetic variation in both natural and artificial environments. This course will highlight current aquaculture techniques in broodstock management, improvements in breeding practices, increasing genetic diversity and sustainability, and addressing environmental considerations.

Prerequisite(s): AQUA 170, AQUA 180, AQUA 190, and AQUA 195 all with a C- or better or Instructor permission.

AQUA 210
PRACTICUM IV   **3 CR**
This lab course provides hands on training to reinforce the learning objectives in AQUA 200 and promote enhanced mastery of skills demonstrated in AQUA 135, AQUA 165, and AQUA 195. Students will implement broodstock management techniques, conduct fertilization and developmental studies, and practice project management skills during the spawning season.

Prerequisite(s): AQUA 170, AQUA 180, AQUA 190, and AQUA 195 all with a C- or better or Instructor permission.

AQUA 220
PROFESSIONAL DEVELOPMENT   **2 CR**
This course covers the fundamentals of planning and organizing job search strategies for the fisheries and aquaculture fields. Focus is placed on identifying career goals, assessing skills and accomplishments, the use of employment search tools, and creating effective application materials.

Prerequisite(s): AQUA 200 with a C- or better and AQUA 210 with a C- or better or Instructor permission.

AQUA 230
CURRENT TOPICS   **3 CR**
A seminar based course that explores recent developments in technology, research, and management for the fisheries and aquaculture fields. Students will review prepared material, attend invited speaker seminars, engage in critical discussions, and prepare written evaluations of the topic. Topics will include presentations from gov-

ernment, tribal, non-profit, academic, and private industries for finfish and shellfish aquaculture, fisheries biology and management, and habitat restoration.

Prerequisite(s): AQUA 200 with a C- or better and AQUA 210 with a C- or better or Instructor permission.

AQUA 240
INDEPENDENT PROJECT   **2 CR**
Students will design and implement independent research and/or engineering projects in identified areas of interest. Projects may include developing new husbandry techniques, conducting lab and field experiments, or designing and building equipment and technology. There will be an emphasis on developing project management skills, including: writing project proposals, setting deadlines, and creating budgets.

Prerequisite(s): AQUA 200 with a C- or better and AQUA 210 with a C- or better or Instructor permission.

AQUA 250
ADVANCED SAMPLING TECHNIQUES   **4 CR**
This workshop based course focuses on developing advanced sampling and analysis skills commonly used in fisheries and aquaculture sciences. Students will collect and analyze sampling data from field and lab projects, including fisheries surveys, hatchery operations, and habitat assessments. Topics may include: benthic macroinvertebrate assessments, aging techniques for shellfish and finfish, population dynamics calculations, and food web analysis for marine and freshwater ecosystems.

Prerequisite(s): AQUA 200 with a C- or better and AQUA 210 with a C- or better or Instructor permission.

AQUA 260
NATURAL RESOURCE MANAGEMENT   **4 CR**
In this course, students explore how to balance the ecology and economics of limited natural resources through the management of diverse stakeholder needs. These concepts will be applied to multiple case studies, including an examination of the four leading causes of wild salmon population decline in the Pacific Northwest (hatcheries, harvest, habitat, and hydropower).

Prerequisite(s): AQUA 200 with a C- or better and AQUA 210 with a C- or better or Instructor permission.

AQUA 270
INTRODUCTION TO GIS FOR FISHERIES & AQUACULTURE   **4 CR**
An introduction to geographic information sciences with a focus on spatial data management, manipulation, and display in geographic information systems (GIS). This course covers basic cartographic principles and map creation with a special emphasis on mapping aquatic habitats and fish population distributions.

Prerequisite(s): AQUA 220, AQUA 230, AQUA 240, AQUA 250, and AQUA 260 all with a C- or better or Instructor permission.

AQUA 280
FIELD-BASED EXPERIENCE   4 CR
In this course, students will experience supervised work and hands-on training in a professional setting. Internships will focus on fisheries and/or aquaculture fields. Sponsoring organizations may include government, private industry, non-profit, or other relevant sectors

Prerequisite(s): Instructor permission.

AQUA 290
ADVANCED HATCHERY TECHNIQUES   1-2 CR
Students will build on skills acquired Practicum I, II, and III to learn hatchery operations from a management perspective. This course focuses on hatchery data collection and reporting as required under federal and state regulations, monitoring losses for early warning indicators, and creating innovative approaches for improving hatchery production and efficiency.

Prerequisite(s): All AQUA 100 level courses all with a C- or better or Instructor permission.

HEALTH

HLTH 103
CPR: ADULT HEARTSAVER   0.5 CR
This course includes one person CPR, obstructed airway techniques, and risk factors of heart disease. Skills completion and written exam are required for card, which is good for two years.

HLTH 131
HIV/AIDS: FOR COUNSELORS AND HEALTH PROFESSIONALS   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: FOR HEALTHCARE PROFESSIONAL   1 CR
This workshop is designed for the professional needing seven hours of HIV/AIDS education for licensure or professional update. The program utilizes a multi-media approach and meets Washington State certification requirements.

HLTH 154
HEALTHCARE PROVIDER FIRST AID AND CPR   1 CR
This course will teach both professional level CPR and first aid. CPR will cover adult, child and infant skills, barrier devices and use of the AED (automated external defibrillator). The first aid component will cover all requirements per OSHA and WISHA and will discuss some advanced first aid skills. The CPR portion does require a written exam to be passed with 84% as well as skills evaluation prior to card issuance. Text required.

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, render emergency care in a low-risk occupational environment, and teaches adult CPR and obstructed airway techniques. Both CPR and first aid cards are good for two years. Attendance at all sessions and demonstration of competency is required for certification.

HO 127
HEALTHCARE PROVIDER CPR   0.5 CR
This 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 a card.

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. Students must have a high school education or equivalent, ability to apply college-level reading and writing, and converse in the English language. Students must also demonstrate background in medical terminology and anatomy and physiology, either through previous schooling or work-related experience. Manual dexterity to perform skills is essential to the successful completion of the course. A supply kit and book must be purchased in the bookstore prior to the course.

Prerequisite(s): Program admission.

HT 108
MEDICAL TRANSCRIPTION I   3 CR
This course is designed to assist the student in developing the basic medical language, grammar, and formatting necessary for medical typing and transcription.

Prerequisite(s): HT 126 and BIO 105, and typing 50 wpm.

HT 109
MEDICAL TRANSCRIPTION II   5 CR
This course provides working knowledge of the transcription practices with realistic cases.

Prerequisite(s): HT 108, typing speed of 50 wpm, and word processing knowledge.

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-10-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.

Prerequisite(s): BIO 105, BIO 127, HT 126 (or HT 129) and typing speed of 45 wpm.

HT 126
FUNDAMENTALS OF MEDICAL TERMINOLOGY   5 CR
The student will gain a basic knowledge of medical word building. The course will address root words, prefixes and suffixes and terms which are used in diagnostic, operative, and symptoms relating to the various systems of the body. Emphasis on correct spelling and pronunciation of selected common eponyms.

Prerequisite(s): ACCUPLACER Reading Comprehension and Sentence Skills score of 71 or higher.

HT 130
MEDICAL 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.

HT 135
PHARMACOLOGY FOR THE MEDICAL OFFICE   2 CR
This course will introduce students to the various forms of medications, drug classifications, administration routes and how they work. Students will also learn the terminology associated with each, for those medications commonly prescribed in the medical office setting.

Prerequisite(s): BIO 105 and HT 126 with a minimum C grade in each course.

HT 145
HEALTH CARE RECORDS SYSTEMS   5 CR
Functions of medical record departments and record systems will be addressed. Hands on process of hospital records, uses, content, and evaluation.

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 perform venipuncture procedures successfully, utilizing appropriate equipment with correct technique in a medical lab setting, all within approved medical safety standards.

Prerequisite(s): HO 157.

HT 180
HEALTHCARE & TECHNOLOGY   **5 CR**
This course serves as a general introduction of the healthcare environment, healthcare delivery systems, health information and technology in healthcare. Course materials parallel CAHIMS certification objectives.

HT 190
HEALTH INFORMATION MANAGEMENT SYSTEMS   **5 CR**
This course will provide a comprehensive overview of health information management systems (HIMS). Topics will include HIMS selection, analysis, design, user and technical requirements, implementation, training, and evaluation. Course materials parallel CAHIMS certification objectives.

HT 200
HEALTH TECHNOLOGY PROFESSIONAL   **5 CR**
This course prepares students to be health technology professionals. Students will practice privacy and security policies and compliance standards, develop leadership and planning skills; and enhance customer service and communication skills. Course materials parallel CAHIMS certification objectives.

HT 230
MEDICAL CODING ICD-10   **3 CR**
Learn to assign codes in medical/health records to ensure accurate and complete reimbursement documentation. The focus will be on ICD-10 codes with some discussion of CPT codes.

Prerequisite(s): BIO 105, BIO 127, and HT 126 (or HT 129) with a minimum grade of C in each course.

HT 240
MEDICAL CODING - CPT   **4 CR**
Course trains students to assign physician's Current Procedural Terminology (CPT) codes in medical/health records to ensure accurate and complete reimbursement documentation.

Prerequisite(s): BIO 105, BIO 127 & HT 126 with minimum C grade in each course.

HT 250
ADVANCED MEDICAL CODING   **5 CR**
Advanced Medical Coding is a continuation of the procedures and practices of ICD-9 and CPT coding and helps prepare the student for certification testing.

Prerequisite(s): HT 230 and HT 240.

HT 260
HEALTH CARE RECORDS INTERNSHIP   **3 CR**
With the help of their advisor, students will arrange work experience in a medical records office. May be a paid or an unpaid work experience.

Prerequisite(s): All previous coursework.

HT 265
MEDICAL CODING AND BILLING PRACTICUM   **5 CR**
This course uses the information learned in medical insurance billing and coding, and demonstrate 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.

Prerequisite(s): HT 230 and HT 240.

HT 270
EXCEL FOR THE MEDICAL OFFICE   **3 CR**
This course will teach the basics of MS Excel as it relates to functions commonly used in the medical office. Students will learn efficient use of a spreadsheet in order to create records pertinent to the medical office, such as patient and insurance information, operational and capital budgets, tracking quality indicators and productivity by person, and tracking delinquent and incomplete records by type. Text required.

Prerequisite(s): CAP 103 or CAP 105 with a minimum grade of C.

HT 275
MEDICAL ETHICS   **5 CR**
Medical Ethics is a student centered course that is designed to help students understand the relevance of current ethical trends in health care. This course prepares students not only for healthcare ethics on a national level, but also an international level that relates to working with today's diverse population. Through this students will gain an understanding of the challenges providers and healthcare workers face when treating patients who may be culturally diverse, have varying religious beliefs, or different in lifestyle choices, and the various psycho-social aspects of each as it relates to healthcare. Students will also attain an understanding of the complex business side of health care and how ethics plays a role in these daily transactions. Note: this course meets the human relations general education requirements for the medical coding and billing program generalist only.

NA 101
NURSING ASSISTANT ESSENTIALS   **6 CR**
Provide 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.

Prerequisite(s): Program admission and ACCUPLACER Reading Comprehension score of 50 or completion of ABE 054 with a C or better, and ACCUPLACER Arithmetic score of 38 or completion of ABE 055 with a C or better.

NA 102
NURSING ASSISTANT CLINICAL   **5 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.

Prerequisite(s): Program admission and ACCUPLACER Reading Comprehension score of 50 or completion of ABE 054 with a C or better, and ACCUPLACER Arithmetic score of 38 or completion of ABE 050 with a C or better. Successful completion of HO 127 and HLTH 133.

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

HVACR 101
FUNDAMENTALS OF REFRIGERATION   **8 CR**
This course presents safety in the workplace, the fundamentals of vapor compression refrigeration, HVAC/R tools, equipment and refrigerants. Students will build a working refrigeration system in the lab portion of this course. Instructors will have the students pressure test, evacuate, and charge their systems with industry standard equipment.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: HVACR 102 with a C- or better or concurrent enrollment in HVACR 102, or Instructor permission.

HVACR 102
BASIC ELECTRICITY FOR HVACR   **8 CR**
This course presents the fundamentals of electrical theory, controls, motors, and applications. Emphasis is placed on proper diagnostic and troubleshooting procedures. Lectures and assigned readings are supplemented by the student's individual work on projects in the lab on an electrical circuitry trainer. Proper electrical safety and codes are observed in the coursework.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; or Instructor permission.

Completion Of or Concurrent Enrollment In: HVACR 101 with a C- or better or concurrent enrollment in HVACR 101 or Instructor permission.

HVACR 121
COMMERCIAL SELF-CONTAINED SYSTEMS 7 CR
This course analyzes medium and low temperature refrigeration systems and components used in commercial applications. Emphasis is placed on safe trouble-shooting techniques on live equipment as installed in industry.

Prerequisite(s): HVACR 101 with a C- or better and HVACR 102 with a C- or better or Instructor permission.

Corequisite(s): HVACR 122.

HVACR 122
COMMERCIAL ICE SYSTEMS 7 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, cleaning, sanitizing and trouble-shooting techniques are emphasized. The student will verify proper production, learn how to build a wiring schematic, identify faults inserted by instructor and repair the inserted faults. Students must test for EPA section 608 certification and pass with a minimum of Type 2 certification in order to pass this course.

Prerequisite(s): HVACR 101 with a C- or better and HVACR 102 with a C- or better or Instructor permission.

Corequisite(s): HVACR 121.

HVACR 131
FURNACE TECHNOLOGY 7 CR
This course introduces gas piping, venting and control systems for several different types of furnaces in residential and commercial applications. 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.

Prerequisite(s): HVACR 121 with a C- or better and HVACR 122 with a C- or better or Instructor permission.

Corequisite(s): HVACR 132.

HVACR 132
BOILERS AND HYDRONIC HEAT 7 CR
This course explores the use of boilers and 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. Systems used in the lab will use natural gas, propane, or fuel oil for residential and commercial boilers.

Prerequisite(s): HVACR 121 with a C- or better and HVACR 122 with a C- or better or Instructor permission.

Corequisite(s): HVACR 131.

HVACR 201
A/C & AIRFLOW 8 CR
This course prepares the student 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.

Prerequisite(s): HVACR 131 with a C- or better and HVACR 132 with a C- or better or Instructor permission.

Corequisite(s): HVACR 202.

HVACR 202
APPLIED HEAT PUMP SYSTEMS 5 CR
This course prepares the student 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.

Prerequisite(s): HVACR 131 with a C- or better and HVACR 132 with a C- or better or Instructor permission.

Corequisite(s): HVACR 201.

HVACR 221
COMMERCIAL REFRIGERATION 8 CR
This course expands on commercial refrigeration systems presented in HVACR 121 and HVACR 122. Five different commercial systems will be utilized in the lab area in conjunction with the lecture portion of this course. 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.

Prerequisite(s): HVACR 201 with a C- or better and HVACR 202 with a C- or better or Instructor permission.

Corequisite(s): HVACR 222.

HVACR 222
INDUSTRIAL REFRIGERATION 7 CR
This course will provide an in-depth study of industrial applications of chilled water-cooling systems. Classroom activities are supplemented by student's individual and group work on five lab projects including screw compressors and a cooling tower. Analyzing various systems for cost benefits, installation, service and proper annual maintenance procedures are emphasized. Transcritical and ammonia systems and all the related safety implications are included in this course.

Prerequisite(s): HVACR 201 with a C- or better and HVACR 202 with a C- or better or Instructor permission.

Corequisite(s): HVACR 221.

HVACR 231
CONTROL THEORY FOR HVAC/R 8 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.

Prerequisite(s): HVACR 221 with a C- or better and HVACR 222 with a C- or better or Instructor permission.

Corequisite(s): HVACR 232.

HVACR 232
COMMERCIAL & 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.

Prerequisite(s): HVACR 221 with a C- or better and HVACR 222 with a C- or better or Instructor permission.

Corequisite(s): HVACR 231.

HVACR 233
EMPLOYMENT PREPARATION 1 CR
This course prepares students with the necessary skills to research companies in the HVAC/R industry, successfully create a professional resume and cover letter, and practice articulating their HVAC/R skills and experience in mock interviews.

Prerequisite(s): HVACR 221 with a C- or better and HVACR 222 with a C- or better or Instructor permission.

HISTORY

HIST& 146
UNITED STATES HISTORY I 5 CR
Survey of Native American societies, European explorers, and the lifestyles of the new continent, the independence movement, and the problems of a new nation.

HIST& 147
UNITED STATES HISTORY II 5 CR
Survey course covering the rise of nationalism, evolution of American lifestyles, Civil War, westward movement, and the American industrial revolution.

HIST& 148
UNITED STATES HISTORY III 5 CR
Survey course exploring the social, political, and economic history of the United States from 1900 to the present.

HUMANITIES

HUM& 101
INTRODUCTION TO HUMANITIES   **5 CR**
Students explore the works in the literary, performing, and visual arts. Students identify common themes in the arts, analyze works representing diverse perspectives, and investigate the political, social, technological and historical contexts of works. A broader understanding is encouraged through the exploration and synthesis of outside sources using research methods.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

HYPNOTHERAPY

HYPN 101
BASIC HYPNOSIS - LEARNING FOR HEALTHCARE FIELD   **5 CR**
A course which teaches basic hypnosis/self-hypnosis, and is the first in a 3-part series. It may be learned for personal growth, as well as a prerequisite for the study of professional hypnotherapy. It is approved by the International Medical and Dental Hypnotherapy Association, the National Society of clinical Hypnotherapists, as well as other professional hypnosis associations.

HYPN 102
INTERMEDIATE HYPNOTHERAPY FOR HEALTHCARE FIELD   **5 CR**
This course is the second in a 3-part series that is designed to teach the serious student of hypnosis how to apply hypnotherapy techniques for motivation and goal achievement.

Prerequisite(s): HYPN 101.

HYPN 103
ADVANCED HYPNOTHERAPY TECHNIQUES   **5 CR**
This course is the third in a 3-part series for the serious student wishing to use hypnotherapy as a career, or to supplement an existing healthcare field and practice. Upon successful completion, the student is eligible to apply for Washington State Licensure through the Department of Health.

Prerequisite(s): Basic & Intermediate Hypnosis. HYPN 102.

HYPN 104
PREPARING FOR A HYPNOTHERAPY PRACTICE   **2 CR**
This course will provide additional hands on experience through supervised practices for students who have received the BTC Hypnotherapy program certificate and will assist the hypnotherapist in gaining confidence and preparing for their new practice. Topics include: how to schedule sessions so therapists benefit as well as their clients; how to employ multiple sessions and techniques with one client to ensure success; record keeping; and marketing techniques. Under supervision, students will work individually on clients with follow-up needs.

Prerequisite(s): HYPN 101, HYPN 102, and HYPN 103.

INDUSTRIAL MAINTENANCE AND MECHATRONICS

EMTEC 105
TRADE SAFETY   **3 CR**
The topics will be on health and safety core rules, material safety data sheets, fall protection, confined spaces, Lock out/Tag out requirements, ladder, scaffolding and portable power tools as well as navigating the Washington State Labor and Industries website. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry.

Prerequisite(s): ACCUPLACER Algebra score of 75 or Math 098 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

EMTEC 110
DC CIRCUITS   **6 CR**
The purpose of this course is to give students a firm foundation in electrical theory. The course covers DC circuit theory with an emphasis on circuit analysis, practical application, and troubleshooting. The course requires an understanding of simple mathematics.

EMTEC 121
FUNDAMENTALS OF HYDRAULIC & 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 computer "on-line" with selected modules emphasizing hydraulic pumps, safety, compressed air basics and types of gauges.

Prerequisite(s): EMTEC 105.

EMTEC 123
HYDRAULICS & 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.

Prerequisite(s): EMTEC 121.

EMTEC 125
APPLIED MECHANICS   **5 CR**
Studies introduce material strengths relating to forces such as tension, sheer and torque. Students develop knowledge and skills through application of pulley ratios and levers. Instruction also covers properties of materials such as solids, liquids and gasses. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

Completion Of or Concurrent Enrollment In: EMTEC 105 with a C- or better and EMTEC 237 with a C- or better, or concurrent enrollment in EMTEC 105 and EMTEC 237, or Instructor permission.

EMTEC 126
ENGINEERING GRAPHICS   **4 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.

Prerequisite(s): EMTEC 105.

EMTEC 131
RIGGING   **4 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.

Prerequisite(s): EMTEC 105.

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.

Prerequisite(s): EMTEC 126 OR ENGR 115.

EMTEC 180
MANUFACTURING COMPUTER APPLICATIONS   **4 CR**
In this course Students are introduced to Microsoft applications such as Access, PowerPoint, Word, and Excel. Students will learn how to use these programs in an industrial setting.

EMTEC 205
PROGRAMMABLE LOGIC CONTROLLERS 5 CR

This course is an introductory study of Programmable Logic Controllers, including configuring hardware and software, general construction and operation as well as programming.

Prerequisite(s): EMTEC 211 or Permission of Instructor.

EMTEC 210
AC CIRCUITS 6 CR

The AC Circuits class builds on the concepts that are covered in EMTEC 110. The course covers AC circuit theory with an emphasis on circuit analysis, practical application, and troubleshooting. The course requires an understanding of simple mathematics.

Prerequisite(s): EMTEC 110.

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.

Prerequisite(s): EMTEC 210.

EMTEC 215
PROGRAMMABLE LOGIC CONTROLLERS II 5 CR

In this course students build on the foundation set in EMTEC 205. This course addresses advanced PLC topics including math and logic functions.

Prerequisite(s): EMTEC 205.

EMTEC 217
INSTRUMENTATION & CONTROLS 4 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.

Prerequisite(s): EMTEC 215.

EMTEC 218
INTRODUCTION TO NATIONAL ELECTRICAL CODE 2 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.

Prerequisite(s): EMTEC 210.

EMTEC 220
MICRO-CONTROLLERS 5 CR

This course focuses on the application of microprocessors in industry, with emphasis on understanding basic operation, interfacing, and programming. Study includes basic architecture, memory structure, programming language, interfacing with peripheral devices, input/output devices, and diagnostics.

Prerequisite(s): EMTEC 210.

EMTEC 225
SOLID STATE COMPONENTS 4 CR

This course builds on EMTEC 110 and EMTEC 210; introducing the student to circuits involving diodes, transistors, SCRs, and other solid state devices.

Prerequisite(s): EMTEC 210.

EMTEC 230
PROBLEM SOLVING FOR MANUFACTURING & THE TRADES 3 CR

This class addresses technical problem solving skills including reading and interpreting technical documents and instructions

Prerequisite(s): EMTEC 210.

EMTEC 231
BEARINGS & 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.

Prerequisite(s): EMTEC 105.

EMTEC 232
DRIVE ALIGNMENT-CONVEYORS & MACHINING SYSTEMS 4 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.

Prerequisite(s): EMTEC 231.

EMTEC 234
VALVES, PUMPS & 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.

Prerequisite(s): EMTEC 125.

EMTEC 237
COMPUTERIZED MAINTENANCE & MANAGEMENT SYSTEMS 3 CR

In this course, the student will examine the components and functions of a CMMS. Work orders, scheduling, spares and stores controls, equipment histories, backlogs, asset management practices 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

Completion Of or Concurrent Enrollment In: EMTEC 105 with a C- or better and EMTEC 125 with a C- or better, or concurrent enrollment in EMTEC 105 and EMTEC 125, or Instructor permission.

EMTEC 260
AUTOMATED MANUFACTURING SYSTEMS 4 CR

The purpose of this course is to provide an overview of robotics and automation technology. Students will explore the basic principles of manipulator, actuator, and control systems. The course requires an understanding of simple mathematics and the basic use of computers. The laboratory will be used to perform real-time exercises in programming applications and techniques through the use of various training robots and systems.

Prerequisite(s): EMTEC 210 and EMTEC 220.

INSTRUMENTATION & CONTROL

INST 100
DIRECT CURRENT 1 4 CR

A thorough introduction for the new student to the fundamental properties and applications of electricity. This course opens the doors to a wide array of career opportunities in computer servicing, biomedical equipment servicing, manufacturing technology, telecommunications, and home entertainment equipment servicing. In addition, safety procedures are emphasized. Students learn how to make good solder connections and recognize and repair bad solder connections. Students learn how to select and clean soldering tools. This course continues with the basics of current, voltage and resistance. The application of Ohm's Law and the construction of circuits to

verify electronic theory provide the knowledge necessary to build the foundation for a thorough understanding of electronics. This course teaches the student to use a logical course of correction to an electronic problem in a minimum amount of time. Student will learn generic troubleshooting technique procedures and tricks of the trade from analog to digital circuits.

Prerequisite(s): BTC College-Level Math score of 75 or MATH 090 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better. Completion of Intermediate Algebra (MATH 099) or placement into Pre-Calculus (MATH& 141).

INST 106
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.

Completion Of or Concurrent Enrollment In: INST 100 , INST 110 and INST 115 all with a C- or better or concurrent enrollment in INST 100 , INST 110 and INST 115 or Instructor permission.

INST 110
ALTERNATING CURRENT I   4 CR
An introduction and examination of the principles and applications of alternating current, including frequency, reactance, impedance, and resonance.

Completion Of or Concurrent Enrollment In: INST 100, INST 106 and INST 115 all with a C- or better or concurrent enrollment in INST 100, INST 106 and INST 115 or Instructor permission.

INST 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.

Completion Of or Concurrent Enrollment In: INST 100, INST 106 and INST 110 all with a C- or better or concurrent enrollment in INST 100 INST 106 and INST 110 or Instructor permission.

INST 120
SEMICONDUCTORS I   5 CR
Students learn how discrete semiconductor devices are constructed, how to handle them, how diodes, bipolar transistors, FETS, and thrystors operate and how to use them in practical circuits. ACDC power supply circuits introduced as well.

Prerequisite(s): INST 115.

INST 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.

Prerequisite(s): INST 120.

INST 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.

Prerequisite(s): INST 125.

INST 135
OP-AMPS II   3 CR
Oscillators, active filters and single power-supply circuits and other applications of op-amps are covered in theory, practical labs and projects.

Prerequisite(s): INST 130.

INST 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.

Prerequisite(s): INST 135.

INST 141
MOTOR CONTROLS   4 CR
In this course you will learn how to wire, configure, and use electromechanical relays to control electric motors and other discrete (on/off) control elements for real processes. You will also learn how to wire, configure, and use variable-frequency motor controls to use three-phase AC motors as final control elements.

Prerequisite(s): INST 140 with a C- or better.

INST 142
PLC PROGRAMMING   4 CR
In this course you will learn how to wire, program, and configure programmable logic controllers (PLCs) to perform discrete control functions including combinational logic, counters, and timers.

Prerequisite(s): INST 141 with a C- or better.

INST 143
PLC SYSTEMS   4 CR
In this course you will learn how to program data-handling functions in programmable logic controllers (PLCs) including comparison, arithmetic, and data transfer instructions. You will also learn to connect and program human-machine interface (HMI) panels to PLCs.

Prerequisite(s): INST 142 with a C- or better.

INST 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.

Prerequisite(s): INST 140.

INST 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.

Prerequisite(s): INST 145.

INST 200
INTRODUCTION TO INSTRUMENTATION   2 CR
This course introduces you to the trade, terminology, and basic principles of instrumentation. It is a preparatory course for any one of three sections within the second year of Instrumentation: measurement, control, and systems, enabling you to begin your second year of Instrumentation at the start of Fall, Winter, or Spring quarter.

Prerequisite(s): MATH& 141 with a C or better 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.

Prerequisite(s): INST 200 and MATH& 141 with a C or better.

INST 206
JOB PREPARATION II   1 CR
This course teaches you how to get the jobs that are not listed in classified ads or job search engines. You will learn how to professionally network, research employers for job potential, conduct informational interviews, and otherwise take an active approach in securing employment within your professional field.

Prerequisite(s): INST 205 and MATH& 141 with a C or better.

INST 233
PROTECTIVE RELAYS   4 CR
In this course you will learn how to commission, test, and analyze basic protective relays and instrument transformers used to protect equipment in electrical power systems. This course also reviews phasor mathematics for three-phase electrical circuits.

Prerequisite(s): MATH& 141 with a C or better and INST 141 with a C- or better.

INST 240
PRESSURE AND LEVEL MEASUREMENT   6 CR
In this course you will learn how to precisely measure both fluid pressure and fluid/solids level in a variety of applications, as well as accurately calibrate and efficiently troubleshoot pressure and level measurement systems.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 200.

INST 241
TEMPERATURE & FLOW MEASUREMENT   6 CR
In this course you will learn how to precisely measure both temperature and fluid flow in a variety of applications, as well as accurately calibrate and efficiently troubleshoot temperature and flow measurement systems.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 240.

INST 242
ANALYTICAL MEASUREMENT   5 CR
This course teaches the basic principles of process analysis including pH, electrical conductivity, turbidity, and chemical constituency.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 241.

INST 250
FINAL CONTROL ELEMENTS   5 CR
In this course you will learn how to precisely control energy in process systems using fluid valves and motors. You will also learn how fluid power systems work, and how to efficiently troubleshoot final control elements.

Prerequisite(s): MATH& 141 with a C grade and completion of or concurrent enrollment in INST 200.

INST 251
PID CONTROL   5 CR
This course teaches you how the most basic and widely-used control algorithm works: proportional-integral-derivative (PID). In this course you will see how the PID algorithm is implemented in pneumatic, analog electronic, and digital control systems.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 250.

INST 252
LOOP TUNING   4 CR
This course teaches the art and science of tuning PID controllers for robust loop control, including Ziegler-Nichols closed-loop and open-loop methods in addition to heuristic methods.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 251.

INST 260
DATA ACQUISITION SYSTEMS   4 CR
This course reviews digital theory learned in the first year (Core Electronics) courses, building upon that foundation to explore industrial data busses (including Ethernet) and indicating, datalogging, and SCADA systems.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 200.

INST 262
DIGITAL CONTROL SYSTEMS   5 CR
This course teaches the basic principles of distributed instrumentation, including distributed control systems (DCS), FOUNDATION Fieldbus instruments, and wireless field instruments.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in 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. Safety instrumented systems (SIS) concepts are also covered in this course.

Prerequisite(s): MATH& 141 with aC or better and completion of or concurrent enrollment in INST 262.

INST 290
INTERNSHIP   5 CR
An internship exists to give students opportunity to learn instrumentation in a real-world setting. In this course, you will work under the direction of a supervisor at a real job site, performing work directly related to instrumentation and control. Specific objectives will vary with the job and with the supervision.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 200.

INST 292
INTERNSHIP   10 CR
An internship exists to give students opportunity to learn instrumentation in a real-world setting. In this course, you will work under the direction of a supervisor at a real job site, performing work directly related to instrumentation and control. Specific objectives will vary with the job and with the supervision.

Prerequisite(s): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 200.

JOB SKILLS

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; 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. It is important that students should have skills in Microsoft Word before enrolling in this course.

Prerequisite(s): Students should have skills in Microsoft Office before enrolling in this course.

CTE 109
JOB SKILLS II   1 CR
This course teaches the students how to find employment that are not listed in classified advertisements or job search engines. Students will apply for positions in their field of interest, and provide feedback from their experiences.

LEGAL

LGL 132
LEGAL TERMINOLOGY   5 CR
Designed to help students learn the legal terminology, English skills, legal formatting skills, and guidelines needed in a law office.

LGL 211
LEGAL DOCUMENT PROCESSING   5 CR
Course makes use of a self-contained comprehensive job simulation designed to give the student practice on the types of activities most often performed in legal office settings. Gain hands-on exposure to the various types of law while formatting documents. Word processing functions are incorporated into the course.

Prerequisite(s): CAP 106 with a C or better.

Completion Of or Concurrent Enrollment In: LGL 132.

LGL 225
FIELD-BASED EXPERIENCE   5–7 CR
Students will arrange to work in a college-approved professional setting where they will apply business and legal administrative support skills and knowledge in a variety of related activities.

Prerequisite(s): Instructor permission.

MACHINING

MACH 101
MACHINE SHOP FUNDAMENTALS I   3 CR
This course provides the student with the foundation for success in machining, covering general shop safety, the use of precision measuring tools and blueprint reading. Students will learn proper and safe use of shop equipment and space. In addition, students learn to use precision measuring tools such as micrometers, height gages, calipers, gage blocks, gage pins, and indicators. Students will read and interpret measurements, and choose the appropriate measuring tool for the required degree of accuracy. Blueprint reading will be a point of emphases, covering; terms, dimensioning, title blocks, views, and more.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better.

MACH 102
MACHINE SHOP FUNDAMENTALS II   3 CR

Continuing on the trajectory set by MACH 101, students will expand their skills of measuring. The introduction of measuring over the wire, thread micrometer, pitch gage, and bore various bore gages will be introduced. Students will use indirect measuring and continue to develop skills gained in MACH 101. Shop math will be a point of emphasis, converting fractions, geometry, and trigonometry. These skills will be put to use as the student expands on their blueprint reading skills. The student will solve for unknown dimensions, and increase their overall knowledge of blueprints, to include feature call-outs complex views, thread specifications, and more complex information.

Prerequisite(s): MACH 101 with a C or better.

MACH 103
MACHINE SHOP FUNDAMENTALS III   3 CR

The third course in the Machine Shop Fundamentals series, this covers the principles of heat treating and precision grinding. The students will be exposed to the concepts of Geometric Dimensions and Tolerancing through blueprints. Students will measure and calculate dimensions of precision ground parts to verify they are to print.

Prerequisite(s): MACH 102 with a C or better.

MACH 141
INTRODUCTION TO MANUAL LATHE   5 CR

An introductory course emphasizing the proper set up and use of conventional engine lathes. Students will learn to identify the essential parts of an engine lathe and their functions. This will include gear setting to achieve desired speeds and feeds on a variety of different lathes. Work holding and the use of the 3-jaw chuck will be covered. Lathe operations to be introduced will be facing, O.D. turning, grooving, parting-off and drilling. Students will create their own cutting tools by grinding correct geometry on HSS tool blanks.

Completion Of or Concurrent Enrollment In: MACH 101 with a C or better and MACH 151 with a C or better, or concurrent enrollment in MACH 101 and MACH 151 or Instructor permission.

MACH 142
ADVANCED MANUAL LATHE   5 CR

A continuation of the skills achieved in MACH 141. Students learn more advanced lathe operations including turning a taper, single point threading, knurling, and boring. All skills will be demonstrated by completing class projects to specified dimensions and tolerances.

Prerequisite(s): MACH 141 with a C or better.

MACH 151
INTRODUCTION TO MANUAL MILL   5 CR

In this introductory course, students will learn the name and uses of the various parts of a vertical knee mill. The proper use of a mill will be covered including speed and feed adjustment, work holding and the 3-axis coordinate system. Operations to be performed will be tramming in a table, squaring a vise, tool setting, edge finding, facing, end mill use, drilling, and tapping. All skills will be used to produce class projects to print specifications.

Completion Of or Concurrent Enrollment In: MACH 101 with a C or better and MACH 141 with a C or better, or concurrent enrollment in MACH 101 and MACH 141 or Instructor permission.

MACH 152
ADVANCED MANUAL MILL   5 CR

In this advanced course students will build on the skills gained in MACH 151 . These advanced skills will be display by the completion of class projects with tighter tolerances and more complex print specifications. Time management will be a point of emphasis.

Prerequisite(s): MACH 151 with a C or better.

MACH 171
INTRODUCTION TO CNC MACHINING   6 CR

This introductory course covers the principles of CNC machines. The advantages of the CNC machine in production, and the process differences between manual and CNC operations will be discussed. Students will read, write, and trouble shoot G-Code programs. The understanding of G-Code will be demonstrated by producing parts to print specifications.

Prerequisite(s): MACH 103 with a C or better.

MACH 191
MANUAL MACHINING FOR NON-MAJORS   5 CR

Proper setup of manual lathes and mills will be emphasized in this Introductory machining course for non-program students. Student will be able to identify all parts of an engine lathe and calculate settings to achieve desired speeds and feeds on a variety of different lathes. Work holding, the use of the 3 jaw chuck, facing, O.D. turning, grooving, parting-off and drilling will be covered. Students will hand grind their own tools from HSS lathe tool blanks. The proper use of a mill will be covered including: speed and feed adjustment, work holding and coordinate systems. The operations to be performed will be: tramming in a table, squaring a vise, tool setting, edge finding, facing, end mill use, drilling, and tapping.

Prerequisite(s): ENGR 115 with a C or better.

MACH 193
CNC MACHINING FOR NON-MAJORS   5 CR

This introductory course covers the principles of CNC machining. The advantages of the CNC machine in production and the process differences between manual and CNC operations will be discussed. Students will read, write, and trouble-shoot G-Code programs, setup CNC lathes and mills, and use CAM software to program a part to run on a CNC machine.

Prerequisite(s): ENGR 180 or ENGT 233, and MACH 191 with a C or better.

MACH 241
INTRODUCTION TO CNC LATHE OPERATION   5 CR

Operation and setup of CNC lathes will be the focus of this course. Students will run CAM generated toolpaths. Skills acquired in this course include loading CAM programs, setting origins, loading tools, and setting and altering tool offsets. Students will demonstrate proficiencies in CNC lathe operations by producing multiple parts to print specifications.

Prerequisite(s): MACH 103 and MACH 142 with a C or better.

MACH 242
ADVANCED CNC LATHE OPERATION   5 CR

Students will operate the Mazatrol to program parts for the Mazak lathe. Students will load and edit tools, set work offsets, and execute programs. Competencies will be demonstrated with the completion of projects to print specifications.

Prerequisite(s): MACH 241 with a C or better.

MACH 251
INTRODUCTION TO CNC MILL OPERATION   5 CR

This course covers the setup and operation of Centroid bed mills and HAAS vertical milling centers. Students will run CAM generated toolpaths. Skills acquired in this course include conversational Centroid programming, loading CAM programs, setting origins with edge-finders and probes, selecting and loading tools, and setting and altering tool offsets. Students will demonstrate proficiencies in CNC mill operations by producing multiple parts to print specifications.

Prerequisite(s): MACH 103 and MACH 152 with a C or better.

MACH 252
ADVANCED CNC MILL OPERATION   5 CR

Students will build on skills obtained in MACH 251. The focus will be placed on the setup and operation of HAAS mills as well as the 5-axis DMS router. Tasks will include tool loading and clearance checks, work holding, program loading, and program alterations. Projects for this course will include complex geometry and contours. Proficiencies will be demonstrated with the production of parts to print specifications.

Prerequisite(s): MACH 251 with a C or better.

MACH 261
INTRODUCTION TO CAD/CAM FOR MACHINING **3 CR**
An introduction to Computer Aided Manufacturing. This course will combine the CAD skills gained in ENGR 180 with MasterCam CAD/CAM software. Students use CAD/CAM geometry to create geometry and produce toolpaths for CNC lathes.

Prerequisite(s): ENGR 180 with a C or better.

MACH 263
INTERMEDIATE CAD/CAM FOR MACHINING **3 CR**
Students will use Mastercam to create geometry and 2.5D toolpaths to run on CNC Mills. High Speed Toolpaths, Work Coordinate Systems, and Feature Based Machining will be explored.

Prerequisite(s): MACH 261 and MACH 171 with a C or better.

MACH 264
ADVANCED CAD/CAM FOR MACHINING **3 CR**
A continuation of MACH 263, students will use a variety of 3D surfacing strategies in Mastercam to create programs for more complex part shapes. The 4th and 5th axis programming will also be introduced.

Prerequisite(s): MACH 263 with a C or better.

MACH 273
ADVANCED CNC MACHINING **6 CR**
A combination of skills acquired from the completion of MACH 242, MACH 252, MACH 263, and QA 115 will be applied in this lab centered course. Each student will design, program, and manufacture an assembly of machined parts.

Prerequisite(s): MACH 242, MACH 252, MACH 263, and QA 115 with a C or better.

QA 110
INTRODUCTION TO QUALITY ASSURANCE FOR MACHINING **3 CR**
An introduction to part inspection using Geometric Dimensioning and Tolerancing. GD&T symbols, feature control frames, datums, and Form, Orientation, Location, and Runout tolerances will be covered. Skills will be reinforced with project inspections. Students will demonstrate competencies by inspecting machined parts using granite surface plates, micrometers, height gages, indicators and leveling plates.

Prerequisite(s): MACH 103 with a C or better.

QA 115
INTERMEDIATE QUALITY ASSURANCE FOR MACHINING **3 CR**
Expands upon the processes and concepts learned in QA 110. Delves further into geometric dimensioning and tolerancing, and introduces Verisurf inspection software. Part inspections utilizing the MicroScribe measuring arm in conjunction with Verisurf software will be introduced.

Prerequisite(s): QA 110 with a C or better.

QA 120
ADVANCED QUALITY ASSURANCE FOR MACHINING **3 CR**
A continuation of QA 115. Students will create First Article Inspection sheets and in process inspection plans for parts to be machined. Students will practice more complex part inspections utilizing the MicroScribe measuring arm and Verisurf software.

Prerequisite(s): QA 115 with a C or better.

MANAGEMENT

MGMT 100
BUSINESS AND PROFESSIONAL ETHICS **3 CR**
Current events have brought the concepts of ethics, both in the individual person as well as company practices, to the foreground. This course will discuss and examine, through critical analysis, the concept of ethics in the workplace . Some concepts that will be covered are: conflict of interest, secrecy and confidentiality, honesty, interpretation of ethics policies and rules, as well as the differences. This is a very interactive course. Text required.

MGMT 101
CONFLICT MANAGEMENT **1 CR**
Conflict is described as a disagreement among two or more individuals. Managing the periodic incidence can prove to be challenging, as well as stressful. This course will give the student the tools to understand the reasons that conflict exists, how to stimulate conflict in a healthy and competitive way in order to increase performance, control conflict, and resolve and eliminate unnecessary conflict. Text required.

MGMT 102
THE LEADERSHIP PROCESS **3 CR**
What makes a good "leader?" Leadership in individuals, whether they seem to have been born with certain "traits," or have developed various leadership behaviors, is an area that has been studied for a long time. This course will examine the attributes of leadership, how it develops, the behaviors that need to be encouraged, those that need to be modified, as well as how to manage the leadership process. Text required.

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 businesses, sources of capital, record-keeping, financial statements, taxation, marketing, legal and regulatory issues, and best management practices.

MGMT 210
HUMAN RESOURCE MANAGEMENT **5 CR**
Demonstrate knowledge of appropriate office supervisory skills. Introduces students to the fundamentals of supervisory management. Through lectures, text, case studies, projects, and simulations students will develop an understanding of principles to be used as guides for supervision in an office.

MARKETING

MKT 100
MARKETING FUNDAMENTALS **5 CR**
This course will provide a comprehensive survey of fundamental marketing principles and skills. Students will learn how marketing professionals develop strategy, research consumer needs, and identify target markets. In addition to covering the importance of global marketing and e-commerce, students will learn how to satisfy market opportunities with the "4 P's" Ð product, pricing, promotion, and placement.

MATHEMATICS

AMATH 100
APPLIED OCCUPATIONAL MATH **5 CR**
This course emphasizes mathematics used in the professional technical occupations. Student will learn mathematical skills in the following: fractions, decimals, percents, ratios & proportions, U.S. Customary Units and metric measurement systems, basic geometry and elementary algebra. The course will include relevant technical applications and the use of a calculator.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or ABE 050 with a C or better, or approved alternative placement criteria.

AMATH 111
APPLIED TECHNICAL MATH **5 CR**
This course introduces concepts of plane geometry, right triangle trigonometry, and vectors. The elements of algebra are extended into applications for technical professions using approximate numbers in measurement and emphasizing the rules of accuracy and precision. Included are the topics: unit conversions in metric and English systems, scientific notation, fractions, decimals,

percents, ratios, and proportions. Textbook and scientific or graphing calculator required.

Prerequisite(s): ACCUPLACER Algebra score of 75 or MATH 098 with a C or better.

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. Students should have a working knowledge of Arithmetic. Included are topics on fractions, sets of numbers, applied problem solving, use of variables, simplifying expressions, and setting up equations to solve.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or ABE 050 with a C or better.

MATH 098
ELEMENTARY ALGEBRA **5 CR**
This course will cover solving different forms of equations and inequalities, manipulating exponents, factoring and graphing. Problem-solving strategies will be utilized to perform application problems.

Prerequisite(s): ACCUPLACER Arithmetic score of 75 or MATH 090 with a C or better.

MATH 099
INTERMEDIATE ALGEBRA **5 CR**
This course prepares students for entry into college-level math courses. Topics include second degree equations, relations and their graphs, exponential and logarithmic functions, and rational expressions. A graphing calculator may be required.

Prerequisite(s): ACCUPLACER Algebra score of 75 or MATH 098 with a C or better.

MATH& 107
MATH IN SOCIETY **5 CR**
This course exposes students to mathematical thought and quantitative thinking to solve problems in the context of real-world scenarios. It introduces topics such as consumer problem solving, voting/decision theory, graph theory, growth and decay models, finance, statistics, probability, and counting systems in the context of their applications.

Prerequisite(s): ACCUPLACER College-Level Math score of 75 or MATH 099 with a C or better.

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.

Prerequisite(s): ACCUPLACER College-Level Math score of 75 or MATH 099 with a C or better.

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.

Prerequisite(s): MATH& 141 with a C or better.

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.

Prerequisite(s): ACCUPLACER College-Level Math score of 75 or MATH 099 with a C or better.

MATH& 151
CALCULUS I **5 CR**
Study of functions, limits, continuity, limits at infinity, differentiation of algebraic, exponential, logarithmic, and trigonometric functions and their inverses.

Prerequisite(s): MATH& 142 with a C or better.

MATH& 152
CALCULUS II **5 CR**
The study of Riemann Sums, methods of integration, numerical methods, polar and rectangular forms, fundamental theorem of Calculus, areas of regions, volumes of solids, centroids, length of curves, surface area, and an introduction to differential equations.

Prerequisite(s): MATH& 151 with a C or better.

MATH& 163
CALCULUS 3 **5 CR**
This course introduces coordinate systems and vectors in 2- and 3- space. We will extend the methods of single-variable differential calculus to functions of two or more independent variables and we will generalize the singe integral to define multiple integrals, where the integrand is a function of several variables. The course will cover partial differentiation, directional derivatives and gradients; extreme values; double and triple integrals; applications. Graphing calculator required.

Prerequisite(s): MATH& 152 with a C or better.

NURSING

NURS 110
INTRODUCTION TO HEALTH CONCEPTS **4 CR**
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including: Elimination, Tissue Integrity, Sensory Perception, Cognition, Health, Wellness and Illness, Mobility, Comfort, Spirituality and Culture, Professional Behaviors, Communication, Assessment, Clinical Decision Making, Teaching and Learning, Foundational Nursing Skills, Legal issues, and Safety. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at local elder care agencies, assisted living and long-term care facilities.

Prerequisite(s): Acceptance into the Nursing program. Completion of NA 101 and NA 102 with a C or better or Instructor permission.

NURS 115
INTRODUCTION TO HEALTH CONCEPTS- CLINICAL LAB **6 CR**
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including: Elimination, Tissue Integrity, Sensory Perception, Cognition, Health, Wellness and Illness, Mobility, Comfort, Spirituality and Culture, Professional Behaviors, Communication, Assessment, Clinical Decision Making, Teaching and Learning, Foundational Nursing Skills, Legal issues, and Safety. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at local elder care agencies, assisted living and long-term care facilities.

NURS 120
HEALTH AND ILLNESS CONCEPTS 1 **5 CR**
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid and electrolyte, acid base balance, oxygenation, metabolism, thermoregulation, perfusion, inflammation, mobility, infection, developmental concepts, family, health/wellness/illness, variations of physical assessment (pediatrics), communication, clinical decision making, caring and self-care. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at same day procedural units, community based agencies, acute care, assisted living and long-term care facilities.

Prerequisite(s): NURS 110, and NURS 115 with a B- or better.

NURS 125
HEALTH & ILLNESS CONCEPTS 1- CLINICAL LAB **6 CR**
This course is designed to further develop the concepts within the three domains of the in-

dividual, healthcare, and nursing. Emphasis is placed on the concepts of fluid and electrolyte, acid base balance, oxygenation, metabolism, thermoregulation, perfusion, inflammation, mobility, infection, developmental concepts, family, health/wellness/illness, variations of physical assessment (pediatrics), communication, clinical decision making, caring and self-care. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at same day procedural units, community based agencies, acute care, assisted living and long-term care facilities.

NURS 130
HEALTH & ILLNESS CONCEPTS 2   3 CR
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, metabolism, perfusion, cellular regulation, sexuality, mobility, infection control, comfort, stress, coping, grief, mood, addictive behavior, self, family, community, violence, health/wellness/illness. Concepts of professional behaviors, patient educator, collaboration, safety, health care systems, evidence based practice, informatics are introduced. These concepts are applied at on-campus theory, skills and simulation labs and off-campus clinical experiences through local community based agencies, acute care, assisted living and long-term care facilities.

Prerequisite(s): NURS 120 and NURS 125 with a B- or better.

NURS 135
**HEALTH & ILLNESS CONCEPTS 2-
CLINICAL LAB   6 CR**
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, metabolism, perfusion, cellular regulation, sexuality, mobility, infection control, comfort, stress, coping, grief, mood, addictive behavior, self, family, community, violence, health/wellness/illness. Concepts of professional behaviors, patient educator, collaboration, safety, health care systems, evidence based practice, informatics are introduced. These concepts are applied at on-campus theory, skills and simulation labs and off-campus clinical experiences through local community based agencies, acute care, assisted living and long-term care facilities.

NURS 210
ACUTE HEALTH CONCEPTS   5 CR
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid and electrolyte, acid base balance, elimination, oxygenation, metabolism, intracranial regulation, thermoregulation, perfusion, inflammation, tissue integrity, mobility, infection control, stress/coping, family, health/wellness/illness, hospitalized individual, communication, clinical decision making, advanced clinical skills, patient educator, collaboration, managing care, safety, advocacy, informatics ,

point of care documentation, clinical decision and support systems. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at inpatient regional facilities with focus on adult medical surgical acute care, and assisted living.

Prerequisite(s): NURS 130 and NURS 135 with a B- or better or acceptance into LPN-ADN Pathway.

NURS 215
**ACUTE HEALTH CONCEPTS-
CLINICAL LAB   6 CR**
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid and electrolyte, acid base balance, elimination, oxygenation, metabolism, intracranial regulation, thermoregulation, perfusion, inflammation, tissue integrity, mobility, infection control, stress/coping, family, health/wellness/illness, hospitalized individual, communication, clinical decision making, advanced clinical skills, patient educator, collaboration, managing care, safety, advocacy, informatics , point of care documentation, clinical decision and support systems. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at inpatient regional facilities with focus on adult medical surgical acute care, and assisted living.

NURS 220
COMPLEX HEALTH CONCEPTS   4 CR
This course is designed to further develop the concepts within the three domains of the individual, healthcare and nursing. Emphasis is placed on the concepts of acid base balance, newborn thermoregulation, perfusion, reproduction, development, cellular regulation and cancer, comfort, violence, communication, collaboration, managing care, ethics and mastering previously learned concepts. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at inpatient regional facilities with focus on specialty nursing areas and assisted living.

Prerequisite(s): NURS 210 and NURS 215 with a B- or better.

NURS 225
**COMPLEX HEALTH CONCEPTS-
CLINICAL LAB   6 CR**
This course is designed to further develop the concepts within the three domains of the individual, healthcare and nursing. Emphasis is placed on the concepts of acid base balance, newborn thermoregulation, perfusion, reproduction, development, cellular regulation and cancer, comfort, violence, communication, collaboration, managing care, ethics and mastering previously learned concepts. These concepts are applied through on-campus theory, skills and simulation labs and off-campus clinical experiences at inpatient regional facilities with focus on specialty nursing areas and assisted living.

NURS 230
**PROFESSIONAL NURSING
CONCEPTS   3 CR**
This course is designed to assimilate the concepts within the three domains of individual, nursing and healthcare. Emphasis is placed on oxygenation, tissue integrity, clinical decision making, health policy, health care systems, legal issues, evidenced based practice and mastering previously learned concepts. These concepts are applied through on-campus theory, skills/simulation labs and off-campus clinical experiences. The opportunity to be mentored in professional nursing practice is provided through preceptor-guided experiences in a variety of community based and inpatient regional facilities as assigned.

Prerequisite(s): NURS 220 and NURS 225 with a B- or better.

NURS 235
**PROFESSIONAL NURSING
CONCEPTS- CLINICAL LAB   6 CR**
This course is designed to assimilate the concepts within the three domains of individual, nursing and healthcare. Emphasis is placed on oxygenation, tissue integrity, clinical decision making, health policy, health care systems, legal issues, evidenced based practice and mastering previously learned concepts. These concepts are applied through on-campus theory, skills/simulation labs and off-campus clinical experiences. The opportunity to be mentored in professional nursing practice is provided through preceptor-guided experiences in a variety of community based and inpatient regional facilities as assigned.

NUTR 115
NUTRITION IN HEALTHCARE I   1 CR
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions through an integrated format with theory NURS 110.

Prerequisite(s): Acceptance into the Nursing program.

NUTR 116
NUTRITION IN HEALTHCARE II   1 CR
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions through an integrated format with theory NURS 120.

Prerequisite(s): NUTR 115 with a B- or better.

NUTR 117
NUTRITION IN HEALTHCARE III   1 CR
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions through an integrated format with theory NURS 130.

Prerequisite(s): NUTR 116 with a B- or better.

NUTR 215
NUTRITION IN HEALTHCARE IV   1 CR
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions through an integrated format with theory NURS 210.

Prerequisite(s): NUTR 117 with a B- or better.

NUTR 216
NUTRITION IN HEALTHCARE V   1 CR
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions through an integrated format with theory NURS 220.

Prerequisite(s): NUTR 215 with a B- or better.

PHIL 115
**ETHICS AND POLICY IN
HEALTHCARE I   1 CR**
Explores values, ethics, and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions through an integrated format with theory NURS 110.

Prerequisite(s): Acceptance into the Nursing program.

PHIL 215
**ETHICS & POLICY IN
HEALTHCARE II   1 CR**
Explores values, ethics, and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions through an integrated format with theory NURS 210.

Prerequisite(s): PHIL 115 with a B- or better.

PHIL 216
**ETHICS & POLICY IN
HEALTHCARE III   3 CR**
Explores values, ethics, and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions through an integrated format with theory NURS 230.

Prerequisite(s): PHIL 215 with a B- or better.

PSYC 115
**PSYCHOSOCIAL ISSUES
IN HEALTHCARE I   1 CR**
Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care through an integrated format with theory NURS 110.

Prerequisite(s): Acceptance into the Nursing program.

PSYC 116
**PSYCHOSOCIAL ISSUES IN
HEALTHCARE II   1 CR**
Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care through an integrated format with theory NURS 120 .

Prerequisite(s): PSYC 115 with a B- or better.

PSYC 117
**PSYCHOSOCIAL ISSUES IN
HEALTHCARE III   2 CR**
Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care through an integrated format with theory NURS 130.

Prerequisite(s): PSYC 116 with a B- or better.

PSYC 215
**PSYCHOSOCIAL ISSUES IN
HEALTHCARE IV   1 CR**
Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care through an integrated format with theory NURS 220.

Prerequisite(s): PSYC 117 with a B- or better.

NUTRITION

NUTR& 101
NUTRITION   5 CR
This course provides information pertaining to human nutrition and the function of nutrients in the body. Topics covered include anatomy and physiology of digestion and absorption; specific utilization of carbohydrates, protein, and fats; vitamin and mineral supplements. Other topics include food safety and the impact of diet on health and disease. Basic principles of chemistry, biology, and physiology are applied to the study of nutrition.

OPERATIONS MANAGEMENT

OPM 311
**MATHEMATICAL TECHNIQUES FOR
OPERATIONS MANAGEMENT   5 CR**
This course provides students with the foundational mathematical tools required for operations management including acceptance sampling; decision theory including its application under uncertain conditions; the application of probability theory to determine the reliability of systems; solution of linear programming problems using graphical and computational methods; and the application of learning curves for planning and scheduling. These techniques are introduced in this course and then exercised and practiced through repeated application to real problems in other courses.

Prerequisite(s): MATH& 146 with a C or better, and admission to the BASOPS program.

OPM 312
**FORECASTING AND SYSTEM
DESIGN   5 CR**
This course introduces students to forecasting and capacity planning tools for manufacturing and service organizations. Qualitative and quantitative techniques are discussed, and the pros and cons of each are identified. The selection of appropriate processes and facility layouts, and the design of work systems to optimize production are discussed; and the impact of good product design on production operations is highlighted. Maintenance planning is discussed including the differences between breakdown (reactive) and preventative (planned) maintenance. Techniques for job design such as methods analysis and time study methods are demonstrated. Both graphical and computational (spreadsheet) techniques are used throughout the course to solve a range of typical problems.

Prerequisite(s): MATH& 146 with a C or better, and admission to the BASOPS program.

OPM 313
QUALITY MANAGEMENT   5 CR
This course is designed to equip students with the managerial concepts and quantitative tools used in effective and efficient management of quality in manufacturing and service organizations. The course begins with the quality management concepts espoused by Deming and discusses some of the resulting approaches such as Total Quality Management (TQM), Six Sigma, ISO 9000 and AS 9100. Quality requirements specific to regulated industries such as biomedical devices and aerospace will also be surveyed. Students will learn how to plan, implement and manage a comprehensive quality management program within an organization with special emphasis on process documentation, staff training, and communication of results to management and auditors.

Prerequisite(s): OPM 311.

OPM 314
**LOGISTICAL PLANNING AND
SUPPLY CHAIN MANAGEMENT   5 CR**
A supply chain is a sequence of organizations involved in the production and delivery of a product or service. Supply chain management is the coordination of those organizations, and logistics is the management of the flow of resources e.g. goods, materials, information; between the organizations. This course will students will introduce students to the complexities of domestic and global supply chains including consideration of make/buy and outsourcing decisions. The importance of the procurement function is explored, and inventory management techniques are presented including the application of mathematical

approaches to solve typical problems. Finally, the use of materials resource planning (MRP), manufacturing resource planning (MRPII) and enterprise resource planning (ERP) systems in operations management is examined.

Prerequisite(s): OPM 311.

OPM 315
LEAN CONCEPTS AND APPLICATIONS **5 CR**
Lean production is a modern management practice applicable to both manufacturing and service industries that considers the expenditure of resources for any goal other than the creation of value for the end customer to be wasteful and thus a target for elimination. This course introduces students to the theory behind Lean including concepts such as Value Stream Mapping, Workplace Organization and Standardization, 5-S and Cellular Flow. Terminology, including Kan Ban and Total Production Maintenance, and tools such as Gap Analysis, 5 Why's, root cause analysis, Pareto charts, and cause effect diagrams are covered. The importance of workforce development and ongoing training to Lean implementation is stressed, and students will learn about the how to apply Lean techniques to both industrial and service operations.

Prerequisite(s): OPM 311.

OPM 411
FACILITY LAYOUT AND MATERIALS HANDLING **5 CR**
This course covers the design and optimal layout of industrial facilities, materials handling systems, and warehousing for the most efficient flow of raw materials, work-in-process, and completed product. Students, working in groups, will be required to develop a written proposal for a newly designed or modified facility including a financial justification for the project, and carry out a verbal presentation of their results.

OPM 412
WORKPLACE HEALTH AND SAFETY MANAGEMENT **5 CR**
This course provides a foundation for students to take on responsibility for the management of health and safety in the workplace. Students will learn about OSHA and the inspection process, identification of safety hazards and implementation of preventative measures, and developing a formal health and safety training program. The course will also cover work design and ergonomics aimed at increasing operator effectiveness and reducing production costs.

OPM 413
MEASUREMENT AND STATISTICAL PROCESS CONTROL **5 CR**
Statistical process control (SPC) is a quality control technique which employs statistical methods to monitor and control a process to ensure that it operates at its full potential, and that the finished products meet specified criteria. In this course, students will be introduced to key tools used in SPC include control charts, continuous improvement, acceptance sampling, and the design of experiments. Students will also be taught about fundamental metrology principles including error measurement and analysis, the impact of temperature and pressure on precision measurement; equipment calibration; and advanced test and measurement techniques.

OPM 421
IT STRATEGY, MANAGEMENT AND DELIVERY **5 CR**
This course examines the strategic role of IT within an organization. Students will learn how to assess the impact of emerging technologies, and then design information infrastructure and systems to support organizational structures.

OPM 422
BUSINESS CONTINUITY AND DISASTER RECOVERY **5 CR**
This course looks at how to identify business risk and impact; recognize mission-critical systems; and create, test and implement business continuity plans.

OPM 423
MANAGING VENDORS AND CONTRACTS **5 CR**
This course covers strategies and methodologies for selecting and managing vendors including types of contracts, vendor selection processes, and contract management.

OPM 491
FOCUSED STUDY I **5 CR**
Focused Study 1, 2 and 3: These courses provide students with opportunities to explore areas of professional interest and to develop a greater understanding of those areas through focused study and applied research under the direction of a faculty member and/or industry mentor. Topics to be studied will be agreed in conjunction with program faculty and approved by the program director; and each course will require both a written report and an oral presentation of the research findings.

Prerequisite(s): OPM 311, OPM 312, ENGL 310, and Instructor permission.

OPM 492
FOCUSED STUDY II **5 CR**
Focused Study 1, 2 and 3: These courses provide students with opportunities to explore areas of professional interest and to develop a greater understanding of those areas through focused study and applied research under the direction of a faculty member and/or industry mentor. Topics to be studied will be agreed in conjunction with program faculty and approved by the program director; and each course will require both a written report and an oral presentation of the research findings.

Prerequisite(s): OPM 311, OPM 312, ENGL 310, and Instructor permission.

OPM 493
FOCUSED STUDY III **5 CR**
Focused Study 1, 2 and 3: These courses provide students with opportunities to explore areas of professional interest and to develop a greater understanding of those areas through focused study and applied research under the direction of a faculty member and/or industry mentor. Topics to be studied will be agreed in conjunction with program faculty and approved by the program director; and each course will require both a written report and an oral presentation of the research findings.

Prerequisite(s): OPM 311, OPM 312, ENGL 310, and Instructor permission.

OPM 495
INTERNSHIP **5 CR**
This course provides students with practical on-the-job experience, and offers students a way to combine classroom study with related work experience under the supervision of an employer. Work experience must be related to the student's educational and career objectives in the field of Manufacturing Operations. Students must submit, at or before registration, a description of the proposed internship, signed by the employer, the instructor and the student. This course can be substituted for OPM 498 – Individual Capstone Project.

Prerequisite(s): OPM 311, OPM 312, ENGL 310, and Instructor permission.

OPM 498
INDIVIDUAL CAPSTONE PROJECT **5 CR**
This course involves the self-directed execution of a project in the field of operations management employing elements from many of the courses the student has already taken linked together in a methodical, systematic way. The topic to be studied will be agreed in conjunction with program faculty and approved by the program director; and a faculty member or industry mentor will be available throughout the course to act as an advisor. However, it is expected that the student demonstrates independent thought and self-direction during the project. The project may be carried out with an industry partner/employer. The course requires both a written report and an oral presentation of the project results.

Prerequisite(s): OPM 311, OPM 312, ENGL 310, and Instructor permission.

OPM 499
GROUP CAPSTONE PROJECT **5 CR**
This course involves working as a team on a project in the field of operations management. The topic to be studied will be chosen by the group, agreed in conjunction with program faculty, and approved by the program director. A faculty member or industry mentor will be available throughout the course to act as an advisor. However, it is expected that the group is self-directing, and that individuals in the group demonstrate the ability to work with other team members during the project. The project may be carried out with an industry partner/employer. The course requires both a written project report and an oral

presentation of the project results by the group, and individual summary reports by each student.

Prerequisite(s): OPM 311, OPM 312, ENGL 310, and Instructor permission.

PERSONAL FITNESS TRAINER

PFT 100
FOUNDATIONS OF HEALTH AND FITNESS 6 CR
You will study the science and structure of the human organism and how it relates to exercise science. You will learn about food requirements, values and how food is broken down into usable fuel. You will develop and learn techniques to regulate and prescribe appropriate eating systems. You will learn operation and set up of digital and programmable exercise machinery, equipment repair and maintenance, facility safety, sports injury management and prevention and how gym etiquette is practiced. Program development helps you understand the many needs and requirements of your future client. You will learn the tools, skills and methods to determine how each client fits into the program schedule. Assessment of health risks, potential problem areas and special needs will be covered.

PFT 110
PROGRAM DEVELOPMENT AND TRAINING PRINCIPLES 6 CR
Focusing on smooth, cardiac and skeletal muscle physiology, we will investigate structure, function and cellular adaptations with exercise. You will create exercise programs using scientific principles beginning with the fundamental beginner programs and working through advanced training development and implementation. Evaluation and assessment of programs will be heavily emphasized. This class will cover the mechanics of muscle development, as well as behavior and performance guidelines to achieve prescribed results with specialized instruction. The class is an introduction to the specialty field of the supplementation of nutrients, vital elements and their effects on aging and longevity. The principles to aid in prevention of degenerative health risks will be covered.

Prerequisite(s): PFT 100.

PFT 120
FACILITY MANAGEMENT AND MARKETING FOR A FITNESS TRAINER 6 CR
You will learn the day to day operations as a professional trainer in a fitness facility. This will include equipment maintenance, purchasing and budget management. You will learn multi-client training principles and guidelines for supervisor and management positions. The class covers the basics for designing an effective plan to run a successful training facility, as well as the evaluation of new and existing programs for implementation and development. This course is designed to assist the student in marketing their own personal trainer services as well as developing a successful marketing program for a progressive fitness facility. You will learn proven methods for marketing and research develop networking techniques, and employment leads. The course will assist you in recognizing and developing personal talents to be better able to determine career direction.

Prerequisite(s): PFT 110.

PHILOSOPHY

PHIL 310
PROFESSIONAL ETHICS 5 CR
This course aims to raise students' awareness of ethical dilemmas that might occur at work, to show how such ethical issues are subject to management analysis and decision-making action, and to provide students with the conceptual tools necessary to identify and then develop an acceptable resolution of these dilemmas. The course will include the presentation of ethical arguments to groups, and debate on their merits.

Prerequisite(s): Admission to the BASOPS program.

PHYSICS

PHYS& 110
PHYSICS FOR NON-SCIENCE MAJORS W/LAB 5 CR
A course for non-science majors exploring the central concepts of physics while focusing on applications. The principles and laws of physics are covered on a conceptual level and everyday examples are treated. Topics include Newton's laws of motion, fluids, energy and magnetism, and waves (sound and light). Laboratory work provides and introduction to the scientific method and role of measurement in science and serves to demonstrate the application of physics concepts.

Prerequisite(s): ACCUPLACER Algebra score of 75 or better or MATH 098 or AMATH 111 (or higher) with a C or better.

PHYS& 114
GENERAL PHYSICS I W/LAB 5 CR
An algebra-based introduction to classical mechanics and problem-solving in physics, designed for students majoring in technically oriented

fields that do not require a calculus-oriented approach. Topics include kinematics description of motion, forces and Newton's Law, gravity, momentum and energy. Emphasis will be placed on problem solving, mathematical reasoning, computer-aided laboratory investigations, and the scientific method.

Prerequisite(s): MATH& 142 with a C or better.

PHYS& 221
ENGINEERING PHYSICS I W/LAB 5 CR
PHYS& 221 is the first in a three-course calculus-based survey of physics for engineering pathways. The course introduces the fundamental principles of mechanics; kinematics, momentum and energy conservation laws, physical interactions, force, work, rotation, torque and gravity. Conceptual development and problem solving have equal emphasis. Laboratory work includes experimental methods, data analysis, and prepares students for coursework in engineering.

Prerequisite(s): ENGL& 101 with a C or better.

Prerequisite or corequisite: MATH& 151 with a C or better.

PHYS& 222
ENGINEERING PHYSICS II W/LAB 5 CR
PHYS& 222 is a calculus-based introduction to electricity and magnetism that prepares students for coursework in engineering. The course introduces the fundamental principles of electricity and magnetism: electrostatics; magnetic fields of steady currents; time-varying electric and magnetic fields; DC and AC circuits. Conceptual development and problem solving have equal emphasis. Laboratory work includes an introduction to design, experimental methods and data analysis.

Prerequisite(s): PHYS& 221 with a C or better, Prerequisite or Co-requisite MATH& 152.

PHYS& 223
ENGINEERING PHYSICS III W/LAB 5 CR
PHYS& 223 is a calculus-based introduction to rotations and oscillations, wave phenomena and optics that prepares students for coursework in engineering. Conceptual development and problem solving have equal emphasis. Laboratory work includes an introduction to design, experimental methods, and data analysis.

Prerequisite(s): PHYS & 222 with a C or better.

POLITICAL SCIENCES

POLS& 202
AMERICAN GOVERNMENT   5 CR
Focus is given to the system, process, and organizational functions of the American government. It also puts primary attention on the relationships between citizens and their national government by exploring the key theoretical precepts that shaped the Constitution and its federal structural arrangements. Close attention is paid to the policy making process and its key actors, as well as various public policies.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 50 or ABE 054 or ABE 055 with a C or better, and ACCUPLACER Sentence Skills score of 50 or ENGL 092 with a C or better.

PROCESS TECHNOLOGY AND WATER & WASTEWATER TREATMENT

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.

Prerequisite(s): ACCUPLACER Algebra score of 75 or Math 098 with a C or better; ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better. CAP 101 with a C better or passing scores in the Internet and Computing Core Certification (IC3) test battery or successful completion of Digitools or Tech Connections completed at Whatcom County high schools.

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.

Prerequisite(s): PTEC 101 with a C or better.

Completion Of or Concurrent Enrollment In: PTEC 101 with a D or better or concurrent enrollment in PTEC 101 or Instructor permission.

PTEC 103
SAFETY, HEALTH & ENVIRONMENT 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.

Prerequisite(s): PTEC 101 and PTEC 102.

PTEC 104
PROCESS DRAWINGS   2 CR
In this course, students will study various process drawings such as a Process Flow Diagram (PFD) and Piping and Instrumentation Diagram (P&ID). This course will cover how to read detailed diagrams in the process industry which shows the piping and vessels in the process flow, together with the instrumentation and control devices. Students will use these drawings to analyze process flows, equipment, isolation valves, instrumentation and process control loops. Additionally, students will use process diagrams for determining safe isolation procedures.

Prerequisite(s): PTEC 101 and 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.

Prerequisite(s): PTEC 101 and PTEC 102.

PTEC 109
INTRO TO WWT   5 CR
In this course, students will be introduced to the various methods and processes for fresh water and 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 water processing.

Completion Of or Concurrent Enrollment In: CAP 101 with a C or better or concurrent enrollment in CAP 101, or Instructor permission.

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.

Prerequisite(s): PTEC 103, PTEC 105 and AMATH 111 or Instructor permission.

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 on-line.

Prerequisite(s): CAP 101.

PTEC 191
NON-REFINING PROCESSES   3 CR
In this course, students will be introduced to local and regional non-petroleum refining processes such as Food Processing, Dry Materials Processing, Pulp and Paper Mill Processing among others. Students will analyze and compare other industry processes. Topics range from industry specific safety and environmental concerns to exploring career opportunities. The students will have an opportunity to meet and tour local industries.

Prerequisite(s): CAP 101.

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 on-line.

Prerequisite(s): 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, 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 on-line.

Prerequisite(s): Completion of or concurrent enrollment in 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 on-line.

Prerequisite(s): Completion of or concurrent enrollment in CAP 101.

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 on-line with access to the laboratory and pilot plant.

Prerequisite(s): Completion of or concurrent enrollment in 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 on-line.

Prerequisite(s): 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 of these include trips to other PTEC schools to operate special pieces of equipment or learn specialized topics. Students will be required to perform the required portion of coursework and to prepare a written and oral report.

Prerequisite(s): 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 an value repacking. Reading and interpreting manufacturers technical manuals and equipment drawings. Student will disassemble, inspect pipe flanges, install blinds, make up piping flanges and connections in accordance with applicable documentation.

Prerequisite(s): Completion of or concurrent enrollment in 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 Hydro Power. This will include the operations of boilers, steam turbines, gas turbines, wind 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.

Prerequisite(s): 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 situation; recognize hazardous situations for personnel, environment, and the community; and apply team skills in response to emergency situations.

Prerequisite(s): PTEC 110.

PTEC 205
DYNAMIC PROCESS CONTROL   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. The course will be conducted as a "hands on" operating experience using both small-group and individual simulation activities, assignments and scenarios.

Prerequisite(s): 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 on-line.

Prerequisite(s): PTEC 110.

PTEC 211
TROUBLESHOOTING   5 CR
In this course, students will be introduced to troubleshooting 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.

Prerequisite(s): PTEC 110.

PTEC 212
INDUSTRIAL PROCESSES & 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 construction, theory of operation, and typical uses of process industry equipment.

Prerequisite(s): 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.

Prerequisite(s): PTEC 110.

PTEC 221
PRELIM & SEC WWT STAGE 1   5 CR
Students will be introduced to the various methods and processes for preliminary and secondary treatment of wastewater. These will include the steps of preliminary, primary, and secondary treatment which involve the operations of contaminant removal equipment, sedimentation systems, biological and chemical reactors, thickeners, and mixing systems. The class will discuss the equipment necessary to provide and control these operations, quality control methods, and safe work practices. Students will also do a project related to waste water processing.

Prerequisite(s): PTEC 109 with a D or better or Instructor permission.

PTEC 222
SOLIDS & REGS WWT STAGE 2   5 CR
This course will cover methods and technology associated with solids treatment and regulatory issues associated with Water Treatment processes. Processes, equipment, operations and operator duties/responsibilities will be covered. Regulations related to permit compliance and standard record keeping will also be covered.

Prerequisite(s): PTEC 109 with a D or better or Instructor permission.

PTEC 223
WATER & ADV WWT STAGE 3   5 CR
This course will cover methods and technology associated with fresh water treatment, water disinfection and advanced treatment of wastewater. Processes, equipment, operations and operator duties/responsibilities will be covered. The class will discuss the equipment necessary to provide and control these operations, quality control methods, and safe work practices. Students will also do a project related to fresh water processing.

Prerequisite(s): PTEC 109 with a D or better or Instructor permission.

PTEC 224
WWT TEST PREPARATION   3 CR
This course will prepare the participant to successfully apply for and take the Operator in Training exam. Topics include managing the operational and maintenance needs of water and wastewater treatment facilities; water quality concerns and disinfection; interpreting and applying Federal, State and Local rules and regulations; planning and record keeping requirements.

Prerequisite(s): PTEC 109 with a D or better or Instructor permission.

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/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/consult with instructor/engineers technicians and other resources and internet to develop a solution. The student or the group will then write the technical report defining the complete process from defining the problem, methodology applied, and their conclusion. This may also require building a piece of equipment, writing a software program, or writing safety or operational procedures.

Prerequisite(s): PTEC 101.

PTEC 272
**PROCESS TECHNOLOGY
PROJECT II   5 CR**
This may be a continuation of PTEC 270 or a separate assignment. For the degree student, this is a culminating project for an individual or group. The instructor may assign a topic for the project or work with a local industry to define a project topic from a real-life situation. The student or group of students will define the problem, resources needed, postulate the hypothesis/solution, research the problem and possible solutions, visit the plant, interview /consult with instructor/engineers/technicians and other resources, and develop a solution. The student or group will then write a technical report outlining the complete process from defining the problem, methodology applied and conclusion. This may also require building a piece of equipment, writing a software program, or writing safety or operational procedures.

Prerequisite(s): PTEC 101.

PTEC 290
**PROCESS TECHNOLOGY
PRACTICUM/INTERNSHIP I   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 variable and may be repeated for clock hour credit.

Prerequisite(s): PTEC 101.

PTEC 291
**PROCESS TECHNOLOGY
PRACTICUM/INTERNSHIP II   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.

Prerequisite(s): PTEC 101.

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.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 85 or RDG 085 with a B or better, and ACCUPLACER Sentence Skills score of 86 or ENGL 092 with a B or better or AENGL 100 with a C or better.

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.

Prerequisite(s): PSYC& 100 with a C or better.

PSYC 310
ORGANIZATIONAL PSYCHOLOGY   5 CR
This course examines how people behave and interact with each other at work with an emphasis on the way that this affects job performance. Topics covered in this course include the development of leadership skills; recruitment and retention; motivation and team building; managing change; and conflict resolution. Group work is used to build and practice the interpersonal skills critical for workplace management.

Prerequisite(s): Admission to the BASOPS program.

RADIOLOGY

RT 101
RADIOGRAPHIC POSITIONING I   6 CR
This course introduces the basic positioning techniques used in the radiography of the respiratory system, abdomen, upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification pathologies and an energized section using phantoms.

Prerequisite(s): Radiologic Technology program admission.

RT 102
**RADIOGRAPHIC POSITIONING &
ANATOMY II   6 CR**
This course introduces the basic positioning techniques used in the radiography of the bony thorax, spinal column, pelvic girdle and continuation of the upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification, pathologies and an energized section using phantoms.

Prerequisite(s): RT 101 with a minimum grade of C.

RT 103

**RADIOGRAPHIC POSITIONING
AND ANATOMY 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.

Prerequisite(s): RT 102 with a minimum grade of C.

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.

Prerequisite(s): RT 103 with a minimum grade of C.

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.

Prerequisite(s): Radiologic Technology Program Admission.

RT 114

LEADERSHIP SEMINAR   **2 CR**

This course is designed to encourage leadership principles in students including participation and project development for professional organizations.

Prerequisite(s): Radiologic Technology Program Admission.

RT 120

IMAGING & 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.

Prerequisite(s): Radiologic Technology Program Admission.

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.

Prerequisite(s): RT 120 with a minimum grade of C.

RT 123

RADIOGRAPHIC PHYSICS II   **4 CR**

This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile, tomography equipment requirements and design. Content includes manual versus automatic exposure control, equipment calibration, beam restriction, and recognition of malfunctions.

Prerequisite(s): RT 121 with a minimum grade of C.

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.

Prerequisite(s): RT 101, RT 112, RT 114, & RT 120 with a minimum grade of C in each course.

RT 132

RADIOGRAPHIC CLINIC II   **7 CR**

This course consist 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.

Prerequisite(s): RT 131 with a minimum grade of C.

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, clinics or doctors offices in regional areas. Rotations may include day, evening or weekend schedules.

Prerequisite(s): RT 132 with a minimum grade of C.

RT 201

**ADVANCED PATIENT PROCEDURES
AND 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.

Prerequisite(s): RT 108 & RT 231 with a minimum grade of C in each course.

RT 202

**ADVANCED PATIENT PROCEDURES
AND 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.

Prerequisite(s): RT 201 with a minimum grade of C.

RT 205

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.

Prerequisite(s): RT 103 & RT 123 with a minimum grade of C in each course.

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.

Prerequisite(s): RT 108 & RT 231 with a minimum grade of C in each course.

RT 230

**REGISTRY REVIEW AND
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.

Prerequisite(s): RT 210 & RT 201 with a minimum grade of C in each course.

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 doctors offices in regional areas. Rotations may include day, evening or weekend schedules.

Prerequisite(s): RT 133 with a minimum grade of C.

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.

Prerequisite(s): RT 231 with a minimum grade of C.

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 doctors offices in regional areas. Rotations may include day, evening or weekend schedules.

Prerequisite(s): RT 232 with a minimum grade of C.

RESIDENTIAL HOME INSPECTION

RHI 111
FUNDAMENTALS OF HOME INSPECTION   **12 CR**
This course will teach students the fundamentals of residential home inspection. Students will receive classroom instruction in Washington State laws and rules; business practices; legal issues; communication; structural components; exteriors; roofing; plumbing; electrical systems; heating and cooling systems; interiors; insulation and ventilation; fireplaces, chimneys and solid fuel burning appliances; site and grading; attached garages and carports; wood destroying organisms, conducive conditions and pests; alternate construction methods; environmental conditions or hazardous materials; building codes; and product quality and safety issues. Students will gain the technical knowledge required to pursue a career in the field of home inspection. Fundamentals of Home Inspection will fulfill the education pre-licensing requirements of the state and will prepare students for a career in home inspection.

RHI 112
HOME INSPECTION FIELD TRAINING   **3 CR**
This course will build on the information covered in the Fundamentals of Home Inspection course by providing an additional forty (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. The report writing is in addition to the 40 hours of field training and will completed off-site and out of class time by students.

Prerequisite(s): RHI 111.

SOCIOLOGY

SOC& 101
INTRODUCTION TO SOCIOLOGY   **5 CR**
This course introduces the major concepts and definitions of the science of sociology. Basic sociological inquiry is covered, and how social forces shape communal and individual behaviors and attitudes. Topics include socialization, cultures, deviance, social control, inequality, power, social class, race, gender, and institutions. Students learn the basic theories and perspectives of sociology and how those theories apply to the social landscape.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 85 or RDG 085 with a B or better, and ACCUPLACER Sentence Skills score of 86 or ENGL 092 with a B or better or AENGL 100 with a C or better.

SPANISH

SPAN& 121
SPANISH I   **5 CR**
This course covers basic communication for comprehension, speaking, reading, and writing in Spanish with a focus on interactions in business situations. Students will learn specific vocabulary and skills to communicate with Spanish-speaking clients in a professional setting. This course will also provide an introduction to Hispanic cultures.

SPAN& 122
SPANISH II   **5 CR**
A continuation of Spanish I. The vocabulary and grammatical structures are more complicated, and the student begins to master a past tense. Oral comprehension and speaking skills are emphasized through daily practice, as well as the reading and writing exercises.

Prerequisite(s): SPAN& 121 with a C or better.

SURGERY TECHNOLOGY

SURG 100
INTRO TO SURGERY TECHNOLOGY   **2 CR**
This course provides information related to the role of the surgical technologist within the surgical team, operative environment with an emphasis on physical requirements of the surgical technician, professional roles, inter-departmental/peer/relationships and medical communication used in surgical technology. An introduction to the profession will include: history of surgery, surgical ethics and law and principles of aseptic technique. In addition, college and program policies will be introduced. You are required to receive a B in this course to apply to the program.

SURG 120
SURGERY TECHNOLOGY I   **12 CR**
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 in addition to principles of aseptic technique, sterilization and safety in the operating room. Students will participate in activities that help to identify, manage and apply general terminology to medications and solutions used in operating room settings. Student will apply the theories and principles of pharmacology for use in the operating room environment in order to provide safe and effective management of medications.

Prerequisite(s): Acceptance into the Surgery Technology program.

SURG 125
SURGERY TECHNOLOGY LAB I   **10 CR**
The student will participate in lab activities based on principles and techniques of operating room procedure. Students will develop skills necessary to plan, set-up and maintain sterile fields. In addition, the student will orient to health care facilities.

Prerequisite(s): Acceptance into the Surgery Technology program.

SURG 133
SURGERY TECHNOLOGY II   **10 CR**
In this course the student will gain further theoretical and practical knowledge of specialty equipment, instrumentation, and surgical supplies. The student will detail intra operative care techniques and the surgical technologists' role in surgical case preparation and surgical procedures.

Prerequisite(s): SURG 120, SURG 125 with a C or better.

SURG 136
SURGERY TECHNOLOGY CLINICAL PRACTICE I   **12 CR**
The students will participate in activities that correlate the theories and principles of surgical procedure and technique in a mock operating room (lab) setting. In addition students will assume the role of a student surgical technologist participat-

ing in surgical procedures in affiliated hospitals, surgery centers or clinics.

Prerequisite(s): SURG 120, SURG 125 with a C or better.

SURG 143
SURGERY TECHNOLOGY III   **6 CR**
In this course the student will gain further theoretical and practical knowledge of specialty equipment, instrumentation, and surgical supplies. The student will detail the surgical technologists' role in procedures and techniques used to achieve intraoperative hemostasis, proper patient documentation and patient care emergencies. The students will also describe the surgical technologists' professional and legal responsibilities.

Prerequisite(s): SURG 133, SURG 136.

SURG 145
SURGERY TECHNOLOGY CLINICAL PRACTICE II   **10 CR**
The students will participate in activities that correlate the theories and principles of surgical procedure and technique in a mock operating room (lab) setting. In addition students will assume the role of a student surgical technologist with emphasis on independent scrubbing on surgical procedures in affiliated hospitals, surgery centers or clinics.

Prerequisite(s): SURG 133, SURG 136.

TOTAL QUALITY MANAGEMENT

TQM 109
INTRODUCTION TO TOTAL QUALITY MANAGEMENT   **5 CR**
Provides an overview of quality planning, quality assurance, and quality control. Students will: learn the key factors that are critical for customer satisfaction in your business; be introduced to the processes and the methodology of continuous process improvement; discover the immediate and long-term effects of different quality levels; and understand the multi-dimensions of quality:

TQM 200
SIX SIGMA - STATISTICAL ANALYSIS TOOLS   **5 CR**
You will learn when to use many of the proven Six Sigma problem-solving methods and statistical tools to contribute to the success of your organization. This Six Sigma Green Belt course follows the DMAIC (Define, Measure, Analyze, Improve, Control) model and teaches the soft skills required to participate in projects effectively.

TQM 209
CASE STUDIES IN QUALITY MANAGEMENT   **5 CR**
Students use advanced Total Quality Management techniques and apply them to their business. business.

Prerequisite(s): TQM 109. EDUC 131.

TRANSPORTATION

TRANS 101
BASIC TRANSPORTATION SERVICE & SYSTEMS 101   **5 CR**
Basic Transportation is a hybrid class. A portion of the lecture component will be delivered through an on-line "textbook". Students will be introduced to basic automotive and diesel repair practices. Proper interaction with customers, shop managers and fellow employees will be emphasized. NOTE: Students are required to complete all General Education courses before entering DET 139, DET 240, DET 242.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better, and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better and a valid driver's license or Instructor permission.

Note: This class must be taken concurrently with TRANS 102 and TRANS 103.

TRANS 102
BASIC TRANSPORTATION SERVICE & SYSTEMS 102   **5 CR**
Basic Transportation is a hybrid class. A portion of the lecture component will be delivered through an on-line "textbook". Students will begin to apply tool use and shop practices that are introduced in Basic Transportation 102. These practices will be demonstrated on shop and customer vehicles. NOTE: Students are required to complete all General Education courses before entering DET 139, DET 240, DET 242.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better, and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better and a valid driver's license or Instructor permission.

Note: This class must be taken concurrently with TRANS 101 and TRANS 103.

TRANS 103
BASIC TRANSPORTATION SERVICE & SYSTEMS 103   **5 CR**
Basic Transportation is a hybrid class. A portion of the lecture component will be delivered through an on-line "textbook". 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. NOTE: Students are required to complete all General Education courses before entering DET 139, DET 240, DET 242.

Prerequisite(s): ACCUPLACER Arithmetic score of 38 or MATH 090 with a C or better or ABE 050 with a C or better, and ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better, and ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better and a valid driver's license or Instructor

permission.

Note: This class must be taken concurrently with TRANS 101 and TRANS 102.

VETERINARY TECHNICIAN

VET 117
VETERINARY ASSISTANT INTERNSHIP   **2 CR**
This course is for students, enrolled in the Veterinary Technician Program who choose the "'early out" option and are pursuing a certificate in Veterinary Assistant. Students are to gain work experience as a Veterinary Assistant in an appropriate setting.

Prerequisite(s): VETT 101, VETT 102, VETT 103, VETT 104, VETT 106, VETT 107, VETT 108, VETT 109, VETT 201, VETT 202 & VETT 120 with a minimum grade of C- in each course.

VET 120
MEDICAL DOSAGES AND CALCULATIONS   **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.

Prerequisite(s): Veterinary Technician Program Admission.

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 appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

Prerequisite(s): Veterinary Technician Program Admission.

VETT 102
VETERINARY ANATOMY & PHYSIOLOGY I   **6 CR**
Upon completion of this course, the Veterinary Assistant and Veterinary Technician student will be knowledgeable in: 1) The function of basic cell structure; 2) Skeletal anatomy & physiology; 3) Integument & muscular systems; 4) The respiratory & cardiovascular systems; 5) The hemolymphatic, gastrointestinal, endocrine, reproductive, urinary, & nervous systems.

Prerequisite(s): Veterinary Technician Program Admission.

VETT 103
VETERINARY MEDICAL TERMINOLOGY   3 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will: understand terms of anatomical topography, nursing records, and pharmaceutical, emergency and surgical, medicine, and patient description terms; students should also be comfortable and accurate with metric system conversion.

Prerequisite(s): Veterinary Technician Program Admission.

VETT 104
VETERINARY NUTRITION I   3 CR

Given the characteristics of the patient, the Veterinary Assistant and Veterinary Technician student will understand appropriate and inappropriate dietary components for various life stages to promote optimal health. Also, the Veterinary Assistant and Veterinary Technician student will be able to explain nutritional recommendations to clients and reinforce owner compliance.

Prerequisite(s): VETT 101, VETT 102 & VETT 103 with a minimum grade of C- in each course.

VETT 105
LEARNING FOR A LIFETIME   2 CR

The goals of this module are to enable the student to learn the materials of Veterinary Technician medicine in a logical, goal-oriented manner. The Veterinary Technician student should be empowered with critical thinking and problem-solving skills. The Veterinary Technician student should be able to utilize a variety of reference media and assess that material for quality of content. Finally, the Veterinary Technician student should be able to tailor study skills to address their personal strengths and weaknesses with the goal of maximizing retention of material learned during the Veterinary Technician Program and in continuing education pursuits throughout his or her career.

Prerequisite(s): Veterinary Technician Program Admission.

VETT 106
MICROBIOLOGY, VIROLOGY, & MYCOLOGY   3 CR

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

Prerequisite(s): VETT 101, VETT 102 & VETT 103 with a minimum grade of C- in each course.

VETT 107
SMALL ANIMAL PARASITOLOGY   4 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will be able to: 1) Identify & describe the life cycle of ecto- and endo- parasites; 2) Understand the importance of parasites in veterinary and zoonotic disease; 3) Understand the importance of, and

demonstrate proper diagnostic fecal techniques; 4) Identify parasite ova, adults and non-parasite artifacts; 5) Review therapy and prevention of parasitic diseases

Prerequisite(s): VETT 101, VETT 102 & VETT 103 with a minimum grade of C- in each course.

VETT 108
RADIOLOGY I   5 CR

Given the characteristics of the patient and the radiographic study that has been requested, the Veterinary Assistant and Veterinary Technician student will be able to prepare the radiographic equipment, measure the animal using topographic landmarks and choose the appropriate radiographic technique to provide maximum diagnostic benefit in an appropriate and safe manner. The Veterinary Technician student will be able to assess the image quality and offer options to correct deficiencies.

Prerequisite(s): VETT 101, VETT 102 & VETT 103 with a minimum grade of C- in each course.

VETT 109
CLINICAL LABORATORY SCIENCES   5 CR

Upon completion of this module, the Veterinary Assistant and Veterinary Technician student will be able to properly handle and submit appropriate samples for diagnostic analysis to ensure maximum accuracy of results. Also, give the characteristics of the laboratory equipment; the student will determine proper maintenance and quality control procedures necessary to ensure accurate results.

Prerequisite(s): VETT 101, VETT 102 & VETT 103 with a minimum grade of C- in each course.

VETT 110
VETERINARY ANATOMY & PHYSIOLOGY II   3 CR

Upon completion of this module, the Veterinary Technician student will be knowledgeable in: 1) Unique equine features: head and gastrointestinal tract and reproductive tract; 2) Unique ruminant features: gastrointestinal tract and reproductive tract and foot; 3) Avian anatomy.

Prerequisite(s): VETT 104, VETT 106, VETT 107, VETT 108 & VETT 109 with a minimum grade of C- in each course.

VETT 111
SMALL ANIMAL MEDICINE I   3 CR

Upon completion of this module, the Veterinary Technician student will be knowledgeable in: 1) The general approach to medical problems and become familiar with systemic diseases; 2) Respiratory & cardiac diseases; 3) Gastrointestinal diseases; 4) Urinary tract diseases; 5) Liver & pancreas diseases; 6) Endocrine diseases; 7) Neurologic diseases; 8) Erythrocytes, platelets, & coagulation.

Prerequisite(s): VETT 104, VETT 106, VETT 107, VETT 108 & VETT 109 with a minimum grade of C- in each course.

VETT 112
VETERINARY NURSING II: SURGICAL   5 CR

Given the characteristics of the patient and the surgical procedure to be performed, the Veterinary Technician student will be able to: 1) Assess the patient's pre-surgical status and tests and report to the veterinarian; 2) Verify the owner's consent to the procedure and its cost; 3) Identify and apply appropriate surgical site preparation of hair clipping and decontamination; 4) Position the patient appropriately for maximum surgical convenience and safety; 5) Maintain aseptic technique for surgical facility and equipment

Prerequisite(s): VETT 104, VETT 106, VETT 107, VETT 108 & VETT 109 with a minimum grade of C- in each course.

VETT 113
IMMUNOLOGY & PHARMACOLOGY I   3 CR

Upon completion of this module, the Veterinary Technician student will be able to calculate the correct amount of medication in the prescribed form and administer it by the prescribed route as directed by a veterinarian. The Veterinary Technician student shall also be able to differentiate between normal and abnormal responses to medications and communicate necessary information to clients in order to maximize safety and compliance for effective treatment. Finally, the Veterinary Technician student should be proficient at inventory control procedures, especially as applied to controlled substances.

Prerequisite(s): VETT 104, VETT 106, VETT 107, VETT 108 & VETT 109 with a minimum grade of C- in each course.

VETT 114
DENTISTRY   4 CR

Upon completion of this module, the Veterinary Technician student will be knowledgeable of: 1) Dental anatomy & pathophysiology; 2) Dental radiographs; 3) Dental instruments & usage; 4) Large animal dentistry (equine & swine); 5) Small mammal dentistry & avian beaks.

Prerequisite(s): VETT 104, VETT 106, VETT 107, VETT 108 & VETT 109 with a minimum grade of C- in each course.

VETT 115
RADIOLOGY II   5 CR

Given the characteristics of the patient and the radiographic study that has been requested, the Veterinary Assistant and Veterinary Technician student will be able to prepare the radiographic equipment, measure the animal using topo-

graphic landmarks and choose the appropriate radiographic technique to provide maximum diagnostic benefit in an appropriate and safe manner. The Veterinary Technician student will be able to assess the image quality and offer options to correct deficiencies. Also given the characteristics of the patient and the non-radiographic imaging study requested, the Veterinary Technician student will properly prepare the imaging site and equipment and position the patient appropriately for the study.

Prerequisite(s): VETT 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

VETT 116
LARGE ANIMAL MEDICINE 3 CR
Upon completion of this module, the Veterinary Technician student will be knowledgeable in: 1) Equine preventative health care, gastrointestinal diseases, respiratory & cardia diseases, lameness, & reproductive & neonate diseases; 2) Bovine gastrointestinal & reproductive diseases; 3) Important diseases of sheep, goats, & llamas.

Prerequisite(s): VETT 115, VETT 118, VETT 119, VETT 120, VETT 121 & VETT 125 with a minimum grade of C- in each course.

VETT 117
VETERINARY NURSING III: LARGE ANIMAL 5 CR
Upon completion of this module, the Veterinary Technician student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of the patient with minimum stress and maximum safety. In addition, the Veterinary Assistant and Veterinary Technician student will be able to carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

Prerequisite(s): VETT 115, VETT 118, VETT 119, VETT 120, VETT 121 & VETT 125 with a minimum grade of C- in each course

VETT 118
SMALL ANIMAL MEDICINE II 3 CR
Upon completion of this module, the Veterinary Technician student will be knowledgeable with the following relative small animal medicine: 1) Lymphatics, spleen, & bone marrow; 2) Reproductive disorders; 3) Trauma medicine; 4) Transfusion medicine; 5) Sepsis; 6) Diabetes mellitus & diabetic ketoacidosis (DKA); 7) Acute abdomen stabilization.

Prerequisite(s): VETT 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

VETT 119
ADVANCED CLINICAL LAB SCIENCES 4 CR
Upon completion of this module, the Veterinary Technician student will be knowledgeable in the following advanced clinical laboratory sciences: 1) Seology & antigen testing; 2) Pulse oximetry, capnography, & blood gas analysis; 3) Electrocardiogram (EKG); 4) Arthrocentesis, CSF tap, & bone marrow evaluation; 5) Blood pressure evaluation; 6) Thoracocentesis, abdominocentesis, & transtracheal wash; 7) Blood collection for transfusion or blood culture; 8) Advanced hematology.

Prerequisite(s): VETT 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

VETT 120
ANESTHESIA 5 CR
Given the characteristics of the anesthetic patient and the procedure, (assisted by the veterinarian) the Veterinary Technician student will assess patient risk status and determine appropriate perianesthetic, anesthetic and pain management protocols. Also (assisted by the veterinarian), the Veterinary Technician student will choose appropriate monitoring equipment and techniques to maintain safe anesthesia, pain management and anesthesia recovery.

Prerequisite(s): WLD 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

VETT 121
EXOTIC ANIMAL MEDICINE 3 CR
Given the unique requirements for exotic species, the Veterinary Technician student will safely obtain subjective and objective data that will allow evaluation of these animals. The Veterinary Technician student will be able to: identify husbandry issues and recognize normal from abnormal behaviors and vital signs.

Prerequisite(s): VETT 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

VETT 122
VETERINARY NUTRITION II 2 CR
Upon completion of this module, the Veterinary Technician student will be knowledgeable of: 1) Nutrition & recovery care; 2) Therapeutic nutrition; 3) Small mammal & avian nutrition; 4) Nutrition of lizards, snakes, & turtles.

Prerequisite(s): VETT 115, VETT 118, VETT 119, VETT 120, VETT 121 & VETT 125 with a minimum grade of C- in each course.

VETT 123
VETERINARY NURSING IV: CRITICAL CARE 5 CR
Upon completion of this module, the Veterinary Technician student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of

the patient with minimum stress and maximum safety. Also, the Veterinary Assistant and Veterinary Technician student will be able to carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

Prerequisite(s): VETT 115, VETT 118, VETT 119, VETT 120, VETT 121 & VETT 125 with a minimum grade of C- in each course.

VETT 124
SPECIALTY MEDICINE 3 CR
Upon completion of this module, the Veterinary Technician student will be knowledgeable of the following veterinary medicine specialties: 1) Ophthamology; 2) Dermatology; 3) Oncology; 4) Alternative & complimentary medicine; 5) Physical therapy; 6) Cardiology; 7) Theriogenology; 8) Hospice care.

Prerequisite(s): VETT 115, VETT 126, VETT 119, VETT 120, VETT 121 & VETT 125 with a minimum grade of C- in each course.

VETT 125
HUMANITY OF VETERINARY MEDICINE 2 CR
Upon completion of this module, the Veterinary Technician student will be able to effectively contribute to the professional and efficient operation of the veterinary facility in order to provide maximum benefits to clients, patients and the facility. Also, the Veterinary Technician student will be able to effectively and accurately acquire and convey information to the client and to veterinary colleagues.

Prerequisite(s): VETT 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

VETT 126
PHARMACOLOGY II 3 CR
Upon completion of this module, the Veterinary Technician student will be be knowledgeable of: 1) Gastrointestinal drugs; 2) Hormones; 3) Anticonvulsants; 4) Therapies for the following: hypertension, airway disease, allergic disease, heart disease, & behavior disorders.

Prerequisite(s): VETT 115, VETT 118, VETT 119, VETT 120, VETT 121 & VETT 125 with a minimum grade of C- in each course.

VETT 130
VETERINARY CLINICAL WORK EXPERIENCE 12 CR
A cooperative effort between practicing veterinary facilities and Bellingham Technical College to provide hands-on training. Student will observe, assist, and perform tasks at selected facilities as directed by veterinary staff, using all knowledge gained during program.

Prerequisite(s): VETT 116, VETT 117, VETT 122, VETT 123, VETT 124, VETT 126 & VETT 205 with a minimum grade of C- in each course.

VETT 201
MENTORSHIP LAB I   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: animal restraint, physical exam, diagnostic sampling, and small animal patient care.

Prerequisite(s): Veterinary Technician Program Admission.

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 skill sets. Primary skills focus: advanced sampling techniques and beginning radiology.

Prerequisite(s): VETT 201 with a minimum grade of C-.

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: surgical assisting and nursing, dressing and bandaging techniques, and dentistry.

Prerequisite(s): VETT 202 with a minimum grade of C-.

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: anesthesia, advanced diagnostics, and advanced radiology.

Prerequisite(s): VETT 105, VETT 110, VETT 111, VETT 112, VETT 113, VETT 114 & VETT 203 with a minimum grade of C- in each course.

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: equine patient care, bovine patient care, and advanced nursing care.

Prerequisite(s): VETT 204 with a minimum grade of C-.

VETT 206
MENTORSHIP LAB VI   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:exotic animals, nutrition, and specialized medicine.

Prerequisite(s): VETT 205 with a minimum grade of C-.

WELDING

WLD 101
WELDING SAFETY   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.

Prerequisite(s): ACCUPLACER Reading Comprehension score of 71 or RDG 085 with a C or better; ACCUPLACER Sentence Skills score of 71 or ENGL 092 with a C or better; ACCUPLACER Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

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 including cutting safety; theory of gases; and hands-on lab practice. Cylinder handling and equipment safety and orientation will be stressed.

Completion Of or Concurrent Enrollment In: WLD 101 , WLD 110 and WLD 120 all with a C- or better or concurrent enrollment in WLD 101, WLD 110 and WLD 120 or Instructor permission.

WLD 106
PRINT READING I   2 CR
Students will learn to use prints and drawings used in the welding trade. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques.

Prerequisite(s): WLD 101 and WLD 105 and WLD 110 and WLD 120 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 130 WLD 140 and WLD 150 all with a C- or better or concurrent enrollment in WLD 130 , WLD 140 and WLD 150 or Instructor permission.

WLD 110
SMAW I   4 CR
Students will learn applications of power sources, electrode identification, and basic steel metallurgy, while practicing lab techniques in E6010 and E7018 SMAW Electrodes in the weld booth.

Completion Of or Concurrent Enrollment In: WLD 101 , WLD 105 and WLD 120 all with a C- or better or concurrent enrollment in WLD 101, WLD 105 and WLD 120 or Instructor permission.

WLD 116
SMAW PRACTICE   2 CR
Students will demonstrate all position SMAW welding techniques using E6010 or E7018 electrodes.

Prerequisite(s): WLD 101 and WLD 105 and WLD 106 and WLD 110 and WLD 120 and WLD 130 and WLD 140 and WLD 150 all with a C- or better or Instructor permission..

Completion Of or Concurrent Enrollment In: WLD 121 , WLD 131 and WLD 141 all with a C- or better or concurrent enrollment in WLD 121 , WLD 131 and WLD 141 or Instructor permission.

WLD 120
GMAW I   4 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.

Completion Of or Concurrent Enrollment In: WLD 101, WLD 105 and WLD 110 all with a C- or better or concurrent enrollment in WLD 101, WLD 105 and WLD 110 or Instructor permission.

WLD 121
GMAW ALUMINUM I   4 CR
This introduction to the gas metal arc welding process on aluminum covers safety, power sources, metallurgy, gases, filler metals, and lab practice.

Prerequisite(s): WLD 101 , WLD 105 , WLD 106, WLD 110 ,WLD 130, WLD 140 and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 116 WLD 131 and WLD 141 all with a C- or better or concurrent enrollment in WLD 116 , WLD 131 and WLD 141 or Instructor permission.

WLD 130
FCAW I   4 CR
Course covers the flux core arc welding process, including dual shield and self-shielding processes. Classroom discussion includes process safety and applications, power sources, shielding gases, FCAW electrodes and metallurgy. Lab practice on mild steel in the weld booth.

Prerequisite(s): WLD 101 and WLD 105 and WLD 110 and WLD 120 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 106 , WLD 140 and WLD 150 all with a C- or better or concurrent enrollment in WLD 106 , WLD 140 and WLD 150 or Instructor permission.

WLD 131
FCAW PRACTICE   **2 CR**
Students will demonstrate all position FCAW welding techniques.

Prerequisite(s): WLD 101 ,WLD 105 , WLD 106 , WLD 110 , WLD 120 , WLD 130 , WLD 140 and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 116 , WLD 121 and WLD 141 all with a C- or better or concurrent enrollment in WLD 116 , WLD 121 and WLD 141 or Instructor permission.

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.

Prerequisite(s): WLD 101 , WLD 105 , WLD 110 , and WLD 120 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 106 , WLD 130 and WLD 150 all with a C- or better or concurrent enrollment in WLD 106 , WLD 130 and WLD 150 Or Instructor permission.

WLD 141
GTAW ALUMINUM I   **4 CR**
This introduction to gas tungsten arc welding process on aluminum covers safety, power sources, metallurgy, gases, filler metals, and lab practice.

Prerequisite(s): WLD 101 ,WLD 105 , WLD 106 , WLD 110 , WLD 120 , WLD 130 , WLD 140, and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 116 ,WLD 121 and WLD 131 all with a C- or better or concurrent enrollment in WLD 116 , WLD 121 and WLD 131 Or Instructor permission.

WLD 150
INTRODUCTION TO METAL FABRICATING   **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. Will familiarize students with shop equipment and sign-off each for safety. 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; attention to detail, neatness, and the finished product will be demonstrated in an approved small fabrication project.

Prerequisite(s): WLD 101 , WLD 105, WLD 110, and WLD 120 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 106 , WLD 130 and WLD 140 all with a C- or better or concurrent enrollment in WLD 106 , WLD 130 and WLD 140 Or Instructor permission.

WLD 173
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.

WLD 205
PRINT READING II - PIPE   **3 CR**
Students will learn to use prints and drawings used in the welding trade, with emphasis on piping. Students will study and interpret industry drawings and prints, ISO's, plan drawings, symbols, dimensions, terminology, notes, applied mathematics, sketching and drawing techniques.

Prerequisite(s): WLD 210 with a C- or better and WLD 211 with a C- or better or Instructor permission..

Completion Of or Concurrent Enrollment In: WLD 215 with a C- or better and WLD 256 with a C- or better or concurrent enrollment in WLD 215 and WLD 256 Or Instructor permission.

WLD 206
PRINT READING II - WELDING & FABRICATION   **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, sketching and drawing techniques.

Prerequisite(s): WLD 101, WLD 105 , WLD 106 , WLD 110 , WLD 116 , WLD 120 , WLD 121 , WLD 130 , WLD 131 ,WLD 140 , WLD 141 , and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 230 , WLD 242 and WLD 252 all with a C- or better or concurrent enrollment in WLD 230 , WLD 242 and WLD 252 Or Instructor permission.

WLD 209
CODES & STANDARDS   **3 CR**
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, API, AA and WABO.

Prerequisite(s): WLD 213 with a C- or better and WLD 230 with a C- or better or Instructor permission..

Completion Of or Concurrent Enrollment In: WLD 271 with a C- or better or concurrent enrollment in WLD 271 Or Instructor permission.

WLD 210
SMAW II   **6 CR**
Open-Root Carbon Steel late Shield Arc Welding in 2G and 3G positions. Emphasis on open-root groove welding on 3/8" - 1/2" plate with E6010 (Root), and E7018 (Fill & Cap) for students enrolled in Pipe Pathway. This welding practice follows AWS Welding Standard D1.1 and WABO Structural Steel Welding Code, and is beginning practice to qualify open-root welds to ASME IX: B31.3; and AP1104 SMAW Pipe Welding Certification Standards for pressure piping applications required by local refineries and affiliated industrial piping applications.

Prerequisite(s): WLD 101 , WLD 105 , WLD 106 , WLD 110 , WLD 116 , WLD 120 , WLD 121 , WLD 130 , WLD 131 , WLD 140 , WLD 141 , and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 211 with a C- or better or concurrent enrollment in WLD 211 Or Instructor permission.

WLD 211
SMAW III   **6 CR**
Open Root Carbon Steel Plate Shield Metal Arc Welding in 4G position. Emphasis on open root groove welding on 3/8" - 1" plate with E6010 (Root), and E7018 (Fill & Cap) for students enrolled in Pipe Pathway. This welding practice follows AWS Welding Standard D1.1 Structural Steel Welding Code, and is beginning practice to qualify open root welds to ASME IX: B31.1 and B31.3; and AP1104 SMAW Pipe Welding Certification Standards for pressure piping applications required by local refineries and affiliated industrial piping applications.

Prerequisite(s): WLD 101 , WLD 105 , WLD 106 , WLD 110 , WLD 116 , WLD 120 , WLD 121 , WLD 130 , WLD 131 , WLD 140 , WLD 141 , and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 210 with a C- or better or concurrent enrollment in WLD 210 Or Instructor permission.

WLD 213
PRINT READING III   **3 CR**
Advanced Print Reading for 2nd year students. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques. Also may include applications for CNC Plasma Software, Isometric reading and drawing, and understanding basic AutoCAD applications.

Prerequisite(s): WLD 101 , WLD 105 , WLD 106 , WLD 110 , WLD 116 , WLD 120 , WLD 121 , WLD 130 , WLD 131 , WLD 140 , WLD 141 , and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: (WLD 220 , WLD 232 and WLD 254 all with a C- or better or concurrent enrollment in WLD 220 , WLD 232 and WLD 254 for Welding & Fab: General pathway) OR (WLD 230 , WLD 257 and WLD 262 all with a C- or better or concurrent enrollment in WLD 230 , WLD 257 and WLD 262 for Welding & Fab: Pipe pathway) Or Instructor permission.

WLD 215
SMAW PIPE **6 CR**
Shield metal arc welding of open-root steel pipe in all positions in preparation for industrial applications and the AWS/WABO Pipe Welding Certification Test (AWS/WABO testing is offered in-house). This pipe welding practice follows AWS Welding Standard D1.1 and WABO Structural Welding Code and ASME IX and B31.3 SMAW Pipe Welding Certification Standards for pressure piping applications required by local refineries and affiliated industrial applications. Pipe welding conducted in 2G, 5G, and 6G positions on 8" pipe.

Prerequisite(s): WLD 210 with a C- or better and WLD 211 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 205 with a C- or better and WLD 256 with a C- or better or concurrent enrollment in WLD 205 and WLD 256 Or Instructor permission.

WLD 220
SMAW TEST PRACTICE II **4 CR**
Lab exploring avenues for overcoming the difficulties of advanced SMA welding, including confined space applications, and out of position welding. Will apply practices on standard unlimited structural groove weld test plates.

Prerequisite(s): WLD 206 with a C- or better and WLD 230 with a C- or better and WLD 242 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 213, WLD 232 and WLD 254 all with a C- or better or concurrent enrollment in WLD 213, WLD 232 and WLD 254 Or Instructor permission.

WLD 230
FCAW II **3 CR**
Advanced FCA welding techniques in all positions; in the weld booth and in work simulated difficult positions such as the welding module. Lab practice will include preparation for AWS and WABO certification testing.

Prerequisite(s): WLD 101, WLD 10 , WLD 106 , WLD 110, WLD 116, WLD 120, WLD 121, WLD 130, WLD 131 , WLD 140 , WLD 141 , and WLD 150 all with a C- or better, or Instructor permission.

Completion Of or Concurrent Enrollment In: (WLD 206 , WLD 242 and WLD 252 all with a C- or better or concurrent enrollment in WLD 206 , WLD 242 and WLD 252 if part of Welding & Fab: General pathway) OR (WLD 213, WLD 257 and WLD 262 all with a C- or better or concurrent enrollment in WLD 213 , WLD 257 and WLD 262 if part of Welding & Fab: Pipe pathway) Or Instructor permission.

WLD 232
FCAW PRACTICES II **4 CR**
FCAW process in various positions for advanced welding techniques.

Prerequisite(s): WLD 206, WLD 230, WLD 242, and WLD 252 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 213 , WLD 220 and WLD 254 all with a C- or better or concurrent enrollment in WLD 213 , WLD 220 and WLD 254 Or Instructor permission.

WLD 242
GTAW & GMAW ALLOY **4 CR**
This course is designed to give students experience fabricating projects from aluminum, stainless steel and other alloys. Students will use large shop equipment including CNC plasma, press brake, hydraulic plate shear, and overhead bridge crane.

Prerequisite(s): WLD 101 , WLD 105 , WLD 106 , WLD 110 , WLD 116 , WLD 120 , WLD 121 , WLD 130 , WLD 131, WLD 140 , WLD 141 , and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 206 , WLD 230 and WLD 252 all with a C- or better or concurrent enrollment in WLD 206 , WLD 230 and WLD 252 Or Instructor permission.

WLD 252
ALLOY FABRICATION **6 CR**
Advanced fabricating techniques for alloys. Students will use large shop equipment and welding power supplies to fabricate projects from alloys including but not limited to aluminum, stainless steel and titanium to an industry acceptable standard.

Prerequisite(s): WLD 101, WLD 105, WLD 106 , WLD 110, WLD 116, WLD 120, WLD 121, WLD 130, WLD 131, WLD 140, WLD 141, and WLD 150 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 206, WLD 230 and WLD 242 all with a C- or better or concurrent enrollment in WLD 20 , WLD 230 and WLD 242 Or Instructor permission.

WLD 254
STEEL FABRICATION **5 CR**
Advanced fabricating techniques for steel. Students will use large shop equipment and welding power supplies to fabricate projects from standard structural shapes to applicable industry standard.

Prerequisite(s): WLD 206 WLD 230, WLD 242, and WLD 252 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 213, WLD 220 and WLD 232 all with a C- or better or concurrent enrollment in WLD 213 , WLD 220 and WLD 232 Or Instructor permission.

WLD 256
PIPE FABRICATION I **6 CR**
Advanced Fabrication techniques for Pipe, 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. Welding is to WABO structural, AWS and ASME Pressure pipe welding standards, and Fabrication to accepted Industry Standards. This course will be based extensively on The Pipe Fitter's Blue Book by Graves and BTC's Pipe Welding and Pipe Fitting from NCCER Pipefitting Levels 1-4.

Prerequisite(s): WLD 210 with a C- or better and WLD 211 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 205 with a C- or better and WLD 215 with a C- or better or concurrent enrollment in WLD 205 and WLD 215, or Instructor permission.

WLD 257
PIPE FABRICATION II **5 CR**
Advanced Fabrication techniques for Pipe per Piping Industry accepted codes and standards. Will include trade math in laying-out angles and offsets; pipefitting calculations; special pipefitting problems, including branch connections, headers; and fabrication piping systems involving reducers, and fabrication of offsets. Also pipe support systems and rigging for piping installations in the Fabrication Module. This course will be based extensively on The Pipe Fitter's Blue Book by Graves and BTC's Pipe Welding and Pipe Fitting, Volumes I & II from NCCER Pipefitting Levels 1-4.

Prerequisite(s): WLD 205 with a C- or better and WLD 215 with a C- or better and WLD 256 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 213, WLD 230 and WLD 262 all with a C- or better or concurrent enrollment in WLD 213, WLD 230 and WLD 262 Or Instructor permission.

WLD 262
GTAW PIPE WELDING **4 CR**
GTAW open root welding on carbon steel will be discussed. Pipe fitting techniques; for GTAW remote amperage adjustment and scratch-arc techniques. Welding in the booth and in the fabrication shop or Fabrication Module will be demonstrated and practiced.

Prerequisite(s): WLD 205 with a C- or better and WLD 215 with a C- or better and WLD 256 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 213, WLD 230 and WLD 257 all with a C- or better or concurrent enrollment in WLD 213, WLD 230 and WLD 257, or Instructor permission.

WLD 271
WELDER TESTING   **6 CR**
This course requires successful completion of at least one AWS/WABO Certification Test (SMAW or FCAW) on 1" plate or 8" Schedule 80 Pipe. Proof of industry certification may substitute for this requirement by Instructor permission.

Prerequisite(s): WLD 213 with a C- or better and WLD 230 with a C- or better or Instructor permission..

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better or concurrent enrollment in WLD 209 or Instructor permission.

WLD 281
WELDING UPGRADE 20HR   **1 CR**
Self-guided welding practice in the welding booth. A 20-hour upgrade in one credit. May be taken multiple times.

WLD 282
WELDING UPGRADE 50HR   **2 CR**
Self-guided welding practice in the welding booth. A 50-hour upgrade in 2 Credits. May be taken multiple times.

Prerequisite(s): Instructor permission.

WLD 283
WELDING UPGRADE 70HR   **3 CR**
Self-guided welding practice in the welding booth. A 70-hour upgrade is 3 Credits. May be taken multiple times.

Prerequisite(s): Instructor permission.

WLD 291
CAPSTONE PROJECT I   **3 CR**
A culminating project consisting of a portfolio, resume, and job search element, and a culminating fabrication project under the direction of staff.

Prerequisite(s): WLD 213 with a C- or better or WLD 230 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better and WLD 271 with a C- or better or concurrent enrollment in WLD 209 and WLD 271 or Instructor permission.

WLD 292
CAPSTONE PROJECT II   **6 CR**
A culminating project consisting of a portfolio, resume and job search element, and a culminating fabrication project under the direction of staff.

Prerequisite(s): WLD 213 with a C- or better and WLD 230 with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better and WLD 271 with a C- or better or concurrent enrollment in WLD 209 and WLD 271 Or Instructor permission.

WLD 293
WELDING INTERNSHIP I   **3 CR**
Industry on-the-job experience per individualized opportunities under guided practice. May be taken multiple times.

Prerequisite(s): Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better and WLD 271 with a C- or better or concurrent enrollment in WLD 209 and WLD 271 Or Instructor permission.

WLD 294
WELDING INTERNSHIP II   **6 CR**
Industry on-the-job experience per individualized opportunities under guided practice.

Prerequisite(s): Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better and WLD 271 with a C- or better or concurrent enrollment in WLD 209 and WLD 271 Or Instructor permission.

WLD 295
PIPE CAPSTONE PROJECT I   **3 CR**
A culminating project consisting of a portfolio, resume and job search element, and a culminating fabrication project under the direction of staff.

Prerequisite(s): WLD 213 , WLD 230 , WLD 257 , and WLD 262 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better and WLD 271 with a C- or better or concurrent enrollment in WLD 209 and WLD 271 or Instructor permission.

WLD 296
PIPE CAPSTONE PROJECT II   **6 CR**
A culminating project consisting of a portfolio, resume, and job search element, and a culminating fabrication project under the direction of staff.

Prerequisite(s): WLD 213, WLD 230, WLD 257, and WLD 262 all with a C- or better or Instructor permission.

Completion Of or Concurrent Enrollment In: WLD 209 with a C- or better and WLD 271 with a C- or better or concurrent enrollment in WLD 209 and WLD 271 Or Instructor permission.

WE ARE HERE FOR YOU

Board of Trustees

ADMINISTRATORS

Kimberly Perry
President
Ed.D., Educational Administration, University of the Pacific
M.Ed., Agricultural Education, University of California, Davis
B.S., Agricultural Education, University of California, Davis

VICE PRESIDENTS

Walter Hudsick
Vice President, Academic Affairs & Student Learning
M.A., Rhetoric, Composition and Technical Communication, Eastern Washington University
B.S., Liberal Arts, Excelsior College
A.A., Liberal Arts, Mercy College

Chad Stiteler
Vice President, Administrative Services
B.A., Business Administration, University of Washington
Certificate, Administrator of School Finance and Operations, Association of School Business Officials

Michele Waltz
Vice President, Student Services
M.A.T., Instruction and Learning, University of Pittsburgh
B.A., Psychology, University of Pittsburgh

EXECUTIVE DIRECTORS

Dean Fulton
Executive Director of the Foundation
B.A., Psychology, University of Washington

Vacant
Executive Director of Human Resources

DEANS

Ray Kubista
Interim Dean
M.P.A., Public Administration, Seattle University
B.A., English, Western Washington University
A.A., Arts & Sciences, Bellevue College

Tonya McCabe
Dean
M.A., Organizational Leadership, Gonzaga University
B.A., Communication, University of Washington

Heidemarie Ypma
Interim Dean
M.Ed., Secondary Education, Western Washington University
B.A., Education, Western Washington University

ASSOCIATE DEANS

Julie Samms
Associate Dean of Nursing and Surgery Technology
M.N., Nursing, University of Washington
B.S.N., Nursing, University of Washington
License, Registered Nurse, Washington State

Therese Williams
Associate Dean
B.A., Communications, Western Washington University
Certificate, Emergency Medical Technician, Washington State Department of Health
Certificate, Senior EMS Instructor Recognition, Washington State Department of Health
Certificate, EMS Evaluator Approval, Washington State Department of Health
Certificate, Basic Life Support (BLS) Instructor, American Heart Association
Certificate, BLS for Healthcare Providers (CPR & AED), American Heart Association
Certificate, BLS Regional Faculty Appointment, American Heart Association
Certificate, WA Professional Technical Certification

DEPARTMENT DIRECTORS

RaeLyn Axlund McBride
Executive Director of Institutional Effectiveness

Crystal Bagby
Director of Financial Aid

Jane Blume
Director of Library and Media Services

Gordon Durham
Operations Manager

Jake Fowler
Director of Enterprise Services

Mary Gerard
Director of Accessibility Resources

Brian Johnson
Interim Director of Workforce Funding

Dave Jungkuntz
Facilities Director

Joan Kammerzell
Director of Registration and Enrollment

Jennifer Knudsen
Child and Family Studies Program Manager

Sherry Minninger
Controller

Malcolm Oliver
Director of Multicultural and Student Support Services

Curtis Perera
Director of Computer and Information Support Services

Marni Saling Mayer
Director of Marketing & Communications

Matthew Santos
Interim Executive Director of Student Entry and Support Services

FACULTY

Tracy Bailey
Radiologic Technology
M.B.A., Healthcare Management, Western Governors University; B.S., Radiologic Sciences, Adventist University of Health Sciences A.H.S., Radiologic Technology, Trident Technical College; Certificate, Diagnostic Medical Sonography, Trident Technical College Certificate, ARRT; Certificate, ARDMS; Certificate, WA Professional Technical Certification

Daniel Beeson
Automotive Technology
Certificate, ASE Master Automobile Technician Certificate, ASE Advanced Engine Performance Specialist Certified; Certificate, Certified Journeyman Automotive Technician; Certificate, WA Professional Technical Certification

Chris Brod
Geomatic Technology
B.S., Geography, Northern Arizona University; Certificate, WA Professional Technical Certification

Scott Cory
Process Technology
B.S., Chemical Engineering, University of California, Davis; Certificate, WA Professional Technical Certification

Mary Curran
Nursing
M.N., Nursing, University of Washington B.S., Nursing, University of Washington A.T.A., Nursing, Skagit Valley College License, Registered Nurse License, State of Washington; Certificate, WA Professional Technical Certification

Diana Davidson
Nursing
M.N., Nursing, University of Washington, Bothell B.A., Biology, Western Washington University A.T.A., Nursing, Skagit Valley College License, Registered Nurse, State of Washington Certificate, WA Professional Technical Certification

Maria deCorpo
Culinary Arts
A.A. Occupational Studies in Culinary Arts, The Culinary Institute of America

Lisa Dzyban
Veterinary Technology
Diploma, Diplomate in Small Animal Internal Medicine, American College of Veterinary Internal Medicine; D.V.M., Doctor of Veterinary Medicine, University of Minnesota, St. Paul B.S., Veterinary Science, University of Minnesota, St. Paul; Certificate, WA Professional Technical Certification

Robert Edwards
HVAC & Commercial/Industrial Refrigeration
A.A.S., C/I Refrigeration, Bellingham Technical College

Tim Ewing
Engineering Technology and BASET Program Coordinator
Ph.D., Chemical Engineering, Washington State University; M.S., Biological and Agricultural Engineering, Washington State University B.S., Chemical Engineering, Washington State University; A.A.S.T., Arts and Sciences DTA, Whatcom Community College

Lee Falta
Computer Network Technology
M.S., Computer Science, University of Alabama in Huntsville; B.S., Computer Engineering, Auburn University; Certificate, Microsoft Certified Systems Administrator Certificate, Microsoft Certified Systems Engineer Certificate, Microsoft Certified Systems Professional; Certificate, CompTIA Network+ Certified; Certificate, Certified Novell Administrator; Certificate, CompTIA Security+ Certified; Certificate, WA Professional Technical Certification

Kathy Follman
Nursing
M.N., Nursing, University of Washington Certificate, APN-Nurse Educator Specialist, University of Washington B.S.N., Nursing, University of Washington A.A.S., Nursing, Everett Community College

Jeffrey Halfacre
Machining
A.A.S., Precision Machining, Bellingham Technical College Certificate, WA Professional Technical Certification

Nicole Harris
Counselor
M.A. Rehabilitation Counseling, Western Washington University B.A. Education, Western Washington University

Hilde Hettegger-Korsmo
Pastry
Apprenticeship Degree, Chef de Cuisine & Chef de Rang, Salzburg School of Hotel and Restaurant Management Certificate, Certified Culinary Educator, American Culinary Federation Certificate, Certified Working Pastry Chef, American Culinary Federation Certificate, WA Professional Technical Certification

Joan Humen
Nursing
M.S., Nursing, Western Governors University B.S., Nursing, Washington State University Certificate, Practical Nursing, Bellingham Vocational Technical Institute Certificate, CHPN, Certification in Hospice and Palliative Care Certificate, WA Professional Technical Certification

Jacen Johnson
Machining
A.A.S., Precision Machining, Bellingham Technical College Certificate, WA Professional Technical Certification

Russell Jones
Welding Technology
U.S. Navy HT-Hull Maintenance Technician Ironworkers Local #509 Certificate, AWS-Certified Welding Inspector (CWI) Certificate, AWS-Certified Welding Educator (CWE) Certificate, AWS-Certified Radiographic Interpreter (CRI) WABO-Structural steel and Welding Inspector Certificate, WABO-Certified Welder WABO-Weld Examiner ICC-Structural Steel and Welding Inspector Certificate, WA Professional Technical Certification

Holly Kennedy
Nursing
M.N., Nursing, University of Washington Certificate, Nurse Educator Specialist Training Certificate B.S., Nursing, University of Victoria B.S., Industrial Technology, Central Connecticut State University Diploma, Diploma, Vancouver General Hospital School of Nursing License, Registered Nurse License, State of Washington Certificate, WA Professional Technical Certification

Deidre Kent
Accounting & Business
B.A., Accounting/Business, Western Washington University Certificate, Certified Public Accountant License, State of Washington Certificate, Chartered Global Management Accountant, American Institute of Certified Public Accountants Certificate, WA Professional Technical Certification

Caren Kongshaug
College Readiness
M.Ed, Adult and Higher Education, Western Washington University
B.A., Literature, University of Redlands
B.A., History of Ideas, University of Redlands
Certificate, Teaching, National University

Tony Kuphaldt
Instrumentation & Control Technology
A.A.S.T., Electronic Engineering Technology, Skagit Valley College
Certificate, Instrumentation & Industrial Electronics Certificate, J.M. Perry Technical Institute
Certificate, Journey Level Status Instrument Technician-Primary Metals Industry
Certificate, WA Professional Technical Certification

Julie Lange
Surgery Technology
B.A., Communication Sciences & Disorders, Western Washington University
Certificate, Surgery Technology, Bellingham Technical College
Certificate, WA Professional Technical Certification

Janell Massey
Business & Computer Information Systems
M.Ed., Business Education, Western Washington University
B.A., Business Education, Western Washington University
Certificate, Microsoft Certified Application Specialist in Access, Excel, and Word 2007
Certificate, Microsoft Office Specialist: MS Word 2010 Core and Expert
Certificate, WA Professional Technical Certification

Mike Massey
Computer Network Technology
B.A., Business Administration/Computer Science, Western Washington University
Certificate, Microsoft Certified Systems Engineer
Certificate, CompTIA A+ Certified
Certificate, CompTIA Network+ Certified
Certificate, WA Professional Technical Certification

Brian McDonald
Culinary Arts
A.O.S., A.O.S., Culinary Institute of America
Certificate, Certified Culinary Educator, American Culinary Association
Certificate, Certified Executive Chef, American Culinary Association
Certificate, Servsafe Certification, National Restaurant Association
Certificate, WA Professional Technical Certification

Karen McGuinn
Dental Assisting
B.A.S., Professional Technical Teacher Education, South Seattle College
A.A.S.T., Professional Technical Education, Bellingham Technical College
Certificate, Dental Assisting Certificate, Bellingham Vocational Technical Institute
Certificate, Certified Preventive Functions Dental Assistant
Certificate, Certified Dental Assistant
Certificate, Registered Dental Assistant, State of Washington
Certificate, WA Professional Technical Certification

Kyle Miller
Welding Technology
AWS D1.1 Welding Certification

Peter Morgan
Composites Engineering Technology
B.S., Industrial Tech-CAD/CAM Spec, Western Washington University
Certificate, WA Professional Technical Certification

Vicky Moyle
Mathematics
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
License, Licensed Professional Counselor, State of Colorado
License, Licensed Mental Health Counselor, State of Washington

Steve Mudd
Psychology
M.A., Counseling Psychology, National University
B.S., Applied Science in Industrial Technology, Western Illinois University

Andrea Olah
Sciences
M.S., Environmental Science, Western Washington University
B.S., Biology, Whitworth University
Certificate, WA Professional Technical Certification

Brittany Palm
Fisheries and Aquaculture Sciences
M.S., Marine Sciences, University of New England
B.S., Marine Biology, University of New England
Certificate, WA Professional Technical Certification

Marcia Pedersen
Business & Computer Information Systems
M.Ed., Business and Marketing Education, Central Washington University
B.S., Business Education, Central Washington University
Certificate, Microsoft Office Specialist in 2013 Outlook, Access, Excel, Word, and PowerPoint
Certificate, WA Professional Technical Certification

Anita Peng
Mathematics
M.S., Mathematics Education, Pensacola Christian College
B.S., Mathematics, Pensacola Christian College

Gregory Rehm
Computer Network Technology
B.S., Community Health Ed, Western Washington University
Certificate, Certified Netware Administrator
Certificate, Microsoft Certified Professional
Certificate, A+ Certified Professional
Certificate, Network+ Certified Professional
Certificate, Linux+ Certified
Certificate, WA Professional Technical Certification

Scott Reiss
Mechanical Engineering
M.S., Mechanical Engineering, Rensselaer Polytechnic Institute
B.S., Mechanical Engineering, University of Vermont
E.I.T., Engineer-in-Training, State of Vermont
Certificate, WA Professional Technical Certification

Jan Richards
English
M.A., English, Western Washington University
B.A., English-Creative Writing Emphasis, Western Washington University
A.A.S., DTA, Tacoma Community College

Andrew Riggs
Instructor
A.A.S., Auto Collision Repair Technology, Bellingham Technical College
Certificate, WA Professional Technical Certification

Coly Rush
Welding Technology
B.S., Agriculture Studies, Dickinson State University
Certificate, WA Professional Technical Certification

Sam Schmidt
Welding Technology
Certificate, AWS D1.1 Welding Certification

Tiffany Schuman
Nursing
M.S., Nursing-Education, Western Governors University, Washington
B.S.N., Nursing, University of Louisiana at Lafayette
License, Licensed Practical Nurse, Louisiana Technical College
Certificate, WA Professional Technical Certification

Sara Smith
Fisheries and Aquaculture Sciences
M.S., Fisheries & Wildlife, Michigan State University
B.S., Environmental Science, Western Washington University
Certificate, WA Professional Technical Certification

Dave Starkovich
Instrumentation & Control Technology
M.S., Technical Education, Western Washington University
B.S., Electronics Technology, Western Washington University
A.S., Electronics Technology, Everett Community College
Certificate, Instrumentation Certificate, Perry Technical Institute
Certificate, WA Professional Technical Certification

Timothy Stettler
Civil Engineering
B.S., Civil Engineering, Washington State University
A.A.S., Civil Engineering, Spokane Community College
Certificate, WA Professional Technical Certification

Marty Vande Kamp
HVAC & Commercial/Industrial Refrigeration
Certificate, Refrigeration Service Engineers Society Certification in Proper Refrigerant Usage
Certificate, WA Professional Technical Certification

Paul Wallace
Automotive Technology/Diesel Equipment Technology
B.A., Industrial Arts, California State University Fresno
A.A., Liberal Arts, Fresno City College
Certificate, ASE Master M/H Truck Technician
Certificate, ASE Master Automobile Technician
Certificate, ASE Advanced Engine Performance Specialist Certified
Certificate, ASE Light Vehicle Diesel Engines Certified
Certificate, WA Professional Technical Certification

Shane Weg
Nursing
M.S., Nursing/Health Care Education, University of Phoenix
B.S., Nursing, University of Phoenix
B.S., Animal Science, Iowa State University
A.A., Registered Nurse, Skagit Valley College
Certificate, WA Professional Technical Certification

William Wells
Electrician/Industrial Maintenance
License, General Journeyman Electrician (01), Washington Department of Labor& Industries
License, General Journeyman Electrician, California Department of Industrial Relations
Certificate, WA Professional Technical Certification

Brad Willbrandt
Electrician
B.S., Psychology/Biology, Western Michigan University
A.A.S., Electrician, Bellingham Technical College
License, Administrator, Washington State Dept. of L&I
License, Electrician, Washington State Dept. of L&I
Certificate, WA Professional Technical Certification

Judi Wise
Basic Academic Skills
M.Ed., Continuing & College Education, Western Washington University
B.A., French, University of Central Oklahoma

Alisa Wollens
Dental Assisting
M.B.A., Healthcare Management, Western Governors University
B.S., Dental Hygiene, Loma Linda University
Certificate, Certified Dental Assistant, Dental Assisting National Board
Registered Dental Assistant, States of Washington and California
Registered Dental Hygienist, States of Washington and California
Certificate, 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
Certificate, Radiologic Technology, University of North Carolina at Chapel Hill
Certificate, Radiologic Technologist, American Registry of Radiologic Technologists
Certificate, Radiologic Technologist, Mammography, American Registry of Radiologic Technologists
Certificate, Radiologic Technologist Certification, Washington State Department of Health
Certificate, WA Professional Technical Certification

Rachel Wright
Welding Technology
B.A., Anthropology, Western Washington University
A.A.S., Welding Technology-Aluminum/Steel, Bellingham Technical College

Andi Zamora
Communication Studies
M.A. Speech Communications, University of Washington
B.A., Interpersonal Communications University of Evansville

CAMPUS

CODE

OF
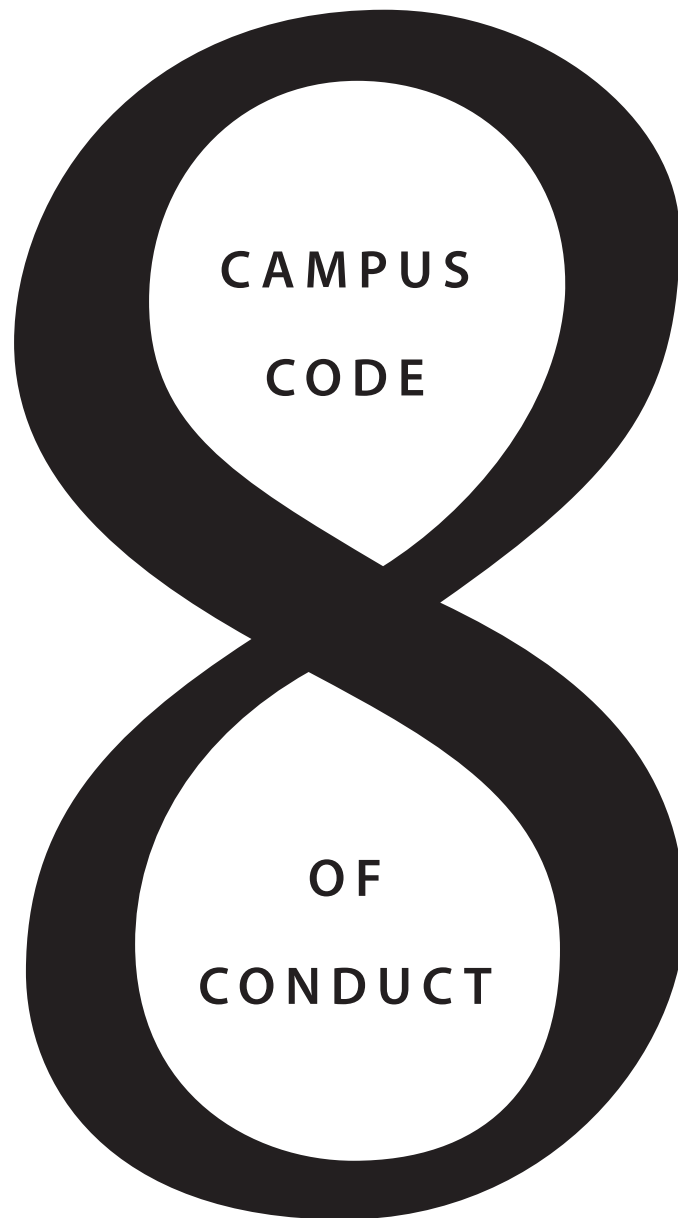
CONDUCT

STUDENT CONDUCT CODE

WAC 495B-121-010 DEFINITIONS. THE FOLLOWING DEFINITIONS SHALL APPLY FOR THE PURPOSE OF THIS STUDENT CONDUCT CODE.

1. "Board" means the board of trustees of Bellingham Technical College.

2. "College" means Bellingham Technical College.

3. "Student conduct officer" is a Bellingham Technical College administrator designated by the president or vice-president of student services to be responsible for implementing and enforcing the student conduct code. The president or vice-president of student services is authorized to reassign any and all of the student conduct officer's duties or responsibilities as set forth in this chapter as may be reasonably necessary.

4. "Conduct review officer" is the vice-president of student services or other college administrator designated by the president to be responsible for receiving and for reviewing or referring appeals of student disciplinary actions in accordance with the procedures of this code. The president is authorized to reassign any and all of the conduct review officer's duties or responsibilities as set forth in this chapter as may be reasonably necessary.

5. "The president" is the president of the Bellingham Technical College. The president is authorized to delegate any and all of his or her responsibilities as set forth in this chapter as may be reasonably necessary.

6. "Disciplinary action" is the process by which the student conduct officer imposes discipline against a student for a violation of the student conduct code.

7. "Disciplinary appeal" is the process by which an aggrieved student can appeal the discipline imposed by the student conduct officer. Disciplinary appeals from a suspension in excess of ten instructional days or and expulsion are heard by the student conduct appeals board. Appeals of all other appealable disciplinary action shall be reviewed through brief adjudicative proceedings.

8. "Respondent" is the student against whom disciplinary action is initiated.

9. "Service" is the process by which a document is officially delivered to a party. Unless other-wise provided, service upon a party shall be accomplished by:

a. Hand delivery of the document to the party; or

b. By sending the document by e-mail and by certified mail or first-class mail to the party's last known address.

Service is deemed complete upon hand delivery of the document or upon the date the document is e-mailed and deposited in the mail.

10. "Filing" is the process by which a document is officially delivered to a college official responsible for facilitating a disciplinary review. Unless otherwise provided, filing shall be accomplished by:

a. Hand delivery of the document to the specified college official or college official's assistant; or

b. By sending the document by e-mail and first-class mail to the specified college official's office and college e-mail address.

Papers required to be filed shall be deemed filed upon actual receipt during office hours at the office of the specified college official.

11. "College premises" includes all campuses of Bellingham Technical College, wherever located, and includes all land, buildings, facilities, vehicles, equipment, and other property owned, used, or controlled by the college.

12. "Student" includes all persons taking courses at or through the college, whether on a full-time or part-time basis, and whether such courses are credit courses, noncredit courses, online courses, or otherwise. Persons who withdraw after allegedly violating the code, who are not officially enrolled for a particular term but who have a continuing relationship with the college, or who have been notified of their acceptance for admission are considered "students."

13. "Day" and "business day" mean a weekday, excluding weekends and college holidays.

14. "Alcohol" or "alcoholic beverages" means the definition of liquor as contained within RCW 66.04.010 as now law or hereinafter amended.

15. "Drugs" means a narcotic drug as defined in RCW 69.50.101, a controlled substance as defined in RCW 69.50.201 through 60.50.212, or a legend drug as defined in RCW 69.41.010.

WAC 495B-121-020

Authority. The board of trustees, acting pursuant to RCW 28B.50.140(14), delegates to the president of Bellingham Technical College the authority to administer disciplinary action. Administration of the disciplinary procedures is the responsibility of the vice-president of student services or designee. The vice-president of student services or the student conduct officer shall serve as the principal investigator and administrator for alleged violations of this code.

WAC 495B-121-030

Statement of student rights. As members of the Bellingham Technical College academic community, students are encouraged to develop the capacity for critical judgment and to engage in an independent search for truth. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students should exercise their freedom with responsibility. The responsibility to secure and to respect general conditions conducive to the freedom to learn is shared by all members of the college community.

The following enumerated rights are guaranteed to each student within the limitations of statutory law and college policy, which are deemed necessary to achieve the educational goals of the college.

1. Academic freedom.

   a. Students are guaranteed the rights of free inquiry, expression, and assembly upon and within college facilities that are generally open and available to the public.

   b. Students are free to pursue appropriate educational objectives from among the college's curricula, programs, and services, subject to the limitations of RCW 28B.50.090 (3)(b).

   c. Students shall be protected from academic evaluation which is arbitrary, prejudiced, or capricious, but are responsible for meeting the standards of academic performance established by each of their instructors.

d. Students have the right to a learning environment that is free from unlawful discrimination, inappropriate and disrespectful conduct, and any and all harassment, including sexual harassment.

2. Due process.

a. The rights of students to be secure in their persons, quarters, papers, and effects against unreasonable searches and seizures is guaranteed.

b. No disciplinary sanction may be imposed on any student without notice to the accused of the nature of the charges.

c. A student accused of violating this code of student conduct is entitled, upon request, to procedural due process as set forth in this chapter.

WAC 495B-121-040
Prohibited student conduct. Prohibited student conduct for which the college may impose sanctions includes, but is not limited to, any of the following:

1. Any act of academic dishonesty including, but not limited to, cheating, plagiarism, and fabrication.

a. Cheating includes any attempt to give or obtain unauthorized assistance relating to the completion of an academic assignment.

b. Plagiarism includes taking and using as one's own, without proper attribution, the ideas, writings, or work of another person in completing an academic assignment. Prohibited conduct may also include the unauthorized submission for credit of academic work that has been submitted for credit in another course.

c. Fabrication includes falsifying data, information, or citations in completing an academic assignment and also includes providing false or deceptive information to an instructor concerning the completion of an assignment.

2. Any other acts of dishonesty. Such acts include, but are not limited to:

a. Forgery, alteration, submission of falsified documents or misuse of any college document, record, or instrument of identification;

b. Tampering with an election by or for college students; or

c. Furnishing false information, or failing to furnish correct information, in response to the request or requirement of a college officer or employee.

3. Obstruction or disruption of:

a. Any instruction, research, administration, disciplinary proceeding, or other college activity; or

b. Any activity that is authorized to occur on college property, whether or not actually conducted or sponsored by the college.

4. Assault, physical abuse, verbal abuse, threat(s), intimidation, harassment, bullying, stalking or other conduct which harms, threatens, or is reasonably perceived as threatening the health or safety of another person or another person's property. For purposes of this subsection:

a. Bullying is physical or verbal abuse, repeated over time, and involving a power imbalance between the aggressor and victim.

b. Stalking is intentional and repeated harassment or repeated following of another person, which places that person in reasonable fear that the stalker intends to injure the person, another person, or the property of the person or another person, and the stalker either intends to frighten, intimidate, or harass the person, or knows or reasonably should know that the person is frightened, intimidated or harassed, even if the stalker lacks such an intent.

5. Cyberstalking, cyberbullying or online harassment. Use of electronic communications including, but not limited to, electronic mail, instant messaging, electronic bulletin boards, and social media sites, to harass, abuse, bully or engage in other conduct which harms, threatens, or is reasonably perceived as threatening the health or safety of another person. Prohibited activities include, but are not limited to, unauthorized monitoring of another's e-mail communications directly or through spyware, sending threatening e-mails, disrupting electronic communications with spam or by sending a computer virus, sending false messages to third parties using another's e-mail identity, nonconsensual recording of sexual activity, and nonconsensual distribution of a recording of sexual activity.

6. Attempted or actual damage to, or theft or misuse of, real or personal property or money of:

a. The college or state;

b. Any student or college officer, employee, or organization; or

c. Any other person or organization, or possession of such property or money after it has been stolen.

7. Failure to comply with the direction of a college officer or employee who is acting in the legitimate performance of his or her duties, including failure to properly identify oneself to such person when requested to do so.

8. Participation in any activity which unreasonably disrupts the operations of the college or infringes on the rights of another member of the college community, or leads or incites another person to engage in such an activity.

9. Weapons. Possession, holding, wearing, transporting, storage or presence of any firearm, dagger, sword, knife or other cutting or stabbing instrument, club, explosive devices, or any other weapon apparently capable of producing bodily harm is prohibited on the college campus, subject to the following exceptions:

a. Commissioned law enforcement personnel or legally authorized military personnel while in performance of their duties;

b. A student with a valid concealed weapons permit may store a pistol in his or her vehicle parked on campus in accordance with RCW 9.41.050 (2) or (3), provided the vehicle is locked and the weapon is concealed from view; or

c. The president may grant permission to bring a weapon on campus upon a determination that the weapon is reasonably related to a legitimate pedagogical purpose. Such permission shall be in writing and shall be subject to such terms or conditions incorporated in the written permission.

This policy does not apply to the possession and/or use of disabling chemical sprays when possessed and/or used for self-defense.

10. Hazing. Hazing includes, but is not limited to, any initiation into a student organization or any pastime or amusement engaged in with respect to such an organization that causes, or is likely to cause, bodily danger or physical harm, or serious mental or emotional harm, to any student.

11. Tobacco, electronic cigarettes, and related products. The use of tobacco, electronic cigarettes, and related products in any building owned, leased, or operated by the college or in any location where such use is prohibited, including twenty-five feet from entrances, exits, windows that open, and ventilation intakes of any building owned, leased, or operated by the college, except in designated areas. "Related products" include, but are not limited to, cigarettes, cigars, pipes, bidi, clove cigarettes, water pipes, hookahs, chewing tobacco, personal vaporizers, vape pens, electronic nicotine delivery systems and snuff.

12. Alcohol. Being observably under the influence of any alcoholic beverage, or otherwise using, possessing, selling or delivering any alcoholic beverage, except as permitted by law and authorized by the college president.

13. Marijuana. Being observably under the influence of marijuana or the psychoactive compounds found in marijuana, or otherwise using, possessing, selling, or delivering any product containing marijuana or the psychoactive compounds found in marijuana and intended for human consumption, regardless of form. While state law permits the recreational use of marijuana, federal law prohibits such use on college premises or in connection with college activities.

14. Being observably under the influence of any legend drug, narcotic drug, or controlled substance as defined in chapters 69.41 and 69.50 RCW, or otherwise using, possessing, delivering, or selling any such drug or substance, except in accordance with a lawful prescription for that student by a licensed health care professional.

15. Obstruction of the free flow of pedestrian or vehicular movement on college property or at a college activity.

16. Conduct that is disorderly, lewd, or obscene.

17. Breach of the peace.

18. Discriminatory action which harms or adversely affects any student or college employee because of his/her race, color, national origin, mental or physical disability, gender, sexual orientation, age, creed, or religion.

19. Sexual violence. Sexual or gender-based misconduct perpetrated against a person's will or where a person is incapable of giving consent including, but not limited to, rape, sexual assault, sexual battery, gender-based stalking, and sexual coercion, regardless of the relationship between the perpetrator and the victim.

20. Sexual harassment. Conduct that includes, but is not limited to, engaging in unwelcome sexual advances, requests for sexual favors, or other sexual conduct, including verbal, nonverbal, electronic or social media communication, or physical touching that would substantially interfere with a reasonable person's ability to participate in or benefit from the college's program, or to create an intimidating, hostile, or offensive educational environment.

21. Other harassment. Conduct that has the purpose or effect of substantially interfering with a reasonable person's work or educational performance or creating an intimidating, hostile or offensive working or educational environment, when such conduct is directed at an individual because of race, national origin, disability, age, religion, sexual orientation, gender or any other legally protected classification. Harassing conduct may include, but is not limited to, physical conduct, verbal, written, social media and electronic communications.

22. Theft or misuse of computer time or other electronic information resources of the college. Such misuse includes, but is not limited to:
    a. Unauthorized use of such resources or opening of a file, message, or other item;
    b. Unauthorized duplication, transfer, or distribution of a computer program, file, message, or other item;
    c. Unauthorized use or distribution of someone else's password or other identification;
    d. Use of such time or resources to interfere with someone else's work;
    e. Use of such time or resources to send, display, or print an obscene or abusive message, text, or image;
    f. Use of such time or resources to interfere with normal operation of the college's computing system or other electronic information resources;
    g. Use of such time or resources in violation of applicable copyright or other law;
    h. Adding to or otherwise altering the infrastructure of the college's electronic information resources without authorization; or
    i. Failure to comply with the college's electronic use policy.

23. Unauthorized possession, duplication, or other use of a key, keycard, or other restricted means of access to college property, or unauthorized entry onto or into college property.

24. Abuse or misuse of any of the procedures relating to student complaints or misconduct including, but not limited to:
    a. Failure to obey a subpoena;
    b. Falsification or misrepresentation of information;
    c. Disruption or interference with the orderly conduct of a proceeding;
    d. Interfering with someone else's proper participation in a proceeding;
    e. Destroying or altering potential evidence, or attempting to intimidate or otherwise improperly pressure a witness or potential witness;
    f. Attempting to influence the impartiality of, or harassing or intimidating, a student conduct committee member; or
    g. Failure to comply with any disciplinary sanction(s) imposed under this student conduct code.

25. Operation of any motor vehicle on college property in an unsafe manner or in a manner which is reasonably perceived as threatening the health or safety of another person.

26. Safety violations. Safety violation includes any nonaccidental conduct that interferes with or otherwise compromises any college policy, equipment, or procedure relating to the safety and security of the campus community, including tampering with fire safety equipment and triggering false alarms or other emergency response systems.

27. Violation of any federal, state, or local law, rule, or regulation or other college rules or policies, including college traffic and parking rules.

28. Ethical violation. The breach of any generally recognized and published code of ethics or standards of professional practice that governs the conduct of a particular profession for which the student is taking a course or is pursuing as an educational goal or major.

29. Aiding, abetting, inciting, encouraging, or assisting another person to commit any of the foregoing acts of misconduct.

In addition to initiating discipline proceedings for violations of the student conduct code, the college may refer any violations of federal, state, or local laws to civil and criminal authorities for disposition. The college shall proceed with student disciplinary proceedings regardless of whether the underlying conduct is subject to civil or criminal prosecution.

WAC 495B-121-050
Disciplinary sanctions. Disciplinary actions include, but are not limited to, the following sanctions that may be imposed upon students according to the procedure outlined in WAC 495B-121-070 through 495B-121-200.

1. Disciplinary warning: A verbal statement to a student that there is a violation and that continued violation may be cause for further disciplinary action.

2. Written reprimand: Notice in writing that the student has violated one or more terms of this code of conduct and that continuation of the same or similar behavior may result in more severe disciplinary action.

3. Disciplinary probation: Formal action placing specific conditions and restrictions upon the student's continued attendance depending upon the seriousness of the violation and which may include a deferred disciplinary sanction. If the student, subject to a deferred disciplinary sanction, is found in violation of any college rule during the time of disciplinary probation, the deferred disciplinary sanction, which may include, but is not limited to, a suspension or a dismissal from the college, shall take effect immediately without further review. Any such sanction shall be in addition to any sanction or conditions arising from the new violation. Probation may be for a limited period of time or may be for the duration of the student's attendance at the college. A student who is on disciplinary probation may be deemed "not in good standing" with the college. If so, the student shall be subject to the following restrictions:

   a. Ineligible to hold an office in any student organization recognized by the college or to hold any elected or appointed office of the college.

   b. Ineligible to represent the college to anyone outside the college community in any way, including representing the college at any official function, or any forms of intercollegiate competition or representation.

4. Restitution: Reimbursement for damage to or misappropriation of property, or for injury to persons, or for reasonable costs incurred by the college in pursuing an investigation or disciplinary proceeding. This may take the form of monetary reimbursement, appropriate service, or other compensation.

5. Disciplinary suspension: Dismissal from the college and from the student status for a stated period of time. There will be no refund of tuition or fees for the quarter in which the action is taken.

6. Professional evaluation: Referral for drug, alcohol, psychological or medical evaluation by an appropriately certified or licensed professional may be required. The student may choose the professional within the scope of practice and with the professional credentials as defined by the college. The student will sign all necessary releases to allow the college access to any such evaluation. The student's return to college may be conditioned upon compliance with recommendations set forth in such a professional evaluation. If the evaluation indicates that the student is not capable of functioning within the college community, the student will remain suspended until future evaluation recommends that the student is capable of reentering the college and complying with the rules of conduct.

7. Dismissal: The revocation of all rights and privileges of membership in the college community and exclusion from the campus and college-owned or controlled facilities without any possibility of return. There will be no refund of tuition or fees for the quarter in which the action is taken.

8. Refund of fees: Refund of fees for the quarter in which disciplinary action is taken shall be in accordance with the college's refund policy.

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.

9. No contact order: An order directing a student to have no contact with a specified student, college employee, a member of the college community, or a particular college facility.

WAC 495B-121-060
Statement of jurisdiction. The student conduct code shall apply to student conduct that occurs on Bellingham Technical College premises and facilities, to conduct that occurs at or in connection with college sponsored activities, or to off-campus conduct that in the judgment of the college adversely affects the college community or the pursuit of its objectives. Jurisdiction extends to, but is not limited to, locations in which students are engaged in official college activities including, but not limited to, foreign or domestic travel, activities funded by the associated students, athletic events, training internships, cooperative and distance education, online education, practicums, supervised work experiences or any other college-sanctioned social or club activities. Students are responsible for their conduct from the time of application for admission through the actual receipt of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment. These standards shall apply to a student's conduct even if the student withdraws from college while a disciplinary matter is pending. The college has sole discretion, on a case-by-case basis, to determine whether the student conduct code will be applied to conduct that occurs off campus.

WAC 495B-121-065
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.

WAC 495B-121-070
Initiation of disciplinary action.
1. All disciplinary actions will be initiated by the student conduct officer. If that officer is the subject of a complaint initiated by the respondent, the president shall, upon request and when feasible, designate another person to fulfill any such disciplinary responsibilities relative to the complainant.

2. The student conduct officer shall initiate disciplinary action by serving the respondent with written notice directing him or her to attend a disciplinary meeting. The notice shall briefly describe the factual allegations, the provision(s) of the conduct code the respondent is alleged to have violated, the range of possible sanctions for the alleged violation(s), and specify the time and location of the meeting. At the meeting, the student conduct officer will present the allegations to the respondent and the respondent shall be afforded an opportunity to explain what took place. If the respondent fails to attend the meeting the student conduct officer may take disciplinary action based upon the available information.

3. Within ten days of the initial disciplinary meeting, and after considering the evidence in the case, including any facts or argument presented by the respondent, the student conduct officer shall serve the respondent with a written decision setting forth the facts and conclusions supporting his or her decision, the specific student conduct code provisions found to have been violated, the discipline imposed, if any, and a notice of any appeal rights with an explanation of the consequences of failing to file a timely appeal.

4. The student conduct officer may take any of the following disciplinary actions:
    a. Exonerate the respondent and terminate the proceedings;
    b. Impose a disciplinary sanction(s), as described in WAC 495B-121-040;
    c. Refer the matter directly to the student conduct committee for such disciplinary action as the committee deems appropriate. Such referral shall be in writing, to the attention of the chair of the student conduct committee, with a copy served on the respondent.

WAC 495B-121-080
Appeal from disciplinary action.
1. The respondent may appeal a disciplinary action by filing a written notice of appeal with the conduct review officer within twenty-one days of service to the student conduct officer's decision. Failure to timely file a notice of appeal constitutes a waiver of the right to appeal and the student conduct officer's decision shall be deemed final.

2. The notice of appeal must include a brief statement explaining why the respondent is seeking review.

3. The parties to an appeal shall be the respondent and the conduct review officer.

4. A respondent, who timely appeals a disciplinary action or whose case is referred to the student conduct committee, has a right to a prompt, fair, and impartial hearing as provided for in these procedures.

5. On appeal, the college bears the burden of establishing the evidentiary facts underlying the imposition of a disciplinary sanction by a preponderance of the evidence.

6. Imposition of disciplinary action for violation of the student conduct code shall be stayed pending appeal, unless the respondent has been summarily suspended.

7. The student conduct committee shall hear appeals from:
    a. The imposition of disciplinary suspensions in excess of ten instructional days;
    b. Dismissals; and
    c. Discipline cases referred to the committee by the student conduct officer, the conduct review officer, or the president.

8. Student conduct appeals from the imposition of the following disciplinary sanctions shall be reviewed through a brief adjudicative proceeding:
    a. Suspensions of ten instructional days or less;
    b. Disciplinary probation;
    c. Written reprimands; and
    d. Any conditions or terms imposed in conjunction with one of the foregoing disciplinary actions.

9. Except as provided elsewhere in these rules, disciplinary warnings and dismissals of disciplinary actions are final action and not subject to appeal.

WAC 495B-121-090
Brief adjudicative proceedings-Initial hearing.

1. Brief adjudicative proceedings shall be conducted by a conduct review officer designated by the president. The conduct review officer shall not participate in any case in which he or she is a complainant or witness, or in which they have direct or personal interest, prejudice, or bias, or in which they have acted previously in an advisory capacity.

2. Before taking action, the conduct review officer shall conduct an informal hearing and provide each party:

   a. An opportunity to be informed of the agency's view of the matter; and

   b. An opportunity to explain the party's view of the matter.

3. The conduct review officer shall serve an initial decision upon both of the parties within ten days of consideration of the appeal. The initial decision shall contain a brief written statement of the reasons for the decision and information about how to seek administrative review of the initial decision. If no request for review is filed within twenty-one days of services of the initial decision, the initial decision shall be deemed the final decision.

4. If the conduct review officer upon review determines that the respondent's conduct may warrant imposition of a disciplinary suspension of more than ten instructional days or expulsion, the matter shall be referred to the student conduct committee for a disciplinary hearing.

WAC 495B-121-100
Brief adjudicative proceedings-Review of an initial decision.

1. An initial decision is subject to review by the president, provided the respondent files a written request for review with the conduct review officer within twenty-one days of service of the initial decision.

2. The president shall not participate in any case in which he or she is a complainant or witness, or in which they have direct or personal interest, prejudice, or bias, or in which they have acted previously in an advisory capacity.

3. During the review, the president shall give each party an opportunity to file written responses explaining their view of the matter and shall make any inquiries necessary to ascertain whether the sanctions should be modified or whether the proceedings should be referred to the student conduct committee for a formal adjudicative hearing.

4. If the president, upon review, determines that the respondent's conduct may warrant imposition of a disciplinary suspension of more than ten instructional days or expulsion, the matter shall be referred to the student conduct committee for a disciplinary hearing.

WAC 495B-121-110
Student conduct committee.

1. The student conduct committee shall consist of five members:

   a. Two full-time students appointed by the student government;

   b. Two faculty members appointed by the president;

   c. One administrative staff member (other than an administrator serving as a student conduct or conduct review officer) appointed by the president at the beginning of the academic year.

2. The administrative staff member shall serve as the chair of the committee and may take action on preliminary hearing matters prior to convening the committee. The chair shall receive annual training on protecting victims and promoting accountability in cases involving allegations of sexual misconduct.

3. Hearings may be heard by a quorum of three members of the committee so long as one faculty member and one student are included on the hearing panel. Committee action may be taken upon a majority vote of all committee members attending the hearing.

4. Members of the student conduct committee shall not participate in any case in which they are a party, complainant, or witness, in which they have direct or personal interest, prejudice, or bias, or in which they have acted previously in an advisory capacity. Any party may petition for disqualification of a committee member pursuant to RCW 34.05.425(4).

WAC 495B-121-120
Appeal-Student conduct committee.

1. Proceedings of the student conduct committee shall be governed by the Administrative Procedure Act, chapter 34.05 RCW, and by the Model Rules of Procedure, chapter 10-08 WAC. To the extent there is a conflict between these rules and chapter 10-08 WAC, these rules shall control.

2. The student conduct committee chair shall serve all parties with written notice of the hearing not less than seven days in advance of the hearing date, as further specified in RCW 34.05.434 and WAC 10-08-040 and 10-08-045. The chair may shorten this notice period if both parties agree, and also may continue the hearing to a later time for good cause shown.

3. The committee chair is authorized to conduct prehearing conferences and/or to make prehearing decisions concerning the extent and form of any discovery, issuance of protective decisions, and similar procedural matters.

4. Upon request, filed at least five days before the hearing by any party or at the direction of the committee chair, the parties shall exchange, no later than the third day prior to the hearing, lists of potential witnesses and copies of potential exhibits that they reasonably expect to present to the committee. Failure to participate in good faith in such a requested exchange may be cause for exclusion from the hearing of any witness or exhibit not disclosed, absent a showing of good cause for such failure.

5. The committee chair may provide to the committee members in advance of the hearing copies of:

   a. The conduct officer's notification of imposition of discipline (or referral to the committee); and

   b. The notice of appeal (or any response to referral) by the

respondent. If doing so, however, the chair should remind the members that these "pleadings" are not evidence of any facts they may allege.

6. The parties may agree before the hearing to designate specific exhibits as admissible without objection and, if they do so, whether the committee chair may provide copies of these admissible exhibits to the committee members before the hearing.

7. The student conduct officer, upon request, shall provide reasonable assistance to the respondent in obtaining relevant and admissible evidence that is within the college's control.

8. Communications between committee members and other hearing participants regarding any issue in the proceeding, other than procedural communications that are necessary to maintain an orderly process, are generally prohibited without notice and opportunity for all parties to participate, and any improper ex parte communication shall be placed on the record, as further provided in RCW 34.05.455.

9. Each party may be accompanied at the hearing by a nonattorney assistant of his/her choice. A respondent may elect to be represented by an attorney at his or her own cost, but will be deemed to have waived that right unless, at least four business days before the hearing, written notice of the attorney's identity and participation is filed with the committee chair with a copy to the student conduct officer. The committee will ordinarily be advised by an assistant attorney general. If the respondent is represented by an attorney, the student conduct officer may also be represented by a second, appropriately screened assistant attorney general.

WAC 495B-121-125
Student conduct appeals committee hearings-Presentations of evidence.

1. Upon the failure of any party to attend or participate in a hearing, the student conduct committee may either:

   a. Proceed with the hearing and issuance of its decision; or

   b. Serve a decision of default in accordance with RCW 34.05.440.

2. The hearing will ordinarily be closed to the public. However, if all parties agree on the record that some or all of the proceedings be open, the chair shall determine any extent to which the hearing will be open. If any person disrupts the proceedings, the chair may exclude that person from the hearing room.

3. The chair shall cause the hearing to be recorded by a method that he/she selects, in accordance with RCW 34.05.449. That recording, or a copy, shall be made available to any party upon request. The chair shall assure maintenance of the record of the proceeding that is required by RCW 34.05.476, which shall also be available upon request for inspection and copying by any party. Other recording shall also be permitted, in accordance with WAC 10-08-190.

4. The chair shall preside at the hearing and decide procedural questions that arise during the hearing, except as overridden by majority vote of the committee.

5. The student conduct officer (unless represented by an assistant attorney general) shall present the case for imposing disciplinary sanctions.

6. All testimony shall be given under oath or affirmation. Evidence shall be admitted or excluded in accordance with RCW 34.05.452.

WAC 495B-121-130
Student conduct committee-Initial decision.

1. At the conclusion of the hearing, the student conduct committee shall permit the parties to make closing arguments in whatever form it wishes to receive them. The committee also may permit each party to propose findings, conclusions, and/or a proposed decision for its consideration.

2. Within twenty days following the latter of the conclusion of the hearing or the committee's receipt of closing arguments, the committee shall issue an initial decision in accordance with RCW 34.05.461 and WAC 10-08-210. The initial decision shall include findings on all material issues of fact and conclusions on all material issues of law, including which, if any, provisions of the student conduct code were violated. Any findings based substantially on the credibility of evidence or the demeanor of witnesses shall so be identified.

3. The committee's initial order shall also include a determination on appropriate discipline, if any. If the matter was referred to the committee by the student conduct officer, the committee shall identify and impose disciplinary sanction(s) or conditions, if any, as authorized in the student code. If the matter is an appeal by the respondent, the committee may affirm, reverse, or modify the disciplinary sanction and/or conditions imposed by the student conduct officer and/or impose additional disciplinary sanction(s) or conditions as authorized herein.

4. The committee chair shall cause copies of the initial decision to be served on the parties and their legal counsel of record. The committee chair shall also promptly transmit a copy of the decision and the record of the committee's proceedings to the president.

WAC 495B-121-135
Appeal from student conduct committee initial decision.

1. A respondent who is aggrieved by the findings or conclusions issued by the student conduct committee may appeal the committee's initial decision to the president by filing a notice of appeal with the president's office within twenty-one days of service of the committee's initial decision. Failure to file a timely appeal constitutes a waiver of the right and the initial decision shall be deemed final.

2. The notice of appeal must identify the specific findings of fact and/or conclusions of law in the initial decision that are challenged and must contain an argument as to why the appeal should be granted. The president's review shall be restricted to the hearing record made before the student conduct committee and will normally be limited to a review of those issues and arguments raised in the notice of appeal.

3. The president shall provide a written decision to all parties within forty-five days after receipt of the notice of appeal. The president's decision shall be final and shall include a notice of any rights to request reconsideration and/or judicial review.

4. The president may, at his or her discretion, suspend any disciplinary action and/or impose interim sanctions pending review of the merits of the findings, conclusions, and disciplinary actions imposed.

5. The president shall not engage in any ex parte communication with any of the parties regarding an appeal.

WAC 495B-121-140
Summary suspension.

1. Summary suspension is a temporary exclusion from specified college premises or denial of access to all activities or privileges for which a respondent might otherwise be eligible, while an investigation and/or formal disciplinary procedures are pending.

2. The student conduct officer may impose a summary suspension if there is probable cause to believe that the respondent:

   a. Has violated any provision of the code of conduct; and

   b. Presents an immediate danger to the health, safety or welfare of members of the college community; or

   c. Poses an ongoing threat of disruption of, or interference with, the operations of the college.

3. Notice. Any respondent who has been summarily suspended shall be served with oral or written notice of the summary suspension. If oral notice is given, a written notification shall be served on the respondent within two business days of the oral notice.

4. The written notification shall be entitled notice of summary suspension and shall include:

   a. The reasons for imposing the summary suspension, including a description of the conduct giving rise to the summary suspension and reference to the provisions of the student conduct code or the law allegedly violated;

   b. The date, time, and location when the respondent must appear before the conduct review officer for a hearing on the summary suspension; and

   c. The conditions, if any under which the respondent may physically access the campus or communicate with members of the campus community. If the respondent has been trespassed from the campus, a notice against trespass shall be included that warns the student that his or her privilege to enter into or remain on college premises has been withdrawn, that the respondent shall be considered trespassing and subject to arrest for criminal trespass if the respondent enters the college campus other than to meet with the student conduct officer or conduct review officer, or to attend a disciplinary hearing.

5. The conduct review officer shall conduct a hearing on the summary suspension as soon as practicable after imposition of the summary suspension.

   a. The hearing will be conducted as a brief adjudicative proceeding.

   b. During the summary suspension hearing, the issue before the conduct review officer is whether there is probable cause to believe that the summary suspension should be continued pending the conclusion of disciplinary proceedings and/or whether the summary suspension should be less restrictive in scope.

   c. The respondent shall be afforded an opportunity to explain why summary suspension should not be continued while disciplinary proceedings are pending or why the summary suspension should be less restrictive in scope.

   d. If the student fails to appear at the designated hearing time, the conduct review officer may order that the summary suspension remain in place pending the conclusion of the disciplinary proceedings.

   e. As soon as practicable following the hearing, the conduct review officer shall issue a written decision which shall include a brief explanation for any decision continuing and/or modifying the summary suspension and notice of any right to appeal.

   f. To the extent permissible under applicable law, the conduct review officer shall provide a copy of the decision to all persons or offices who may be bound or protected by it.

DISCIPLINE PROCEDURES FOR CASES INVOLVING ALLEGATIONS OF SEXUAL MISCONDUCT

WAC 495B-121-150
Supplemental sexual misconduct-Procedures.

Both the respondent and the complainant in cases involving allegations of sexual misconduct shall be provided the same procedural rights to participate in student discipline matters, including the right to participate in the initial disciplinary decision-making process and to appeal any disciplinary decision.

Application of the following procedures is limited to student conduct code proceedings involving allegations of sexual misconduct by a student. In such cases, these procedures shall supplement the student disciplinary procedures in WAC 495B-121-050 through 495B-121-140. In the event of conflict between the sexual misconduct procedures and the student disciplinary procedures, the sexual misconduct procedures shall prevail.

WAC 495B-121-160
Supplemental sexual misconduct-Definitions.

The following supplemental definitions shall apply for purposes of student conduct code proceedings involving allegations of sexual misconduct by a student:

1. A "complainant" is an alleged victim of sexual misconduct, as defined in subsection (2) of this section.

2. "Sexual misconduct" is prohibited sexual or gender-based conduct by a student including, but not limited to:

   a. Sexual activity for which clear and voluntary consent has not been given in advance;

   b. Sexual activity with someone who is incapable of giving valid consent because, for example, he or she is underage, sleeping or otherwise incapacitated due to alcohol or drugs;

   c. Sexual harassment;

   d. Sexual violence which includes, but is not limited to, sexual assault, domestic violence, dating/intimate violence, and sexual or gender-based stalking;

e.   Nonphysical conduct such as sexual or gender-based digital media stalking, sexual or gender-based online harassment, sexual or gender-based cyberbullying, nonconsensual recording of sexual activity, and nonconsensual distribution of a recording of a sexual activity.

WAC 495B-121-170
Supplemental complaint process.
The following supplemental procedures shall apply with respect to complaints or other reports of alleged sexual misconduct by a student.

1.   The college's Title IX compliance officer, coordinator, or designee shall investigate complaints or other reports of alleged sexual misconduct by a student. Investigations will be completed in a timely manner and the results of the investigation shall be referred to the student conduct officer for disciplinary action.

2.   Informal dispute resolution shall not be used to resolve sexual misconduct complaints without written permission from both the complainant and the respondent. If the parties elect to mediate a dispute, either party shall be free to discontinue mediation at any time. In no event shall mediation be used to resolve complaints involving allegations of sexual violence.

3.   College personnel will honor requests to keep sexual misconduct complaints confidential to the extent this can be done without unreasonably risking the health, safety and welfare of the complainant or other members of the college community or compromising the college's duty to investigate and process sexual harassment and sexual violence complaints.

4.   The student conduct officer, prior to initiating disciplinary action, will make a reasonable effort to contact the complainant to discuss the results of the investigation and possible disciplinary sanctions and/or conditions, if any, that may be imposed upon the respondent if the allegations of sexual misconduct are found to have merit.

5.   The student conduct officer, on the same date that a disciplinary decision is served on the respondent, will serve a written notice informing the complainant whether the allegations of sexual misconduct were found to have merit and describing any disciplinary sanctions and/or conditions imposed upon the respondent for the complainant's protection, including disciplinary suspension or dismissal of the respondent. The notice will also inform the complainant of his or her appeal rights. If protective sanctions and/or conditions are imposed, the student conduct officer shall make a reasonable effort to contact the complainant to ensure that prompt notice of the protective disciplinary sanctions and/or conditions is received.

WAC 495B-121-180
Supplemental appeal rights.

1.   The following actions by the student conduct officer may be appealed by the complainant:

a.   The dismissal of a sexual misconduct complaint; or

b.   Any disciplinary sanction(s) and conditions imposed against a respondent for a sexual misconduct violation, including a disciplinary warning.

2.   A complainant may appeal a disciplinary decision by filing a notice of appeal with the conduct review officer within twenty-one days of service of the notice of the discipline decision provided for in WAC 495B-121-170. The notice of appeal may include a written statement setting forth the grounds of appeal. Failure to file a timely notice of appeal constitutes a waiver of this right and the disciplinary decision shall be deemed final.

3.   If the respondent appeals a decision imposing discipline for a sexual misconduct violation in a timely manner, the college shall notify the complainant of the appeal and provide the complainant an opportunity to intervene as a party to the appeal.

4.   Except as otherwise specified in this supplemental procedure, a complainant who timely appeals a disciplinary decision or who intervenes as a party to respondent's appeal of a disciplinary decision shall be afforded the same procedural rights as are afforded the respondent.

5.   An appeal by a complainant from the following disciplinary actions involving allegations of sexual misconduct against a student shall be handled as a brief adjudicative proceeding:

a.   Exoneration and dismissal of the proceedings;

b.   A disciplinary warning;

c.   A written reprimand;

d.   Disciplinary probation;

e.   Suspensions of ten instructional days or less; and/or

f.   Any conditions or terms imposed in conjunction with one of the foregoing disciplinary actions.

6.   An appeal by a complainant from disciplinary action imposing a suspension in excess of ten instructional days or an expulsion shall be reviewed by the student conduct committee.

7.   In proceedings before the student conduct committee, respondent and complainant shall have the right to be accompanied by a nonattorney assistant of their choosing during the appeal process. The complainant may choose to be represented at the hearing by an attorney at his or her own expense, but will be deemed to have waived that right unless, at least four business days before the hearing, he or she files a written notice of the attorney's identity and participation with the committee chair, and with copies to the respondent and the student conduct officer.

8.   In proceedings before the student conduct committee, complainant and respondent shall not directly question or cross examine one another. All questions shall be directed to the committee chair, who will act as an intermediary and pose questions on the parties' behalf.

9. Student conduct hearings involving sexual misconduct allegations shall be closed to the public, unless respondent and complainant both waive this requirement in writing and request that the hearing be open to the public. Complainant, respondent and their respective nonattorney assistants and/or attorneys may attend portions of the hearing where argument, testimony and/or evidence are presented to the student conduct committee.

10. The chair of the student conduct committee, on the same date as the initial decision is served on the respondent, will serve a written notice upon the complainant informing the complainant whether the allegations of sexual misconduct were found to have merit and describing any disciplinary sanctions and/or conditions imposed upon the respondent for the complainant's protection, including suspension or dismissal of the respondent. The notice will also inform the complaint of his or her appeal rights.

11. The complainant may appeal the student conduct committee's initial decision to the president subject to the same procedures and deadlines applicable to other parties.

12. The president, on the same date that the final decision is served upon the respondent, shall serve a written notice informing the complainant whether the sexual misconduct allegation was found to have merit and describe any disciplinary sanctions and/or conditions imposed upon the respondent for the complainant's protection, including suspension or dismissal of the respondent. Judicial review of the decision may be available to the complainant or respondent.

WAC 495B-121-190
Brief adjudicative proceedings authorized. This chapter is adopted in accordance with RCW 34.05.482 through 34.05.494. Brief adjudicative proceedings shall be used, unless provided otherwise by another rule or determined otherwise in a particular case by the president, or a designee, in regard to:

1. Parking violations;

2. Outstanding debts owed by students or employees;

3. Use of college facilities;

4. Residency determinations;

5. Use of library - Fines;

6. Challenges to contents of education records;

7. Loss of eligibility for participation in institution-sponsored athletic events;

8. Student conduct appeals involving the following disciplinary actions:

   a. Suspensions of ten instructional days or less;

   b. Disciplinary probation;

   c. Written reprimands;

   d. Any conditions or terms imposed in conjunction with one of the foregoing disciplinary actions;

   e. Summary suspensions; and

f. Appeals by a complainant in student disciplinary proceedings involving allegations of sexual misconduct in which the student conduct officer:

   i. Dismisses disciplinary proceedings based upon a finding that the allegations of sexual misconduct have no merit; or

   ii. Issues a verbal warning to respondent.

9. Appeals of decisions regarding mandatory tuition and fee waivers.

Brief adjudicative proceedings are informal hearings and shall be conducted in a manner which will bring about a prompt fair resolution of the matter.

WAC 495B-121-200
Brief adjudicative proceedings-Agency record.
The agency record for brief adjudicative proceedings shall consist of any documents regarding the matter that were considered or prepared by the presiding officer for the brief adjudicative proceeding or by the reviewing officer for any review. These records shall be maintained as the official record of the proceedings.

9

INDEX

PROGRAMS OF STUDY

COURSE DESCRIPTIONS

![Bellingham TECHNICAL COLLEGE]

3028 Lindbergh Ave.
Bellingham, WA 98225
www.btc.edu

Campus map labels:
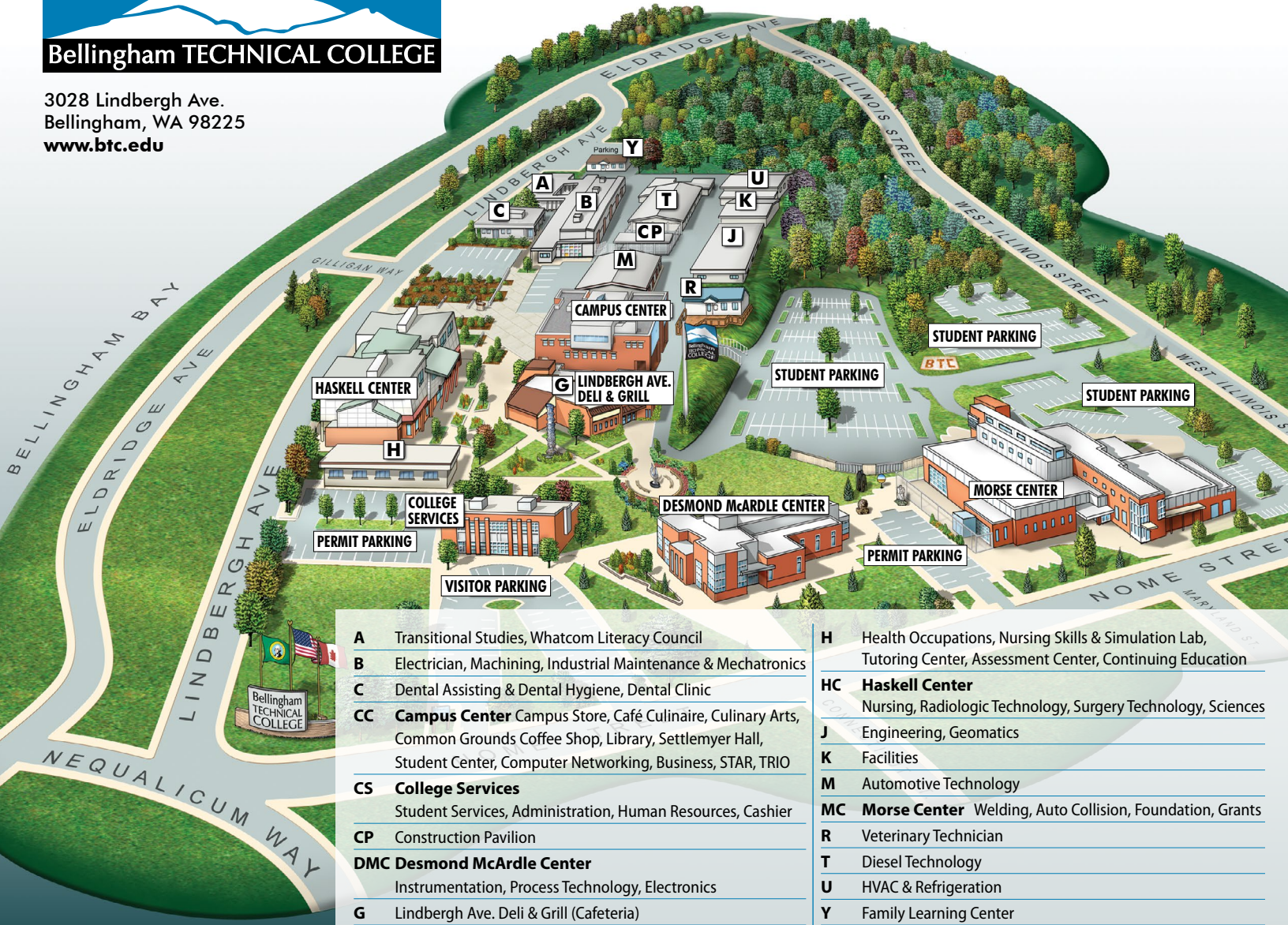
A	Transitional Studies, Whatcom Literacy Council
B	Electrician, Machining, Industrial Maintenance & Mechatronics
C	Dental Assisting & Dental Hygiene, Dental Clinic
CC	**Campus Center** Campus Store, Café Culinaire, Culinary Arts, Common Grounds Coffee Shop, Library, Settlemyer Hall, Student Center, Computer Networking, Business, STAR, TRIO
CS	**College Services** Student Services, Administration, Human Resources, Cashier
CP	Construction Pavilion
DMC	**Desmond McArdle Center** Instrumentation, Process Technology, Electronics
G	Lindbergh Ave. Deli & Grill (Cafeteria)
H	Health Occupations, Nursing Skills & Simulation Lab, Tutoring Center, Assessment Center, Continuing Education
HC	**Haskell Center** Nursing, Radiologic Technology, Surgery Technology, Sciences
J	Engineering, Geomatics
K	Facilities
M	Automotive Technology
MC	**Morse Center** Welding, Auto Collision, Foundation, Grants
R	Veterinary Technician
T	Diesel Technology
U	HVAC & Refrigeration
Y	Family Learning Center