



2016

2017

CATALOG

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Message from the President



Welcome to Bellingham Technical College!

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

BTC is dedicated to serving our students and community through innovative professional technical education programs, varied general education courses and excellent student support services to assist you in achieving your career and educational goals.

We are a leading educational institution that offers high-quality education in a supportive, student-first environment. BTC can help you prepare for a high wage, high-demand career in just two years. BTC offers over 37 two-year degree programs and 51 certificates. Recent program additions reflect the region's high-demand industries and include expansions in Engineering Technology offerings such as Clean Energy, our Health Information Technology certificate and our first Bachelor of Applied Science in Operations Management.

We are proud to be this community's technical college. Our Board of Trustees, administration, faculty and staff are committed to ensuring that students receive an exceptional educational experience, thus fulfilling our mission to "provide student-centered, high quality professional technical education for today's needs

and tomorrow's opportunities."

Our students' own words speak volumes about BTC's commitment to their success:

Jason Barnhill, Process Technology student and veteran: "All the instructors, all the administrators, all the help I needed to enroll in school, to work with the VA for my veterans benefits, everything has been outstanding. I'm really happy to be at BTC."

Lindsey Martin, Welding student: "I have teachers that know what they're doing and have that experience, because it makes a difference, especially if they're passionate about what they're teaching...I feel like what they teach you here is what you're really going to use out in the real world."

Booie Borden, Machining student: "The impacts that Bellingham Technical College has made on me are invaluable. I will never be able to thank the people there enough. My children have seen me go to school for almost two years now and be successful, and I'm inspiring my children to do better and I'm also going to provide for them."

Great things are happening at BTC. Come and visit our campus anytime—we welcome you!

Sincerely,

Kimberly Perry, Ed.D.
President

Chapter 1: 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 193,100. The majority of students are local, with a growing number moving to the area to enroll at BTC.

About Our Students

In the 2014-2015 academic year, the college served over 5,400 students. In fall of 2014, the student body was 51% female, 49% male, with 23% minority students. The average student age was 30 years old. BTC served 2,072 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. Accreditation of an institution of higher education by the Northwest Commission on Colleges and Universities indicates that it 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. Institutional integrity is also addressed through accreditation.

Accreditation by the Northwest Commission on Colleges and Universities is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding an institution's accredited status by the Northwest Commission on Colleges and Universities should be directed to the administrative staff of the institution. Individuals may also contact: Northwest Commission on Colleges and Universities, 8060 165th Avenue N.E., Suite 100, Redmond, WA 98052, (425) 558-4224, www.nwccu.org.

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

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

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

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

Equal Opportunity Statement

Bellingham Technical College provides equal opportunity and access in education and employment and does not exclude, deny benefits to, or otherwise discriminate against any person on the basis of race, ethnicity, creed, color, sex (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.

2013-2018 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

- Student Success & Access
- Continuous Improvement
- College Visibility with Strong Community, Business, & Industry Relations

Goals

STUDENT SUCCESS Facilitate student success through practices, structure, and policies.

EXCELLENCE AND INNOVATION Promote excellence and innovation throughout the college.

ACCESS Increase options and improve access for all students through educational pathways.

COLLEGE VISIBILITY & RESOURCE DEVELOPMENT

Strengthen the visibility and support of the college locally, regionally, and nationally.

CAMPUS ENVIRONMENT Create and maintain a welcoming campus that supports diversity, promotes a sense of community, provides an effective work and learning environment, and encourages respect for individuals.

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 (2014- 2017), 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 initiatives, including: emergency grants, professional development, and the BTC 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 201-203).

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 \$200,000 in scholarships each year to an average of 50% of the students who apply. The scholarship application is available online at the beginning of the spring quarter with the application deadline typically on or around June 30th.

Learn more at www.btc.edu/scholarships.

College Calendar 2016-2017

Summer Quarter 2016

Fall BTC Classes Begin	Sept 20
Independence Day Holiday	Jul 4
Summer BTC Classes Begin	Jul 5
Summer Last Day for 100% Refund **	
– 6 week course	Jul 7
– 8 week course	Jul 8
Summer Last Day to Drop without a W on transcript ***	
– 6 week course	Jul 12
– 8 week course	Jul 15
Summer Last Day for 50% Refund **	
– 6 week course	Jul 18
– 8 week course	Jul 23
Fall Quarterly Schedule Available	Jul 21
Fall General Registration Begins 8:00 am	Jul 25
Summer Last Day to Withdraw or Change Schedule ***	
– 6 week course	Aug 2
Summer Residency & Waiver Request Deadline	Aug 4
Summer Instructor Briefcase Opens for Grading	Aug 4
Summer Quarter Ends	
– 6 week course	Aug 11
Summer Last Day to Withdraw or Change Schedule ***	
– 8 week course	Aug 17
Fall Tuition & Fees Due *	Aug 23
Summer Quarter Ends	
– 8 week course	Aug 25
Summer Grades Final – Check Your Transcript	Aug 30
Labor Day Holiday	Sept 5
Fall Quarter 2016	
Fall BTC Classes Begin	Sept 20
Fall Last Day for 100% Refund **	Sept 26
Fall Last Day to Drop without a W on transcript ***	Oct 3
Fall Last Day for 50% Refund **	Oct 10
Fall Residency & Waiver Request Deadline	Oct 19
Faculty In-service Day (no daytime program classes)	Oct 31
Winter Registration Access Times Available	Nov 1
Winter Class Information Available Online	Nov 1
Winter Continuing Program Student Registration Begins	Nov 7

Veterans Day Holiday	Nov 11
Winter New Program Student Registration Begins	Nov 14
Winter Continuing Parenting Registration Begins	Nov 16
Fall Last Day to Withdraw or Change Schedule ***	Nov 17
Winter Quarterly Schedule Available	Nov 21
Fall Instructor Briefcase Opens for Grading	Nov 23
Thanksgiving Holiday	Nov 24-25
Winter General Registration Begins 8:00 am	Nov 28
Winter Tuition & Fees Due *	Dec 1
Fall Quarter Ends	Dec 9
Fall Grades Final – Check Your Transcript	Dec 14
Winter Holiday	Dec 23-26
Winter Break	Dec 12 - Jan 3

Winter Quarter 2017

Spring New Year's Day Holiday	Jan 2
Winter BTC Classes Begin	Jan 4
Winter Last Day for 100% Refund *	Jan 10
Martin Luther King Day Holiday	Jan 16
Winter Last Day to Drop without a W on transcript ***	Jan 18
Winter Last Day for 50% Refund **	Jan 24
Winter Residency & Waiver Request Deadline	Feb 3
Spring Registration Access Times Available	Feb 13
Spring Class Information Available Online	Feb 13
Presidents Day Holiday	Feb 20
Spring Continuing Program Student Registration Begins	Feb 21
Spring New Program Student Registration Begins	Feb 27
Spring Quarterly Schedule Available	Mar 1
Spring Continuing Parenting Registration Begins	Mar 1
Winter Last Day to Withdraw or Change Schedule ***	Mar 2
Spring General Registration Begins 8:00 am	Mar 6
Winter Instructor Briefcase Opens for Grading	Mar 9
Spring Tuition & Fees Due *	Mar 16
Winter Quarter Ends	Mar 23
Winter Grades Final – Check Your Transcript	Mar 28
Spring Break	Mar 24-Apr 3
Spring Quarter 2017	
Spring BTC Classes Begin	Apr 4
Spring Last Day for 100% Refund **	Apr 10

Spring Last Day to Drop without a W on transcript ***	Apr 17
Spring Last Day for 50% Refund **	Apr 24
Spring Residency & Waiver Request Deadline	May 3
Summer & Fall Registration Access Times Available	May 15
Summer & Fall Class Information Available Online	May 15
Summer & Fall Continuing Student Registration Begins	May 22
Spring Last Day to Withdraw or Change Schedule ***	May 25
Memorial Day Holiday	May 29
Summer & Fall New Student Registration Begins	May 30
Summer Quarterly Schedule Available	Jun 1
Spring Instructor Briefcase Opens for Grading	Jun 1
Summer General Registration Begins 8:00 am	Jun 5
Summer Tuition & Fees Due *	Jun 8
Spring Quarter Ends	Jun 20
Commencement Ceremony	Jun 20
Spring Grades Final – Check Your Transcript	Jun 23

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.ctc.edu/calendar

LIMITS OF CATALOG

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

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

BTC Map & Directions to Campus

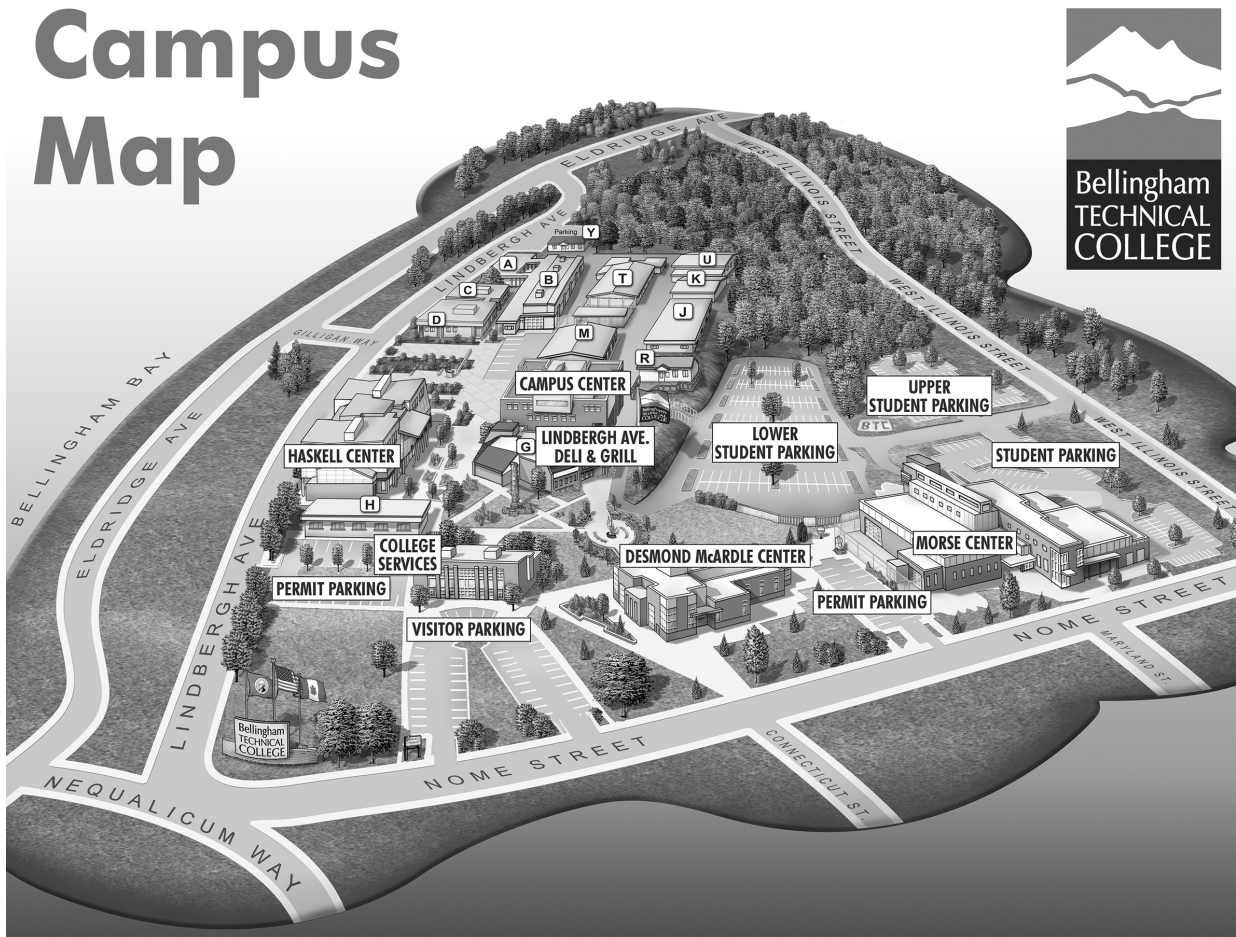
How to Find our Campus

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

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

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

Campus Map



- A Literacy Council, Transitional Studies/Basic Education for Adults
- B Electrician, Machining, Industrial Maintenance & Mechatronics
- C Dental Assisting & Dental Hygiene, Dental Clinic
Campus Center Campus Store, Business Courses, Cafe Culinaire, Culinary Arts, Computer Networking, Common Grounds Coffee Shop, Library, Student Center
- CC College Services Bldg. Student Services, Administration, Human Resources, Cashier
- CS Desmond McArdle Center Instrumentation & Control Technology, Process Technology, Electronics Engineering Technology
- DMC
- G Lindbergh Avenue Deli & Grill and Café Culinaire to go window (Spring Quarter)
- H Assessment Center, Health Sciences, Nursing Skills and Simulation Lab, Continuing Ed, Tutoring Center
- HC Haskell Center Nursing, Radiologic Technology, Surgery Technology, Sciences

- J Engineering Technology, Civil Engineering, Geomatics (formerly Surveying & Mapping), Mechanical Design
- K Facilities
- M Automotive Technology
- MC Morse Center Welding, Auto Collision, Foundation
- R Veterinary Technician
- T Diesel Technology
- U HVAC
- Y Family Learning Center

Off Campus location: Technology Development Center (TDC), 1000 F Street, Bellingham; Composites Engineering Perry Center for Fisheries & Aquaculture Sciences, 1600 C St., Bellingham

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.

Chapter 2: Getting Started

Admission and Enrollment

College Services Building, Room 106

Email: admissions@btc.edu Phone: 360.752.8345

Prospective students must apply for admissions to the college before they register in the degree/certificate program. Students may register for full-time or part-time, based on personal preference, availability of space, and/or specific program offerings. 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 18-21 credits per quarter. Full-time students generally attend class six hours per day, five days per week. 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. Specific program information is defined in the Programs of Study section of this catalog.

Placement assessment is required for degree/certificate-seeking students in all programs except Child Development, Data Entry Specialist, Early Learning, Emergency Medical Technician (EMT), Hypnotherapy, Personal Fitness Trainer, Project Management and Residential Home Inspection. Students seeking enrollment in these programs at Bellingham Technical College should use the *Course Registration Procedure* in the catalog. Students may also 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 ACCUPLACER test.

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 the College Board ACCUPLACER placement test to assess students' academic skill levels. The ACCUPLACER 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. ACCUPLACER waiver requests should be made to the Admissions and Student Resource Center. The ACCUPLACER 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 ACCUPLACER 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.

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 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-ready list do not need to resubmit an application while waiting for a program opening. 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/certificate -seeking students need to determine their math and English starting points. Placement may be determined by multiple measures. These measures include:
 - a. The ACCUPLACER assessment 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 meet with an advisor to identify an individual educational plan of study. The ACCUPLACER 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 ACCUPLACER test fee includes one retest in each subject area within a 12-month period. Test scores are valid for five years. Students must present government-issued identification and payment receipt when they report for testing.

- 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 (CTC) Colleges within five years. If you have completed placement testing at another college or university within the last five years, you may not need to test. You may submit an Evaluation Request form and the official scores to the Admissions and Student resource Center for equivalency to the ACCUPLACER scores.
- c. An official college transcript from a previous college, 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 ACCUPLACER requirement waived upon evaluation of an official transcript from a regionally accredited college or university and completion of the Evaluation Request form. Requests for evaluation of transcripts for ACCUPLACER waiver can be made through the Admissions and Student Resource Center.
- 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 ACCUPLACER assessment. The transcripts and Evaluation Request form should be submitted to the Admissions and Student Resource Center.
- e. Official Smarter Balance scores may be submitted for evaluation and placement. The scores and Evaluation Request form should be submitted to the Admissions and Student Resource Center. If the Smarter Balance scores fail to meet the minimum requirements, the student will need to take the ACCUPLACER assessment.
- f. Other tests (i.e., SAT, ACT, COMPASS, or ASSET) may be considered to waive all or parts of the ACCUPLACER assessment. Student must submit official test scores for evaluation to the Admissions and Student Resource Center.
- g. Certain programs require higher placement in general education requirements in reading and mathematics.
 - Students interested in programs that require English Composition I (ENGL&

101), such as Associate Degree Nursing, must test into the course or complete preparatory coursework, such as Fundamentals of English (ENGL 092) and Reading Skills (RDG 085), or Oral and Written Communications (AENGL 100).

- Students interested in programs that require Precalculus I (MATH& 141), such as Mechanical Engineering, Instrumentation and Control, or Electronics, must test into Precalculus I or complete Intermediate Algebra (MATH 099) at a minimum.
3. Attend a mandatory Advising & Registration session to learn about important campus resources and register for classes. The advising and career advisors will assist you in selecting your classes for your first quarter.
 4. Prepare to attend your classes. New students are required to attend the New Student Orientation Kick-Off prior to the first day of the quarter. The kick-off is a place for students to make connections, learn about resources, meet faculty, take a tour of the program areas, and attend an optional Computer Boot Camp.
3. Some programs have additional admissions requirements, which may include but are not limited to:
- Criminal background check
 - Prerequisite course requirements
 - Evidence of high school completion or equivalent
 - Driving record (abstract)

Please view program description for additional details.

Applicants seeking advanced placement admission should follow the procedures listed under "Transferring & Earning Credits."

Admission and Enrollment Policy

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

1. Is competent to profit from the curricular offerings of the college. For degree/certificate programs, attainment of identified scores in reading comprehension, sentence skills and arithmetic or algebra on the ACCUPLACER or equivalent test is required.
 2. Would not, by his or her presence or conduct, create a disruptive atmosphere within the college inconsistent with the purposes of the institution.
 3. Is 18 years or older or is a high school graduate OR has 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 petition must include, at minimum, the reasons that support reconsideration of the application or the policy. Any appeal to the Admission and Enrollment Policy must be reviewed and approved by the College President or designee. Persons may further appeal the decision of the Vice President 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 short-term courses. Requests for consideration of an underage admission or permission to register in a course must be submitted to the Vice President of Student Services in writing at least one week prior to the start date or registration date. Written request must include evidence that the 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.)

Dual Credit (Earn college credit while still in high school)

BTC offers multiple pathways to students who want to start earning college credit while still in high school. This is a great way to jumpstart your college degree and save money. Check out our options, including: Running Start, College in the High School, Tech Prep, and Impact! For more information, contact our Admissions office at admissions@btc.edu or 360.752.8345.

• College in the High School

Bellingham Technical College (BTC) has agreements with some local school districts to offer College in the High School (CHS) courses. A College in the High School course is a dual-credit course provided on a high school campus, or in a high school environment, in which an eligible student is given the opportunity to earn high school credit and BTC college credit for the same course. College in the High School courses may be either academic or career/technical. Please consult your high school counselor, principal or teacher for information on which CHS courses are offered in your high school.

• 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 automatically receive a Washington State High School Diploma.

• Tech Prep

Tech Prep is a dual credit program offering high school students the opportunity to earn college credit for approved 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 "Tech Prep 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 Tech Prep courses with a grade of "B" or better may request college credit by completing and submitting a Whatcom Tech Prep Registration form with the \$25.00 Tech Prep fee. Registration instructions are available in the career and counseling centers at each area high school. All high school Tech Prep courses articulated for college credit at BTC will be transcribed with the grade earned in the student's high school course. Courses are only transcribed within the academic year the student completes the coursework.

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

• Running Start Application Process

Running Start is a statewide program that allows qualified high school juniors and seniors to receive a maximum of 15 college credits per quarter, tuition-free, while completing high school. Students are enrolled simultaneously in high school and college classes (or just college classes) and receive both high school and college credit for classes completed at a college.

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

All Running Start students, including homeschool and private school students, must obtain a completed Running Start Enrollment Verification Form from a public high school authority each quarter. Submitted forms must be complete and signed by a high school counselor or school district official, BTC Running Start Advisor, the student, and a parent/guardian. Students must register in person and pay class and program fees by the quarter due dates published at www.btc.edu/calendar. A waiver request form for the Running Start Tuition Fee is available for low-income Running Start students through the BTC Running Start Advisor. Running Start students must meet eligibility criteria outlined by Statute RCW 28A.600.310 and submit the waiver request form upon enrollment and no later than the first day of classes. Running Start students are still responsible for all other class and program fees, books, supplies, and transportation.

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

1. Complete the BTC Running Start Application and meet with the BTC Running Start Advisor to discuss eligibility and determine plan of study. The student is responsible for notifying his or her public school district of the specific

courses he or she intends to take and shall request confirmation of the amount of high school credit that will be awarded upon successful completion of the courses (WAC 392-169-050). A student's public school district is ultimately responsible for determining his or her Running Start eligibility.

2. Assess a starting point. The multiple assessment measures mentioned in the Program Admissions Procedures section may be used to determine their math and English starting points. The ACCUPLACER assessment is offered at BTC or, when available, at his or her high school. Running Start students may enroll in pre-college courses (numbered below 100), however, these courses will not be paid through the Running Start program. A student who scores are below the level identified for the program he or she has selected should meet with the BTC Running Start Advisor to discuss next steps.
3. Complete the Running Start Orientation. Contact the BTC Running Start Advisor for more details.
4. Complete the Running Start Enrollment Verification Form and make an appointment with the BTC Running Start Advisor. Once the advisor signs the form and helps select classes, the form is submitted to the BTC Registration Office to register for classes and pay applicable fees. BTC Registration will only accept the Running Start Enrollment Verification Form if all signatures - student, parent/guardian, high school counselor, and Running Start Advisor - are present on the form.

Students needing program information, or guidance in completing this process should schedule an appointment with the BTC Running Start Advisor at 360.752.8385.

Veteran Admission Process

Veteran students 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 Veteran Students. You can also find these steps and more information on our website:

<http://www.btc.edu/FutureStudents/Veterans/indexVeterans.aspx>

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-ready 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. 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 1-88-GIBILL1 (1-888-442-4551) to speak with an Education Case Manager.
3. Send in your military and 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 Joint Services Transcript (JST SMART Transcript) 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. Veteran students 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 ACCUPLACER Placement Assessment. If your transcripts are not sufficient to determine course placement you will need to complete a Placement Assessment. ACCUPLACER 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 ACCUPLACER means a more successful college experience. No appointment is needed to take the ACCUPLACER. Just pay the \$25 fee to the BTC Cashier or Campus Store, and bring your receipt to your test. Plan to spend about two hours. Your Placement Test will be in Building H, Room H4 during the times scheduled below.
5. Schedule an appointment with our Veteran's Coordinator and Certifying Official. Our Veterans Coordinator will meet with you, so you can learn about on-campus resources and opportunities provided specifically for veteran students. 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.

Degree/Certificate Program Re-Admission Policy

Students seeking re-admission to degree/certificate programs may return one time only to the same program at priority placement for a negotiated re-entry date. Re-admitted students will be enrolled on a space-available basis, and will be required to re-submit a Degree/Certificate Program Admissions Application and meet any new program admissions requirements. This may include repeating the ACCUPLACER assessment 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. Students will be placed on the bottom of the program-ready list and will receive a registration access time in the order they applied.

New Student Orientation

New BTC students attend an Advising & Registration session during the enrollment process. Additionally, students who begin fall, winter, or spring quarter are required to participate in a New Student Orientation Kick off the day before the quarters begins. 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), 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 and a registration appointment has been received, international program students must make an appointment with 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

American Association of Collegiate Registrars www.aacrao.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 as well as in the quarterly class schedule. Some BTC courses listed in the quarterly class schedule do not require admission 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 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, located at www.btc.edu/calendar.
- 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 or contact their instructor by the second day of class. Non-attendance, no online activity and no contact with the instructor by the second class is considered a "No Show."

Registration Dates and Times

- New Student Registration and General Registration date are posted on the college calendar, located at www.btc.edu/calendar.
- Registration access times for Continuing Degree/Certificate Program Students are assigned by cumulative credits earned at Bellingham Technical College. 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 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 which 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. (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.

Class waitlists are managed in myBTC portal where classes are added and dropped. Students are automatically registered into class through the first night of the quarter. Instructor permission is required past 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 also accepted in person on a signed Add/Drop 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 (three (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 (third day in summer quarter). Academic/General Education classes require permission to add the class after the second (2nd) day of the quarter. 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, you must withdraw before the last day of the class.
5. If withdrawing completely 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

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. 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.

Estimated Program Costs

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, and listed specifically for each program under "Degrees & Classes."

Running Start

Students must submit a signed Running Start Enrollment Verification Form when registering and pay administrative, technology, and program fees each quarter. A waiver form for administrative fee charges is available for low-income Running Start students. Running Start students must meet eligibility criteria outlined by Statute RCW 28A.600.310 and submit the waiver request upon enrollment and no later than the first day of classes.

Running Start students are still responsible to pay all other program fees. Eligibility criteria and waiver forms are available from the Running Start Advisor.

Other Fees

Application Fee (separate application fee for select health programs)

None

Criminal Background Processing Fee (for select health programs)

\$10.00

Student Body ID Card \$8.00

GED Transcript \$5.00

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

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:

- 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.
- 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.
- 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 an 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 Basic Academic Skills, 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. At the end of each tax year, students will be mailed a 1098T form from BTC. This form, which is also viewable online using your student log-in 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.

Quarterly Program Costs

Estimated Quarterly Program Costs are located on each program's website.

Paying For College

Financial Aid

College Services. 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.

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 Assistance coordinator as early as possible before enrolling. All certificate and degree programs are eligible for veteran education benefits. Call 360.752.8450 for an appointment with the coordinator.

BTC FOUNDATION SCHOLARSHIPS FOR STUDENTS

The BTC Foundation awards more than \$200,000 in scholarships each year to an average of 50% of the students who apply. The scholarship application is available online at the beginning of the spring quarter with the application deadline typically on or around June 30th. 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 Mechanics, Surgery Technology, Radiology 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

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:

- Course planning and sequencing
- Degree/certificate program information and planning
- Vocational assessments and career planning
- Job and internship search assistance

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 identify and address potential barriers, learn to set realistic and attainable goals, and access resources that will increase overall academic, career, and personal achievements. Email BTC's STAR coordinator for more information about services and eligibility: star@btc.edu

Advising & Career Services

Admissions & Student Resource Center

College Services, Room 106

Email: advising@btc.ctc.edu Phone: 360.752.8450

Once students declare their academic 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 academic 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:

- Career exploration and advising including vocational assessments, employment outlook and more
- Building an educational plan to know the courses needed to enter and make efficient progress in a program
- Job and internship searching assistance including résumé and cover letters, interviewing, applications, etc.
- Advisors also provide workshops in classes throughout the year

Contact Academic & Career Services if you have questions.

Chapter 3: Student Life & Services

Counseling Services

College Services Building, Room 106

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/drop/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 students 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 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 comprised of more than 20 ethnic backgrounds, as well as single parents, veterans, adults seeking new careers, immigrants, GED holders, and ESL and first-time college students. Regardless of motivation, all seek an education and share a common goal of enriching their own lives and that of their communities. BTC encourages diversity on our campus by welcoming, respecting, and supporting people of every ethnicity, nationality, culture, gender, age, sexual orientation, religious belief, physical ability, and socioeconomic background.

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.

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.

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 Veteran students and Children/Spouse of disabled, POW/MIA or Deceased Veterans with residency questions and paperwork.

Advising / Educational Plan

Our Advising and Career Services office has staff available who are acquainted with Veteran concerns. Email: veterans@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 is 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 veteran's 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

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

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 and workplace behaviors and attitudes.

The Basic Academic Skills program offers:

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

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. See the Quarterly Schedule for details.

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

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

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

Limited English Proficient (LEP) Pathway ESL

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

Associated Student Government

Campus Center, Room 300

Email: asbtc@btc.edu Phone: 360.752.8357

The Student Senate of the Associated Students of Bellingham Technical College (ASBTC) consists of elected student representatives from each degree and certificate program. Members represent their programs in Senate matters and report back on Senate actions.

Representatives serve on committees and promote school spirit, leadership, and citizenship. Membership is open to all individuals currently enrolled in a degree or certificate program.

Interested in participating in the Student Senate? 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 weekly on campus and all members are encouraged to participate and get involved!

Library

Campus Center Building, 3rd Floor

Email: library@btc.edu Phone: 360.752.8383

The Bellingham Technical College Library, located on the third floor of the Campus Center Building, encourages individual research and the exploration of ideas by connecting students, staff, faculty, and the community with information for teaching and learning, and by providing instruction to enhance information access and understanding. Books, DVDs, journals, eBooks, and digital resources are specifically selected to support the college curriculum. The BTC Library's digital resources include several journal databases which offer access to 9,000+ full-text journals, newspapers, and 120,000+ eBooks. Access to the BTC Library's catalog and digital resources is available through the library website: 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. The library offers course-related library instruction. If you need information that is not available at BTC, we can help you borrow material from other libraries through interlibrary loan.

The BTC Library features the Information Commons, plus the campus's open computer lab. There are 52 computers, plus an Information and Digital Literacy classroom with an additional 28 computers and 40+ types of software, including one computer station equipped with DSS support software. Students may access the wireless network using their personal laptops or by borrowing a laptop for use in the library.

Students may check out digital or video cameras, digital recorders, flash drives, laptops, and iPads at the Library Information Desk. To facilitate both quiet and group study, eight group study rooms, three scanners, media viewing stations, a copier, tables, and casual lounge furniture are available. The eLearning and Media/Copy Services Departments are also located in the BTC Library.

Round-the-clock chat reference service is available at www.btc.edu/library/AskLibrarian.asp. 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 ten cents per copy. Student ID cards are available for \$8.00. 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/CafeCulinairé for more information.

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

Insurance

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

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.

Chapter 4: Policies, Requirements & 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 degrees - Transfer (DTA/MRP and AS-T/MRP) 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. 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 a High School Diploma application to the Registration Office. Once verified, High School Diploma-SHB1758 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, counselors, and the college catalog. However, the final responsibility for meeting all completion requirements rests with the student.

Students have the responsibility of verifying specific completion requirements with their faculty advisor.

General Completion Requirements

1. Complete, with a passing grade, all technical and academic core courses as listed on the program pages defining requirements for individual degrees/certificates. Some degree/certificate programs may require minimum grades in required courses. See the Programs of Study pages.
2. 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 in the required program courses. Individual programs may require a higher grade point average.

6. Complete the last 50% of the required coursework at BTC.
7. BTC may verify and award certificates and degrees as they are earned.

General Education Requirements

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

These requirements will be satisfied by completing AENGL 100 Applied English (formerly COM 170: Oral and Written Communications) (5 credits) or ENGL& 101 English Composition I (5 credits); and PSYC& 100: General Psychology (5 credits) or CMST& 210: Interpersonal Communications (formerly PSYC 111 Interpersonal & Organizational Psychology) (5 credits); and AMATH 100 Applied Occupational Math (formerly MATH 100: Occupation Math) (5 credits), AMATH 111 Applied Technical Math (formerly MATH 111: Technical Math) (5 credits), MATH& 107: Math in Society (5 credits), MATH& 146: Intro to Statistics (5 credits) or MATH& 141: Pre-Calculus I (5 credits); or equivalent courses included within the program requirements.

Student Grades

Grading Policy

BTC uses the following letter grading symbols:

Grade Point Value

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

Interpretation of Grade Symbols

A (4.0) Excellence in Achievement of Competency

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

B (3.0) Above Average Achievement of Competency

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

C (2.0) Average Achievement of Competency

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

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.

R - Repeat

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.

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

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

GRADE DESIGNATION

AU	Audit
CR	Credit for prior experiential learning/Prior Learning Assessment (PLA)
I	Incomplete
NP	No Pass
P	Pass
R	Repeat (after a letter grade)
T	Transfer (valid grade prior to Summer Quarter 2009)
V	Unofficial Withdrawal (valid grade prior to Fall 2010)
W	Official Withdrawal

AU - Audit

This designation is used for 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/Prior Learning Assessment (PLA)

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

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.

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 2009, cumulative transfer credits will be noted on the student transcript.

V - Unofficial Withdrawal (valid grade prior to Fall 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 not more than four quarters from the time the grade was awarded.

Course Repeat

- Students who will repeat a course need to fill out a Course Repeat form before the end of the quarter so it can be processed as soon as grades are final.
- 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. Only the highest grade will compute into the cumulative GPA.
- 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 online at www.btc.edu/transcripts within three working days following the end of the quarter. Students must have their Student ID number (see Student Identification Numbers under Student Rights and Responsibilities section for more information about SIDs) and a personal identification number (PIN) to access grades on their unofficial transcript. PINS are available at www.btc.edu, under the Student Login tab. 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. An unofficial transcript is an unsigned and unsealed copy of the student's record and is available online. There is no charge for unofficial transcript copies. It is the student's responsibility to review the transcript for accuracy.

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 (effective Fall Quarter 2016) - 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 at program completion by the program faculty. It is awarded at the discretion of the program faculty only upon completion.

Academic Standards and Progress

Academic Progress

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

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

Academic Standards/Credit Completion Policy

Students who wish to graduate and receive a degree or certificate must earn a quarterly grade point average of 2.0 or better in the program course requirements for the specific degree or certificate. In order to demonstrate satisfactory progress:

1. All students will maintain regular attendance for each enrollment period. 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. The Academic Probation Readmission Plan form can be obtained from the Admissions and Student Resource Center. Once completed, the plan must be submitted to the Appeals Committee for consideration of approval. All students readmitted following suspension will remain on academic probation for one quarter.

Attendance

Regular attendance is required to maintain satisfactory academic progress. This standard is reflected in the grading policy with each degree/certificate program 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 or contact their instructor by the second day of class may be dropped from class by the Instructor as a No Show.

A No Show is defined as a student having no contact with an Instructor, never attending class or having online activity.

It is the student's responsibility to officially withdraw from a class and review the 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. 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.

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 student's 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 Higher One, auditors, or collection agents/ agencies)
- Persons serving on the Board of Trustees
- Students serving on official committees (such as a disciplinary or grievance committee) or who are assisting other school officials in performing their tasks

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.

Possible Federal and State Data Collection and Use

As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records - including your Social Security Number, grades, or other private information - may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to any third party designated by a federal or state authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, federal and state authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and state authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, state authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your

participation in education and other programs by linking such PII to other personal information about you that they obtain from other federal or state data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

Student Rights & Responsibilities

Discrimination and Harassment

Guidance from the U.S. Department of Education, Office for Civil Rights' Dear Colleague Letter (April 4, 2011) has clarified that sexual harassment includes sexual misconduct, sexual assault and sexual violence. These are all violations of civil rights laws and constitute discrimination under Title IX for students and employees in educational institutions:

"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 program or activity receiving Federal financial assistance..." 20 U.S.C. § 1681(a)

Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in any educational program or activity that receives financial support from the Federal government. In addition to prohibiting discrimination based on sex, including sexual harassment, sexual violence, and sexual assault, Title IX also prohibits retaliation against individuals who complain about or participate in an investigation regarding an alleged Title IX violation. Title IX is enforced by the U.S. Department of Education's Office for Civil Rights (OCR). Employees are also covered under Title VII of the Civil Rights Act of 1964.

In compliance with Title IX, BTC does not discriminate on the basis of sex in its educational programs and activities or in its employment. It is BTC's goal to maintain an environment that is free from all forms of illegal harassment and discrimination, including sexual harassment, sexual violence, sexual assault, sexual coercion, rape, bullying, and hazing.

All inquiries concerning the application of policies for the prevention of sexual harassment and sexual violence under Title IX should be referred to BTC's Title IX Coordinator or Equal Employment Opportunity/Affirmative Action Officer (EEO/AA):

Linda Fossen, M. Ed.

Vice President of Student Services

Title IX Coordinator

College Services, Room 201

Bellingham Technical College

3028 Lindbergh Avenue

Bellingham WA 98225

Phone: 360.752.8440

Email: titleix@btc.edu

Camille J. Gatza, MBA, PHR

Executive Director of Human Resources

Equal Employment Opportunity/Affirmative Action Officer

College Services, Room 124

Bellingham Technical College

3028 Lindbergh Avenue

Bellingham, WA 98225

Phone: 360.752.8549

Email: hr@btc.edu

The Title IX Coordinator provides advice and oversight on policies, preventive educational programs, resources and services required under Title IX, and in addition, oversees all complaints of sexual harassment and sexual violence, as well as identifies and addresses any patterns or systematic problems that arise during the review of complaints.

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 distributed to new students at New Student Orientation.

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.

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.

Beginning winter quarter 2012, upon admission to a college, 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, American Opportunity Tax Credit (formerly known as Hope Credit) and Lifelong Learning Credit, employment verification, workforce or unemployment data, assessment/accountability research projects authorized by the

college and/or the state of Washington, transcripts, and other legitimate uses authorized under state law and/or federal law.

Student Body Cards

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

Student Rights

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

Student Right to Know and Campus

Security 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.

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 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 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 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 ACCUPLACER placement 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 an 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 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 within 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) Tech Prep, 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 yet ACCUPLACER 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, completes the exam and pays the \$70.00 fee per credit to the Cashier. The successful challenge of courses will be transcribed 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 only for 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 Director of Registration and Enrollment.

Advanced Placement

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

Procedure

1. Advanced placement is initiated by the applicant/student meeting with an 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 Transfer

Currently enrolled Bellingham Technical College degree/certificate program students may be considered for priority placement on the program ready-list for admission in a related program if they have completed portions of the technical content that are transferrable to the degree/certificate program.

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

- Automotive Technology and Diesel Equipment Technology
- Instrumentation & Control and Electronics
- Electrician and Mechatronics (Industrial Maintenance)
- Civil Engineering and Geomatic Technology
- Business programs

Procedure

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

Transferability of BTC Credits

To determine transferability of credits earned at Bellingham Technical College, students must request that an official BTC transcript be forwarded to the college where they wish 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 Tech Prep Consortium and provide opportunities for high school students under five career pathways: science and natural resources, arts and communications, business and marketing, engineering and technology, and health and human services.

Articulation agreements with certain public and private colleges and universities provide BTC students with transfer options to earn four-year degrees related to specific programs of study and business and management. To view a current listing of 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.

Chapter 5: Programs of Study

College Readiness

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 Reengagement Program (IMPACT!)
- 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

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

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

- Graduates will be able to demonstrate the ability to apply "Generally Accepted Accounting Principles" the recording of business transactions and preparation of financial statements for a merchandising business.
- Graduates will be able to demonstrate effective skills using computerized accounting software.
- Graduates will be able to demonstrate effective skills computing payrolls, payroll taxes, and tax forms.
- Graduates will be able to demonstrate effective 10-key skills.
- Graduates will be able to demonstrate competency in work processing, spreadsheets, and databases.
- Graduates will be able to demonstrate competency in basic keyboarding.
- Graduates will be able to provide effective accounting support to an employer.

Program Entry Information

The program typically starts in Fall, Winter, Spring, Summer Quarters 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 score of 50 in Arithmetic or a grade of C or better in MATH 090
- ACCUPLACER Reading Comprehension score of 71 or a C grade in RDG 085
- ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092

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, AAS

Program Requirements

Quarter 1

- ACCT 141 Practical Accounting I 5 CR
(substitute CMST 210 spring quarter for ACCT 141)
- 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

- ACCT 242 Practical Accounting II 5 CR
- ACCT 243 Practical Accounting III 5 CR
- ACCT 245 Payroll Procedures 5 CR
- ACCT 246 Computerized Accounting I 5 CR
- ACCT 274 Internship 4 CR
- ACCT& 203 Principles of Accounting III 5 CR

- BUS 100 Electronic Math Applications 3 CR
- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 CR
- BUS 188 Business English 5 CR
- BUS& 201 Business Law 5 CR
- CAP 142 MS Excel 5 CR
- CMST& 210 Interpersonal Communications 5 CR

- MGMT 154 Creating and Managing a Small Business 5 CR
or
- BUS& 101 Introduction to Business 5 CR

Total Required Course Credits: 83

Electives

- BUS 123 Records Management 3 CR
- BUS 232 Office Procedures 5 CR
- BUS& 101 Introduction to Business 5 CR
- CAP 107 Computerized Keyboard Skill building I 3 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
- LGL 132 Legal Terminology 5 CR
- MGMT 210 Human Resource Management 5 CR

Total Elective Course Credits: 19

Total Program Credits: 102

Associate of Applied Science – Transfer Accounting, AAS-T

Program Requirements

Quarter 1

- ACCT 141 Practical Accounting I 5 CR
(substitute CMST 210 spring quarter for ACCT 141)
- 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

- ACCT 242 Practical Accounting II 5 CR
- ACCT 243 Practical Accounting III 5 CR
- ACCT 245 Payroll Procedures 5 CR
- ACCT 246 Computerized Accounting I 5 CR
- ACCT 274 Internship 4 CR
- ACCT& 203 Principles of Accounting III 5 CR
- BUS 100 Electronic Math Applications 3 CR
- BUS& 201 Business Law 5 CR
- CAP 142 MS Excel 5 CR
- CMST& 210 Interpersonal Communications 5 CR
- CAP 101 Introduction to Computer Applications 5 CR
- ENGL& 101 English Composition I 5 CR
- MATH& 141 Precalculus I 5 CR

- MGMT 154 Creating and Managing a Small Business 5 CR
or
- BUS& 101 Introduction to Business 5 CR

- SOC& 101 Introduction to Sociology 5 CR

Total Required Course Credits: 83

Electives

- BUS 123 Records Management 3 CR
- BUS 188 Business English 5 CR
- BUS 232 Office Procedures 5 CR
- BUS& 101 Introduction to Business 5 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 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
- LGL 132 Legal Terminology 5 CR
- MGMT 210 Human Resource Management 5 CR

Total Elective Course Credits: 19

Total Program Credits: 102

Certificate

Accounting Assistant Certificate

Program Requirements

Quarter 1

- ACCT 141 Practical Accounting I 5 CR
(substitute CMST 210 spring quarter for ACCT 141)
- 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

- ACCT 242 Practical Accounting II 5 CR
- ACCT 246 Computerized Accounting I 5 CR
- BUS 100 Electronic Math Applications 3 CR
- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 CR
- BUS 188 Business English 5 CR
- CAP 142 MS Excel 5 CR
- CMST& 210 Interpersonal Communications 5 CR

Total Required Course Credits: 54

Electives

- 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 107 Computerized Keyboard Skillbuilding I 3 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
- LGL 132 Legal Terminology 5 CR

- MGMT 154 Creating and Managing a Small Business 5 CR
or
- BUS& 101 Introduction to Business 5 CR

- MGMT 210 Human Resource Management 5 CR

Total Elective Course Credits: 7

Total Program Credits: 61

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 14

- Graduates will be able to demonstrate competency in touch keyboarding
- Graduates will be able to demonstrate competency in business document formatting - editing from rough draft, advanced editing, formatting minutes, and formatting letters.
- Graduates will be able to demonstrate competency in English proofreading/editing.
- Graduates will be able to demonstrate competency in word processing, spreadsheets, databases, presentation graphics, and Windows.
- Graduates will be able to demonstrate competency in integrating computer software programs.
- Graduates will be able to demonstrate competency in filing: alphabetic and numeric.
- Graduates will be able to provide effective administrative assistant support to employer.

Program Entry Information

The program typically starts in Fall, Winter, Spring, Summer Quarters.

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

Pre-Program Course Requirements

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

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.

Associate of Applied Science

Administrative Assistant, AAS

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 Communications 5 CR

Required Courses for Program

- ACCT 141 Practical Accounting I 5 CR
- BUS 100 Electronic Math Applications 3 CR
- BUS 123 Records Management 3 CR
- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 CR
- BUS 188 Business English 5 CR
- BUS 232 Office Procedures 5 CR

- BUS 276 Internship 6 CR
- BUS 280 Assessment 1 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- CAP 109 Computerized Keyboard Skill Building II 3 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
- CAP 200 Integrated Computer Applications 5 CR

Total Required Course Credits: 83

Electives

- ACCT 242 Practical Accounting II 5 CR
- ACCT 243 Practical Accounting III 5 CR
- ACCT 245 Payroll Procedures 5 CR
- ACCT 246 Computerized Accounting I 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 230 Medical Office Procedures 5 CR
- BUS& 101 Introduction to Business 5 CR
- BUS& 201 Business Law 5 CR
- CAP 143 Adobe Acrobat & Electronic File Management 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: 20

Total Program Credits: 103

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
- CMST& 210 Interpersonal Communications 5 CR

Required Courses for Program

- 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 Internship 6 CR
- BUS 280 Assessment 1 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- CAP 109 Computerized Keyboard Skill Building II 3 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
- CAP 200 Integrated Computer Applications 5 CR
- ENGL& 101 English Composition I 5 CR
- MATH& 141 Precalculus I 5 CR
- SOC& 101 Introduction to Sociology 5 CR

Total Required Course Credits: 83

Electives

- ACCT 242 Practical Accounting II 5 CR
- ACCT 243 Practical Accounting III 5 CR
- ACCT 245 Payroll Procedures 5 CR
- ACCT 246 Computerized Accounting I 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& 101 Introduction to Business 5 CR
- BUS& 201 Business Law 5 CR
- CAP 143 Adobe Acrobat & Electronic File Management 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: 20

Total Program Credits: 103

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 will be able to demonstrate knowledge and skills to repair a damaged vehicle using teamwork skills, non-structural repair methods, structural repair methods and refinishing skills to complete the repair of the damage vehicle through hands on demonstrations in allotted time.
- Graduates will be able to demonstrate knowledge and skills in MIG welding, Oxy-Acetylene and Plasma cutting, Oxy-Acetylene welding and spot welding through hands on applied demonstration and test to I-CAR standards.
- Graduates will be able to demonstrate knowledge and skills in repairing soft, semi-rigid and rigid plastic vehicle parts through hands on applied demonstrations to I-CAR standards.

Program Entry Information

This program admits students in fall quarter.

Program Start

- Automotive Collision Repair Technology students must show their current 3 year "Abstract of Driving Record" from Washington State DOL to their program instructor ("current" is within the week prior to submission). This abstract will be required during the first week of the Fall Quarter and will be kept on file for advising purposes only.
- 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.

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 a C grade in MATH 090 or ABE 050 .
- 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 .

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/2.0 for required courses.

Associate of Applied Science

Automotive Collision Repair Technology, AAS

Program Requirements

Quarter 1

- ACRT 101 Introduction to Auto Collision Repair 4 CR
- ACRT 105 Non-Structural Welding 8 CR
- ACRT 110 Refinishing Safety 2 CR
- ACRT 268 Refinishing Final Detail 3 CR
- AMATH 100 Applied Occupational Math 5 CR

Quarter 2

- ACRT 115 Non-Structural Repair 2 CR
- ACRT 123 Non-Structural Metal Finishing 5 CR
- ACRT 125 Refinishing Surface Preparation 5 CR

- ACRT 141 Outer Body Panel Repair 4 CR
- AENGL 100 Applied English 5 CR

Quarter 3

- ACRT 130 Damage Analysis 3 CR
- ACRT 133 Paint Matching & Blending 7 CR
- ACRT 138 Restoring Corrosion Protection 3 CR
- ACRT 142 Shop Practicum I 6 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- ACRT 140 Drive Train, Fuel, Brakes, HVAC 2 CR
- ACRT 251 Structural Welding 4 CR
- ACRT 253 Moveable Glass & Hardware 2 CR
- ACRT 254 Structural Fixed Glass 2 CR
- ACRT 256 Unibody Inspection 4 CR
- ACRT 262 Frame Inspection & Repair 4 CR

Quarter 5

- ACRT 255 Suspension & Steering 4 CR
- ACRT 260 Shop Practicum III 6 CR
- ACRT 263 Restraint Systems 2 CR
- ACRT 264 Plastics & Adhesives 4 CR
- ACRT 266 Electrical System Repair 3 CR

Quarter 6

- ACRT 270 Shop Practicum IV 10 CR
- ACRT 275 Internship 7 CR

Total Program Credits: 122

Associate of Applied Science - Transfer

Automotive Collision Repair Technology, AAS-T

Program Requirements

Quarter 1

- ACRT 101 Introduction to Auto Collision Repair 4 CR
- ACRT 105 Non-Structural Welding 8 CR
- ACRT 110 Refinishing Safety 2 CR
- ACRT 268 Refinishing Final Detail 3 CR
- MATH& 141 Precalculus I 5 CR

Quarter 2

- ACRT 115 Non-Structural Repair 2 CR
- ACRT 123 Non-Structural Metal Finishing 5 CR
- ACRT 125 Refinishing Surface Preparation 5 CR
- ACRT 141 Outer Body Panel Repair 4 CR
- ENGL& 101 English Composition I 5 CR
- PSYC& 100 General Psychology 5 CR

Quarter 3

- ACRT 130 Damage Analysis 3 CR
- ACRT 133 Paint Matching & Blending 7 CR
- ACRT 138 Restoring Corrosion Protection 3 CR
- ACRT 142 Shop Practicum I 6 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- ACRT 140 Drive Train, Fuel, Brakes, HVAC 2 CR
- ACRT 251 Structural Welding 4 CR
- ACRT 253 Moveable Glass & Hardware 2 CR
- ACRT 254 Structural Fixed Glass 2 CR
- ACRT 256 Unibody Inspection 4 CR
- ACRT 262 Frame Inspection & Repair 4 CR

Quarter 5

- ACRT 255 Suspension & Steering 4 CR
- ACRT 260 Shop Practicum III 6 CR
- ACRT 263 Restraint Systems 2 CR
- ACRT 264 Plastics & Adhesives 4 CR
- ACRT 266 Electrical System Repair 3 CR

Quarter 6

- ACRT 270 Shop Practicum IV 10 CR
- ACRT 275 Internship 7 CR

Total Program Credits: 127

Certificate

Automotive Refinishing Certificate

Program Requirements

Quarter 1

- ACRT 101 Introduction to Auto Collision Repair 4 CR
- ACRT 110 Refinishing Safety 2 CR
- ACRT 115 Non-Structural Repair 2 CR
- ACRT 125 Refinishing Surface Preparation 5 CR
- AMATH 100 Applied Occupational Math 5 CR

Quarter 2

- ACRT 123 Non-Structural Metal Finishing 5 CR
- ACRT 138 Restoring Corrosion Protection 3 CR
- ACRT 142 Shop Practicum I 6 CR
- ACRT 268 Refinishing Final Detail 3 CR
- AENGL 100 Applied English 5 CR

Quarter 3

- ACRT 133 Paint Matching & Blending 7 CR
- ACRT 143 Shop Practicum II 6 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- ACRT 275 Internship 7 CR

Total Program Credits: 65

Automotive Technology

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. The entry points for the Automotive Technology program are usually fall and winter quarters. You must have a valid driver's license and be insurable to participate in the work-based learning sections of this associate degree and certificate program.

Program Outcomes

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

Program Entry Information

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

Program Start

- In addition to submitting an application, Automotive Technology students must complete the admissions completion form and provide the following: - Copy of your valid Driver's License (with no restrictions due to driving offenses); - Current complete 3-year driving record from Washington State DOL (this must be obtained within the week **prior** to submitting the admissions completion form). This copy of your driving record will be kept on file for advising purposes only; - Signed statement indicating that you understand program admissions requirements and industry hiring standards; - A renewed copy of your valid driver's
- Please Note:
 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.
- All General Education courses must be completed prior to the beginning of the 2nd year: CMST& 210, AENGL 100, and AMATH 100.

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 a C grade in MATH 090 or ABE 050 .
- 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 .

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 Communications 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 Applied Automotive Concepts I 15 CR

Quarter 5

- AUTO 229 Applied Automotive Concepts 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 Applied Automotive Concepts III 5 CR

Quarter 7

- AUTO 275 Engine Performance 3 11 CR
 - AUTO 279 Applied Automotive Concepts IV 5 CR
- See instructor regarding alternative options for AUTO 229, AUTO 259 and AUTO 279.

Total Program Credits: 130-133

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
- MATH& 141 Precalculus I 5 CR
- ENGL& 101 English Composition I 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 Communications 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

Quarter 4

- AUTO 219 Applied Automotive Concepts I 15 CR

Quarter 5

- AUTO 229 Applied Automotive Concepts 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 Applied Automotive Concepts III 5 CR

Quarter 7

- AUTO 275 Engine Performance 3 11 CR
 - AUTO 279 Applied Automotive Concepts IV 5 CR
- See instructor regarding alternative options for AUTO 229, AUTO 259 and AUTO 279.

Total Program Credits: 135-138

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 Communications 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 e-mail 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

Direct Transfer Agreement/Major Related Program

Associate in Business, DTA/MRP

Program Requirements

Business

- 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

Total Credits: 20

Communication Skills

- ENGL& 101 English Composition I 5 CR
- ENGL& 102 English Composition II 5 CR

Total Credits: 10

Humanities

- CMST& 220 Public Speaking 5 CR
- HIST& 146 United States History I 5 CR
- SPAN& 121 Spanish I 5 CR

Total Credits: 15

Mathematics

- MATH& 141 Precalculus I 5 CR
- MATH& 148 Business Calculus 5 CR

Total Credits: 10

Physical and Natural Sciences

- BIOL& 160 General Biology with Lab 5 CR
- CHEM& 121 Intro to Chemistry 5 CR
- MATH& 146 Introduction to Statistics 5 CR

Total Credits: 15

Social Sciences

- ECON& 201 Micro Economics 5 CR
- ECON& 202 Macro Economics 5 CR
- SOC& 101 Introduction to Sociology 5 CR

Total Credits: 15

Electives

- Electives 5 CR

Total Credits: 5

Total Program Credits: 90

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

Child Development Associates (CDA) Essentials

Overview

If you are currently working with young children and want to improve your skills as a teacher and care provider as well as move up the Career Lattice while continuing to work, then this program is for you. Choose BTC's Child Development fully online program to jump start your career in early care and education. The three CDA Essentials courses count as the 120 hours of formal education required before taking the assessment for CDA credentialing. Coursework supports the development of your CDA portfolio and prepares you for the CDA assessment.

The CDA Credential is the most widely recognized and portable credential in early childhood education (ECE) and is a stepping stone on the path of career advancement in ECE. The three CDA Essentials courses are recognized at colleges in Washington and throughout the county, usually transferring in as 10-12 credits in Early Childhood Education programs of study.

Program Outcomes

- Establish and maintain a safe, healthy learning environment.
- Advance children's physical and intellectual competence.
- Support children's social and emotional development and provide positive guidance.
- Establish positive and productive relationships with families.
- Ensure a well-run, purposeful program that is responsive to participant needs.
- Maintain a commitment to professionalism.

Program Entry Information

It is best for students to begin the Program by registering for ECED 120— CDA Essentials: Intro to ECE/Health, Safety & Nutrition fall quarter. However, students can begin the courses winter quarter or spring quarter as well.

Pre-Program Course Requirements

- Students must have a minimum of a high school diploma/GED and should have 480 hours of experience working with children within the past three years when applying for the CDA Credential at the end of the BTC coursework.
- It is recommended that students have good basic academic skills or enroll in basic skills courses to work on improving their reading, writing, and math skills.
- Before taking the fully online courses, students should be confident about computer and study skills. Students will need access to a computer and the internet five out of seven days a week, for a total of ten or more hours a week for each four-credit class.

Degree and Certificate Requirements

Certificate completion requires a cumulative GPA of 2.0 or greater.

Program Application/Forms

- This state funded program charges tuition based on residency. To establish residency, apply to BTC at www.btc.edu/apply. State "Child Development Essentials" as your intended program of study.

Certificate

Child Development Associates (CDA) Essentials Certificate

Program Requirements

Quarter 1

- ECED 120 CDA Essentials 1: Intro to ECE/Health, Safety, Nutrition 4 CR

Total Credits: 4

Quarter 2

- ECED 121 CDA Essentials 2: Child Development/Learning Environments 4 CR

Total Credits: 4

Quarter 3

- ECED 122 CDA Essentials 3: Working with Families/Professionalism 4 CR

Total Credits: 4

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.

Students who complete a Computer Networking Program degree or certificate at Bellingham Technical College will be trained to:

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

Program Outcomes

- Graduates will be able to install, configure, and administer an advanced application server.
- Graduates will be able to install, configure, and administer a Microsoft Windows Network.
- Graduates will be able to design, develop, implement, and document a complex project.
- Graduates will be able to demonstrate the ability to apply technical and interpersonal knowledge and skills in professional setting.
- Graduates will be able to design and implement a group project.
- Graduates will be able to demonstrate knowledge in fundamental concepts used by computer networking professionals.

Program Entry Information

This program typically starts in Fall, Winter, Spring Quarters.

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 a C grade in RDG 085 , and ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092 .
- ACCUPLACER Arithmetic score of 50 or a C grade in MATH 090 or ABE 050 .

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

Quarter 1

- IT 112 PC Hardware A+ 8 CR
- IT 141 Operating Systems A+ 8 CR

Quarter 2

- IT 102 IT Ethics and Careers 5 CR
- IT 121 Introduction to Programming 5 CR
- IT 160 Network Technologies 8 CR

Quarter 3

- IT 142 Client/Desktop Operating Systems II 10 CR
- IT 140 Introduction to Linux Operating Systems 5 CR

Quarter 4

- IT 230 Windows Powershell 5 CR
- IT 240 Linux Administration & Configuration 5 CR
- IT 242 Windows Server Administration 5 CR

Quarter 5

- IT 210 Network Security Fundamentals 10 CR
- IT 243 Windows Server Network Infrastructure 5 CR
- IT 261 Advanced Special Topics I 5 CR

Quarter 6

- CTE 108 Job Skills 1 CR
- IT 220 Network Communications Infrastructure 5 CR
- IT 270 Applied IT Career Skills 8 CR
- IT 272 Capstone Project 5 CR

Required Courses for Program

Note: 1st year students are required to complete an additional total of 10-credits/2 classes of General Education courses before taking 2nd year classes. These classes are typically taken during the summer between 3rd and 4th quarters.

10 CR

Total Program Credits: 123

Associate of Applied Science - Transfer Computer Networking, AAS-T

Program Requirements

Quarter 1

- IT 112 PC Hardware A+ 8 CR
- IT 141 Operating Systems A+ 8 CR

Quarter 2

- IT 102 IT Ethics and Careers 5 CR
- IT 121 Introduction to Programming 5 CR
- IT 160 Network Technologies 8 CR

Quarter 3

- IT 142 Client/Desktop Operating Systems II 10 CR
- IT 140 Introduction to Linux Operating Systems 5 CR

Quarter 4

- IT 230 Windows Powershell 5 CR
- IT 240 Linux Administration & Configuration 5 CR
- IT 242 Windows Server Administration 5 CR
- IT 261 Advanced Special Topics I 5 CR
- IT 262 Advanced Special Topics II 5 CR

Quarter 5

- IT 210 Network Security Fundamentals 10 CR
- IT 243 Windows Server Network Infrastructure 5 CR

Quarter 6

- CTE 108 Job Skills 1 CR

- IT 220 Network Communications Infrastructure 5 CR
- IT 270 Applied IT Career Skills 8 CR
- IT 272 Capstone Project 5 CR

Required Courses for Program

Note: 1st year students are required to complete an additional total of 15-credits/3 classes of General Education courses before taking 2nd year classes. These classes are typically taken during the summer between 3rd and 4th quarters.

15 CR

Total Program Credits: 128

Certificate

Computer Network Support Certificate

Program Requirements

Quarter 1

- IT 112 PC Hardware A+ 8 CR
- IT 141 Operating Systems A+ 8 CR

Quarter 2

- IT 102 IT Ethics and Careers 5 CR
- IT 121 Introduction to Programming 5 CR
- IT 106

Quarter 3

- IT 140 Introduction to Linux Operating Systems 5 CR
- IT 142 Client/Desktop Operating Systems II 10 CR
- General Education 5 CR

Required Courses for Program

Note: Computer Software Support certificate students are required to complete an additional total of 10 credits/2 classes of General Education courses as part of the certificate. These classes are typically taken during the summer.

10 CR

Total Program Credits: 64

Health Information Technology Certificate

Program Requirements

Quarter 1

- IT 112 PC Hardware A+ 8 CR
- IT 121 Introduction to Programming 5 CR
- AMATH 100 Applied Occupational Math 5 CR

Quarter 2

- IT 102 IT Ethics and Careers 5 CR
- IT 141 Operating Systems A+ 8 CR
- HT 180 Healthcare & Technology 5 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 3

- IT 160 Network Technologies 8 CR
- HT 190 Health Information Management Systems 5 CR
- HT 200 Health Technology Professional 5 CR

- AENGL 100 Applied English 5 CR

Total Program Credits: 64

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 e-mail 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

Computer Science, DTA/MRP

Program Requirements

Quarter 1

- ECON& 201 Micro Economics 5 CR
- ENGL& 101 English Composition I 5 CR
- IT 121 Introduction to Programming 5 CR

Total Credits: 5

Quarter 2

- CS& 131 Computer Science I C++ 5 CR
- ECON& 202 Macro Economics 5 CR
- ENGL& 235 Technical Writing 5 CR

Total Credits: 5

Quarter 3

- CS 132 Computer Science II C++ 5 CR
- MATH& 146 Introduction to Statistics 5 CR
- PSYC& 100 General Psychology 5 CR

Total Credits: 5

Quarter 4

- MATH& 151 Calculus I 5 CR
- PHYS& 221 Engineering Physics I w/Lab 5 CR
- SPAN& 121 Spanish I 5 CR

Total Credits: 5

Quarter 5

- CMST& 210 Interpersonal Communications 5 CR
- MATH& 152 Calculus II 5 CR
- PHYS& 222 Engineering Physics II w/Lab 5 CR

Total Credits: 5

Quarter 6

- HIST& 146 United States History I 5 CR
- MATH& 151 Calculus I 5 CR
- PHYS& 223 Engineering Physics III w/Lab 5 CR

Total Credits: 5

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

- Graduates will be able to demonstrate competency in word processing, spreadsheets, databases and presentation graphic.
- Graduates will be able to demonstrate effective software support to users.
- Graduates will be able to demonstrate competency in introductory programming concepts.
- Graduates will be able to demonstrate competency of the basic concepts used by webmasters.
- Graduates will be able to demonstrate competency in installing and configuring Operating Systems.
- Graduates will be able to demonstrate competency of the basic concepts used by networking professionals
- Graduates will be able to demonstrate competency of the basic components of a computer.

Program Entry Information

This program typically starts in Fall, Winter, Spring and Summer Quarters 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 a C grade in RDG 085 , and ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092 .
- ACCUPLACER score of 50 in Arithmetic or a grade of C or better in MATH 090

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
- CAP 106 Formatting with MSWord 4 CR
- CMST& 210 Interpersonal Communications 5 CR

Required Courses for Program

- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 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 145 Website Development 5 CR
- CIS 160 Computer User Support I 5 CR
- CIS 276 Computer Software Support Internship 6 CR
- IT 112 PC Hardware A+ 8 CR
- IT 121 Introduction to Programming 5 CR
- IT 141 Operating Systems A+ 8 CR
- IT 160 Network Technologies 8 CR

Total Required Course: Credits 89

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 I 5 CR
- ACCT 271 Internship 1 CR
- ACCT 272 Internship 2 CR
- ACCT 273 Internship 3 CR
- ACCT 274 Internship 4 CR
- ACCT 275 Internship 5 CR
- ACCT 276 Internship 6 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 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 271 Internship 1 CR
- BUS 272 Internship 2 CR
- BUS 273 Internship 3 CR
- BUS 274 Internship 4 CR
- BUS 275 Internship 5 CR
- BUS 276 Internship 6 CR
- BUS 280 Assessment 1 CR
- BUS 281 Assessment 1 CR
- BUS& 101 Introduction to Business 5 CR
- BUS& 201 Business Law 5 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- CAP 109 Computerized Keyboard Skill Building II 3 CR
- CAP 143 Adobe Acrobat & Electronic File Management 5 CR
- CAP 150 Project - Level 1 1 CR
- CAP 151 Project - Level 2 1 CR
- CAP 200 Integrated Computer Applications 5 CR
- IT 102 IT Ethics and Careers 5 CR
- IT 140 Introduction to Linux Operating Systems 5 CR
- IT 142 Client/Desktop Operating Systems II 10 CR
- IT 210 Network Security Fundamentals 10 CR
- IT 220 Network Communications Infrastructure 5 CR

- IT 230 Windows Powershell 5 CR
- IT 240 Linux Administration & Configuration 5 CR
- IT 242 Windows Server Administration 5 CR
- IT 243 Windows Server Network Infrastructure 5 CR
- IT 261 Advanced Special Topics I 5 CR
- IT 262 Advanced Special Topics II 5 CR
- IT 270 Applied IT Career Skills 8 CR
- IT 272 Capstone Project 5 CR
- LGL 127 Legal Office Procedures 5 CR
- LGL 132 Legal Terminology 5 CR
- LGL 211 Legal Document Processing 5 CR
- LGL 223 Internship 3 CR
- LGL 224 Internship 4 CR
- LGL 225 Internship 5 CR
- LGL 226 Internship 6 CR
- MGMT 154 Creating and Managing a Small Business 5 CR
- MGMT 210 Human Resource Management 5 CR
- PMP 100 Project Management Fundamentals 1 CR
- PMP 120 Project Management Prep 3 CR
- PMP 130 PMP Integration 1 CR

Total Elective Course Credits: 15

Total Program Credits: 104

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
- CAP 106 Formatting with MSWord 4 CR
- CMST& 210 Interpersonal Communications 5 CR

Required Courses for Program

- 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 145 Website Development 5 CR
- CIS 160 Computer User Support I 5 CR
- CIS 276 Computer Software Support Internship 6 CR
- ENGL& 101 English Composition I 5 CR
- IT 112 PC Hardware A+ 8 CR
- IT 121 Introduction to Programming 5 CR
- IT 141 Operating Systems A+ 8 CR
- IT 160 Network Technologies 8 CR
- MATH& 141 Precalculus I 5 CR
- SOC& 101 Introduction to Sociology 5 CR

Total Required Course Credits: 94

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 I 5 CR
- ACCT 271 Internship 1 CR
- ACCT 272 Internship 2 CR
- ACCT 273 Internship 3 CR
- ACCT 274 Internship 4 CR
- ACCT 275 Internship 5 CR
- ACCT 276 Internship 6 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 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 271 Internship 1 CR
- BUS 272 Internship 2 CR
- BUS 273 Internship 3 CR
- BUS 274 Internship 4 CR
- BUS 275 Internship 5 CR
- BUS 276 Internship 6 CR
- BUS 280 Assessment 1 CR
- BUS 281 Assessment 1 CR
- BUS& 101 Introduction to Business 5 CR
- BUS& 201 Business Law 5 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- CAP 109 Computerized Keyboard Skill Building II 3 CR
- CAP 143 Adobe Acrobat & Electronic File Management 5 CR
- CAP 150 Project - Level 1 1 CR
- CAP 151 Project - Level 2 1 CR
- CAP 200 Integrated Computer Applications 5 CR
- IT 102 IT Ethics and Careers 5 CR
- IT 121 Introduction to Programming 5 CR
- IT 140 Introduction to Linux Operating Systems 5 CR
- IT 142 Client/Desktop Operating Systems II 10 CR
- IT 210 Network Security Fundamentals 10 CR
- IT 220 Network Communications Infrastructure 5 CR
- IT 230 Windows Powershell 5 CR
- IT 240 Linux Administration & Configuration 5 CR
- IT 242 Windows Server Administration 5 CR
- IT 243 Windows Server Network Infrastructure 5 CR
- IT 261 Advanced Special Topics I 5 CR
- IT 262 Advanced Special Topics II 5 CR
- IT 270 Applied IT Career Skills 8 CR
- IT 272 Capstone Project 5 CR
- LGL 127 Legal Office Procedures 5 CR
- LGL 132 Legal Terminology 5 CR
- LGL 211 Legal Document Processing 5 CR

- LGL 223 Internship 3 CR
- LGL 224 Internship 4 CR
- LGL 225 Internship 5 CR
- LGL 226 Internship 6 CR
- MGMT 154 Creating and Managing a Small Business 5 CR
- MGMT 210 Human Resource Management 5 CR
- PMP 100 Project Management Fundamentals 1 CR
- PMP 120 Project Management Prep 3 CR
- PMP 130 PMP Integration 1 CR

Total Elective Course Credits: 15

Total Program Credits: 109

Certificate

Computer Applications 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
- CMST& 210 Interpersonal Communications 5 CR

Required Courses for Program

- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 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 PC Hardware A+ 8 CR
or
- IT 141 Operating Systems A+ 8 CR
or
- IT 160 Network Technologies 8 CR

Total Required Course Credits: 57

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 I 5 CR
- ACCT 271 Internship 1 CR
- ACCT 272 Internship 2 CR
- ACCT 273 Internship 3 CR
- ACCT 274 Internship 4 CR
- ACCT 275 Internship 5 CR
- ACCT 276 Internship 6 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 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 271 Internship 1 CR
- BUS 272 Internship 2 CR
- BUS 273 Internship 3 CR
- BUS 274 Internship 4 CR
- BUS 275 Internship 5 CR
- BUS 276 Internship 6 CR
- BUS 280 Assessment 1 CR
- BUS 281 Assessment 1 CR
- BUS& 101 Introduction to Business 5 CR
- BUS& 201 Business Law 5 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- CAP 109 Computerized Keyboard Skill Building II 3 CR
- CAP 143 Adobe Acrobat & Electronic File Management 5 CR
- CAP 150 Project - Level 1 1 CR
- CAP 151 Project - Level 2 1 CR
- CAP 200 Integrated Computer Applications 5 CR
- CIS 145 Website Development 5 CR
- CIS 276 Computer Software Support Internship 6 CR
- IT 102 IT Ethics and Careers 5 CR
- IT 112 PC Hardware A+ 8 CR
IT 112 can only be an elective depending on which of the 3 IT classes is taken to satisfy the requirement.
- IT 121 Introduction to Programming 5 CR
- IT 140 Introduction to Linux Operating Systems 5 CR
- IT 141 Operating Systems A+ 8 CR
IT 141 can only be an elective depending on which of the 3 IT classes is taken to satisfy the requirement.
- IT 142 Client/Desktop Operating Systems II 10 CR
- IT 160 Network Technologies 8 CR
IT 160 can only be an elective depending on which of the 3 IT classes is taken to satisfy the requirement.
- IT 210 Network Security Fundamentals 10 CR
- IT 220 Network Communications Infrastructure 5 CR
- IT 230 Windows Powershell 5 CR
- IT 240 Linux Administration & Configuration 5 CR
- IT 242 Windows Server Administration 5 CR
- IT 243 Windows Server Network Infrastructure 5 CR
- IT 261 Advanced Special Topics I 5 CR
- IT 262 Advanced Special Topics II 5 CR
- IT 270 Applied IT Career Skills 8 CR
- IT 272 Capstone Project 5 CR
- LGL 127 Legal Office Procedures 5 CR
- LGL 132 Legal Terminology 5 CR
- LGL 211 Legal Document Processing 5 CR
- LGL 223 Internship 3 CR
- LGL 224 Internship 4 CR
- LGL 225 Internship 5 CR
- LGL 226 Internship 6 CR
- MGMT 154 Creating and Managing a Small Business 5 CR
- MGMT 210 Human Resource Management 5 CR

- PMP 100 Project Management Fundamentals 1 CR
- PMP 120 Project Management Prep 3 CR
- PMP 130 PMP Integration 1 CR

Total Elective Course Credits: 5

Total Program Credits: 62

Culinary 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

- Graduates will be able to safely store perishable and non-perishable foods from delivery through preparation and service.
- Graduates 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.
- Graduates will be able to apply fundamentals and advanced skills in cookery, fabrication, product specifications, and food and beverage service.
- Graduates will be able to plan, prepare, and cook food products consistently in a visually appealing manner while maintaining taste, nutritive value, flavor, and texture in classical and contemporary cooking methods.
- Graduates will be able to correctly prepare a variety of classical breads, pastry items, and desserts with the ability to correctly evaluate finished products for proper texture, color, palatability, shape, and doneness.
- Graduates will be able to plan, develop and analyze the dining room layout, facility design, menu design, cost analysis, marketing plan, and projected profit and loss statements.
- Graduates will be able to plan, organize and execute a la carts, buffet, plated banquets.

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 50 or a C grade in MATH 090 or ABE 050 .
- 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 .

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 7 CR
- CUL 116 Meat Identification and Fabrication 4 CR
- CUL 118 Commercial Kitchen Equipment 2 CR

Quarter 2

- AMATH 100 Applied Occupational Math 5 CR
- CUL 120 International Cuisine 6 CR
- CUL 122 Culinary Skill Development II 7 CR
- CUL 124 Buffet and Catering Management 3 CR

Quarter 3

- AENGL 100 Applied English 5 CR
- CUL 142 Nutrition 3 CR
- CUL 144 American Regional a' la carte Cookery 6 CR
- PST 202 Pastry Basic I 3 CR
- PST 204 Introduction to Artisan Breads & Laminated Dough 4 CR

Quarter 4

- CUL 150 Internship 9 CR
or
- CUL 152 Culinary Competition Fundamentals 11 CR

Quarter 5

- CMST& 210 Interpersonal Communications 5 CR
- CUL 222 Hospitality Supervision 4 CR
- PST 206 Pastry Basics II 3 CR
- PST 208 Intro to Cakes, Desserts, Chocolate & Sugar Decorations 5 CR

Quarter 6

- CUL 140 Garde Manger 6 CR
- CUL 220 Restaurant Management 7 CR
- CUL 224 Food and Beverage Service 2 CR

Quarter 7

- CUL 230 Northwest a' la carte Cookery 9 CR
- CUL 232 Food and Beverage Service Lab 4 CR
- CUL 234 Capstone Project & Practical Exam 2 CR
- CUL 236 Wine Appreciation 2 CR

Total Program Credits: 118-120

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 7 CR
- CUL 116 Meat Identification and Fabrication 4 CR
- CUL 118 Commercial Kitchen Equipment 2 CR

Quarter 2

- CUL 120 International Cuisine 6 CR
- CUL 122 Culinary Skill Development II 7 CR
- CUL 124 Buffet and Catering Management 3 CR
- MATH& 141 Precalculus I 5 CR

Quarter 3

- CUL 142 Nutrition 3 CR

- CUL 144 American Regional a' la carte Cookery 6 CR
- ENGL& 101 English Composition I 5 CR
- PST 202 Pastry Basic I 3 CR
- PST 204 Introduction to Artisan Breads & Laminated Dough 4 CR

Quarter 4

- CUL 150 Internship 9 CR
or
- CUL 152 Culinary Competition Fundamentals 11 CR

Quarter 5

- CMST& 210 Interpersonal Communications 5 CR
- CUL 222 Hospitality Supervision 4 CR
- PST 206 Pastry Basics II 3 CR
- PST 208 Intro to Cakes, Desserts, Chocolate & Sugar Decorations 5 CR

Quarter 6

- CUL 140 Garde Manger 6 CR
- CUL 220 Restaurant Management 7 CR
- CUL 224 Food and Beverage Service 2 CR
- SOC& 101 Introduction to Sociology 5 CR

Quarter 7

- CUL 230 Northwest a' la carte Cookery 9 CR
- CUL 232 Food and Beverage Service Lab 4 CR
- CUL 234 Capstone Project & Practical Exam 2 CR
- CUL 236 Wine Appreciation 2 CR

Total Program Credits: 123-125

Certificate

Culinary Arts Certificate

Program Requirements

Quarter 1

- CMST& 210 Interpersonal Communications 5 CR
- CUL 110 Sanitation & Safety 3 CR
- CUL 112 Introduction to Hospitality 2 CR
- CUL 114 Culinary Skill Development I 7 CR
- CUL 116 Meat Identification and Fabrication 4 CR
- CUL 118 Commercial Kitchen Equipment 2 CR

Quarter 2

- AMATH 100 Applied Occupational Math 5 CR
- CUL 120 International Cuisine 6 CR
- CUL 122 Culinary Skill Development II 7 CR
- CUL 124 Buffet and Catering Management 3 CR

Quarter 3

- AENGL 100 Applied English 5 CR
- CUL 142 Nutrition 3 CR
- CUL 144 American Regional a' la carte Cookery 6 CR
- PST 202 Pastry Basic I 3 CR
- PST 204 Introduction to Artisan Breads & Laminated Dough 4 CR

Total Program Credits: 65

Pastry Arts Certificate

Program Requirements

Quarter 1

- CUL 101 Basic Cuisine Foundation 6 CR
- CUL 110 Sanitation & Safety 3 CR
- PST 101 Pastry & Baking Orientation 3 CR
- PST 200 Introduction to Commercial Baking 6 CR
- AENGL 100 Applied English 5 CR

Quarter 2

- CUL 142 Nutrition 3 CR
- PST 202 Pastry Basic I 3 CR
- PST 204 Introduction to Artisan Breads & Laminated Dough 4 CR
- PST 220 Advanced Artisan & Decorative Breads 3 CR
- AMATH 100 Applied Occupational Math 5 CR

Quarter 3

- PST 206 Pastry Basics II 3 CR
- PST 208 Intro to Cakes, Desserts, Chocolate & Sugar Decorations 5 CR
- PST 222 Chocolate/Sugar Confections & Intro to Basic Showpieces 3 CR
- PST 224 Specialty Cakes I 5 CR
- CMST& 210 Interpersonal Communications 5 CR

Total Program Credits: 62

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

The program typically starts in Fall, Winter, Spring, Summer Quarters.

Testing Requirements

These requirements are for the Certificate.

- 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 .
- ACCUPLACER score of 50 in Arithmetic or a grade of C or better in MATH 090

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 a grade of "C" or better in MATH 090.

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 I 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 a C grade in RDG 085 , and ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092 .
- ACCUPLACER Arithmetic score of 50 or a C grade in MATH 090 or ABE 050

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 Communications
 - DEN 100 Introduction to Dental Assisting
 - The Test of Essential Academic Skills (TEAS V). (Given in the DEN 100 course).
- Test Of Essential Academic Skills (TEAS V)
- 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 and 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 Communications 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
- HO 127 Healthcare Provider CPR 0.5 CR
or
- HLTH 154 HealthCare Provider First Aid and CPR .5 CR
- PSYC& 100 General Psychology 5 CR

Total Program Credits: 90.5

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 Communications 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

- HO 127 Healthcare Provider CPR 0.5 CR
or
- HLTH 154 HealthCare Provider First Aid and CPR .5 CR

- PSYC& 100 General Psychology 5 CR

Total Program Credits: 90.5

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 Communications 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
- HO 127 Healthcare Provider CPR 0.5 CR
or
- HLTH 154 HealthCare Provider First Aid and CPR .5 CR

Total Program Credits: 85.5

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 EFDA'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 current dental hygiene techniques, the use and application of dental materials, and safety and health standards.
- Demonstrate cognitive retention of dental terminology, theory, and science.
- Demonstrate positive work ethics, team skills, and professionalism.
- Demonstrate a foundation in professionalism through participation in professional activities and education opportunities.
- Incorporate into dental hygiene practice professional laws, regulations, and policies established by the licensing state and regulatory agencies.
- Counsel clients/patients to reduce health risks and provide community oral health services in a variety of settings.
- Review medical and dental histories, take and record vital signs, intra and extra oral exams, hard and soft tissue exams.
- Analyze all assessment data to formulate a comprehensive dental hygiene care plan in collaboration with the patient and other health professionals.
- Provide preventive and therapeutic services that promote oral health according to the needs of the patient/client.
- Following initial therapy, the hygienist will review all data and determine need for additional therapy, referrals or recare intervals.

Program Entry Information

This program will admit students again in the 2015-2016 year. This program has a selective admissions process. The deadline to submit a complete application packet is **April 4, 2016 by 5:00 pm**. See the Dental Hygiene Application Packet link below for more information.

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 Communications 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 113 Dental Materials 4 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

Quarter 2

- DHYG 122 Dental Hygiene Clinical Practice II 5 CR
- DHYG 124 Principles of Dental Hygiene II 3 CR
- DHYG 125 Medical Emergencies 3 CR
- DHYG 126 Oral Radiology II 3 CR
- DHYG 128 General Pathology 4 CR
- HLTH 154 HealthCare Provider First Aid and CPR .5 CR

Quarter 3

- DHYG 131 Restorative Dentistry I 4 CR
- DHYG 132 Dental Hygiene Clinical Practice III 6 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 2 CR
- DHYG 142 Hygiene Clinical Practice IV 6 CR
- DHYG 144 Principles of Dental Hygiene IV 3 CR
- DHYG 149 Pain Management 4 CR

Quarter 5

- DHYG 211 Restorative Dentistry III 1 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: 127

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'd 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

- Graduates will be able to use appropriate clothing and protective gear and practice ergonomically correct strategies/technologies to safeguard against injuries in the workplace.
- Graduates will be able to attain an in-depth knowledge of the medium/heavy truck repair industry leading to ASE or other industry certification.
- Graduates will be able to research and utilize vehicle repair information including, but not limited to internet searches, manufacturer specific, common generic service and repair manuals (to include the most widely used print styles and software formats); in the classroom, in the workplace, in libraries and other methods as required, to perform vehicle repairs in a professional and timely manner utilizing information resources available.

Program Entry Information

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

Program Start

- In addition to [submitting an application](#), Diesel Technology students must complete the admissions completion form and provide the following:
 - Copy of your valid Driver's License (with no restrictions due to driving offenses);
 - Current complete 3-year driving record from Washington State DOL (this must be obtained within the week **prior** to submitting the admissions completion form). This copy of your driving record will be kept on file for advising purposes only;
 - Signed statement indicating that you understand program admissions requirements and industry hiring standards;
 - 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.
- Please Note:
 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.
- 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 50 or a C grade in MATHMATH 090 or ABE 050
- 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 .

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 Applied Diesel Concepts I 15 CR
or
- Elective 15 CR *
- CMST& 210 Interpersonal Communications 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 Applied Diesel Concepts II 15 CR
or
- Elective 15 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 Applied Diesel Concepts III 15 CR
or
- Elective 15 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

Electives

- ADTEC 126 Basic Electricity 5 CR
- ADTEC 200 Anaerobic Digestion Essentials 4 CR
- ADTEC 237 Cooling Towers/Water Treatment 1 CR
- ADTEC 245 Commercial/Industrial Boilers 2 CR
- CHEM& 161 General Chemistry w/ Lab I 5 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- MATH& 141 Precalculus I 5 CR
- PHYS& 221 Engineering Physics I w/Lab 5 CR

Any course from the following programs

- Auto Collision Repair
- Automotive Technology
- Business
- Electrician
- Electro Mechanical Technology

- Electronics Engineering Technician
- Heating, Ventilation, Air Conditioning & Refrigeration
- Instrumentation & Control Technology
- Precision Machining
- Process Technology
- Welding Technology

Other college level courses may be used with prior instructor approval.

Total Program Credits: 138

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& 141 Precalculus I 5 CR

Quarter 2

- DET 129 Applied Diesel Concepts I 15 CR
or
- Elective 15 CR
- CMST& 210 Interpersonal Communications 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 Applied Diesel Concepts II 15 CR
or
- Elective 15 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 Applied Diesel Concepts III 15 CR
or
- Elective 15 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

Electives

- ADTEC 126 Basic Electricity 5 CR

- ADTEC 200 Anaerobic Digestion Essentials 4 CR
- ADTEC 237 Cooling Towers/Water Treatment 1 CR
- ADTEC 245 Commercial/Industrial Boilers 2 CR
- CHEM& 161 General Chemistry w/ Lab I 5 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- PHYS& 221 Engineering Physics I w/Lab 5 CR

Any course from the following programs

- Auto Collision Repair
- Automotive Technology
- Business
- Electrician
- Electro Mechanical Technology
- Electronics Engineering Technician
- Heating, Ventilation, Air Conditioning & Refrigeration
- Instrumentation & Control Technology
- Precision Machining Technology
- Process Technology
- Welding Technology

Other college level courses may be used with prior instructor approval

Total Program Credits: 143

See instructor regarding alternative options for DET 129, DET 139 and DET 239.

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.

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 135 Adult/Child: One Year Old Development - Level A 2 CR
- ECED 136 Adult/Child: One Year Old Development - Level B 2 CR
- ECED 137 Adult/Child: One Year Old Development - Level C 2 CR
- ECED 140 Adult/Child: Two Year Old Development - Level A 2 CR
- ECED 141 Adult/Child: Two Year Old Development - Level B 2 CR
- ECED 142 Adult/Child: Two Year Old Development - Level C 2 CR
- ECED 155 Adult/Child: Toddler & Preschooler Development - Level A 2 CR
- ECED 156 Adult/Child: Toddler & Preschooler Development - Level B 2 CR
- ECED 157 Adult/Child: Toddler & Preschooler Development - Level C 2 CR

* 2-5 credits of the following can be used towards the certificate:

- ECED 160 Positive Discipline 1 CR

- ECED 161 Early Childhood STEP for Parents & Teachers 1 CR
- ECED 163 School Age STEP Effective Parenting of School Age Child 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. Occupational choices are extensive in the field; many graduates work in the construction industry, while others work as maintenance electricians. Electricians are in high demand by local manufacturers, too.

In BTC's Electrician program, you'll learn how to install, maintain, and repair electrical systems, as well as how to read blueprints, install conduit, program PLCs, and test circuits. You can put your valuable skills to work with electrical equipment distributors, industrial manufacturing plants, communications companies, and electrical utility companies.

Typical career choices for graduates include apprentice electrician, journeyman electrician, electrical equipment technician, or telephone technician.

Program Outcomes

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

Program Entry Information

Program Start

- This program scheduled to accept new students in the following quarters; Winter 2016, Winter 2017, and Fall 2017.

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 a C grade in MATH 090 or ABE 050 .
- 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 .

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 1472 supervised work experience hours per RCW 19.28.191 and WAC 296-46b-940. In order to receive the approved experience hours students must have an electrical trainee card from L&I prior to enrolling in the program.

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 Communications 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 Communications 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 Communications 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. Fall 2016 applications are due July 29, 2016. Acceptance is conditional on successfully passing a criminal background check. Acceptance notifications will be issued after August 8, 2016. Candidates from sponsored agencies are given priority consideration for program admission.

Please note: Students accepted to the Fall 2016 program must attend a program orientation. Details TBA in your acceptance notification.

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.
- Fall 2016 - Detailed EMT Student Schedule Entry Requirements 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 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

Engineering Technology: Civil Specialization

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

- This program typically starts in Fall, Winter, Spring and Summer Quarters on a space available basis.

Testing Requirements

- Students are required to take the Reading, Sentence 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

Engineering Technology: Civil Specialization, AAS

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& 220 Public Speaking 5 CR
(Can substitute ENGL 235 or CMST 210 for CMST 220)
- 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

- ENGR 180 Parametric Modeling 5 CR
- ENGT 223 Structural Detailing 5 CR
- ENGT 224 Process Piping Design 5 CR
- ENGT 233 Intro To CATIA 5 CR
- CET 103 Fundamentals Of Surveying II 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
- CHEM& 161 General Chemistry w/ Lab I 5 CR
- MATH& 151 Calculus I 5 CR
- PHYS& 221 Engineering Physics I w/Lab 5 CR

Total Engineering Electives Course Credits: 10

Total Program Credits: 108

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
(Can substitute ENGR 214 for ENGT 215)
- ENGT 216 Applied Mechanics Of Materials 5 CR
(Can substitute ENGR 225 for ENGT 216)

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

- ENGR 180 Parametric Modeling 5 CR
- ENGT 233 Intro To CATIA 5 CR
- MATH& 151 Calculus I 5 CR
- MATH& 152 Calculus II 5 CR
- PHYS& 221 Engineering Physics I w/Lab 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 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

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

Entry level wages range from \$19 to \$36 per hour with annual median wages averaging between \$39,431 and \$58,486 per year (Source: WA Employment Security Department, 2016).

* 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 Entry Information

This program typically starts in Fall, Winter, Spring and Summer Quarters on a space available basis.

Testing Requirements

Admissions application and assessment testing in Reading, Math and Sentence Skills is 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.ctc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence 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& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- MATH& 151 Calculus I 5 CR
- CHEM& 161 General Chemistry w/ Lab I 5 CR
- ENGL& 101 English Composition I 5 CR
- ECON& 201 Micro Economics 5 CR
- PHYS& 114 General Physics I w/lab 5
(Can substitute PHYS& 221 for PHYS& 114)

Total Academic Core Course Credits: 35

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 264 Emerging Technology 5 CR

Total Clean Energy Core Course Credits: 43

Engineering Electives

- ENV&S 101 Fundamentals of Environmental Science 5 CR
- PHYS& 115 General Physics II w/Lab 5 CR
- 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
- 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
- PTEC 195 Biodiesel Fundamentals 3 CR
- PTEC 196 Green Energy 3 CR

Total Engineering Electives Course Credits: 15

Total Program Credits: 105

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

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, spread sheets, and presentations.

Program Entry Information

Student may begin working toward this degree quarterly.

Testing Requirements:

Admissions application and assessment testing in Reading, Math and Sentence Skills is 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.ctc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence 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.

Entry Requirements

Admissions application and assessment testing in Reading, Math and Sentence Skills is 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.ctc.edu for assistance with academic planning.

Associate of Applied Science

Engineering Technology: Composites Specialization, AAS

Program Requirements

Academic Core

- AMATH 111 Applied Technical Math 5 CR
(Can substitute MATH 141 and MATH 142 for AMATH 111)
- CHEM& 161 General Chemistry w/ Lab I 5 CR
- ENGL& 101 English Composition I 5 CR
- CMST& 220 Public Speaking 5 CR
(can substitute CMST 210 for CMST 220)

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 I 5 CR
- COMP 122 Composites II 5 CR
- COMP 127 Tool Design 5 CR
- COMP 135 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

- ENGT 215 Applied Statics 5 CR
- ENGT 216 Applied Mechanics Of Materials 5 CR
- ENGT 222 Advanced Parametric Modeling 5 CR
- ENGT 291 Interdisciplinary Design Project I 2 CR
- ENGT 292 Interdisciplinary Design Project II 2 CR
- ENGT 293 Interdisciplinary Design Project III 2 CR
- ENGR& 214 Engineering Statics 5 CR
- ENGR& 225 Mechanics of Materials 5 CR
- ENGR 270 Introduction To Materials Science 5 CR
- 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 10-15 credits: 20

Total Program Credits: 94

Associate of Applied Science - Transfer

Engineering Technology: Composites Specialization, AAS-T

Program Requirements

Academic Core

- MATH& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- 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: 40

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
(Can substitute ENGT 233 for ENGR 180)
- 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 I 5 CR
- COMP 122 Composites II 5 CR
- COMP 127 Tool Design 5 CR
- COMP 135 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

- MATH& 152 Calculus II 5 CR
- ENGR& 225 Mechanics of Materials 5 CR
- CS& 131 Computer Science I C++ 5 CR
- ENGT 222 Advanced Parametric Modeling 5 CR
- ENGT 233 Intro To CATIA 5 CR
- ENGT 291 Interdisciplinary Design Project I 2 CR
- ENGT 292 Interdisciplinary Design Project II 2 CR
- ENGT 293 Interdisciplinary Design Project III 2 CR

Total Engineering Electives Course Credits 5-10 credits: 10

Total Program Credits: 109

Certificate

Engineering Technology: Composites Specialization Certificate

Program Requirements

- COMP 101 Survey of Composites 2 CR
- COMP 121 Composites I 5 CR
- COMP 127 Tool Design 5 CR
- COMP 122 Composites II 5 CR
- COMP 135 Inspect, Test & Repair 5 CR

Total Program Credits: 22

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 Entry Information

Program Start

- This program typically accepts students once a year in Fall quarter.

Testing Requirements

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

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& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- ENGL& 101 English Composition I 5 CR
- CS& 131 Computer Science I C++ 5 CR
- CMST& 101 Introduction to Communications 5 CR
(Can substitute CMST 220 for CMST 210)
- 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
(Can substitute ENGT 134 for ENGR 115)

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 290 Capstone Project I 2 CR
- ENET 291 Capstone Project II 2 CR
- ENET 292 Capstone Project III 2 CR

Total Electronics Core Course Credits: 71

Total Program Credits: 109

Associate of Applied Science - Transfer

Engineering Technology: Electronics Specialization, AAS-T

Program Requirements

Academic Core

- MATH& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- MATH& 151 Calculus I 5 CR
- 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: 40

Engineering Core

- ENGR 100 Engineering Orientation 2 CR
- ENGR& 104 Introduction to Engineering & Design 5 CR
- ENGR 115 Graphics 5 CR
- ENGR& 204 Electrical Circuits 5 CR

Total Engineering Core Course Credits: 17

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

Total Electronics Core Course Credits: 36

Engineering Electives

- CHEM& 161 General Chemistry w/ Lab I 5 CR
- ENGL& 235 Technical Writing 5 CR
- MATH& 163 Calculus 3 5 CR
- MATH 204 Introduction to Linear Algebra 5 CR
- PHYS& 223 Engineering Physics III w/Lab 5 CR
- ENGR 180 Parametric Modeling 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 281 Robotics 5 CR
- ENET 282 Certified Electronics Technician Test Prep 3 CR
- ENGR& 202 Digital Circuits 5 CR

Total Engineering Electives Course Credits: 10

Total Program Credits: 132-33

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 (Formerly Survey Technology)

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 Geomatic 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 Entry Information

Program Start

- This specialization typically starts in Fall, Winter, Spring and Summer Quarters on a space available basis.

Testing Requirements

- Students are required to take the Reading, Sentence and Arithmetic portions of the ACCUPLACER Placement Test prior to enrolling for classes.

Degree and Certificate Requirements

Engineering Technology: Geomatic 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.

Associate of Applied Science

Engineering Technology: Geomatics Specialization, AAS

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& 220 Public Speaking 5 CR
(Can substitute CMST 210 for CMST 220)
- 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

Total Engineering Core Course Credits: 22

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

Total Program Credits: 103

Engineering Technology: Mechanical Design Specialization

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, spread sheets, and presentations.

Program Entry Information

This program typically starts in Fall, Winter, Spring and Summer Quarters on a space available basis.

Testing Requirements

Admissions application and assessment testing in Reading, Math and Sentence Skills is 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.ctc.edu for assistance with academic planning.

- Students are required to take the Reading, Sentence 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.

Associate of Applied Science

Engineering Technology: Mechanical Design Specialization, AAS

Program Requirements

Academic Core

- MATH& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- AENGL 100 Applied English 5 CR
(Can substitute ENGL 101 for AENGL 100)
- CMST& 210 Interpersonal Communications 5 CR
(Can substitute CMST 220 for CMST 210)
- 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

- ENGT 223 Structural Detailing 5 CR
- ENGT 224 Process Piping Design 5 CR
- ENGT 233 Intro To CATIA 5 CR
- ENGT 291 Interdisciplinary Design Project I 2 CR
- ENGT 292 Interdisciplinary Design Project II 2 CR
- ENGT 293 Interdisciplinary Design Project III 2 CR
- ENGR 270 Introduction To Materials Science 5 CR
- MATH& 151 Calculus I 5 CR
- PHYS& 221 Engineering Physics I w/Lab 5 CR
- CS& 131 Computer Science I C++ 5 CR
- COMP 101 Survey of Composites 2 CR
- COMP 121 Composites I 5 CR
- COMP 122 Composites II 5 CR

Total Engineering Electives Course Credits: 15

Total Program Credits: 103

Associate of Applied Science - Transfer

Engineering Technology: Mechanical Design Specialization, AAS-T

Program Requirements

Academic Core

- MATH& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- 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

Total Academic Core Course Credits: 35

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& 225 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

- ENGR 270 Introduction To Materials Science 5 CR
- CHEM& 162 General Chemistry w/Lab II 5 CR
- MATH& 152 Calculus II 5 CR
- MATH& 163 Calculus 3 5 CR
- CS& 131 Computer Science I C++ 5 CR
- PHYS& 222 Engineering Physics II w/Lab 5 CR
- PHYS& 223 Engineering Physics III w/Lab 5 CR
- ENGT 208 CAD Project 3D 5 CR
- ENGT 223 Structural Detailing 5 CR
- ENGT 224 Process Piping Design 5 CR
- ENGT 291 Interdisciplinary Design Project I 2 CR
- ENGT 292 Interdisciplinary Design Project II 2 CR
- ENGT 293 Interdisciplinary Design Project III 2 CR

Total Engineering Electives Course Credits: 10

Total Program Credits: 112

Certificate

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 Communications 5 CR
- ENGT 135 AutoCAD II 5 CR

Total Program Credits: 55

Pre-Engineering: Computer or Electrical Engineering

Overview

Pre-Engineering: Electrical or Computer

This direct transfer degree is designed for students planning to major in Electrical Engineering at a Washington State college or university. Upon completion students may transfer as a junior into engineering programs in Computer Science or Electrical Engineering.

Program Outcomes

Upon completion of BTC's Associate in Science AS-T/MRP: Computer and Electrical pre-Engineering degree, students may be eligible to transfer to University of Washington Seattle, Washington State University, Eastern Washington University, Gonzaga University, Saint Martin's University, Seattle Pacific University, Seattle University, and Walla Walla University to complete one of their bachelor of science degrees.

Please note: Admission into many schools is competitive and higher grade point averages and course grades are often required. Completion of this AS-T/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.

Degree and Certificate Requirements

Pre-Engineering: Computer & Electrical AS-T/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

Program Entry Information

For questions, please contact Admissions at 360-752-8345 or e-mail us at Admissions@btc.edu

Associate of Science - Transfer/Major Related Program

Pre-Engineering: Computer or Electrical, AS-T/MRP

Program Requirements

Communications

- ENGL& 101 English Composition I 5 CR

Total Communications Credits: 5

Mathematics

- MATH& 151 Calculus I 5 CR
- MATH& 152 Calculus II 5 CR
- MATH& 163 Calculus 3 5 CR
- MATH 238 Intro to Differential Equations 5 CR
- MATH 204 Introduction to Linear Algebra 5 CR

Total Mathematics Credits: 25

Chemistry

- CHEM& 161 General Chemistry w/ Lab I 5 CR
- CHEM& 162 General Chemistry w/Lab II 5 CR

Total Chemistry Credits: 10

Physics

- 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

Total Physics Credits: 15

Engineering

- CS& 131 Computer Science I C++ 5 CR
- ENGR& 204 Electrical Circuits 5 CR

Total Engineering Credits: 10

Engineering Electives

- ENGR& 104 Introduction to Engineering & Design 5 CR
- ENGR& 214 Engineering Statics 5 CR
- ENGR& 215 Dynamics 5 CR
- ENGL& 235 Technical Writing 5 CR

Total Engineering Electives Credits: 20

Humanities/Fine Arts/English and Social Sciences

Pick 15 credits:

At least one Humanities class and one Social Science class.

- CMST& 220 Public Speaking 5 CR
- SPAN& 121 Spanish I 5 CR
- HIST& 148 United States History III 5 CR
- PSYC& 100 General Psychology 5 CR
- SOC& 101 Introduction to Sociology 5 CR
- ECON& 201 Micro Economics 5 CR (recommended)

Total Humanities/Fine Arts/English and Social Sciences Credits: 15

Total Program Credits: 95

Pre-Engineering: Electronics and Computer Technology

Overview

Engineering Technology: Electronics and Computer

This direct transfer degree is designed for students planning to major in engineering technology at a Washington State college or university. Upon completion students may transfer as a junior into engineering technology programs in electronics or computer engineering technology.

In this program, you'll study academic coursework in English, chemistry, physics, technology, and mathematics. You'll also develop skills that will prepare you to interface with engineering and development teams and succeed in the workplace.

Program Outcomes

- **Bellingham Technical College - Associate in Science- Transfer Degree (AS-T/MRP) Electronics or Computer Engineering Technology**

Upon completion of BTC's Associate in Science AS-T/MRP: Electronics or Computer Engineering Technology degree, students are eligible to transfer to Eastern Washington University (EWU), Central Washington University (CWU), or Western Washington University (WWU) to complete one of the bachelors of Science degrees.

At CWU, students can work towards completion of an Electronics Engineering Technology degree; at WWU, students can work towards completion of an Electronics Engineering Technology degree; at EWU, students can work towards completion of a Computer Engineering Technology bachelor's degree.

Please note: Admission into many schools is competitive and higher grade point averages and course grades are often required. Completion of the general Electronics or Computer Engineering Technology AS-T/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.

Degree and Certificate Requirements

Engineering Technology: Electronics and Computer AS-T/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

Program Entry Information

For questions, please contact Admissions at 360-752-8345 or e-mail us at admissions@btc.edu

Associate of Science - Transfer/Major Related Program

Engineering Technology: Electronics and Computer, AS-T/MRP

Program Requirements

Communication Skills

- ENGL& 101 English Composition I 5 CR

Total Credits: 5

Mathematics

- MATH& 151 Calculus I 5 CR
- MATH& 152 Calculus II 5 CR
- MATH& 163 Calculus 3 5 CR

Total Credits: 15

Computer Programming

- CS& 131 Computer Science I C++ 5 CR

Total Credits: 5

Physics & Chemistry

- CHEM& 161 General Chemistry w/ Lab I 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

Total Credits: 20

Engineering Technology Pre-Major Prerequisites

- ENGL& 235 Technical Writing 5 CR
- CMST& 220 Public Speaking 5 CR
- ENGR& 204 Electrical Circuits 5 CR
- ENET 150 Digital 5 CR
- A second course in computer programming 5 CR

Total Credits: 25

Electives

Pick one class:

- MATH& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR
- CMST& 220 Public Speaking 5 CR
- ECON& 201 Micro Economics 5 CR

Total Credits: 5

Humanities/Fine Arts/English and Social Sciences

Pick 15 credits:

At least one Humanities class and one Social Science class.

- SPAN& 121 Spanish I 5 CR
- HIST& 148 United States History III 5 CR
- PSYC& 100 General Psychology 5 CR
- SOC& 101 Introduction to Sociology 5 CR
- CMST& 220 Public Speaking 5 CR (if not taken as elective)
- ECON& 201 Micro Economics 5 CR (if not taken as elective)

Total Credits: 15

Total Required Course Credits: 90

Pre-Engineering: Manufacturing Engineering Technology

Overview

Engineering Technology: Mechanical, Manufacturing & Plastics

This direct transfer degree is designed for students planning to major in engineering technology at a Washington State college or university. Upon completion, students may transfer as a junior into engineering technology programs in mechanical, manufacturing, or plastics engineering technology.

In BTC's program, you'll study academic coursework in English, chemistry, physics, technology, and mathematics. You'll also develop the communication skills you'll need to succeed on engineering and development teams in a variety of industries.

Program Outcomes

Bellingham Technical College - Associate in Science-Transfer Degree (AS-T/MRP): Mechanical, Manufacturing or Plastics Engineering Technology

Upon completion of BTC's Associate in Science AS-T/MRP: Mechanical, Manufacturing or Plastics Engineering Technology degree, students are eligible to transfer to Central Washington University (CWU), or Western Washington University (WWU) to complete one of their bachelors of science degrees.

At CWU students can work towards completion of a Mechanical Engineering Technology degree or the related Manufacturing Engineering Technology degree.

Please note: Admission into many schools is competitive and higher grade point averages and course grades are often required. Completion of the general Mechanical, Manufacturing or Plastics Engineering Technology AS-T/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.

Degree and Certificate Requirements

Engineering Technology: Manufacturing AS-T/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

Program Entry Information

For questions, please contact Admissions at 360-752-8345 or e-mail us at Admissions

Pre-Engineering: Other

Overview

Pre-Engineering: Other Engineering

This direct transfer degree is designed for students planning to major in any of various Engineering programs at a Washington State college or university. Upon completion students may be able to transfer as a junior into Engineering programs in Mechanical, Civil, Aeronautical, or Industrial Engineering or Materials Science.

Program Outcomes

Upon completion of BTC's Associate in Science AS-T/MRP: Other pre-Engineering degree, students may be eligible to transfer to University of Washington Seattle, Washington State University, Eastern Washington University, Gonzaga University, Saint Martin's University, Seattle Pacific University, Seattle University, and Walla Walla University to complete one of their bachelor of science degrees.

Please note: Admission into many schools is competitive and higher grade point averages and course grades are often required. Completion of this AS-T/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.

Degree and Certificate Requirements

Pre-Engineering: Other AS-T/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

Program Entry Information

For questions, please contact Admissions at 360-752-8345 or e-mail us at admissions@btc.edu

Associate of Science - Transfer/Major Related Program

Pre-Engineering: Other, AS-T/MRP

Program Requirements

Communication Studies

- ENGL& 101 English Composition I 5 CR

Total Communication Credits: 5

Mathematics

- MATH& 151 Calculus I 5 CR
- MATH& 152 Calculus II 5 CR
- MATH& 163 Calculus 3 5 CR
- MATH 238 Intro to Differential Equations 5 CR
- MATH 204 Introduction to Linear Algebra 5 CR

Total Mathematics Credits: 25

Chemistry

- CHEM& 161 General Chemistry w/ Lab I 5 CR
- CHEM& 162 General Chemistry w/Lab II 5 CR

Total Chemistry Credits: 10

Physics

- 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

Total Physics Credits: 15

Engineering

- ENGR& 214 Engineering Statics 5 CR
- ENGR& 215 Dynamics 5 CR
- ENGR& 225 Mechanics of Materials 5 CR

Total Engineering Credits: 15

Engineering Electives

- ENGR& 104 Introduction to Engineering & Design 5 CR
- CS& 131 Computer Science I C++ 5 CR
- ENGR 270 Introduction To Materials Science 5 CR
- ENGL& 235 Technical Writing 5 CR

Total Engineering Electives Credits: 20

Humanities/Fine Arts/English and Social Sciences

Pick 15 credits:

At least one Humanities class and one Social Science class.

- CMST& 220 Public Speaking 5 CR
- SPAN& 121 Spanish I 5 CR
- HIST& 148 United States History III 5 CR
- PSYC& 100 General Psychology 5 CR
- SOC& 101 Introduction to Sociology 5 CR
- ECON& 201 Micro Economics 5 CR (Recommended)

Total Humanities/Fine Arts/English and Social Sciences Credits: 15

Total Program Credits: 105

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

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

Program Start

- Fisheries Student Homepage

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 a C grade in RDG 085 .
- ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092
- ACCUPLACER Arithmetic score of 50 or ABE 050 or a C grade in MATH 090 .

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

- FISH 100 Introduction to Safety 1 CR
- FISH 105 Water Quality 3 CR
- FISH 111 Salmonid Biology 3 CR
- FISH 125 Sampling Techniques I 3 CR
- FISH 133 Hatchery Operations I 5 CR
- FISH 136 Spawning Techniques I 6 CR

Quarter 2

- FISH 161 Fish Aquaculture Techniques 6 CR
- FISH 170 Hatchery Operations II 4 CR
- CMST& 210 Interpersonal Communications 5 CR
- AMATH 100 Applied Occupational Math 5 CR

Quarter 3

- FISH 146 Aquatic Invertebrate Biology 3 CR
- FISH 163 Shellfish Aquaculture Techniques 5 CR
- FISH 186 Hatchery Operations III 5 CR
- FISH 195 Fisheries Internship 6 CR

Quarter 4

- FTEC 200 Applied Concepts I 10 CR
- FTEC 205 Field Projects I 4 CR
- FISH 236 Spawning Techniques II 6 CR

Quarter 5

- CTE 290 Job Search 4 CR
- FISH 155 Environmental Awareness 3 CR

General Education course required 5th quarter:

- AENGL 100 Applied English 5 CR
- Elective(s) 10 CR *

Quarter 6

- FTEC 250 Applied Concepts II 10 CR
- FTEC 255 Field Projects II 4 CR
- FISH 270 Sampling Techniques II 4 CR
- Elective(s) 4 CR

Electives

- CAP 101 Introduction to Computer Applications 5 CR
- FISH 196 Fisheries Current Topics II 4 CR
- FISH 197 Fisheries Current Topics III 4 CR
- FISH 198 Fisheries Current Topics IV 8 CR
- or
- CAP 138 MS Word 5 CR
- CAP 142 MS Excel 5 CR
- CAP 146 MS Access 5 CR
- CAP 148 MS PowerPoint 3 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- MARIN 110 Introduction to Boating Skills and Safety 1.5 CR
- WELD 101 Introduction to Welding 1 CR
- WELD 102 Creative Welding 2 CR

or

- Any other Fisheries related College Level courses; OR any other course approved from the Transfer Degree Track

Total Program Credits: 124

Associate of Applied Science - Transfer Fisheries & Aquaculture Sciences, AAS-T

Program Requirements

Quarter 1

- FISH 100 Introduction to Safety 1 CR
- FISH 105 Water Quality 3 CR
- FISH 111 Salmonid Biology 3 CR
- FISH 125 Sampling Techniques I 3 CR
- FISH 133 Hatchery Operations I 5 CR
- FISH 136 Spawning Techniques I 6 CR

Quarter 2

- FISH 161 Fish Aquaculture Techniques 6 CR
- FISH 170 Hatchery Operations II 4 CR

General Education courses required 2nd quarter:

- CMST& 210 Interpersonal Communications 5 CR
- or
- any Humanities; and Science or Social Science courses from the generally accepted Transfer Degree Track 5 CR

Quarter 3

- FISH 146 Aquatic Invertebrate Biology 3 CR
- FISH 163 Shellfish Aquaculture Techniques 5 CR
- FISH 186 Hatchery Operations III 5 CR
- FISH 195 Fisheries Internship 6 CR

Quarter 4

- FISH 236 Spawning Techniques II 6 CR
- FTEC 200 Applied Concepts I 10 CR
- FTEC 205 Field Projects I 4 CR

Quarter 5

- FISH 155 Environmental Awareness 3 CR
- CTE 290 Job Search 4 CR

General Education courses required 5th quarter:

- ENGL& 101 English Composition I 5 CR
- or
- ENGL& 102 English Composition II 5 CR
- and
- MATH& 107 Math in Society 5 CR

- Elective(s) 5 CR *

Quarter 6

- FTEC 250 Applied Concepts II 10 CR
- FTEC 255 Field Projects II 4 CR
- FISH 270 Sampling Techniques II 4 CR
- Elective(s) 4 CR

Electives

- CAP 101 Introduction to Computer Applications 5 CR

- FISH 196 Fisheries Current Topics II 4 CR
- FISH 197 Fisheries Current Topics III 4 CR
- FISH 198 Fisheries Current Topics IV 8 CR
or
- CAP 138 MS Word 5 CR
- CAP 142 MS Excel 5 CR
- CAP 146 MS Access 5 CR
- CAP 148 MS PowerPoint 3 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- MARIN 110 Introduction to Boating Skills and Safety 1.5 CR
- WELD 101 Introduction to Welding 1 CR
- WELD 102 Creative Welding 2 CR
or
- Any other Fisheries related College Level courses; OR any other courses approved from the Transfer Degree Track

Total Program Credits: 124

Fisheries & Aquatic Sciences Articulation to WWU & NWIC, AAS-T

Program Requirements

Quarter 1

- FISH 100 Introduction to Safety 1 CR
- FISH 105 Water Quality 3 CR
- FISH 111 Salmonid Biology 3 CR
- FISH 125 Sampling Techniques I 3 CR
- FISH 133 Hatchery Operations I 5 CR
- FISH 136 Spawning Techniques I 6 CR

Quarter 2

- CMST& 210 Interpersonal Communications 5 CR
or
- CMST& 220 Public Speaking 5 CR
- FISH 194 Fisheries Current Topics I 4 CR
- FTEC 205 Field Projects I 4 CR
- Elective(s) 5 CR *
- MATH& 141 Precalculus I 5 CR
or
- MATH& 146 Introduction to Statistics 5 CR

Quarter 3

- AQSCI 186 Rivers, Lakes, and Streams 5 CR
- BIOL& 160 General Biology with Lab 5 CR
- FISH 146 Aquatic Invertebrate Biology 3 CR
- FISH 195 Fisheries Internship 6 CR
- Elective(s) 2 CR *

Quarter 4

- AQSCI 211 Fundamentals of Fisheries Biology 5 CR

- FISH 236 Spawning Techniques II 6 CR
- FISH 296 Aquatic Ecology Current Topics I 4 CR
- FTEC 255 Field Projects II 4 CR

Quarter 5

- CHEM& 121 Intro to Chemistry 5 CR
- CTE 290 Job Search 4 CR
- Elective(s) 5 *
- ENGL& 101 English Composition I 5 CR
- FISH 155 Environmental Awareness 3 CR

Quarter 6

- AQSCI 266 Aquatic Habitat Assessment 4 CR
- FISH 270 Sampling Techniques II 4 CR
- FISH 297 Aquatic Ecology Current Topics II 4 CR
- FTEC 200 Applied Concepts I 10 CR
- Elective(s)* a Science, Social Science or Humanities elective Course from the generally accepted Transfer Degree List

Electives

- CAP 101 Introduction to Computer Applications 5 CR
- FISH 196 Fisheries Current Topics II 4 CR
- FISH 197 Fisheries Current Topics III 4 CR

- FISH 198 Fisheries Current Topics IV 8 CR
or
- CAP 138 MS Word 5 CR

- CAP 142 MS Excel 5 CR
- CAP 146 MS Access 5 CR
- CAP 148 MS PowerPoint 3 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- MARIN 110 Introduction to Boating Skills and Safety 1.5 CR
- WELD 101 Introduction to Welding 1 CR

- WELD 102 Creative Welding 2 CR
or
- Any other Fisheries related College Level courses; OR any other courses approved from the Transfer Degree Track

Required Courses for Program

AAS-T Degree transferable to WWU (Western Washington University) and NWIC (Northwest Indian College) - General Education Requirements:

- BIOL& 160 General Biology with Lab 5 CR
- CHEM& 121 Intro to Chemistry 5 CR

- CMST& 210 Interpersonal Communications 5 CR
or
- CMST& 220 Public Speaking 5 CR

- ENGL& 101 English Composition I 5 CR

- MATH& 141 Precalculus I 5 CR
or
- MATH& 146 Introduction to Statistics 5 CR
and

- Choose a five (5) credit elective course in Science, Social Science, or Humanities elective course from the generally accepted Transfer Degree List such as:
SPAN& 121 Spanish I
or
SPAN& 122 Spanish II

Total Program Credits: 128

Certificate

Fisheries Resources

Program Requirements

Quarter 1

- FISH 100 Introduction to Safety 1 CR
- FISH 105 Water Quality 3 CR
- FISH 111 Salmonid Biology 3 CR
- FISH 125 Sampling Techniques I 3 CR
- FISH 133 Hatchery Operations I 5 CR
- FISH 136 Spawning Techniques I 6 CR

Quarter 2

- FISH 161 Fish Aquaculture Techniques 6 CR
- FISH 170 Hatchery Operations II 4 CR

General Education courses required 2nd quarter:

- CMST& 210 Interpersonal Communications 5 CR
and
- AMATH 100 Applied Occupational Math 5 CR

Quarter 3

- FISH 146 Aquatic Invertebrate Biology 3 CR
- FISH 163 Shellfish Aquaculture Techniques 5 CR
- FISH 186 Hatchery Operations III 5 CR
- FISH 195 Fisheries Internship 6 CR

Quarter 4

- Elective(s) 4 CR

General Education course required 4th quarter:

- AENGL 100 Applied English 5 CR

Electives

- CAP 101 Introduction to Computer Applications 5 CR
- FISH 194 Fisheries Current Topics I 4 CR
- FISH 196 Fisheries Current Topics II 4 CR
- FISH 197 Fisheries Current Topics III 4 CR
or
- CAP 138 MS Word 5 CR
- CAP 142 MS Excel 5 CR
- CAP 146 MS Access 5 CR
- CAP 148 MS PowerPoint 3 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- MARIN 110 Introduction to Boating Skills and Safety 1.5 CR

- WELD 101 Introduction to Welding 1 CR
- WELD 102 Creative Welding 2 CR
or
- Any other Fisheries related College Level courses

Total Program Credits: 69

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

- Graduates will be able to diagnose, repair and maintain common HVAC/R electrical and mechanical system problems
- Graduates will be able to communicate effectively with customers, managers and fellow workers
- Graduates will be able to adhere to environmental laws and regulations as applied to HVAC/R
- Graduates will be able to demonstrate employability behaviors and work ethics
- Graduates will be able to embrace the model of life-long learning, accessing new information to remain current in industry trends

Program Entry Information

Program Start

- This program admits students twice a year, in the fall and spring 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 a C grade in MATH 090 or ABE 050 .
- 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 .

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

- CREF 122 Fundamentals of Refrigeration 5 CR
- CREF 123 Fundamentals Lab I 5 CR
- CREF 126 Basic Electricity for HVAC/R 5 CR
- CREF 127 Fundamentals Lab II 5 CR
- AMATH 100 Applied Occupational Math 5 CR

Quarter 2

- CREF 132 Commercial Self-Contained Systems 5 CR
- CREF 133 Commercial Self Contained Systems Lab 5 CR
- CREF 135 Commercial Ice Systems Theory & Applications 3 CR
- CREF 137 Commercial Ice Systems Lab 4 CR
- CREF 139 Commercial Ice Systems Interactive Learning 2 CR
- AENGL 100 Applied English 5 CR

Quarter 3

- CREF 141 Air Properties & Psychrometrics 3 CR
- CREF 143 HVAC System Design 3 CR
- CREF 145 Duct Layout & Fabrication 4 CR
- CREF 147 Applied Air Conditioning Systems 4 CR
- CREF 149 Applied Heat Pump Systems 4 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- CREF 221 Electric Heating Technology 4 CR
- CREF 223 Gas Heating Technology 7 CR
- CREF 225 Fuel Oil Heating Technology 4 CR
- CREF 227 Hydronic Heating Technology 5 CR

Quarter 5

- CREF 231 Commercial/Industrial Refrigeration Applied Components 5 CR
- CREF 233 Commercial/Industrial Refrig Applied Components Lab 5 CR
- CREF 236 Commercial/Industrial Chilled Water Systems 3 CR
- CREF 237 Cooling Towers & Water Treatment 1 CR
- CREF 238 Cascade/Transport Refrigeration Systems 5 CR
- CREF 239 Absorption Refrigeration Systems 1 CR

Quarter 6

- CREF 241 Control Theory for HVAC Automation Systems 5 CR
- CREF 242 Control Theory Lab 5 CR
- CREF 245 Commercial & Industrial Boilers 2 CR
- CREF 246 HVAC System Design & Commissioning 2 CR
- CREF 247 Job Prep, Internship & National Testing Prep 5 CR

Total Program Credits: 131

Associate of Applied Science - Transfer Heating, Ventilation, Air Conditioning & Refrigeration Technology (HVAC), AAS-T

Program Requirements

Quarter 1

- CREF 122 Fundamentals of Refrigeration 5 CR
- CREF 123 Fundamentals Lab I 5 CR
- CREF 126 Basic Electricity for HVAC/R 5 CR
- CREF 127 Fundamentals Lab II 5 CR
- MATH& 141 Precalculus I 5 CR

Quarter 2

- CREF 132 Commercial Self-Contained Systems 5 CR
- CREF 133 Commercial Self Contained Systems Lab 5 CR
- CREF 135 Commercial Ice Systems Theory & Applications 3 CR
- CREF 137 Commercial Ice Systems Lab 4 CR
- CREF 139 Commercial Ice Systems Interactive Learning 2 CR
- ENGL& 101 English Composition I 5 CR

Quarter 3

- CREF 141 Air Properties & Psychrometrics 3 CR
- CREF 143 HVAC System Design 3 CR
- CREF 145 Duct Layout & Fabrication 4 CR

- CREF 147 Applied Air Conditioning Systems 4 CR
- CREF 149 Applied Heat Pump Systems 4 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- CREF 221 Electric Heating Technology 4 CR
- CREF 223 Gas Heating Technology 7 CR
- CREF 225 Fuel Oil Heating Technology 4 CR
- CREF 227 Hydronic Heating Technology 5 CR
- PSYC& 100 General Psychology 5 CR

Quarter 5

- CREF 231 Commercial/Industrial Refrigeration Applied Components 5 CR
- CREF 233 Commercial/Industrial Refrig Applied Components Lab 5 CR
- CREF 236 Commercial/Industrial Chilled Water Systems 3 CR
- CREF 237 Cooling Towers & Water Treatment 1 CR
- CREF 238 Cascade/Transport Refrigeration Systems 5 CR
- CREF 239 Absorption Refrigeration Systems 1 CR

Quarter 6

- CREF 241 Control Theory for HVAC Automation Systems 5 CR
- CREF 242 Control Theory Lab 5 CR
- CREF 245 Commercial & Industrial Boilers 2 CR
- CREF 246 HVAC System Design & Commissioning 2 CR
- CREF 247 Job Prep, Internship & National Testing Prep 5 CR

Total Program Credits: 136

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 Entry Information

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.

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
- HYPN 102 Intermediate Hypnotherapy for Healthcare Field 5 CR
- HYPN 103 Advanced Hypnotherapy Techniques 5 CR

The following course is optional and open to program graduates:

- HYPN 104 Preparing for a Hypnotherapy Practice 2 CR

Total Program Credits: 16

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 Entry Information

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 a C grade in MATH 098 .
- 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 .

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 Communications 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 Communications 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 and 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 Entry Information

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 I 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 Communications 5 CR
- INST 140 Digital I 5 CR
- INST 145 Digital II 5 CR
- INST 150 Electronic Communications 6 CR

Quarter 4

- INST 230 Motor Controls 3 CR
- INST 231 PLC Programming 3 CR
- INST 232 PLC Systems 3 CR

Quarter 5

- 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 6

- 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
- CHEM& 161 General Chemistry w/ Lab I 5 CR

Quarter 7

- 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 3 CR
- ENET 290 Capstone Project I 2 CR
- INST 292 Internship 10 CR

Total Program Credits: 131

Associate of Applied Science - Transfer Instrumentation & Control Technology, AAS-T Program Requirements

Quarter 1

- INST 100 Direct Current I 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

- CMST& 210 Interpersonal Communications 5 CR
- INST 140 Digital I 5 CR
- INST 145 Digital II 5 CR
- INST 150 Electronic Communications 6 CR

Quarter 4

- INST 230 Motor Controls 3 CR
- INST 231 PLC Programming 3 CR
- INST 232 PLC Systems 3 CR
- PSYC& 100 General Psychology 5 CR

Quarter 5

- 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 6

- 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
- CHEM& 161 General Chemistry w/ Lab I 5 CR

Quarter 7

- 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 3 CR
- INST 290 Internship 5 CR
- INST 292 Internship 10 CR

Total Program Credits: 136

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

- Graduates will be able to demonstrate competency in touch keyboarding at 55 wpm on a three-minute timing.
- Graduates will be able to demonstrate 80 percent competency in business document formatting, proofreading, word processing, spreadsheets, presentation graphics, alphabetic and numeric filing, legal proofreading, legal terminology, legal keyboarding, and ten-key proficiency.

Program Entry Information

The program typically starts in Fall, Winter, Spring, Summer Quarters.

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

Pre-Program Course Requirements

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

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 100 Electronic Math Applications 3 CR
- CAP 101 Introduction to Computer Applications 5 CR
- CAP 105 Computerized Touch Keyboarding 2 CR
- CAP 106 Formatting with MSWord 4 CR
- CAP 148 MS PowerPoint 3 CR
- CMST& 210 Interpersonal Communications 5 CR

Required Courses for Program

- ACCT 141 Practical Accounting I 5 CR
- BUS 123 Records Management 3 CR
- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 CR
- BUS 188 Business English 5 CR
- BUS& 201 Business Law 5 CR
- BUS 280 Assessment 1 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 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

- LGL 127 Legal Office Procedures 5 CR
- LGL 132 Legal Terminology 5 CR
- LGL 211 Legal Document Processing 5 CR
- LGL 226 Internship 6 CR

Total Required Course Credits: 93

Electives

- ACCT 242 Practical Accounting II 5 CR
- ACCT 243 Practical Accounting III 5 CR
- ACCT 245 Payroll Procedures 5 CR
- ACCT 246 Computerized Accounting I 5 CR
- ACCT& 203 Principles of Accounting III 5 CR
- BUS 232 Office Procedures 5 CR
- BUS& 101 Introduction to Business 5 CR
- CAP 146 MS Access 5 CR
- CAP 200 Integrated Computer Applications 5 CR
- CIS 145 Website Development 5 CR
- LGL 223 Internship 3 CR
- MGMT 154 Creating and Managing a Small Business 5 CR
- MGMT 210 Human Resource Management 5 CR

Total Elective Course Credits: 10

Total Program Credits: 103

Associate of Applied Science - Transfer Legal Administrative Assistant, AAS-T

Program Requirements

Quarter 1

- BUS 100 Electronic Math Applications 3 CR
- CAP 101 Introduction to Computer Applications 5 CR
- CAP 105 Computerized Touch Keyboarding 2 CR
- CAP 106 Formatting with MSWord 4 CR
- CAP 148 MS PowerPoint 3 CR
- CMST& 210 Interpersonal Communications 5 CR

Required Courses for Program

- ACCT 141 Practical Accounting I 5 CR
- BUS 123 Records Management 3 CR
- BUS& 201 Business Law 5 CR
- BUS 280 Assessment 1 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 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
- ENGL& 101 English Composition I 5 CR
- LGL 127 Legal Office Procedures 5 CR
- LGL 132 Legal Terminology 5 CR
- LGL 211 Legal Document Processing 5 CR
- LGL 226 Internship 6 CR
- MATH& 141 Precalculus I 5 CR

- SOC& 101 Introduction to Sociology 5 CR

Total Required Course Credits: 93

Electives

- ACCT 242 Practical Accounting II 5 CR
- ACCT 243 Practical Accounting III 5 CR
- ACCT 245 Payroll Procedures 5 CR
- ACCT 246 Computerized Accounting I 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 232 Office Procedures 5 CR
- BUS& 101 Introduction to Business 5 CR
- CAP 146 MS Access 5 CR
- CAP 200 Integrated Computer Applications 5 CR
- CIS 145 Website Development 5 CR
- LGL 223 Internship 3 CR
- MGMT 154 Creating and Managing a Small Business 5 CR
- MGMT 210 Human Resource Management 5 CR

Total Elective Course Credits: 10

Total Program Credits: 103

Certificate

Legal 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
- LGL 132 Legal Terminology 5 CR

Quarter 2

- BUS 150 Math for Business 5 CR
- CAP 114 MS Outlook 2CR
- CMST& 210 Interpersonal Communications 5 CR
- LGL 127 Legal Office Procedures 5 CR

Quarter 3

- BUS 123 Records Management 3 CR
- BUS 171 Technical Communications 5 CR
- BUS 281 Assessment 1 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- LGL 211 Legal Document Processing 5 CR

Total Program Credits: 50

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 Entry Information

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 50 or a C grade in MATH 090 or ABE 050 .
2. 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 .

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 100 Machine Lab Safety 2 CR
- MACH 101 Introduction to Measuring & Inspection 2 CR
- MACH 102 Introduction to Machining 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 103 Machine Fundamentals 4 CR
- MACH 152 Advanced Manual Mill 5 CR
- MACH 142 Advanced Manual Lathe 5 CR
- ENGR 115 Graphics 5 CR
- AENGL 100 Applied English 5 CR

Quarter 3

- MACH 121 Precision Grinding 4 CR
- MACH 171 Introduction to CNC Machining 6 CR

- ENGR 180 Parametric Modeling 5 CR
- ENGR 100 Engineering Orientation 2 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- MACH 261 Introduction to CAD/CAM for Machining 4 CR
- MACH 241 Introduction to CNC Lathe Operation 5 CR
- MACH 251 Introduction to CNC Mill Operation 5 CR
- QA 110 Introduction to Quality Assurance for Machining 4 CR
- ENGR& 104 Introduction to Engineering & Design 5 CR

Quarter 5

- MACH 263 Intermediate CAD/CAM for Machining 4 CR
- QA 115 Intermediate Quality Assurance for Machining 4 CR
- MACH 252 Advanced CNC Mill Operation 5 CR
- MACH 272 Intermediate CNC Machining 6 CR
- MACH 242 Advanced CNC Lathe Operation 5 CR

Quarter 6

- MACH 264 Advanced CAD/CAM for Machining 4 CR
- QA 120 Advanced Quality Assurance for Machining 4 CR
- MACH 273 Advanced CNC Machining 6 CR

Total Program Credits: 124

Associate of Applied Science - Transfer Machining, AAS-T

Program Requirements

Quarter 1

- MACH 100 Machine Lab Safety 2 CR
- MACH 101 Introduction to Measuring & Inspection 2 CR
- MACH 102 Introduction to Machining 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 103 Machine Fundamentals 4 CR
- MACH 142 Advanced Manual Lathe 5 CR
- ENGR 115 Graphics 5 CR
- ENGL& 101 English Composition I 5 CR
- MACH 152 Advanced Manual Mill 5 CR

Quarter 3

- MACH 121 Precision Grinding 4 CR
- MACH 171 Introduction to CNC Machining 6 CR
- ENGR 180 Parametric Modeling 5 CR
- ENGR 100 Engineering Orientation 2 CR
- CMST& 210 Interpersonal Communications 5 CR

Quarter 4

- MACH 261 Introduction to CAD/CAM for Machining 4 CR
- MACH 241 Introduction to CNC Lathe Operation 5 CR
- MACH 251 Introduction to CNC Mill Operation 5 CR
- QA 110 Introduction to Quality Assurance for Machining 4 CR

- ENGR& 104 Introduction to Engineering & Design 5 CR

Quarter 5

- MACH 263 Intermediate CAD/CAM for Machining 4 CR
- QA 115 Intermediate Quality Assurance for Machining 4 CR
- MACH 252 Advanced CNC Mill Operation 5 CR
- MACH 272 Intermediate CNC Machining 6 CR
- MACH 242 Advanced CNC Lathe Operation 5 CR

Quarter 6

- MACH 264 Advanced CAD/CAM for Machining 4 CR
- QA 120 Advanced Quality Assurance for Machining 4 CR
- MACH 273 Advanced CNC Machining 6 CR
- MATH& 142 Precalculus II 5 CR

Total Program Credits: 134

Certificate

Principles of Machining and CNC Operation Certificate

Program Requirements

Quarter 1

- MACH 100 Machine Lab Safety 2 CR
- MACH 101 Introduction to Measuring & Inspection 2 CR
- MACH 102 Introduction to Machining 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 103 Machine Fundamentals 4 CR
- MACH 152 Advanced Manual Mill 5 CR
- MACH 142 Advanced Manual Lathe 5 CR
- ENGR 115 Graphics 5 CR
- AENGL 100 Applied English 5 CR

Quarter 3

- MACH 121 Precision Grinding 4 CR
- MACH 171 Introduction to CNC Machining 6 CR
- ENGR 180 Parametric Modeling 5 CR
- ENGR 100 Engineering Orientation 2 CR
- CMST& 210 Interpersonal Communications 5 CR

Total Program Credits: 68

Quality Assurance Certificate

Program Requirements

- QA 110 Introduction to Quality Assurance for Machining 4 CR
- QA 115 Intermediate Quality Assurance for Machining 4 CR
- QA 120 Advanced Quality Assurance for Machining 4 CR
- AENGL 100 Applied English 5 CR
- AMATH 100 Applied Occupational Math 5 CR

Total Program Credits: 22

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 , and 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
- 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

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

The program typically starts in Fall, Winter, Spring, Summer Quarters.

Testing Requirements

These requirements are for the Certificate.

- 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 .
- ACCUPLACER score of 50 in Arithmetic or a grade of C or better in MATH 090

Pre-Program Course Requirements

Medical Receptionist Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for required courses.

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

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 123 Records Management 3 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 Communications 5 CR

Required Courses for Program

- BUS 230 Medical Office Procedures 5 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR

Total Required Course Credits: 27

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 I 5 CR
- ACCT 271 Internship 1 CR
- ACCT 272 Internship 2 CR
- ACCT 273 Internship 3 CR
- ACCT 274 Internship 4 CR
- ACCT 275 Internship 5 CR

- ACCT 276 Internship 6 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 100 Electronic Math Applications 3 CR
- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 CR
- BUS 188 Business English 5 CR
- BUS 232 Office Procedures 5 CR
- BUS 271 Internship 1 CR
- BUS 272 Internship 2 CR
- BUS 273 Internship 3 CR
- CAP 142 MS Excel 5 CR
- BUS 274 Internship 4 CR
- BUS 275 Internship 5 CR
- BUS 276 Internship 6 CR
- BUS 280 Assessment 1 CR
- BUS 281 Assessment 1 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
- CIS 160 Computer User Support I 5 CR
- CIS 276 Computer Software Support Internship 6 CR
- HT 126 Fundamentals of Medical Terminology 5 CR
- LGL 127 Legal Office Procedures 5 CR
- LGL 132 Legal Terminology 5 CR
- LGL 211 Legal Document Processing 5 CR
- LGL 223 Internship 3 CR
- LGL 224 Internship 4 CR
- LGL 225 Internship 5 CR
- LGL 226 Internship 6 CR
- MGMT 154 Creating and Managing a Small Business 5 CR
- MGMT 210 Human Resource Management 5 CR

Total Electives Course Credits: 15

Total Program Credits: 42

Nursing

Overview

Graduates of the Associate Degree Nursing program are prepared to take the state licensure exam for Registered Nurses-NCLEX-RN. 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.

This nursing education program is a candidate for accreditation by the Accreditation Commission for Education in Nursing. The Commission may be contacted at 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326. Phone: (404) 975-5000, email: info@acenursing.org

The Registered Nurse performs acts that require substantial knowledge, judgment and skill based on the principles of biological, behavioral, health, and nursing sciences. Such acts are grounded in the elements of the nursing process which includes, but is not limited to, the assessment, analysis, diagnosis, planning, implementation and evaluation of nursing care and health teaching in the maintenance and the promotion of health or prevention of illness of others and the support of a dignified death. The registered nurse using specialized knowledge can perform the activities of administration, supervision, delegation and evaluation of nursing practice.

Graduates are well prepared in the art and science of nursing to meet the challenging and changing demands of the healthcare industry. Graduates of the BTC Nursing program work in a variety of settings including acute care hospitals, skilled nursing facilities, assisted living, skilled home care, hospice, clinics, day-surgery centers, schools, and public health.

Academic preparation includes core courses in arts and sciences and those focusing on basic nursing skills and knowledge. In addition to providing pathways designed for those new to the field, Bellingham Technical College is committed to providing pathways for the movement of licensed practical nurses into its Associate Degree- Transfer program. Agreements are in place with baccalaureate programs, enabling graduates to continue their education. Applicants are encouraged to plan early for Baccalaureate Degree completion by meeting with an admissions adviser at their school of choice.

The Associate Degrees in Nursing DTA/MRP and LPN to Associate in Applied Science programs 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 Degrees in Nursing DTA/MRP and LPN to Associate in Applied Science program degree, students are eligible to transfer to a number of Washington State institutions.

Important note: Admission into many schools is competitive and higher grade point averages and course grades are often required. Completion of the general Associate Degree in Nursing DTA/MRP or LPN to Associate in Applied Science program 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.

Auxiliary aids and services are available upon request to individuals with disabilities, please contact Accessibility Resources at 360-752-8576.

Program Outcomes

- Practice professional nursing behaviors incorporating personal responsibility and accountability for continued practice by providing care requiring substantial knowledge, judgment and skill based on the principles of biological, behavioral, health and nursing sciences.
- Integrate knowledge of holistic needs to provide an individual centered assessment and implement caring interventions based on respect for patient preferences, values and needs.
- Demonstrate self-care by extending the notion of caring to interactions with self, peers, and co-workers; this includes promoting healthy behaviors, reflection, self-analysis, and a healthy work environment.
- Actively participate within the nursing profession by seeking opportunities for continued learning, self-development, leadership, and management skills.
- Use effective communication techniques to: therapeutically interact with the individual/family; provide health education; completely and accurately convey information to other professionals and coworkers; establish rapport, educate and resolve conflict.
- Utilize substantive evidence to demonstrate critical thinking, decision making, and problem solving by reflecting on, integrating, and building upon theoretical concepts.
- Collaborate with the interdisciplinary healthcare team to advocate for positive individual, organizational and community outcomes.
- Coordinate health care for the individual including appropriate allocation of resources, quality improvement processes, and informatics to formulate evidence-based clinical judgments and decisions.

- Collect, interpret and prioritize information from a variety of sources to provide safe evidence-based nursing care using a legally defined scope of practice and professionally defined standards.

Program Entry Information

The AAS-T program option is closed, please see the DTA/MRP Associate Degree in Nursing. Continue reviewing the Nursing website for future information.

Program Start

- LPN's who are interested in applying to the Nursing program should meet with an advisor to plan a course of study. Please call the Admissions and Resource Center at 360-752-8345 to make an appointment.

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.

Associate of Applied Science - Transfer Nursing, AAS-T

Program Requirements

Quarter 1

- NURS 110 Introduction to Health Concepts 4 CR
- NURS 115 Introduction to Health Concepts- Clinical Lab 6 CR

Quarter 2

- NURS 120 Health and Illness Concepts 1 5 CR
- NURS 125 Health & Illness Concepts 1- Clinical Lab 6 CR

Quarter 3

- NURS 130 Health & Illness Concepts 2 3 CR
- NURS 135 Health & Illness Concepts 2- Clinical Lab 6 CR

Quarter 4

- NURS 210 Acute Health Concepts 5 CR
- NURS 215 Acute Health Concepts- Clinical Lab 6 CR

Quarter 5

- NURS 220 Complex Health Concepts 4 CR
- NURS 225 Complex Health Concepts- Clinical Lab 6 CR

Quarter 6

- NURS 230 Professional Nursing Concepts 3 CR
- NURS 235 Professional Nursing Concepts- Clinical Lab 6 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

Total Program Credits: 122

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

- PSYC 117 Psychosocial Issues in Healthcare III 2 CR
- NURS 130 Health & Illness Concepts 2 3 CR
- NURS 135 Health & Illness Concepts 2- Clinical Lab 6 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 fall, winter, spring, and summer 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 C/2.0 for required courses.

Program Application/Forms

- Nursing Assistant Completion 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 NOTE: (New changes as of February 1, 2016)
<http://www.pearsonvue.com/wa/nurseaides/>

Certificate

Nursing Assistant Certificate

Program Requirements

Quarter 1

- NA 101 Nursing Assistant Essentials 5 CR
- HO 127 Healthcare Provider CPR 0.5 CR
- HLTH 133 HIV/AIDS: For Healthcare Professional 1 CR
- NA 102 Nursing Assistant Clinical 2 CR

Total Program Credits: 8.5

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 e-mail 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, DTA/MRP

Program Requirements

Communication Skills

- ENGL& 101 English Composition I 5 CR
- ENGL& 102 English Composition II 5 CR

Total Credits: 10

Humanities

- 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

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

The program typically starts in Fall, Winter, Spring, Summer Quarters.

Testing Requirements

These requirements are for the Certificate.

- 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 .
- ACCUPLACER score of 50 in Arithmetic or a grade of C or better in MATH 090

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.

Certificate

Office 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 Communications 5 CR
- BUS 188 Business English 5 CR

Required Courses for Program

- BUS 100 Electronic Math Applications 3 CR
- BUS 123 Records Management 3 CR
- BUS 150 Math for Business 5 CR
- BUS 171 Technical Communications 5 CR
- BUS 281 Assessment 1 CR
- CAP 107 Computerized Keyboard Skillbuilding I 3 CR
- CAP 138 MS Word 5 CR
- CAP 142 MS Excel 5 CR
- CAP 148 MS PowerPoint 3 CR

Total Required Course Credits: 54

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 I 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 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 143 Adobe Acrobat & Electronic File Management 5 CR
- CAP 146 MS Access 5 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: 67

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 credits

Courses to be taken during the Bridge if not already completed by the applicant:

- General Education Math: College-level math class with Intermediate Algebra as a prerequisite – Precalculus I or Finite Math preferred 5 credits (minimum grade 2.5/C+)
- Math: MATH 146 : Introduction to Statistics 5 credits (minimum grade 2.5/C+)
- Humanities and Social Science: 10 credits (minimum grade 2.5/C+)
- Natural Sciences: 5 credits (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 credits (minimum grade 2.5/C+)
- General Education Math: College-level math class with Intermediate Algebra as a prerequisite 5 credits (minimum grade 2.5/C+)
- Mathematics: MATH 146 , Introduction to Statistics, 5 credits (minimum grade 2.5/ C+)
- Humanities and Social Science: 15 credits – at least 5 credits each of Social Science and Humanities (minimum grade 2.5/C+)
- Natural Sciences with lab: 5 credits (minimum grade 2.5/C+)

Testing Requirements

See above.

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

Operations Management

Quarter 1

- OPM 311 Mathematical Techniques for Operations Management 5 CR
- OPM 312 Forecasting and System Design 5 CR
- ENGL 310 Business Communications 5 CR

Quarter 2

- OPM 313 Quality Management 5 CR
- OPM 314 Logistical Planning and Supply Chain Management 5 CR
- PHIL 310 Professional Ethics 5 CR

Quarter 3

- OPM 315 Lean Concepts and Applications 5 CR
- Elective - Elective 1 5 CR
- ECON 310 Managerial Economics 5 CR

Quarter 4

- Elective - Elective 2 5 CR
- Elective - Elective 3 5 CR
- BUS 310 Project Management 5 CR

Quarter 5

- OPM 491 Focused Study I 5 CR
- OPM 492 Focused Study II 5 CR
- PSYC 310 Organizational Psychology 5 CR

Quarter 6

- OPM 493 Focused Study III 5 CR
- OPM 498 Individual Capstone Project 5 CR
- OPM 499 Group Capstone Project 5 CR

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 Entry Information

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.ctc.edu/apply. State "Personal Fitness Trainer" as your intended program of study.

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 Entry Information

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 I (BIOL& 241) and Human A & P II (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.

Certificate

Phlebotomy Certificate

Program Requirements

Quarter 1

- HO 157 Introduction to Phlebotomy Skills 4 CR
- 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
- 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

Process Technology

Overview

At Bellingham Technical College [link to About BTC page], 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, boiling 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 (DCS) to manage simulated DCS scenarios.
- Graduates will have the ability to compare actual process plant experience versus preconceived notions.

Program Entry Information

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 a C grade in MATH 098 .
- 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 .
- 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
- General Elective (outside of the program) 3 CR

Quarter 2

- CMST& 210 Interpersonal Communications 5 CR
- CTE 108 Job Skills 1 CR
- PTEC 103 Safety, Health & Equipment I 5 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
- Program Elective PTEC 190 Food Processing 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
- Program Elective PTEC 190 Food Processing 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)
- General Elective (outside of the program) 3 CR

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)
- General Elective (outside of the program) 3 CR

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

General Elective

- ADTEC 126 Basic Electricity 5 CR
- ADTEC 200 Anaerobic Digestion Essentials 4 CR
- ADTEC 237 Cooling Towers/Water Treatment 1 CR
- ADTEC 245 Commercial/Industrial Boilers 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
- CODR 125 Forklift Driver Certification 1 CR

- ENGT 134 AutoCAD I 5 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- INST 200 Introduction to Instrumentation 2 CR
- SOC& 101 Introduction to Sociology 5 CR
- WELD 101 Introduction to Welding 1 CR
- WELD 173 Basic Welding (Welding I & II) 2 CR

Total Program Credits: 106

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 Communications 5 CR
- CTE 108 Job Skills 1 CR
- PTEC 103 Safety, Health & Equipment I 5 CR
- PTEC 105 Process Technology II (Systems) 5 CR

Quarter 3

- CHEM& 110 Chemical Concepts w/Lab 5 CR
- ENGL& 235 Technical Writing 5 CR
- PTEC 110 Process Instrumentation 5 CR
- 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
- MATH& 142 Precalculus II 5 CR

Quarter 5

- MATH& 142 Precalculus II 5 CR
- 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
- General Elective (outside of the program) 3 CR

Quarter 6

- MATH& 151 Calculus I 5 CR
- PTEC 207 Quality Control 5 CR
- PTEC 215 Process Technology III (Operations) 5 CR
- PTEC 272 Process Technology Project II 5 CR
- PHYS& 221 Engineering Physics I w/Lab 5 CR

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

General Electives

- ADTEC 126 Basic Electricity 5 CR
- ADTEC 200 Anaerobic Digestion Essentials 4 CR
- ADTEC 237 Cooling Towers/Water Treatment 1 CR
- ADTEC 245 Commercial/Industrial Boilers 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
- CODR 125 Forklift Driver Certification 1 CR
- ENGT 134 AutoCAD I 5 CR
- ENVS 151 Basic CSTOP Course 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- INST 200 Introduction to Instrumentation 2 CR
- SOC& 101 Introduction to Sociology 5 CR
- WELD 101 Introduction to Welding 1 CR
- WELD 173 Basic Welding (Welding I & II) 2 CR

Total Program Credits: 114

Certificate

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 Communications 5 CR
- CTE 108 Job Skills 1 CR
- PTEC 103 Safety, Health & Equipment I 5 CR
- PTEC 105 Process Technology II (Systems) 5 CR

Quarter 3

- CHEM& 161 General Chemistry w/ Lab I 5 CR
- AENGL 100 Applied English 5 CR
- PTEC 110 Process Instrumentation 5 CR

Total Program Credits: 46

Project Management

Overview

You'll be ready for an exciting career as a project manager after completing this program. Project managers are in high demand in today's competitive, high-tech business world. BTC's Project Management Program will prepare you for employment in service industries, insurance and financial services firms, manufacturers, and government agencies. Students in the Project Management program are usually working professionals who wish to increase their skills and prepare for project management responsibilities.

Program Outcomes

- Graduates will be able to apply project management principles and software to a given project.
- Graduates will be able to demonstrate an understanding of the functions of a project manager.
- Graduates will be able to demonstrate successful project management techniques according to industry best practices.

Program Entry Information

This program typically starts in Fall and Spring Quarters

Degree and Certificate Requirements

Certificate completion requires a cumulative GPA of 2.0 or greater and P/Pass for required courses.

Other Application Forms

- Students wishing to audit the courses without earning college credits/hours or grade may elect to do so by filling out the Audit Request form from the Registrar's office. The course will not be used for technical or occupational programs, nor will it meet any requirements for occupational certificates or degrees. Declaration of audit status must be in the hands of the instructor prior to the end of the second class.

Certificate

Project Management Certificate

All five classes listed below must be completed in order to submit your Graduation Application for the Project Management Certificate.

Program Requirements

Quarter 1

- PMP 100 Project Management Fundamentals 1 CR
- PMP 120 Project Management Prep 3 CR
- CAP 150 Project - Level 1 1 CR
- CAP 151 Project - Level 2 1 CR
- PMP 130 PMP Integration 1 CR

Total Program Credits: 7

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 Entry Information

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 (formerly COM 170).
- 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 Digttools 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 Anatomy & Physiology 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 Anatomy & Physiology 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 114 Leadership Seminar 2 CR
- RT 120 Imaging & Processing 4 CR
- RT 102 Radiographic Positioning & Anatomy II 6 CR
- RT 121 Radiographic Physics I 4 CR
- RT 131 Radiographic Clinic I 7 CR
- RT 103 Radiographic Positioning and Anatomy III 5 CR
- RT 123 Radiographic Physics II 4 CR
- RT 132 Radiographic Clinic II 7 CR
- RT 133 Radiographic Clinic III 8 CR
- RT 205 Pharmacology 3 CR
- RT 108 Medical Informatics 4 CR
- RT 231 Radiographic Clinic IV 10 CR
- BIO 130 Sectional Anatomy 4 CR
- RT 201 Advanced Patient Procedures and Pathology I 4 CR
- RT 210 Radiation Biology 4 CR
- RT 232 Radiographic Clinic V 10 CR
- RT 202 Advanced Patient Procedures and Pathology II 4 CR
- RT 230 Registry Review and Employment Readiness 4 CR
- RT 233 Radiographic Clinic VI 10 CR
- 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

The program typically starts in fall, winter, spring, Summer Quarters.

Testing Requirements

These requirements are for the Certificate.

- 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 .
- ACCUPLACER score of 50 in Arithmetic or a grade of C or better in MATH 090

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.

Certificate

Receptionist 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 Communications 5 CR
- BUS 100 Electronic Math Applications 3 CR
- BUS 188 Business English 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 Skill building 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 I 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 professional 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 inspectors in the state to be licensed. BTC's Fundamentals of Home Inspection Course was the first to receive approval from the Department of Licensing. This intensive, full-time course combines classroom instruction 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, engineering, 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.

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

- Integrate the use of social media tools into implementation of marketing initiatives and other strategic business initiatives
- Design and implement a social media strategy
- Discover new media technologies and identify which is best suited for your product or business
- Implement measurement strategies to track and measure the ROI of social media
- Map metrics and evaluate results of specific social media driven results
- Understand how to form and optimize social networks

Program Entry Information

This program typically starts in fall quarter.

Testing Requirements

- 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 .
- ACCUPLACER score of 50 in Arithmetic or a grade of C or better in MATH 090

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/](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, the student will possess expertise in the theory and application of sterile and aseptic technique and combine the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive, therapeutic and diagnostic procedures

Competent entry level surgical technologists will have well developed skills in the following areas:

- Participate in effective self-assessment.
- Demonstrate critical thinking relating to prioritization, anticipation, problem analysis and evaluation of solutions.
- Demonstrate the necessary skills to set up the operative environment preoperatively, provide appropriate instrumentation and assistance intra-operatively, appropriately teardown and prepare decontamination postoperatively.
- Recognize body mechanics, patient and occupational hazards to include electrical, LASER, radiation, chemical and biological concerns.
- Provide safe patient care.
- Recognize own limitations and act accordingly.
- Maintain personal mental and physical health.
- Seek learning opportunities that will foster growth.
- Demonstrate leadership by encouraging and motivating others.
- Act as a client advocate.
- Use resources wisely by practicing conservation of time, materials, facilities, and human resources.
- Follow school and clinical site rules and regulations.
- Exhibit respect for clients, surgical staff, faculty, and peers.
- Recognize scope of practice as defined by the House of Delegates of the Association of Surgical Technologist, Inc. (AST) as principles to be used as Standards of Practice.
- Take responsibility for own actions.
- Recognize your role in the health care delivery system.
- Understand and accurately use technical language
- Apply the principles of verbal, non-verbal, and written communication
- Communicate effectively as a member of a peer group, a surgical team, and a multi-disciplinary team.
- Share knowledge and skills with peers.
- Demonstrate knowledge and experience by completion of the Certification Examination for Surgical Technologists.

Program Entry Information

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 32 or a C grade in MATH 099 .

Pre-Program Course Requirements

- Intro to Surgery Technology (SURG 100) * Must complete with a 3.0 (B grade) or higher
- Complete the prerequisites listed below with a 2.0 (C grade or better) in each course
- General Biology with Lab (BIOL& 160)
- Human A&P 1 (BIOL& 241)
- Human A&P 2 (BIOL& 242)
- Microbiology (BIOL& 260)
- Intro to Chemistry (CHEM& 121)
- Interpersonal Communications (CMST& 210)
- English Composition I (ENGL& 101)
- HIV/AIDS: Healthcare Professional (HLTH 133)
- Fundamentals of Medical Terminology (HT 126)
- 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 grade of C/2.0 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 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.

Associate of Applied Science - Transfer

Surgery Technology, AAS-T

Complete the prerequisites listed below with a 2.0 (C grade or better) in each course

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
- SURG 143 Surgery Technology III 6 CR
- SURG 145 Surgery Technology Clinical Practice II 10 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
- CMST& 210 Interpersonal Communications 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

Technology

Overview

Transform your interest in technology into career opportunities in high-demand fields with BTC's Associate in Technology DTA/MRP program.

BTC's Associate in Technology DTA/MRP degree is designed for students planning to major in technology at a Washington State college or university. Upon completing the 91-credit program, you may transfer as a junior into a Bachelor of Science in Technology program.

The Associate in Technology DTA/MRP program includes instruction in English, design, psychology, mathematics, and science, as well as communications skills to help you succeed in today's diverse, team-oriented workplace.

Program Entry Information

For questions, please contact Admissions at 360-752-8345 or e-mail 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

Technology 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 Technology, DTA/MRP

Program Requirements

Communication Skills

- ENGL& 101 English Composition I 5 CR
- ENGL& 235 Technical Writing 5 CR

Total Credits: 10

Mathematics

- MATH& 141 Precalculus I 5 CR
- MATH& 142 Precalculus II 5 CR

Total Credits: 10

Humanities

- CMST& 220 Public Speaking 5 CR

Choose two from the following:

At least one other than speech. No more than 5 credits in world language.

- CMST& 101 Introduction to Communications 5 CR
- CMST& 210 Interpersonal Communications 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

Total Credits: 15

Social Sciences

Choose 3 classes, from at least 2 disciplines.

- BUS& 101 Introduction to Business 5 CR
- BUS& 201 Business Law 5 CR
- ECON& 201 Micro Economics 5 CR
- ECON& 202 Macro Economics 5 CR
- POLS& 101 Intro Political Science 5 CR
- POLS& 202 American Government 5 CR
- PSYC& 100 General Psychology 5 CR
- PSYC& 200 Lifespan Psychology 5 CR

Physical and Natural Sciences

- PHYS& 221 Engineering Physics I w/Lab 5 CR
- CHEM& 161 General Chemistry w/ Lab I 5 CR
- CS& 131 Computer Science I C++ 5 CR

Total Credits: 15

Technology Course Work

- ENGR 115 Graphics 5 CR
- ENGR 180 Parametric Modeling 5 CR

Electives

Choose three transferable courses with advisor assistance in your area of interest

Total Program Credits: 90

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 Entry Information

Program Start

- The program will be admitting new students in fall quarter 2017.
- Please refer any pre-program questions such as course transfers, observation hour requirements or pre-requisite course requirements to Dave Dettman, Vet Tech pre-program advisor. Dave can be reached at ddettman@btc.ctc.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 , 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 .

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
- VETT 104 Veterinary Nutrition I 3 CR
- VETT 106 Microbiology, Virology, & Mycology 4 CR
- VETT 107 Small Animal Parasitology 3 CR
- VETT 108 Radiology I 6 CR
- VETT 109 Clinical Laboratory Sciences 5 CR
- VETT 202 Mentorship Lab II 3 CR
- VETT 105 Learning for a Lifetime 3 CR
- VETT 110 Veterinary Anatomy & Physiology II 3 CR
- VETT 111 Small Animal Medicine I 4 CR
- VETT 112 Veterinary Nursing II: Surgical 5 CR
- VETT 113 Immunology & Pharmacology I 3 CR
- VETT 114 Dentistry 4 CR
- VETT 203 Mentorship Lab III 3 CR
- VETT 115 Radiology II 5 CR
- VETT 118 Small Animal Medicine II 3 CR
- VETT 119 Advanced Clinical Lab Sciences 4 CR
- VETT 120 Anesthesia 5 CR
- VETT 121 Exotic Animal Medicine 3 CR
- VETT 125 Humanity of Veterinary Medicine 2 CR
- VETT 204 Mentorship Lab IV 3 CR
- CTE 108 Job Skills 1 CR
- VETT 116 Large Animal Medicine 3 CR
- VETT 117 Veterinary Nursing III: Large Animal 5 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 205 Mentorship Lab V 3 CR
- VETT 130 Veterinary Clinical Work Experience 10 CR
- 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 Communications 5 CR

Total Program Credits: 155

Certificate

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
- VETT 104 Veterinary Nutrition I 3 CR
- VETT 106 Microbiology, Virology, & Mycology 4 CR
- VETT 107 Small Animal Parasitology 3 CR
- VETT 108 Radiology I 6 CR
- VETT 109 Clinical Laboratory Sciences 5 CR
- VETT 202 Mentorship Lab II 3 CR
- VET 117 Veterinary Assistant Internship 2 CR
- 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 Communications 5 CR

Total Program Credits: 72

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.

When you successfully complete BTC's Welding Technology Program, you will be fully prepared to:

- Observe and practice welding 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.
- Use efficient organizational skills.
- Stay current with new and emerging technologies in welding

Program Outcomes

- 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 a C grade in RDG 085 , and ACCUPLACER Sentence Skills score of 71 or a C grade in ENGL 092 .
- ACCUPLACER Arithmetic score of 50 or a C grade in MATH 090 or ABE 050 .

Pre-Program Course Requirements

- **NOTE: It is highly recommended that students take these courses prior to program entry:**
- CMST& 210 Interpersonal Communications
- AENGL 100 Applied English

- AMATH 100 Applied Occupational Math

Degree and Certificate Requirements for Welding& Fabricating Technology: Pipe Specialization

Welding Technology - Pipe Welding & Fabricating AAS Degree and Certificate 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 and Certificate Requirements for Welding& Fabricating Technology: General

Welding Technology - Welding & Fabricating AAS Degree and Certificate 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 I 2 CR
- WLD 104 Career Opportunities For Welders 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 102 Welding Safety II 2 CR
- WLD 106 Print Reading I 3 CR
- WLD 130 FCAW I 4 CR
- WLD 140 GTAW I 4 CR
- WLD 150 Steel Fabricating I 4 CR

Quarter 3

- CMST& 210 Interpersonal Communications 5 CR *
- WLD 107 Welding Leadership I 1 CR
- WLD 121 GMAW Aluminum I 4 CR
- WLD 141 GTAW Aluminum I 4 CR
- WLD 151 Aluminum Fabrication I 4 CR
- WLD 218 SMAW Practices II TP 2 CR
- WLD 231 FCAW Practices TP 2 CR

Quarter 4

- WLD 206 Print Reading II - Welding & Fabrication 3 CR
- WLD 230 FCAW II 3 CR
- WLD 242 GTAW & GMAW Alloy 5 CR
- WLD 252 Alloy Fabrication 5 CR
- Electives (suggested 2-4 credits)

Quarter 5

- WLD 213 Print Reading III 3 CR
- WLD 232 FCAW Practices II 3 CR
- WLD 254 Steel Fabrication II 6 CR
- WLD 220 SMAW Test Practice III 3 CR
- HLTH 155 First Aid Fundamentals 1 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR

- CTE 108 Job Skills 1 CR
- Electives (suggested 2-4 credits)

Quarter 6

- WLD 207 Welding Leadership II 1 CR
- WLD 209 Codes & Standards 2 CR
- WLD 271 Welder Testing 6 CR
- WLD 295 Capstone Project 3 CR
- Electives (suggested 2-4 credits)

Electives

AAS students please see program advisor for quarter electives

- WLD 108 Introduction to MIG Welding 1 CR
- WLD 109 Creative Welding 2 CR
- WLD 111 Creative Welding & 3D Design 2 CR
- WLD 112 Basic Welding Welding I & II 2 CR
- WLD 142 Intro to Aluminum Welding 2 CR
- WLD 212 CNC Practices 6 CR
- WLD 216 SMAW Practices TP 2 CR
- WLD 217 Advanced SMAW Practices 6 CR
- WLD 219 GTAW Aluminum Practices TP 2 CR
- WLD 223 GMAW Practices TP 2 CR
- WLD 225 GMAW Aluminum Practices TP 2 CR
- WLD 226 Advanced Aluminum Welding Practices 6 CR
- WLD 243 GTAW Steel Practices TP 2 CR
- WLD 245 Advance GTAW Practices 6 CR
- WLD 247 Advance GTAW Aluminum Practices 3 CR
- WLD 248 GTAW III 5 CR
- WLD 258 Special Fabrication Projects 6 CR
- WLD 267 Marine Welding 4 CR
- WLD 273 Testing II 6 CR
- WLD 274 Testing III 9 CR
- WLD 281 Welding Upgrade 20hr 1 CR
- WLD 282 Welding Upgrade 50hr 2 CR
- WLD 283 Welding Upgrade 70hr 3 CR
- WLD 290 Advanced Welding Practice III & IV 2 CR
- WLD 293 Welding Internship I 3 CR
- WLD 298 Welding Internship II 6 CR
- WLD 299 Welding Internship III 6 CR
- Select 12 credits of Electives 12 CR

Total Program Credits: 124

* Minimum requirement.

Welding & Fabricating Technology: Pipe Specialization, AAS

Program Requirements

Quarter 1

- AMATH 100 Applied Occupational Math 5 CR *
- WLD 101 Welding Safety I 2 CR
- WLD 104 Career Opportunities For Welders 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 102 Welding Safety II 2 CR
- WLD 106 Print Reading I 3 CR
- WLD 130 FCAW I 4 CR
- WLD 140 GTAW I 4 CR
- WLD 150 Steel Fabricating I 4 CR

Quarter 3

- CMST& 210 Interpersonal Communications 5 CR *
- WLD 107 Welding Leadership I 1 CR
- WLD 121 GMAW Aluminum I 4 CR
- WLD 141 GTAW Aluminum I 4 CR
- WLD 151 Aluminum Fabrication I 4 CR
- WLD 218 SMAW Practices II TP 2 CR
- WLD 231 FCAW Practices TP 2 CR

Quarter 4

- WLD 210 SMAW II 6 CR
- WLD 211 SMAW III 6 CR
- Electives: 0-6 credits can be taken Summer, Fall, or Spring

Quarter 5

- WLD 205 Print Reading II - Pipe 3 CR
- WLD 215 SMAW Pipe 7 CR
- WLD 256 Pipe Fabrication I 7 CR
- Electives: 0-6 credits can be taken Summer, Fall, or Spring

Quarter 6

- WLD 213 Print Reading III 3 CR
- WLD 257 Pipe Fabrication II 5 CR
- WLD 262 GTAW Pipe Welding 5 CR
- WLD 230 FCAW II 3 CR
- CTE 108 Job Skills 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR

Quarter 7

- WLD 207 Welding Leadership II 1 CR
- WLD 209 Codes & Standards 2 CR
- WLD 271 Welder Testing 6 CR
- WLD 295 Capstone Project 3 CR

Electives

AAS students please see program advisor for quarter electives

- WLD 108 Introduction to MIG Welding 1 CR
- WLD 109 Creative Welding 2 CR
- WLD 111 Creative Welding & 3D Design 2 CR
- WLD 112 Basic Welding Welding I & II 2 CR
- WLD 142 Intro to Aluminum Welding 2 CR
- WLD 212 CNC Practices 6 CR
- WLD 216 SMAW Practices TP 2 CR
- WLD 217 Advanced SMAW Practices 6 CR
- WLD 219 GTAW Aluminum Practices TP 2 CR

- WLD 223 GMAW Practices TP 2 CR
- WLD 225 GMAW Aluminum Practices TP 2 CR
- WLD 226 Advanced Aluminum Welding Practices 6 CR
- WLD 243 GTAW Steel Practices TP 2 CR
- WLD 245 Advance GTAW Practices 6 CR
- WLD 247 Advance GTAW Aluminum Practices 3 CR
- WLD 248 GTAW III 5 CR
- WLD 258 Special Fabrication Projects 6 CR
- WLD 267 Marine Welding 4 CR
- WLD 273 Testing II 6 CR
- WLD 274 Testing III 9 CR
- WLD 281 Welding Upgrade 20hr 1 CR
- WLD 282 Welding Upgrade 50hr 2 CR
- WLD 283 Welding Upgrade 70hr 3 CR
- WLD 290 Advanced Welding Practice III & IV 2 CR
- WLD 293 Welding Internship I 3 CR
- WLD 298 Welding Internship II 6 CR
- WLD 299 Welding Internship III 6 CR
- Select 6 credits of Electives 6 CR

Total Program Credits: 132

* Minimum requirement.

Associate of Applied Science - Transfer Welding & Fabricating Technology: General, AAS-T Program Requirements

Quarter 1

- MATH& 141 Precalculus I 5 CR *
- WLD 101 Welding Safety I 2 CR
- WLD 104 Career Opportunities For Welders 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 102 Welding Safety II 2 CR
- WLD 106 Print Reading I 3 CR
- WLD 130 FCAW I 4 CR
- WLD 140 GTAW I 4 CR
- WLD 150 Steel Fabricating I 4 CR

Quarter 3

- PSYC& 100 General Psychology 5 CR *
- WLD 107 Welding Leadership I 1 CR
- WLD 121 GMAW Aluminum I 4 CR
- WLD 141 GTAW Aluminum I 4 CR
- WLD 151 Aluminum Fabrication I 4 CR
- WLD 218 SMAW Practices II TP 2 CR
- WLD 231 FCAW Practices TP 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 5 CR
- WLD 252 Alloy Fabrication 5 CR
- Electives (suggested 2-4 credits)

Quarter 5

- WLD 213 Print Reading III 3 CR
- WLD 232 FCAW Practices II 3 CR
- WLD 254 Steel Fabrication II 6 CR
- WLD 220 SMAW Test Practice III 3 CR
- HLTH 155 First Aid Fundamentals 1 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR
- CTE 108 Job Skills 1 CR
- Electives (suggested 2-4 credits)

Quarter 6

- WLD 207 Welding Leadership II 1 CR
- WLD 209 Codes & Standards 2 CR
- WLD 271 Welder Testing 6 CR
- WLD 295 Capstone Project 3 CR
- Electives (suggested 2-4 credits) 6 CR

Electives

AAS-T students please see program advisor for quarter electives.

- WLD 108 Introduction to MIG Welding 1 CR
- WLD 109 Creative Welding 2 CR
- WLD 111 Creative Welding & 3D Design 2 CR
- WLD 112 Basic Welding Welding I & II 2 CR
- WLD 142 Intro to Aluminum Welding 2 CR
- WLD 212 CNC Practices 6 CR
- WLD 216 SMAW Practices TP 2 CR
- WLD 217 Advanced SMAW Practices 6 CR
- WLD 219 GTAW Aluminum Practices TP 2 CR
- WLD 223 GMAW Practices TP 2 CR
- WLD 225 GMAW Aluminum Practices TP 2 CR
- WLD 226 Advanced Aluminum Welding Practices 6 CR
- WLD 243 GTAW Steel Practices TP 2 CR
- WLD 245 Advance GTAW Practices 6 CR
- WLD 247 Advance GTAW Aluminum Practices 3 CR
- WLD 248 GTAW III 5 CR
- WLD 258 Special Fabrication Projects 6 CR
- WLD 273 Testing II 6 CR
- WLD 274 Testing III 9 CR
- WLD 281 Welding Upgrade 20hr 1 CR
- WLD 282 Welding Upgrade 50hr 2 CR
- WLD 283 Welding Upgrade 70hr 3 CR
- WLD 290 Advanced Welding Practice III & IV 2 CR
- WLD 293 Welding Internship I 3 CR
- WLD 298 Welding Internship II 6 CR
- WLD 299 Welding Internship III 6 CR
- 12 credits of Electives are required 12 CR

Total Program Credits: 129

* Minimum requirement.

Welding & Fabricating Technology: Pipe Specialization, AAS-T

Program Requirements

Quarter 1

- MATH& 141 Precalculus I 5 CR *
- WLD 101 Welding Safety I 2 CR
- WLD 104 Career Opportunities For Welders 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 102 Welding Safety II 2 CR
- WLD 106 Print Reading I 3 CR
- WLD 130 FCAW I 4 CR
- WLD 140 GTAW I 4 CR
- WLD 150 Steel Fabricating I 4 CR

Quarter 3

- PSYC& 100 General Psychology 5 CR *
- WLD 107 Welding Leadership I 1 CR
- WLD 121 GMAW Aluminum I 4 CR
- WLD 141 GTAW Aluminum I 4 CR
- WLD 151 Aluminum Fabrication I 4 CR
- WLD 218 SMAW Practices II TP 2 CR
- WLD 231 FCAW Practices TP 2 CR

Quarter 4

- Humanities, Social Science, or Natural Science 5 CR
- WLD 210 SMAW II 6 CR
- WLD 211 SMAW III 6 CR
- Electives: 0-6 credits can be taken Summer, Fall, or Spring

Quarter 5

- WLD 205 Print Reading II - Pipe 3 CR
- WLD 215 SMAW Pipe 7 CR
- WLD 256 Pipe Fabrication I 7 CR
- Electives: 0-6 credits can be taken Summer, Fall, or Spring

Quarter 6

- WLD 213 Print Reading III 3 CR
- WLD 257 Pipe Fabrication II 5 CR
- WLD 262 GTAW Pipe Welding 5 CR
- WLD 230 FCAW II 3 CR
- CTE 108 Job Skills 1 CR
- HLTH 155 First Aid Fundamentals 1 CR
- CODR 125 Forklift Driver Certification 1 CR
- ENVS 151 Basic CSTOP Course 1 CR

Quarter 7

- WLD 207 Welding Leadership II 1 CR

- WLD 209 Codes & Standards 2 CR
- WLD 271 Welder Testing 6 CR
- WLD 295 Capstone Project 3 CR
- Electives: 0-6 credits can be taken Summer, Fall, or Spring

Electives

AAS-T students please see program advisor for quarter electives

- WLD 108 Introduction to MIG Welding 1 CR
- WLD 109 Creative Welding 2 CR
- WLD 111 Creative Welding & 3D Design 2 CR
- WLD 112 Basic Welding Welding I & II 2 CR
- WLD 142 Intro to Aluminum Welding 2 CR
- WLD 212 CNC Practices 6 CR
- WLD 216 SMAW Practices TP 2 CR
- WLD 217 Advanced SMAW Practices 6 CR
- WLD 219 GTAW Aluminum Practices TP 2 CR
- WLD 223 GMAW Practices TP 2 CR
- WLD 225 GMAW Aluminum Practices TP 2 CR
- WLD 226 Advanced Aluminum Welding Practices 6 CR
- WLD 243 GTAW Steel Practices TP 2 CR
- WLD 245 Advance GTAW Practices 6 CR
- WLD 247 Advance GTAW Aluminum Practices 3 CR
- WLD 248 GTAW III 5 CR
- WLD 258 Special Fabrication Projects 6 CR
- WLD 267 Marine Welding 4 CR
- WLD 273 Testing II 6 CR
- WLD 274 Testing III 9 CR
- WLD 281 Welding Upgrade 20hr 1 CR
- WLD 282 Welding Upgrade 50hr 2 CR
- WLD 283 Welding Upgrade 70hr 3 CR
- WLD 290 Advanced Welding Practice III & IV 2 CR
- WLD 293 Welding Internship I 3 CR
- WLD 298 Welding Internship II 6 CR
- WLD 299 Welding Internship III 6 CR
- 6 credits of Electives are required 6 CR

Total Program Credits: 137

* Minimum requirement.

Certificate

Basic Welding Skills Certificate

Program Requirements

Quarter 1

- WLD 101 Welding Safety I 2 CR
- WLD 104 Career Opportunities For Welders 2 CR
- WLD 105 Thermal Cutting Processes 4 CR
- WLD 110 SMAW I 4 CR
- WLD 120 GMAW I 4 CR
- AMATH 100 Applied Occupational Math 5 CR *

Quarter 2

- WLD 102 Welding Safety II 2 CR

- WLD 106 Print Reading I 3 CR
- WLD 130 FCAW I 4 CR
- WLD 140 GTAW I 4 CR
- AENGL 100 Applied English 5 CR *
- WLD 150 Steel Fabricating I 4 CR

Quarter 3

- WLD 107 Welding Leadership I 1 CR
- WLD 121 GMAW Aluminum I 4 CR
- WLD 141 GTAW Aluminum I 4 CR
- WLD 151 Aluminum Fabrication I 4 CR
- CMST& 210 Interpersonal Communications 5 CR *
- WLD 218 SMAW Practices II TP 2 CR
- WLD 231 FCAW Practices TP 2 CR

Total Program Credits: 65

* Minimum requirement.

Chapter 6: Course Descriptions

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, 38 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

Theory and practice of computing and recording transactions relating to merchandise inventory, notes payable and receivable, depreciation, accounting principles, and reporting standards.

Prerequisite(s): ACCT 141 or instructor permission.

ACCT 243 Practical Accounting III

5 CR

Theory and practice relating to the formation and operations of partnerships and corporations, decision making and statement analysis. Financial data is used to access the efficiency of current operations and determine profitability.

Prerequisite(s): ACCT 242 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 I

5 CR

A study of computerized accounting systems in both service and merchandising environments. Uses the commercially popular QuickBooks software to demonstrate the use of fully integrated accounting systems. Prepares the student to use commercial accounting software products on-the-job.

Prerequisite(s): ACCT 141 or instructor permission.

ACCT 271 Internship

1 CR

Students will arrange to work in an office where they will apply accounting skills and knowledge.

ACCT 272 Internship

2 CR

Students will arrange to work in an office where they will apply accounting skills and knowledge.

ACCT 273 Internship

3 CR

Students will arrange to work in an office where they will apply accounting skills and knowledge. The internship may be paid or unpaid work experience.

ACCT 274 Internship

4 CR

Students will arrange to work in an office where they will apply accounting skills and knowledge. It may be a paid or an unpaid work experience.

ACCT 275 Internship

5 CR

Students will arrange to work in an office where they will apply accounting skills and knowledge.

ACCT 276 Internship

6 CR

Students will arrange to work in an office where they will apply accounting skills and knowledge.

Auto Collision Repair

ACRT 101 Introduction to Auto Collision Repair

4 CR

This course covers personal, tool and equipment safety; workplace ethics; and hazardous materials.

ACRT 105 Non-Structural Welding

8 CR

This course covers the differences between various metal joining processes, selection of the correct process for different types of jobs, and the advantages of MIG welding, plasma cutting, spot welding, and gas welding and cutting.

Prerequisite(s): ACRT 101

ACRT 110 Refinishing Safety

2 CR

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

ACRT 115 Non-Structural Repair

2 CR

This course addresses basic personal safety, vehicle safety, equipment, product knowledge, and basic knowledge required to perform non-structural analysis and damage repair.

Prerequisite(s): ACRT 101, ACRT 110

ACRT 123 Non-Structural Metal Finishing

5 CR

This course covers the correct mixing and application of body fillers that will increase the quality of a repair. Instruction in safety, environmental awareness, basic fundamentals of metal straightening, and proper selection of metal straightening tools is also included.

Prerequisite(s): ACRT 101, ACRT 110, ACRT 115

ACRT 125 Refinishing Surface Preparation

5 CR

This course covers how to determine the condition of a vehicle's finish and plan the steps to be used in refinishing the vehicle. Instruction in safety and environmental awareness is also included.

Prerequisite(s): ACRT 101, ACRT 110, ACRT 123

ACRT 130 Damage Analysis

3 CR

This course covers the procedure for analyzing vehicle damage and estimating repair costs using manual and computerized estimating systems.

ACRT 133 Paint Matching & Blending

7 CR

This course addresses mixing all types of refinishing materials, the theory of matching refinishing materials, painting and blending techniques, and paint application.

Prerequisite(s): ACRT 101, ACRT 110, ACRT 123, ACRT 125

ACRT 138 Restoring Corrosion Protection

3 CR

This course covers corrosion and its effect on vehicles, how to restore corrosion protection to collision damaged areas, and how to work safely with chemicals. Student plan effective and correct corrosion protection treatment for welded areas and exposed seams, interior seams, exposed surfaces, trim and accessories during repairs.

Prerequisite(s): ACRT 101, ACRT 110, ACRT 123

ACRT 140 Drive Train, Fuel, Brakes, HVAC

2 CR

This course covers repair of a vehicle involved in a collision including removal of mechanical parts such as drive train and engine parts. It also covers servicing heating and A/C systems of a vehicle involved in a collision.

ACRT 141 Outer Body Panel Repair

4 CR

This course covers replacement and adjustment of outer body panels, selection of alignment tools, and understanding how to use panel replacement and alignment tools. Instruction in safety, environmental awareness, human relations and work ethics are taught as an integral part of this course.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140

ACRT 142 Shop Practicum I

6 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140

ACRT 143 Shop Practicum II

6 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 142

ACRT 251 Structural Welding

4 CR

This course addresses welding safety, setup, and uses of a MIG welder for aluminum and steel. Students learn how to weld different types of metals. To complete this course students must pass all welding tests based on I-CAR standards.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 142, ACRT 143

ACRT 253 Moveable Glass & Hardware

2 CR

This course covers removal, installation, and adjustment of moveable glass and its hardware. Students identify causes of door glass problems and learn how to correct air and water leaks.

ACRT 254 Structural Fixed Glass

2 CR

This course emphasizes the role glass plays in the structural integrity of the vehicle and includes information about automobile glass and methods for removal and installation.

Prerequisite(s): ACRT 253

ACRT 255 Suspension & Steering

4 CR

This course covers identification and diagnosis of tire and wheel steering, rack and pinion steering, power steering suspension, strut type, and steering and suspension system problems.

ACRT 256 Unibody Inspection

4 CR

This course covers inspection, diagnosis, measurement, and repair of steel and aluminum unibody vehicles.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 142, ACRT 143, ACRT 251

ACRT 260 Shop Practicum III

6 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 141, ACRT 142, ACRT 143, ACRT 251, ACRT 253, ACRT 254, ACRT 255, ACRT 256

ACRT 262 Frame Inspection & Repair

4 CR

This course covers inspection, diagnosis, measurement, and repair of steel framed vehicles.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 141, ACRT 142, ACRT 143, ACRT 251, ACRT 253, ACRT 254, ACRT 255, ACRT 256, ACRT 260

ACRT 263 Restraint Systems

2 CR

This course covers diagnosis and inspection of restraint and SRS systems.

ACRT 264 Plastics & Adhesives

4 CR

This course covers the different types of plastic used in today's automobiles, and how to identify and repair them.

ACRT 266 Electrical System Repair

3 CR

This course covers diagnosis and repair of electrical system problems.

ACRT 268 Refinishing Final Detail

3 CR

This course addresses basic theory and practical applications of color sanding, buffing, and polishing after refinishing. This course also covers vehicle cleanup before the vehicle is delivered to the customer.

ACRT 270 Shop Practicum IV

10 CR

This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 141, ACRT 142, ACRT 143, ACRT 251, ACRT 253, ACRT 254, ACRT 255, ACRT 256, ACRT 260, ACRT 262, ACRT 263, ACRT 264, ACRT 266

ACRT 275 Internship

7 CR

The student will gain hands-on work experience with an auto collision repair employer.

Prerequisite(s): ACRT 101, ACRT 105, ACRT 110, ACRT 115, ACRT 123, ACRT 125, ACRT 130, ACRT 133, ACRT 138, ACRT 140, ACRT 141, ACRT 142, ACRT 143, ACRT 251, ACRT 253, ACRT 254, ACRT 255, ACRT 256, ACRT 260, ACRT 262, ACRT 263, ACRT 264, ACRT 266, ACRT 270 with a passing score of 70% or better.

Automotive

AUTO 104 Engines Light Mechanical

7 CR

An introductory look at the 4 stroke 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 Applied Automotive Concepts I

15 CR

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

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100

AUTO 229 Applied Automotive Concepts II

5 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended the student's experience focuses on the subject areas recently completed 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 also have an opportunity to perform on-campus internships however availability is extremely limited. Students are encouraged to seek internship opportunities within the industry first.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100

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 in AUTO 255.

Prerequisite(s): AUTO 151, AENGL 100 , CMST& 210, and AMATH 100

AUTO 259 Applied Automotive Concepts III

5 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended the student's experience focuses on the subject areas recently completed 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 also have an opportunity to perform on-campus internships however availability is extremely limited. Students are encouraged to seek internship opportunities within the industry first.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100

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 including exhaust gas analysis. In addition there will be more in-depth study of the OBD2 system and how it relates to other systems on the vehicle. This course also includes an introduction to alternative fuel vehicles.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100

AUTO 279 Applied Automotive Concepts IV

5 CR

The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended the student's experience focuses on the subject areas recently completed 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 also have an opportunity to perform on-campus internships however availability is extremely limited. Students are encouraged to seek internship opportunities within the industry first.

Prerequisite(s): AENGL 100, CMST& 210, and AMATH 100

Basic Academic Skills

ABE 050 Essential Math

5

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

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

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

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

ENGL 092 Fundamentals of Standard Written English

5

This course focuses on the fundamentals of college-level standard written English. Course work includes a study of the conventional grammatical rules of English in the construction of effective sentences and paragraphs, leading to the practice of crafting an essay. Critical readings of paragraphs and short essays are also part of the curriculum.

Prerequisite(s): Accuplacer Reading Comprehension score of 50 or a C grade in ABE 054 or ABE 055, and Accuplacer Sentence score of 50 or a C grade in ABE 052 or ABE 055.

MATH 090 Pre-Algebra

5

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 a C grade in ABE 050.

RDG 085 Reading Skills

5

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 a C grade in ABE 054 or ABE 055, and Accuplacer Sentence score of 50 or a C grade in ABE 052 or ABE 055.

Biology

BIO 105 Essentials of Anatomy Physiology

5 CR

The student will develop a basic knowledge of the structure and function of the various body systems. The course emphasizes the essential structure and function of the normal human body, which will serve as a foundation of general understanding for future study in health occupations. Integration of each system to other systems and the whole organism as well as application of key concepts to health and disease are emphasized.

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.

Prerequisite(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 B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100 and Accuplacer Algebra score of 75 or a C grade in MATH 098.

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 with a C grade and CHEM& 121 with a C grade.

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 grade.

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 with a C grade and CHEM& 121 with a C grade.

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 score of 38 in Arithmetic or a grade of C or better in MATH 090; 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.

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.

BUS 128 Search Engine Marketing

5 CR

Search Engine Marketing is the process of promoting a Web site, 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): BUS 127 or Instructor permission

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): BUS 128 or Instructor permission

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 score of 38 in Arithmetic or a grade of C or better in MATH 090; or instructor permission.

BUS 171 Technical Communications

5 CR

This course introduces students to effective written and oral business communication through application and study of text. Students will learn to compose effective business writings including letters, memos, technical manuals, 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, voice recognition, and live web conferencing. It is recommended that BUS 188 (Business English) be taken before BUS 171 (Technical Communications). NOTE: When this course is taught online, students will need access to a Windows-based computer, web cam, and to be able to deliver and receive audio.

Prerequisite(s): Accuplacer scores: 71 Reading or a C grade in RDG 085; 71 Sentence Skills or a C grade in ENGL 092; CAP 106; or instructor permission.

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 271 Internship

1 CR

Students will arrange to work in an office where they will apply business skills and knowledge.

BUS 272 Internship

2 CR

Students will arrange to work in an office where they will apply business skills and knowledge.

BUS 273 Internship

3 CR

Students will arrange to work in an office where they will apply business skills and knowledge.

BUS 274 Internship

4 CR

Students will arrange to work in an office where they will apply business skills and knowledge.

BUS 275 Internship

5 CR

Students will arrange to work in an office where they will apply business skills and knowledge.

BUS 276 Internship

6 CR

Students will arrange to work in an office where they will apply business skills and knowledge.

BUS 280 Assessment

1 CR

Office Assistant students will create a portfolio appropriate to their certificate or degree and complete an exit interview with their advisor. Assessment, required for a completion certificate or degree, will be assigned relative to the student's certificate or degree.

Prerequisite(s): Instructor Permission.

BUS 281 Assessment

1 CR

Administrative Assistant students will create a portfolio appropriate to their certificate or degree and complete an exit interview with their advisory. Assessment, required for a completion certificate or degree, will be assigned relative to the student's certificate or degree.

Prerequisite(s): Instructor Permission.

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 which 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

FABE 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 which workers may encounter at a general industry site.

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): BTC College Level Math score of 75 or MATH 099 or AMATH 111 with a C grade 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 B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100 and BTC College Level Math score of 32 or a C grade in MATH 099.

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 and the amines 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. Group discussion, lecture, as well as laboratory exercises are included as methods of learning.

Prerequisite(s): CHEM& 121 with a C grade or better.

CHEM& 161 General Chemistry w/ Lab I

5 CR

This is an introductory chemistry course which includes an introduction to the scientific method, the international system of measurements, the nature of atoms and molecules, ions, chemical bonding, the periodic table, chemical formulas and

equations, stoichiometry of reactions and solutions, and the physical properties of real and ideal gasses. Also included are short courses on polymers and nuclear chemistry. Lab work included.

Prerequisite(s): BTC College Level Math score of 75 or a C grade in MATH 099 or AMATH 111.

CHEM& 162 General Chemistry w/Lab II

5 CR

Atomic periodicity, chemical bonding theories, solid and liquid states and solutions.

Prerequisite(s): CHEM& 161 with C grade.

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& 101 Introduction to Communications

5 CR

Fundamental course in communication theory. Students will apply knowledge in variety of settings including interpersonal, public speaking, and small group communication.

Prerequisite(s): ENGL& 101 or CPT score of 86 or higher on sentence skills and 85 or higher on reading. Word processing knowledge required.

CMST& 210 Interpersonal Communications

5 CR

Designed to introduce students to the application of basic interpersonal communication theory, with a focus on achieving success in the workplace. Topics explored include self-awareness, self-disclosure, conversation skills, relationship development and maintenance, assertiveness, teamwork and group dynamics, conflict management strategies, and diversity issues.

Prerequisite(s): 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.

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 a C grade in RDG 085, and Accuplacer Sentence Skills score of 71 or a C grade in ENGL 092.

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 learn to use a personal computer and gain a basic understanding of Excel, Word, and PowerPoint. They will also become familiar with basic computer hardware components and internet usage. For off-campus work, a Windows-based computer is required.

Prerequisite(s): Accuplacer score: 71 Reading.

CAP 105 Computerized Touch Keyboarding

2 CR

A touch typing course for beginners as well as those needing to brush up on their keyboarding skills. Course covers learning to type alphabetical keys by touch using proper technique. For off-campus work, a Windows-based computer is required.

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

2CR

Students will use Microsoft Outlook to learn how to effectively manage settings, incoming and outgoing messages, schedules, and contacts. 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, CAP 106; 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.

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

Table design, relationships, filters, queries, forms and reports will be introduced. Students will apply skills to database projects. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 101; or instructor permission.

CAP 148 MS PowerPoint

3 CR

Presents an overview of a presentation graphics program. Students will create and present a slide show projected from their computer. For off-campus work, a Windows-based computer is required.

Prerequisite(s): CAP 101; or instructor permission.

CAP 150 Project - Level 1

1 CR

Create a project plan file with information entries; develop a work breakdown structure with organizing and task setting relationships; assign resources; and finalize a project plan file. A manual is included with this course.

CAP 151 Project - Level 2

1 CR

Exchange project plan data with other applications; update the plan; create custom reports and re-use existing projects plan information. A manual is included with this course.

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, CAP 148; or instructor permission.

CIS 145 Website Development

5 CR

An introduction to HTML, graphics, and other programming languages for use in web pages. Students will learn the use of programming editors, preparation of graphics, content development, and page layout.

Prerequisite(s): CAP 101; 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; or instructor permission.

CIS 276 Computer Software Support Internship

6 CR

Students will arrange to work in an office, solving computer software, hardware or operating system problems for users. The work experience may be paid or unpaid 180 hours of work experience.

Prerequisite(s): Instructor permission.

IT 102 IT Ethics and Careers

5 CR

Ethics issues and career options for computer professionals will be explored through research and simulated IT enterprises. Topics include intellectual property rights, respecting privacy, avoiding harm to others, IT career paths, and IT workplace environments

Prerequisite(s): Either IT 112, or IT 141, or IT 160.

IT 112 PC Hardware A+

8 CR

This course prepares the student to understand, install, configure, upgrade, troubleshoot, and repair PC hardware components. Course material parallels the CompTIA A+ Core Hardware certification objectives for hardware.

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 140 Introduction to Linux Operating Systems

5 CR

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

IT 141 Operating Systems A+

8 CR

This course prepares the student to install, maintain, and troubleshoot Windows operating systems. Course material parallels the CompTIA A+ Operating Systems certification objectives for operating systems.

IT 142 Client/Desktop Operating Systems II

10 CR

Designed to facilitate in-depth study of a Client Computer Operating system found commonly in the business environment. Areas of study include installation, configuration, troubleshooting, deployment, and networking.

Prerequisite(s) or Corequisite(s): IT 141 or IT 160 corequisite.

IT 160 Network Technologies

8 CR

The goal of this course is to provide students with a background in networking technologies and prepare students to pass CompTIA's broad-based, vendor independent networking certification exam, Network +. This course covers a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. It not only introduces a variety of concepts, but also discusses in-depth the most significant aspects of networking, such as the TCP/IP protocol suite.

Prerequisite(s): Either IT 112, or IT 141

IT 210 Network Security Fundamentals

10 CR

This course provides a comprehensive overview of network security through lecture, extensive hands-on, and research projects. Topics covered include general security concepts, communication security, infrastructure security, cryptography, access control, authentication, external attack, and operational and organizational security.

Prerequisite(s): IT 142, IT 160

IT 220 Network Communications Infrastructure

5 CR

In this hands-on practicum students learn the components of structured data communications cabling systems, OSI Layers 1, 2 and 3 hardware components, and how to install and configure them.

Prerequisite(s): IT 142, IT 160

IT 230 Windows Powershell

5 CR

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

Prerequisite(s) or Corequisite(s): IT 242, or IT 243 corequisite.

IT 240 Linux Administration & Configuration

5 CR

This course introduces students to system administration fundamentals of the Linux operating system. Using Linux, students learn to install and configure the O/S using system text files, use the common GUIs, configure networking, administer user accounts and permissions, define the user environment, and monitor system resources, processes and usage.

Prerequisite(s): IT 140, and either IT 141, or IT 142.

IT 242 Windows Server Administration

5 CR

Covers installation, configuration, and system administration of Windows Server. Topics include managing accounts, groups, folders, and files; object security; Active Directory; Disk quotas; server monitoring and optimization; and troubleshooting.

Prerequisite(s): IT 142, IT 160

IT 243 Windows Server Network Infrastructure

5 CR

This course covers managing and maintaining a Windows Server network infrastructure. Students will learn how to install,

configure, and troubleshoot TCP/IP, DHCP, DNS, routing and remote access, and VPNs. Students will also learn to monitor traffic, troubleshoot connectivity, implement secure network administration procedures and resolve service issues on a Windows Server.

Prerequisite(s): IT 142, IT 160

IT 261 Advanced Special Topics I

5 CR

This course allows for specialized or in-depth study of an advanced computer networking topic. Example topics may include: Microsoft SQL Server, Apache Web Server, Internet Information Server, Microsoft Exchange Server, and computer forensics.

Prerequisite(s) or Corequisite(s): IT 242, or IT 243 corequisite.

IT 262 Advanced Special Topics II

5 CR

This course allows for specialized or in-depth study of an advanced computer networking topic. Example topics may include: Microsoft SQL Server, Apache Web Server, Internet Information Server, Microsoft Exchange Server, and computer forensics.

Corequisite(s): IT 240.

IT 270 Applied IT Career Skills

8 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(s) or Corequisite(s): IT 261, or IT 262 as a corequisite.

IT 272 Capstone Project

5 CR

Students will complete a capstone project integrating skills developed throughout the program. The student will make a written proposal for the project, stating milestones and deliverables and upon completion, will demonstrate the project in an oral presentation, as well as provide written documentation about the project.

Prerequisite(s) or Corequisite(s): IT 261, or IT 262 as a corequisite.

Culinary Arts

CUL 101 Basic Cuisine Foundation

6 CR

This course focuses on basic foundation cooking techniques utilized in the culinary industry. Study topics include basic mise en place skills; life/career in the kitchen; vegetable techniques/basic preparation; basic fonds/sauces; basic starches; and classic cooking methods. Weekly labs are for practicing these foundational skills.

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. The "Food Safety Manager Certification" program, the "Training Achievement Program Series" (TAPS) and the "National Registry for Food Safety Professionals" (NRFSP) are required computer-based programs.

Prerequisite(s): Program Admission.

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; recipes reading and writing; and various menu forms used in restaurants. Recipe conversions and pre-cooking are covered as well.

Prerequisite(s): Program Admission.

CUL 114 Culinary Skill Development I

7 CR

This course focuses on the foundational cooking techniques utilized in the culinary industry. Topics of study include basic mise en place skill development, foundational cooking methods, related terminology and additional foundational cooking preparations. Theory and lab topics include focus on meat cookery; the preparation of stocks, classical and contemporary

mother sauces and 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.

Corequisite(s): CUL 110, CUL 112, CUL 116, CUL 118 with a "C-" better.

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.

Corequisite(s): CUL 110, CUL 112, CUL 114, CUL 118 with a "C-" or better.

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; correct operation; safety, breakdown and cleaning procedures.

Corequisite(s): CUL 110, CUL 112, CUL 114, CUL 116 with a "C-" or better.

CUL 120 International Cuisine

6 CR

This course provides students with practical experience in the preparation and service of foods from international countries. Emphasis is placed on eating habits, ethnic influences, indigenous foods and customs, cooking methods used, traditional equipment, and each region's overall influence on today's restaurant market. Weekly participation in theme buffet production enhances students' technical skills

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118;

Corequisite(s): CUL 124 all with a "C-" or better.

CUL 122 Culinary Skill Development II

7 CR

This course is a continuation of Culinary Skill Development I, with study and practice focused on soups, salads, salad dressings, nuts, fruits, potatoes, grains, dry legumes and pasta preparations, sandwiches, cheese and dairy products, eggs and breakfast cookery and vegetarian cookery. Theory topics include common market forms, yield study and costing analysis, purchasing, receiving, handling and storage of these foundational food products. Through weekly labs students will practice applying foundational cooking methods to these food products.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118 with a "C-" or better.

CUL 124 Buffet 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): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118;

Corequisite(s): CUL 120 all with a "C-" or better.

CUL 140 Garde Manger

6 CR

In the Garde Manger course students plan, prepare, execute, and present cold foods and culinary salon work, while applying fundamental cooking and garnishing methods. Production includes refined techniques such as canapés, hors d'oeuvres, amuse bouche, curing, smoking, pickling, cold foods, salt dough sculpture, ice sculpture and tallow sculptures.

Prerequisite(s): CUL 110 , CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124 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 a' 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 a' la carte production provides students with opportunity to refine fundamental culinary skills and develop a' la minute production skills. Upon completion of this course, the student should be able to effectively set-up and operate a' la carte station.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124 with a "C-" or better.

CUL 150 Internship

9 CR

Students may elect to work in a pre-designated professional kitchen, where they will successfully apply cooking skills and knowledge.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144 with a "C-" or better.

CUL 152 Culinary Competition Fundamentals

11 CR

Students may compete for one of five positions to represent Bellingham Technical College's culinary arts program in the Washington State American Culinary Federation student team competition (Hot Food Team).

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144 with a "C-" or better.

CUL 220 Restaurant Management

7 CR

In this course students apply advanced issues related to business and operations management. Students plan and develop menus, kitchen design, dining room lay-out, point of sale operations and business projections, while utilizing a variety of computer programs.

Prerequisite(s): CUL 112, CUL 124, AENGL 100, AMATH 100.

CUL 222 Hospitality Supervision

4 CR

In this course students gain an overview of specific concepts necessary to successfully utilize human resources in a food service environment. Lectures on selected topics, student projects and assignments related to workplace activities form the majority of the material presented.

Prerequisite(s): AENGL 100

CUL 224 Food and Beverage Service

2 CR

This course is based on dining room operations and table settings to meet a wide variety of service styles. Students learn the principles of front-of-the-house operations, point of sale systems and guest relations along with foundational information about wine including the history of wine, production characteristics, laws and purchasing and storage requirements. Types, styles, service and state laws regarding alcoholic and non-alcoholic beverages service are also discussed. Upon completion, students will be able to determine which wines compliment various cuisines and particular tastes.

Prerequisite(s): CUL 120, CUL 124

CUL 230 Northwest a' la carte Cookery

9 CR

This course provides students with an opportunity to apply the vast majority of the culinary arts curriculum as they rotate through several stations creating Northwest cuisine in the a' la carte restaurant kitchen. Students will become familiar with the theory of and lab responsibilities involved in setting up and running an a' la carte restaurant station including food preparation, planning sheets, organization, portion control, timing, temperature control, teamwork, communication, productivity, and sanitary/safety production skills. In addition students supervise first-year students' commis, practice expeditor skills including coordinating and controlling the flow of finished menu items from the station chefs, while working closely with student service staff and maitre d' positions.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 140, CUL 142, CUL 144, CUL 150 or CUL 152, CUL 220, CUL 222, CUL 224, PST 202, PST 204, PST 206, PST 208 with a "C-" or better.

CUL 232 Food and Beverage Service Lab

4 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; maitre d', front server and back server.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 140, CUL 142, CUL 144, CUL 150 or CUL 152, CUL 220, CUL 222, CUL 224, PST 202, PST 204, PST 206, PST 208 with a "C-" or better.

CUL 234 Capstone Project & Practical Exam

2 CR

This course is a formal written examination designed to review the student's overall knowledge at the completion of all course requirements. There are two major elements: theory and practice. Students complete a five-course gastronomie for service tasting and formal menu presentation, while employing costing, planning and leadership throughout.

Prerequisite(s): CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 140, CUL 142, CUL 144, CUL 150 or CUL 152, CUL 220, CUL 222, CUL 224, PST 202, PST 204, PST 206, PST 208 with a "C-" or better.

CUL 236 Wine Appreciation

2 CR

In this course students will apply the History of wine making, Wine production methods, Major Red and White grape varieties, Major wine producing countries (Old World and New World), Purchasing and storage of wines, Wine tasting fundamentals, and Food and Wine pairing. State Law requires a minimum age of 21 to consume alcohol. Approved photo identification is required to verify each student's age. Recently passed Senate Bill 5774 (sip and spit bill) allows 18-20 year olds to participate in the tasting of alcoholic beverages so long as the beverage is spit out and not consumed. Anyone under 18 will be allowed to participate in every part of the tasting process except the actual tasting portion.

Prerequisite(s): CUL 224

Corequisite(s): CUL 230, CUL 232

PST 101 Pastry & Baking Orientation

3 CR

This course provides a background and history of the baking and pastry profession, and introduces the student to the broad spectrum of hospitality/foodservice organizations and career opportunities. During the course students will cover the baking profession, basic professional skills, bakeshop math, baking and pastry equipment, basic ingredients, mise en place, plan writing, basic baking principals, kitchen orientation, and observing bakery or retail baking establishment. This course provides the student with the foundation of job research and preparation.

PST 200 Introduction to Commercial Baking

6 CR

This course will cover three general areas. Students will be introduced to the terms and techniques of several doughnut types, white and decorative layered sheet cakes; cupcakes; a variety of individual French pastries; coffee cake; and basic bars for sale in retail. Students will create primary dough's and fillings through the use of classical techniques. Product finishes will be included. Students will gain an understanding of pastry ingredients and their functions; learn correct baking and frying methods; exercise accurate assessment of finishing decorations, and will practice safety and sanitation procedures.

Prerequisite(s): No prerequisite

Corequisite(s): PST 101 with a "C-" or better.

PST 202 Pastry Basic I

3 CR

This course transfers the learned basic ingredients, techniques, weights and measures, baking terminology, and formula calculations into action. Baking topics include Cookies, Quick Breads, Fritters, Pancakes, Waffles, Crepes, Short Pastries, eclair Paste, Strudel and Phyllo Dough, Baked Meringues, Tarts and Special Pastries. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.

Prerequisite(s): CUL 110

Corequisite(s): PST 204 both with a "C-" or better.

PST 204 Introduction to Artisan Breads & Laminated Dough

4 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. Product finishes will be included. Basic bread production, laminated and rich yeasted dough will be studied and prepared. (Danish and Puff pastry). Students will understand bread ingredients and their function; learn correct baking methods; learn correct lamination procedures; exercise accurate assessment of dough; and practice safety and sanitation procedures.

Prerequisite(s): CUL 110

Corequisite(s): PST 202 both with a "C-" or better.

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. Upon completion of this course students will be able to create a variety of single and double crusted pies; simple frozen and fruit desserts; and gain an understanding in baking for special diets.

Prerequisite(s): CUL 110, PST 202, PST 204

Corequisite(s): PST 208 all with a "C-" or better.

PST 208 Intro to Cakes, Desserts, Chocolate & Sugar Decorations

5 CR

This course provides a study in the elements of mixing and baking; assembling and decorating simple cake; introduction to specialty cake; gateaux and torte; basic sauces; simple to complex dessert presentation; introduction to chocolate and sugar techniques used for decorations; and simple classic and molded chocolate truffles. Upon completion of this course students will be proficient in creating decorated basic and specialty cake; combine a variety of dessert components enhanced with plate decorating techniques; and add on fitting chocolate and sugar garnishes to upscale the visual aspect of cakes and desserts.

Prerequisite(s): CUL 110, PST 202, PST 204

Corequisite(s): PST 206 all with a "C-" or better

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.

Prerequisite(s): CUL 110, PST 204 with a "C-" or better.

PST 222 Chocolate/Sugar Confections & Intro to Basic Showpieces

3 CR

Students learn about chocolate and sugar and its wonderful use in the pastry world. This course will cover an assortment of chocolate and sugar confections, pastillage as medium for showpiece, introduction to chocolate showpieces, modeling chocolate, introduction to sugar showpieces using pouring, pulling, and blowing techniques. Upon completion of this course students will be able to temper chocolate correctly, create various chocolate and sugar confections and will have a basic understanding on chocolate and sugar showpiece structures.

Prerequisite(s): CUL 110

Corequisite(s): PST 208 all with a "C-" or better.

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. Upon completion, students should be able to design, create, finish and evaluate the quality of wedding and specialty cakes.

Prerequisite(s): CUL 110, PST 202, PST 206;

Corequisite(s): PST 208 all with a "C-" or better.

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 and disease transmission free dental environment. The student will understand federal and state regulations regarding chemical use and infection control in the dental office. This

course will also introduce the basic concepts of radiography and build on those skills and theoretical knowledge. Students will also learn to correctly and safely evaluate need for x-rays, exposure, 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, & 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, & 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, & 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, & 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, & 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, & 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.

Prerequisite(s) or Corequisite(s): 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, & 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, & 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

3 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 minimum grade of C

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

6 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

Prerequisite(s): DHYG 122 with a minimum grade of C

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

2 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 minimum grade of C

DHYG 142 Hygiene Clinical Practice IV

6 CR

Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self-assessment.

Prerequisite(s): DHYG 132 with a minimum grade of C

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

1 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 minimum grade of C

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 & 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 Equipment

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 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 with a grade of C (2.0) or better; or instructor permission

DET 116 Electrical/Electronics II

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 with a grade of C (2.0) or better; or instructor permission

DET 126 Electrical/Electronics III

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 with a grade of C (2.0) or better; or instructor permission

DET 129 Applied Diesel Concepts I

15 CR

The student will be doing a combination of shop practices, safety, forklift and lifting/rigging during the lecture/lab portion of this course. The student may also participate in an unpaid or paid internship or job shadow at a maintenance/repair facility in the industry. The maintenance/repair facility becomes a real world extension of the classroom. Students from TRANS 101, TRANS 102, TRANS 103 must meet with the instructor to discuss DET 129 requirements.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103 with a grade of C (2.0) or better; or instructor permission

DET 139 Applied Diesel Concepts II

15 CR

The student will be doing a combination of shop practices, safety, forklift and lifting/rigging during the lecture/lab portion of this course. The student may also participate in an unpaid or paid internship or job shadow at a maintenance/repair facility in the industry. The maintenance/repair facility becomes a real world extension of the classroom.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103, AENGL 100, AMATH 100, CMST& 210, DET 129 with a grade of C (2.0) or better; 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 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, TRANS 103 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, TRANS 103 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, TRANS 103 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, TRANS 103 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, TRANS 103 with a grade of C (2.0) or better; or instructor permission

DET 239 Applied Diesel Concepts III

15 CR

The student will be doing a combination of shop practices, safety, forklift and lifting/rigging during the lecture/lab portion of this course. The student may also participate in an unpaid or paid internship or job shadow at a maintenance/repair facility in the industry. The maintenance/repair facility becomes a real world extension of the classroom.

Prerequisite(s): TRANS 101, TRANS 102, TRANS 103, AENGL 100, AMATH 100, or MATH& 107 or MATH& 141, CMST& 210 or PSYC& 100, DET 139 with a grade of C (2.0) or better; 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, DET 129 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, DET 129 with a grade of C (2.0) or better; or instructor permission

Early Childhood Education

ECED 120 CDA Essentials 1: Intro to ECE/Health, Safety, Nutrition

4 CR

This course is one of the three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course one include safe and healthy environments, ways children grow, and an introduction to early childhood. Fieldwork is required in addition to coursework.

Prerequisite(s): Currently working with young children in a paid or volunteer position.

ECED 121 CDA Essentials 2: Child Development/Learning Environments

4 CR

This course is one of three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course two include children's social and emotional development; physical and intellectual competence; and curriculum development. Fieldwork is required in addition to coursework.

Prerequisite(s): Currently working with young children in a paid or volunteer position.

ECED 122 CDA Essentials 3: Working with Families/Professionalism

4 CR

This course is one of the three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course three include family relationships; early childhood professionalism; and curriculum and portfolio development.

Prerequisite(s): Currently working in an early childhood setting (volunteer or paid)

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 135 Adult/Child: One Year Old Development - Level A

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 - Level B

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 - Level C

2 CR

Adults and children attend this course together in an instructional program that focuses on one year old children's development. Developmentally appropriate activities are planned for adults and toddlers to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 140 Adult/Child: Two Year Old Development - Level A

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 - Level B

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 - Level C

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 155 Adult/Child: Toddler & Preschooler Development - Level A

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 - Level B

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 - Level C

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 discipline (teach) with kindness and firmness at the same time, to help children achieve self-discipline and problem solving skills, to create an atmosphere of cooperation, and mutual respect in your home and classroom and to reduce power struggles.

ECED 161 Early Childhood STEP for Parents & Teachers

1 CR

Early Childhood STEP is an interactive class for parents & 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 School Age STEP Effective Parenting of School Age Child

1 CR

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

ECED 170 Love & Logic for Successful Parenting

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): BTC College Level Math score of 32 or a C grade in MATH 099 or AMATH 111.

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 grade.

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

Education

EDUC 131 Paraeducator I: Foundations of Learning

4 CR

This course is an overview of the job of the paraeducator or instructional assistant. Topics covered include introduction to core competencies, roles of paras and certified staff, child development and the implications for learning, positive discipline, the conditions of learning, the diverse student population, the roles and responsibilities of the paraeducator including playground and cafeteria management, and safety and health concerns in working with children. The course includes 10 hours observation and addresses the following Washington State Core Competencies for paraeducators - competencies 2, 3, 5, and 8.

EDUC 133 Paraeducator II: Strategic Learning

4 CR

This course focuses on strategic learning strategies that paraeducators or instructional assistants are expected to implement. Topics include: confidentiality, IDEA, special education, referrals, special needs children and special programs, learning styles, instructional support methods, effective communication, conflict mediation, remediation, special health care issues, paraeducators in the special education workforce, mathematic skills and instruction. This course includes 10 hours observation and addresses the following Washington State Core Competencies for paraeducators - competencies: 1, 4, 6, 7, 10, and 11.

EDUC 134 Paraeducator III: Effective Instruction

4 CR

This course focuses on assisting teachers in meeting the needs of all students by providing effective instruction. Topics include assessment and standards, the teaching/learning cycle, library/technology skills, the writing process, the reading process, job search skills, and teaming. This course includes 10 hours observation and addresses the following Washington State Core Competencies for paraeducator - competencies 9, 10, 12(a, b, c) and 13.

EDUC 137 Reading Writing, and Mathematics for the Paraeducator

1 CR

This course provides a review of the required paraeducator skills and knowledge in the areas of reading, writing, and mathematics and introduces how these content area skills and knowledge apply to assisting in classroom instruction. Course content aligns with the Washington State Essential Academic Learning Requirements in reading, writing, and mathematics and the Title 1 Paraprofessional Knowledge and Skill Requirements.

EDUC 175 Achieving Info Literacy

1 CR

This course is designed to improve the research skills of professional-technical instructors and to help these instructors integrate information literacy into their curricula. The classes are designed to be a combination of demonstration and practice, with emphasis on practice. Additionally, these professional-technical instructors will develop a plan for integrating information-literacy skills into classes that they teach.

EDUC 199 Professional Technical Specialization

12 CR

This course is a project-oriented course designed to provide opportunities for post-secondary professional technical instructors to document their professional skills and experiences which they acquired previously to taking this course.

EDUC 200 Intro to Teaching Professional Technical Education

3 CR

This course provides students with an introductory foundation to the Washington State Professional-Technical Teacher Skill Standards; thus facilitating entrance into specific Skill Standard training in subsequent courses. Subject areas include an introduction to performance-based education, including technical education philosophies and fundamentals of Competency-Based education models. Additionally, it provides the opportunity for students to observe fully-qualified professional-technical instructors.

EDUC 207 Teaching & Facilitating Learning--Level 1

3 CR

As an introduction to vocational teaching, college instructors begin or expand their training as a skilled educator. Instructor-learners learn about "successful beginnings," being a positive role model, and developing effective lessons based on identified student learning outcomes and competencies. New instructor-learners practice implementing a variety of instructional strategies and student assessments and learn ways to evaluate the progress of diverse learners to meet course objectives. Focus is on four primary modes of instruction: lecture, discussion, demonstration, small group work, and ways in which instructors act as facilitators of learning in their classrooms.

EDUC 209 Teaching & Facilitating Learning--Level 2

3 CR

This course guides instructors through the process of moving from a teacher-centered classroom to a student-centered learning environment and prepares instructor-learners to assist students to become a productive part of a learning community. Instructor-learners further examine and fine-tune multiple modes of instruction beyond those in Level 1 including class discussion, case studies, role-plays and student self-assessment. Using the universal cycle of learning with the four essential elements of Preparation, Presentation, Practice, and Performance, instructor-learners develop model lessons and instructional models as well as developing model facilitation practices for establishing learning communities within the classroom. This course is particularly helpful to experienced instructor-learners who wish to hone and apply their facilitation and instructional delivery skills and deepen their understanding of how students learn. Focus is on preparing instructor-learners to be facilitators as well as dynamic presenters and on increasing the quality of instruction and self-assessing their own effectiveness.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 211 Planning for Instruction

3 CR

Instructor-learners plan for the delivery of adult instruction by creating instructional materials appropriate for students of diverse backgrounds and learning styles. Instructor-learners develop the skills required to create, evaluate, or modify a course through the construction of lesson plans and course syllabi. This course assists instructor-learners in ways to plan lessons and units of instruction, and to identify textbooks, instructional media, and resources. Emphasis is on lesson planning and syllabus development, particularly as they relate to higher order thinking skills such as Bloom's Taxonomy and domains of learning.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 216 Assessment for Learning

3 CR

Research in learning assessment has transformed the way educators approach the task of teaching. When developing and designing curriculum, instructors need to understand the paradigm shift between traditional, teacher-centered learning where the emphasis is placed on the one-way delivery of content, and active, student-centered learning where the emphasis shifts to the collaborative, integrated learning process facilitated by the teacher. In this course, instructor-learners will demonstrate assessment literacy and will design and develop assessments to be integrated into the learning process, including performance-based and portfolio assessments. These assessments-prior assessment, formative assessment, summative assessment-will be linked directly to clearly developed learning outcomes and will inform the process of curriculum evaluation and revision. Effective testing and evaluation linked to course outcomes and grading policies will also be discussed.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 221 Leadership Development

3 CR

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

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 226 Learning Styles

3 CR

In this course, professional-technical instructors will be introduced to the theories of learning styles, multiple intelligences, learning types and environmental effects on learning. Instructor-learners will identify their own learning attitudes, environment preferences, learning styles and intelligences and begin to identify the learning profiles of their students. This course will facilitate instructors to create learning environments that are most conducive to optimal learning and to implement teaching/learning strategies that engage a variety of learning styles for instructional success.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 231 Learning Environment Management

3 CR

To effectively instruct students, a professional-technical instructor must have all required equipment, systems, tools, supplies, and materials available and set up prior to beginning the class. This course is designed to help instructor-learners develop a management plan for determining, obtaining, and maintaining instructional equipment, tools, supplies, and materials. Faculty members will be equipped with the knowledge and direction needed to develop and implement safety plans for their learning environment so that equipment, systems, tools, supplies, and materials will be managed and maintained in an appropriate and safe manner. Emphasis is on shop, laboratory, and classroom safety practices.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 236 Occupational Analysis

3 CR

This course will familiarize the professional technical instructor with the process of occupational analysis, the steps of DATA and DACUM process, and advisory committees and their role in professional technical curriculum development.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 241 Learning & Adapting New Technologies

3 CR

In this course the instructor-learner will identify, evaluate and implement new and emerging technologies according to industry needs and per their needs as instructors. Instructor-learners will develop new ways of communication and develop online materials and websites. Working with their program advisory committee, the instructor-learner will maintain current knowledge of technology in the field and focus on how to integrate this new technology into their curriculum, into their current methods of delivering student instruction, and into effective ways of assessing student learning by integrating new technology into student assignments. As needed, the instructor-learner will develop the skills required to research, organize and maintain information about certification requirements for program-specific technology.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 246 The Adult Learner

3 CR

To effectively instruct adults, it is essential that the instructor has a basic understanding of the adult learner. By understanding the adult learner and how one learns, the instructor can teach more effectively and can motivate and improve retention rates with students. In this course, instructor-learners will identify learning principles and adult characteristics, learning styles, demographics and motivation. They will also learn to modify curriculum and instruction based on the needs of the adult learners in their classroom.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 251 Teaching Practicum 1

12 CR

This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the student-instructor will implement core learning strategies and techniques on teaching and facilitating learning from coursework and research.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 252 Teaching Practicum 2

12 CR

This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the student-instructor will establish and implement learning outcomes focused on assessment, new technologies such as distance learning, hybrid courses, and electronic instruction.

Prerequisite(s): Successful completion of EDUC 251 with a grade of C or higher.

EDUC 256 Program Management, Promotion, and Recruitment

3 CR

In this course, instructor-learners develop a record keeping system that can be used in the tracking of student affairs, including program enrollment, student grades, student financial aid and scholarship eligibility. In addition, instructor-learners develop a budgeting system to determine program financial needs and the tracking of allocated funds. They take part in departmental and college committees to insure the interests of their program and to participate in collegewide conversations and decisions regarding enrollment, recruitment and community relations.

Prerequisite(s): EDUC 207

EDUC 257 Current Topics For Professional Technical Educators

5 CR

This course is designed to provide opportunities for post-secondary faculty members teaching professional-technical coursework to document and receive credit for research/learning acquired at professional conferences.

Prerequisite(s): EDUC 207

EDUC 261 Industry-Based Professional Development

3 CR

This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document and receive credit for skills-enhancement activities conducted during "Back-to-Industry" or "Return-to-Industry" endeavors.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 262 Advanced Industry-Based Professional Development

6 CR

This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document and receive credit for skills-enhancement activities conducted during "Back-to-Industry" or "Return-to-Industry" endeavors.

Prerequisite(s): Successful completion of EDUC 207 with a grade of C or higher.

EDUC 299 Professional Technical Education Capstone

5 CR

This course is a capstone project designed to provide opportunities for instructors to document their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor, in accordance with Washington State Skill Standards for Professional-Technical Educators. This course is the final required course for an AAS-T degree in Professional-Technical Education.

Prerequisite(s): Successful completion of EDUC 251 with a grade of C or higher and a minimum of 5 regular quarters of teaching experience.

Electrician

ELCN 100 Trade & Safety

2 CR

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

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): AMATH 100 or concurrent

ELCN 102 AC Circuits

3 CR

Prepares the electrician to diagnose and repair AC electrical circuits. Instruction emphasizes AC electrical theory, phase relationships with inductance, capacitance and resistance.

Prerequisite(s): ELCN 101 and AMATH 100

ELCN 103 Electrical Drawings & Blueprints

2 CR

Introduction to and discussion of various types of electrical drawings including wiring, schematic, line, and construction diagrams.

Prerequisite(s): ELCN 101 or concurrent

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

ELCN 105 Transformers, Motors & Generators

4 CR

Theory and operation of rotating electrical machines and transformers.

Prerequisite(s): ELCN 102

ELCN 112 Introduction to National Electrical Code

4 CR

Wire, conduit, and box size requirements of the National Electrical Code. Beginning branch circuit calculations.

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

Studies introduce material strengths relating to forces such as tension, shear and torque. Students develop knowledge and skills through application of pulley ratios and levers. Instruction also covers properties of materials such as solids, liquids and gases. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

ELCN 131 DC Circuit Lab

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): ELCN 100, ELCN 101, ELCN 103 or concurrent

ELCN 132 AC Circuit Lab

3 CR

AC electrical theory is examined and verified with hands-on experiments utilizing standard test equipment

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 & 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 & 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 & 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, sensors and motor starters.

Prerequisite(s): ELCN 151

ELCN 262 Specialty Industrial Wiring Projects

5 CR

This is an electrical construction lab class. Students will build projects utilizing a variety of standard industrial techniques.

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 & 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

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 I

5 CR

This course is an introduction 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. The course will cover the fundamentals to vacuum bagging, pressure forming, and elevated temperature cures. Students will design and build a composite product combining knowledge of advanced composite materials and fabrication methods.

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 122 Composites II

5 CR

Introduction to advanced composite manufacturing with emphasis on Vacuum Infusion, Closed Cavity, Light Resin Transfer and Prepreg technologies. Hands-on training in advanced manufacturing using vinyl ester, epoxy and prepreg, with common types of advanced fiber reinforcement processes.

Prerequisite(s): COMP 101 with a C or better.

COMP 127 Tool Design

5 CR

Theory, application, and fabrication of tooling for fabrication and assembly of composite products

Prerequisite(s): COMP 101 with a C or better.

COMP 135 Inspect, Test & Repair

5 CR

Composite materials manufacturing course providing knowledge and hands-on experience in the inspection and repair techniques of Advanced and Fiber Reinforced Polymer (FRP).

Prerequisite(s): Completion of or concurrent enrollment in COMP 101 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.

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 an 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 Instruction 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) 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).

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) 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).

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.

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 and 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, Kirchhoff'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& 225 Mechanics of Materials

5 CR

Introduction to the concepts of stress, deformation, and strain in solid materials. Includes relationships between loads on structural and machine elements and the stresses, deflection and load-carrying capacity of these elements under tension, compression, torsion, bending, and shear forces.

Prerequisite(s): (ENGR& 214 and MATH& 152 with a C or better) 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.

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 and 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 students 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

English

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 a C grade in RDG 085, and Accuplacer Sentence Skills score of 71 or a C grade in ENGL 092.

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 B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100.

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 grade.

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 grade.

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

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

AQSCI 186 Rivers, Lakes, and Streams

5 CR

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

AQSCI 211 Fundamentals of Fisheries Biology

5 CR

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

Prerequisite(s): FISH 111.

AQSCI 266 Aquatic Habitat Assessment

4 CR

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

Prerequisite(s): FISH 111.

FISH 100 Introduction to Safety

1 CR

Proper safety precautions in the workplace will be emphasized. Safety is taught in all courses as it applies to the task or work area.

FISH 105 Water Quality

3 CR

A lecture, lab, and field based course that provides students with instruction on how water quality assessments of fresh and marine waters are made, with emphasis on the theoretical and practical principles underlying water quality assessments. The course will focus on the most commonly used and practical techniques of analyzing physical, biological, and chemical parameters.

FISH 111 Salmonid Biology

3 CR

Identification of salmon and trout, life cycles and the characteristics of each of the species will be examined in this course.

FISH 125 Sampling Techniques I

3 CR

Students will identify and use the methods of sampling fish for numbers, age, and disease.

FISH 133 Hatchery Operations I

5 CR

This course provides students with the tools and skill sets to work in hatcheries, thereby affording them the ability to gain experience with brood stock, eggs and hatchery equipment.

FISH 136 Spawning Techniques I

6 CR

Students will learn proper fish spawning techniques as utilized by state, federal and private hatcheries. They will spawn fish at the college hatchery and other local hatcheries to become proficient in these skills.

FISH 146 Aquatic Invertebrate Biology

3 CR

A lecture, lab, and field-based course that focuses on marine and freshwater macroinvertebrates, with emphasis on marine shellfish and freshwater benthic macroinvertebrates. Students will learn about the biology, anatomy, and the ecology of these organisms. Students will leave the course with solid identification and classification skills.

FISH 155 Environmental Awareness

3 CR

Awareness of the impact that people, industry, and development have on the environment related to the fisheries industry will be covered. Included will be awareness of proper use and disposal of materials hazardous to the environment and how other industries can affect the fisheries industry and environment.

Prerequisite(s): FISH 136 or FISH 236; or instructor permission

FISH 161 Fish Aquaculture Techniques

6 CR

This lecture, lab course will introduce the skills required to culture fish for aquaculture. The students will work with trout, salmon, and other species for food or nonfood purposes. Students will work at the salmon and trout hatcheries to get experience with these and other species.

FISH 163 Shellfish Aquaculture Techniques

5 CR

Students will be introduced to the skills required to culture shellfish in aquaculture. The students will work with oysters, clams, mussels, geoducks, and other species. Culture of diatoms for larval shellfish and setting will also be covered. Students will work in the program's shellfish lab and other production facilities. They will also culture manila clams, mussels, oysters (several species) and geoducks at the programs shellfish beds to gain experience.

FISH 170 Hatchery Operations II

4 CR

Course will teach students the required skills to work in a hatchery. This course will emphasize hands-on skills. Students will work in hatcheries to gain experience with eggs, incubators, and hatchery equipment.

FISH 186 Hatchery Operations III

5 CR

In this course students will work in hatcheries to gain experience by rearing fingerlings in ponds and net pens, while utilizing other hatchery equipment.

Prerequisite(s): FISH 170

FISH 194 Fisheries Current Topics I

4 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

FISH 195 Fisheries Internship

6 CR

This course provides practical application through work experience for students in a field of their choice with employees in the industry. Students will be able to demonstrate their skills and work habits to prospective employers.

Prerequisite(s): FISH 133 or FISH 170.

FISH 196 Fisheries Current Topics II

4 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

FISH 197 Fisheries Current Topics III

4 CR

This course provides the student with specialty knowledge and skills in the area of Fisheries Technology. Through instructor consultation, customized objectives, and specialized projects, students will expand their skills and knowledge in specific areas of fisheries technology.

Prerequisite(s): FISH 133 or FISH 170.

FISH 198 Fisheries Current Topics IV

8 CR

This course provides the student with specialty knowledge and skills in the area of Fisheries Technology. Through instructor consultation, customized objectives, and specialized projects, students will expand their skills and knowledge in specific areas of fisheries technology.

FISH 236 Spawning Techniques II

6 CR

Students will employ proper fish spawning techniques according to state, federal and private hatchery procedures. They will transport eggs and milt, sterilize eggs, and use a Moist Air Incubation Unit to eye eggs and mark otoliths.

FISH 270 Sampling Techniques II

4 CR

A lecture, lab, and field based course that focuses on the sampling techniques using nets, seines, pots, traps, weirs, and electroshockers. The construction and repair of this gear is covered and practiced. Selection of proper sampling equipment will also be covered.

FISH 296 Aquatic Ecology Current Topics I

4 CR

A course designed for the second year student. This course presents topics in the field of Aquatic Ecology. Current topics

include: Fisheries Management, Ichthyology, Marine Conservation Reserves, Stream Habitat Restoration, Environmental Conservation Research, and Public Lands.

FISH 297 Aquatic Ecology Current Topics II

4 CR

A course designed for the second year student. This course presents topics in the field of Aquatic Ecology. Current topics include: Fisheries Management, Ichthyology, Marine Conservation Reserves, Stream Habitat Restoration, Environmental Conservation Research, and Public Lands.

Prerequisite(s): FISH 296

FTEC 200 Applied Concepts I

10 CR

The student will focus on one of five specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 205 Field Projects I

4 CR

The student will do an internship in one of the following specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

FTEC 250 Applied Concepts II

10 CR

The student will focus on one of five specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will explore areas of employment and gain additional skills needed for each career choice.

Prerequisite(s): FTEC 200

FTEC 255 Field Projects II

4 CR

The student will do an internship in one of the following specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

Prerequisite(s): FTEC 205

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 Hlth 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

.5 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 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

5 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): Reading Comprehension score of 50 or successful completion of ABE 054 and Arithmetic score of 38 or successful completion of ABE 055.

NA 102 Nursing Assistant Clinical

2 CR

During the clinical practicum the student is given the opportunity to put into practice those skills learned in the classroom and lab settings. The clinical experiences include orientation to the extended care facility and a clinical final exam which is conducted in the college lab.

Prerequisite(s): Reading Comprehension score of 50 or successful completion of ABE 054 and Arithmetic score of 38 or successful completion of ABE 050. Successful completion of HO 127 and HLTH 133.

Heating, Ventilation, Air Conditioning and Refrigeration

CREF 122 Fundamentals of Refrigeration

5 CR

This course presents safety in the workplace, the fundamentals of vapor compression refrigeration, HVAC/R tools, equipment and refrigerants. Students prepare for certification under Section 608 of the E.P.A. regulations. Lectures are supplemented by student's individual work on projects in the concurrent course.

CREF 123 Fundamentals Lab I

5 CR

This Course places emphasis on safe work practices during system assembly, diagnostics, troubleshooting procedures and refrigerant handling. Students will learn how to install a simple control system on a refrigeration trainer. The concurrent course, CREF 122 is supplemented by student's individual work on projects in this course.

Prerequisite(s): Concurrent Course CREF 122.

CREF 126 Basic Electricity for HVAC/R

5 CR

This course presents the fundamentals of controls, motors, electrical theory and applications. Emphasis is placed on proper diagnostic and troubleshooting procedures. Lectures and bookwork are supplemented by student's individual work on projects in concurrent course CREF 127. Proper electrical codes are observed in the coursework.

Prerequisite(s): CREF 122, CREF 123

CREF 127 Fundamentals Lab II

5 CR

This course provides the opportunity to use the fundamentals of electricity, tools and equipment, controls, motors, electrical theory. Emphasis is placed on safe use of electricity while building electrical circuits on an electrical trainer and refrigeration trainer. Lectures in the concurrent course, CREF 126, are supplemented by student's individual work on projects in this course.

Prerequisite(s): CREF 122, CREF 123

CREF 132 Commercial Self-Contained Systems

5 CR

This course analyses medium and low temperature refrigeration systems and components used in commercial applications. Lectures are supplemented by student's individual work on projects in concurrent course.

Prerequisite(s): Completion of CREF 120 series

CREF 133 Commercial Self Contained Systems Lab

5 CR

This course presents medium and low temperature refrigeration systems and equipment used in commercial applications.

Emphasis is placed on trouble-shooting techniques on live equipment as installed in industry. The concurrent course, CREF 132 is supplemented by student's individual work on projects in this course.

Prerequisite(s): Completion of CREF 120 series

CREF 135 Commercial Ice Systems Theory & Applications

3 CR

This course introduces the various types and makes of commercial ice production systems used in restaurants, institutions, and process applications. Wiring diagrams and sequence of operations are emphasized. Proper installation, maintenance and troubleshooting techniques are discussed. Students will test for EPA section 608 certification and pass with a minimum of type 2 certification.

Prerequisite(s): Completion of CREF 133.

CREF 137 Commercial Ice Systems Lab

4 CR

This course is applying concepts learned in CREF 135 for commercial ice systems. The student will install, maintain, and diagnose problems on a variety of actual operating ice machines. Students will be exposed to different manufacturer's designs, as all are different. The student will verify proper production, learn how to build a wiring schematic, identify faults inserted by instructor and repair. Maintenance and proper cleaning and sanitation are also stressed in the coursework.

Prerequisite(s): Completion of CREF 133

CREF 139 Commercial Ice Systems Interactive Learning

2 CR

This course utilizes the subject of commercial ice production for the student to research a particular commercial ice machine. The student will prepare and deliver a presentation to their peer group on one selected brand and model of ice machine, and essentially teach the peer group on the aspects of installation, wiring, sequence of operation and maintenance. Steps included in this lesson are; research, public speaking, audio visual aids, audience participation and self/peer-evaluation are addressed in this course.

Prerequisite(s): Completion of CREF 133.

CREF 141 Air Properties & Psychrometrics

3 CR

This course prepares the student with information about air and its properties, moisture levels, enthalpy, volume, relative humidity and density. Air measurement techniques are also explored. Classroom discussion is aided by hands-on lab activities on operating equipment. Math100, HR 180 or COM 170

Prerequisite(s): CREF 132 thru CREF 139

CREF 143 HVAC System Design

3 CR

Understanding of the elements of proper HVAC system design is essential for the HVAC installer and service technician. This course focuses on Heat loss/Gain BTU requirements for buildings, ventilation rates, duct design and application, system selection and installation variables. The student will design a complete system using an existing structure or assigned blueprint plans.

Prerequisite(s): CREF 132 thru CREF 139, CREF 141.

CREF 145 Duct Layout & Fabrication

4 CR

This entry level fabrication course is to prepare students for the HVAC sheet metal installation industry. Parallel line, radial line and triangulation layout techniques are utilized to develop sheet metal patterns of common fittings used in the installation of HVAC systems. Students will apply these techniques in the lab and fabricate assigned fittings.

Prerequisite(s): CREF 132 thru CREF 139.

CREF 147 Applied Air Conditioning Systems

4 CR

This course prepares the learner to install, start-up, troubleshoot and diagnose problems in comfort cooling air conditioning systems. Emphasis is given to wiring techniques, proper refrigeration piping, controls, start-up and maintenance.

Prerequisite(s): CREF 132 - CREF 139, CREF 145.

CREF 149 Applied Heat Pump Systems

4 CR

This course prepares the learner to install, start-up, troubleshoot and diagnose problems in residential and commercial heat pump systems. Emphasis is given to wiring techniques, proper refrigeration piping, controls, start-up and maintenance. Integration of auxiliary heat components, balance point identification, cost analysis to other fuels, and geothermal systems are all introduced and applied in the lab.

Prerequisite(s): CREF 132 - CREF 139, CREF 141 - CREF 147.

CREF 221 Electric Heating Technology

4 CR

This course introduces electricity as a heat source for stationary and forced air systems. Emphasis is placed on electrical safety, BTU calculations, and airflow calculations, cost analysis, wiring diagrams, and troubleshooting techniques. Classroom discussion and hands on lab activities are designed to enable students to quickly identify system problems and propose solutions.

Prerequisite(s): CREF 132 - CREF 139.

CREF 223 Gas Heating Technology

7 CR

This course provides hands- on theory and application of forced air and stationary gas heating systems used in residential and light commercial buildings. Natural gas (methane) and LPG systems are discussed and implemented. Emphasis is placed on diagnosis and troubleshooting techniques for service technicians.

Prerequisite(s): CREF 132 - CREF 139, CREF 221.

CREF 225 Fuel Oil Heating Technology

4 CR

This course provides hands- on theory and application of oil fired heating systems in homes and commercial buildings. Proper system installation, set-up, diagnosis and troubleshooting techniques are emphasized.

Prerequisite(s): CREF 132 - CREF 139, CREF 221 - CREF 223.

CREF 227 Hydronic Heating Technology

5 CR

This course explores the use of hydronics to heat residential and commercial buildings. Students will apply proper tools and techniques to identify components, design, install, maintain and troubleshoot problems in hydronic heating systems for residential and commercial use. Radiant heat systems and most types of commercially available fuels are utilized.

Prerequisite(s): CREF 132 - CREF 139, CREF 221 - CREF 225.

CREF 231 Commercial/Industrial Refrigeration Applied Components

5 CR

This course expands on commercial refrigeration systems presented in CREF 132 -CREF 139. Industrial systems such as chillers for RSW, supermarket refrigeration, commercial chillers for process control, industrial open drive compressors, and associated components are studied. Each ancillary component is analyzed for compatibility, proper selection, operation, need, energy savings and equipment reliability. Wiring diagrams are emphasized and diagnosis of failed components is also addressed. How the system operates as a whole is critical and students are encouraged to research new and innovative applications for these systems.

Prerequisite(s): CREF 227, AMATH 100, AENGL 100.

CREF 233 Commercial/Industrial Refry Applied Components Lab

5 CR

Students apply the theory and application skills acquired in CREF 231 to operating systems in the lab. A proper start-up technique, adjustments, wiring schematics and evaluation of the operation of the systems is emphasized. Students work in teams, and rotate shifts weekly, allowing each student the diversity to work with all team members. Safety is foremost as most of these systems are high voltage multi-phase systems. Students diagnose and solve instructor inserted problems into the systems, make repairs and invoice the instructor.

Prerequisite(s): Concurrent with CREF 231, AMATH 100, AENGL 100.

CREF 236 Commercial/Industrial Chilled Water Systems

3 CR

Chilled water systems that are covered in depth include commercial/industrial applications of chilled water-cooling systems. Classroom activities are supplemented by student's individual and group work on lab projects including centrifugal and screw compressors, application of part winding start and 460 Volt Star Delta starter. Analyzing various systems for cost benefits, installation, service and proper annual maintenance procedures are emphasized.

Prerequisite(s): CREF 231, CREF 233, AMATH 100, AENGL 100.

CREF 237 Cooling Towers & Water Treatment

1 CR

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

Prerequisite(s): CREF 236, AMATH 100, AENGL 100.

CREF 238 Cascade/Transport Refrigeration Systems

5 CR

Commercial systems that are covered in depth include ultra-low temp freezing systems and transport refrigeration systems. Classroom activities are supplemented by student's individual and group work on projects.

Prerequisite(s): CREF 237, AMATH 100, AENGL 100.

CREF 239 Absorption Refrigeration Systems

1 CR

This course presents a continuation of the course of study of refrigeration systems. Commercial systems that are covered in depth are three types of absorption refrigeration systems.

Prerequisite(s): CREF 238, AMATH 100, AENGL 100.

CREF 241 Control Theory for HVAC Automation Systems

5 CR

This course presents basic control theory for energy management and control systems. Systems covered in depth include electric, electronic, distributed digital control, pneumatic, VAV and VVT. Classroom activities are supplemented by concurrent course CREF 242 Control Theory Lab.

Prerequisite(s): CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210.

CREF 242 Control Theory Lab

5 CR

This course presents the student with opportunities to apply knowledge gained in concurrent course CREF 241 Control Theory for HVAC Automation Systems. System start-up, proper operation, calibration and electrical safety and codes are emphasized. Students work individually and in teams on projects.

Prerequisite(s): CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210.

CREF 245 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): CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210.

CREF 246 HVAC System Design & Commissioning

2 CR

This course presents an opportunity to review the design and commissioning of various types of building hvac energy management and control systems, and how the LEED certification process is implemented and steps to arrive at LEED certification. Air balancing is introduced and the basic requirements and documentation are explored, as well as requirements to become a certified individual.

Prerequisite(s): CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210.

CREF 247 Job Prep, Internship & National Testing Prep

5 CR

This course prepares students with the necessary skills to successfully create a professional resume and cover letter, practice interviewing for employment and research companies to work for. An internship opportunity to gain on the job experience is required as part of this course and often leads to a permanent position. Preparation and review for ARI national testing is also included as part of this course.

Prerequisite(s): CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210.

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.

Prerequisite(s): HIST& 146 with a C grade.

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.

Human Resource Management

HRM 110 Occupational Analysis

5 CR

Introduces the functional areas of human resource management and laws. Students discuss job analysis, recruitment, testing, interviewing, selection, placement, training, wage and salary administration, performance, evaluation and labor management.

HRM 120 Supervision Fundamentals

5 CR

Supervisory effectiveness is critical for all organizations. This course emphasizes and gives practical exercises in needed supervisory skills and in how these skills are developed and used. The supervisor's role in getting the work done right, helping to control costs and accomplishing the goals of the organization are stressed. This course covers what a supervisor is expected to do and provides the skills necessary to do the job.

HRM 130 Team Building

5 CR

How to create, maintain and participate in group decision making with a goal of strengthening the business.

HRM 201 Management of Human Resources - An Overview

3 CR

This course is an overview of the role and responsibilities of human resource management within an organization. It will cover basic employment law, basic components of human resource management, the role of human resource workers, and human resource information systems. Course work involves the practical application of concepts to the workplace.

HRM 205 Recruitment & Staffing Policies & Practices

3 CR

This course provides an exploration of the key issues in recruitment, selection, and staffing of employees at all levels. Human resources planning, job descriptions and specifications, recruitment, the selection process, testing, employment interviews, and the evaluation of the selection process are discussed. Compliance with issues such as EEO, affirmative action, and the Americans with Disabilities Act (ADA) are addressed. Emphasis is on establishing procedures that ensure high quality candidates and employees.

Prerequisite(s): HRM 201 or Program Advisor permission.

HRM 207 Fundamentals of Employee Benefits & Compensation

3 CR

An overview of base pay compensation and benefits. Topics include principles of pay systems, the relationship of pay systems on an organization's needs, cost of benefits, statutory coverages, retirement plans, defined benefit approaches and contribution plans, profit sharing, life, dental, disability, and health plans. Health and safety issues are also addressed.

Prerequisite(s): HRM 201 or Program Advisor permission.

HRM 210 Employment Law & Labor Relations

3 CR

This course provides a legal and practical overview of employee relations and labor relations in both union and nonunion environments. Communication styles, facilitation, grievances and discipline handling, crisis interventions, conflict resolution, labor relations, and the role of government in human resources management are addressed. It also emphasizes compliance issues, including OSHA, employee assistance harassment, and substance abuse.

HRM 220 Training & Development

3 CR

Training and staff development from a human resource development perspective will be addressed. Employee orientation, career planning and development, cross training, management development, and succession planning are covered. The course addresses skill gap analysis, training design, development, assessment of learning and program evaluation.

Prerequisite(s): HRM 201 or Program Advisor permission.

HRM 235 Human Resource Information Systems

2 CR

This course will focus on the variety of HR information systems ranging from professional files to benefit and payroll systems. File retention and privacy, methods to streamline work, legal implications, professional development records, plus others will be covered. Considerations in evaluating appropriate software will be shared as well as researching the pros and cons of several software applications.

HRM 240 Risk Management and Safety

3 CR

Risk management is the decision-making process involving considerations of political, social, economic, and engineering factors

with relevant risk assessments relating to a potential hazard so as to develop, analyze, and compare regulatory options and to select the optimal regulatory response for safety from that hazard. Essentially risk management is the combination of three steps: risk evaluation; emission and exposure control; risk monitoring.

HRM 245 Diversity in the Workplace

1 CR

This course is designed, through lecture and discussion, to examine the various elements that create differences within society and the workplace. Also to be examined will be the current legalities regarding diversity in the workplace, and how to interface with employers that will enable them to work effectively in a diverse world.

HRM 255 Strategic Human Resources

3 CR

This course covers how the human resource professional assists in the management process of forming a strategic vision, setting objectives, crafting a strategy, implementing and executing the strategy. This course will also include budgeting as part of the Human Resource Management process.

Prerequisite(s): HRM 201 or Program Advisor permission.

HRM 260 Conducting Internal Investigations

1 CR

Overview of the methodology and investigatory skills necessary for internal investigation in the workplace. Through readings, discussion, and presentations, participants will learn the basic methodology of internal investigations, as well as the necessary interviewing skills to conduct an effective investigation. Topics include interviewing, what to look for during an investigation, how to conduct an investigation, and the various situations that require a formal and informal investigations.

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 50 or a C grade in ABE 054 or ABE 055, and Accuplacer Sentence Skills score of 50 or a C grade in ENGL 092.

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): ELCN 101, Program Admission

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.

Prerequisite(s): EMTEC 105 or concurrent

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, back logs, 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

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 & EMTEC 220

Instrumentation

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): Admission to Instrumentation program

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.

Prerequisite(s): INST 100

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.

Prerequisite(s): INST 106

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.

Prerequisite(s): INST 110

INST 120 Semiconductors I

5 CR

Students learn how discrete semiconductor devices are constructed, how to handle them, how diodes, bipolar transistors, FETS, and thyristors operate and how to use them in practical circuits. ACDC power supply circuits introduced as well.

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 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 230 Motor Controls

3 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 145 and MATH& 141 with a C or better

INST 231 PLC Programming

3 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): MATH& 141 with a C or better and (completion of or concurrent enrollment in INST 230)

INST 232 PLC Systems

3 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): MATH& 141 with a C or better and completion of or concurrent enrollment in INST 231

INST 233 Protective Relays

3 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 completion of or concurrent enrollment in INST 232

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 buses (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 a C 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.

CTE 290 Job Search

4 CR

Students will improve their skills in resume development, interview preparation, and job search techniques. These skills will be assessed through simulated job application processes such as mock interviews and resume reviews.

Legal

LGL 127 Legal Office Procedures

5 CR

Designed to introduce students who have little or no background in the legal field with the terminology, background, and knowledge of the legal procedures required to work in a law office. It presents basic legal concepts and the various fields of law and outlines the preparation of documents commonly used in those fields. Student projects give the students practice in various areas of law.

Prerequisite(s) or Corequisite(s): CAP 106; LGL 132 or as a corequisite

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) or Corequisite(s): CAP 106; LGL 132 or as a corequisite

LGL 223 Internship

3 CR

Students will work in a legal office-related job receiving pay or volunteering.

Prerequisite(s): Instructor Permission.

LGL 224 Internship

4 CR

Students will work in a legal office-related job receiving pay or volunteering.

Prerequisite(s): Instructor Permission.

LGL 225 Internship

5 CR

Students will work in a legal office-related job receiving pay or volunteering.

Prerequisite(s): Instructor Permission.

LGL 226 Internship

6 CR

Students will work in a legal office-related job receiving pay or volunteering.

Prerequisite(s): Instructor Permission.

Machining

MACH 100 Machine Lab Safety

2 CR

An introduction to the occupational safety practices common to the machining/manufacturing industry. Emphasis is placed on the application of OSHA and WISHA standards within the lab setting.

Prerequisite(s): Program Admission

MACH 101 Introduction to Measuring & Inspection

2 CR

Introductory course covering the use of precision measuring tools. Students learn to use precision measuring tools such as micrometers, height gages, calipers, gage blocks, and indicators. Students will read and interpret measurements, and choose the appropriate measuring tool for the required degree of accuracy.

Prerequisite(s): Program Admission

MACH 102 Introduction to Machining

3 CR

This course provides the student with the foundation for success in machining. It will cover tool geometry, basic machining math, and the proper use of the machinery's handbook. Calculating proper speeds and feeds will be a point of emphasis. Work

Ready Skills, employer attendance policies, effective communications techniques, effective time management, and assessing Work Ready Competency will be covered.

Prerequisite(s): MACH 100 with a C or better.

MACH 103 Machine Fundamentals

4 CR

Building on the principals gained from MACH 102, the student will continue to develop the use of more complex machining-centered math skills. Machining topics covered will include roughing and finishing passes, depths of cut, coolant and lubricants, and the use of the auto feed band saw.

Prerequisite(s): MACH 102 with a C or better.

MACH 121 Precision Grinding

4 CR

This course covers the proper procedures for setup and use of the surface grinder. This will include work holding, proper feeds and speeds, and machine maintenance. The student will use the Kent SGS-1230AHD to grind projects created in class to desired dimensions and finishes.

Prerequisite(s): MACH 100 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.

Prerequisite(s): MACH 100 with a C or better

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.

Prerequisite(s): MACH 100 with a C or better

MACH 152 Advanced Manual Mill

5 CR

In this advanced course students will use the skills gained in MACH 151 in conjunction with the introduction of Centroid conversational programming. Students will create complex tool paths using the Centroid CNC controller. Operations performed will include framing, pockets, bolt-hole circles and arrays. These skills will be displayed by the completion of class projects to print specifications.

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 and MACH 191 with a C or better.

MACH 241 Introduction to CNC Lathe Operation

5 CR

Operation and setup of a HAAS SL-10 CNC lathe will be the focus of this course. Students will run CAM and Visual Quick Code 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, 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 HAAS VF-1 and VF-3 vertical milling centers. Students will run CAM generated toolpaths. Skills acquired in this course include loading CAM programs, setting origins with a probe, loading tools, and setting and altering tool offsets. Custom work holdings will be created and used for contoured parts. 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 4 and 5-axis 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. Projects for the DMS router will include composites. 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

4 CR

An introduction to Computer Aided Manufacturing, this course will combine the CAD skills gained in ENGR 180 with a variety of CAM programs, to include MasterCam and SolidCam. The use of CAD/CAM geometry to produce toolpaths will be the focus. Navigating the different CAD/CAM softwares, students will create NC programs to be used in future machining classes.

Prerequisite(s): ENGR 180 with a C or better

MACH 263 Intermediate CAD/CAM for Machining

4 CR

Drawing from the foundation built in MACH 162, students will use Mastercam and SolidCam to create 3D toolpaths from imported Solidworks models. Students will proof programs on simulators and generate G-Code. Programs created will be executed in MACH 272. Students will be assessed on the completion of course assignments.

Prerequisite(s): MACH 261 and MACH 171 with a C or better

MACH 264 Advanced CAD/CAM for Machining

4 CR

This course gives students the skills to create multi-axis programs. MasterCam is the software used for this advanced level programming course. Students will demonstrate proficiencies with the completion of class assignments. Programs created in this course will be executed in MACH 273.

Prerequisite(s): MACH 263 with a C or better

MACH 272 Intermediate CNC Machining

6 CR

This lab intensive course will combine and apply skills gained from the completion of MACH 263, MACH 241, and MACH 251. Set up of the CNC lathes and mills will replicate industry applications. Parts will be produced in quantities to simulate production runs. Students will be assessed on the production of parts to print specifications.

Prerequisite(s): MACH 171 with a C or better

MACH 273 Advanced CNC Machining

6 CR

A combination of skills acquired from the completion of MACH 264, MACH 242, and MACH 252 will be applied in this lab centered course with an emphasis on multi-axis machining. Students will create complex parts in an industry like setting, resulting in multiple part productions. The student will be assessed on the execution of produced parts to print specifications.

Prerequisite(s): MACH 272 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.

Marine

MARIN 110 Introduction to Boating Skills and Safety

1.5 CR

This course is provided in partnership with the Bellingham Power Squadron chapter of the United States Power Squadrons to provide boaters with knowledge and skills for safe sail and power boating. Instruction emphasizes safe navigation and charting of local coastal waters utilizing the mariners' compass, nautical chart, and plotting tools. This course is recognized by several insurance companies and is a prerequisite for membership in the Bellingham Power Squadron and their advanced maritime courses.

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" – product, pricing, promotion, and placement.

Mathematics

AMATH 100 Applied Occupational Math

5 CR

This course covers fractions, decimals, percents, ratios and proportions, English and metric measurement systems, geometry, and algebra. The contents will include relevant technical applications and the use of a calculator.

Prerequisite(s): Accuplacer Arithmetic score of 38 or MATH 090 or ABE 050 with a C or better.

AMATH 111 Applied Technical Math

5 CR

This course introduces concepts of plane geometry and right triangle trigonometry, and develops further the elements of algebra in applications for technical professions. Unit conversions in Metric and English systems, Scientific notations, fractions, decimals, percents, ratios, and proportions are extensively reviewed. Textbook and Scientific or Graphing calculator required.

Prerequisite(s): Accuplacer Algebra score of 75 or a C grade in MATH 098.

MATH 098 Elementary Algebra

5 CR

This course will cover solving different forms of equations; manipulation of exponents and radicals as needed on the job; as well as factoring and graphing. It is equivalent to 1 year of high school algebra. This course is targeted for those students whose programs involve more algebra than included in BTC's occupational and technical math courses. This course will also serve as a prerequisite to intermediate algebra or as a refresher for those students who have had algebra in the past.

Prerequisite(s): Accuplacer Arithmetic score of 75 or a C grade in MATH 090.

MATH 099 Intermediate Algebra

5CR

This course prepares students for entry into college level math courses. Topics include: second degree equations and inequalities, relations and their graphs, exponential and logarithmic functions, and rational expressions. A graphing calculator may be required.

Prerequisite(s): Accuplacer Algebra score of 75 or a C grade in MATH 098.

MATH& 107 Math in Society

5 CR

College level coverage of practical applications in many fields of study. Topics will include probability, statistics, finance, geometry, graphing, growth & decay, and right triangle trigonometry.

Prerequisite(s): BTC College Level Math score of 75 or a C grade in MATH 099.

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

MATH& 142 Precalculus II

5 CR

The majority of this course will cover trigonometry. Students will explore trigonometry functions, right and oblique triangle trigonometry, graphing, trigonometry identities, laws of Sine and Cosine as well as trigonometric application problems. This course will also cover vectors in the plane and in space, along with parametric equations. Polar coordinates and graphs of polar equations will also be included.

Prerequisite(s): MATH& 141 with a C grade.

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

MATH& 148 Business Calculus

5 CR

Limits, derivatives, marginal analysis, optimization, antiderivatives, and definite integrals.

Prerequisite(s): MATH& 141 with a C grade.

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 grade.

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

Multivariate integral and differential calculus. Geometry in R³ and in the plane. The study of vectors, acceleration, curvature; functions of several variables, partial derivatives; directional derivatives and gradients; extreme values; double and triple integrals; applications. Graphing calculator required.

Prerequisite(s): MATH& 152 with a C or better.

MATH 204 Introduction to Linear Algebra

5 CR

Elementary study of the fundamentals of linear algebra. Course is intended for stronger math or science students. Course to include the study of systems of linear equations; matrices; n-dimensional vector space; linear independence, bases, subspaces and dimension. Introduction to determinants and the eigenvalue problem; applications. Graphing calculator required.

Prerequisite(s): MATH& 151 with a C grade or better.

MATH 238 Intro to Differential Equations

5 CR

Introductory course in ordinary differential equations. Includes first- and second-order equations and Laplace transform; series methods and numerical techniques.

Prerequisite(s): MATH& 163 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.

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, NURS 115, and NURS 150 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 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.

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.

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.

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.

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.

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 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

PHY& 115 General Physics II w/Lab

5

Continuation of PHYS 114 with emphasis on atomic theory of gases, heat, waves, sound and geometric optics. Lab included.

Prerequisite(s): PHYS 114 with a C grade.

PHYS& 110 Physics for Non-Science Majors w/Lab

5 CR

A course for non-science majors focusing on the central concepts of physics relating everyday experiences. The principles and laws of physics are covered on a conceptual and historical level rather than mathematical basis. Topics include Newton's laws of motion, energy and magnetism, and waves (sound and light). Laboratory work provides an introduction to the scientific method and role of measurement in science and serves to demonstrate the practical application of physics concepts.

Prerequisite(s): Accuplacer Algebra score of 75 or higher or a C grade in AMATH 111 or MATH 098.

PHYS& 114 General Physics I w/lab

5

Algebra-based physics course. The subject matter is mechanics with emphasis on Newton's laws, energy, momentum, and rotational motion. Lab included.

Prerequisite(s): College Level Math score of 32 or a C grade in MATH 099 or MATH 111

PHYS& 221 Engineering Physics I w/Lab

5 CR

Kinematics and dynamics of particles; work and energy; gravitation; collisions and conservation of momentum.

Prerequisite(s): ENGL& 101 with a grade of C or better.

Prerequisite(s) or Corequisite(s): MATH& 151 with a C grade 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; electromagnetic waves. Conceptual development and problem solving have equal emphasis. Laboratory work provides an introduction to design, experimental methods and elementary data analysis.

Prerequisite(s): PHYS& 221 with a grade of C or better.

Prerequisite(s) or Corequisite(s): MATH& 152 with a C grade or better.

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 provides an introduction to design, experimental methods and elementary data analysis.

Prerequisite(s): PHYS 222 with a grade of C or better.

Political Sciences

POLS& 101 Intro Political Science

5 CR

Introduction to political concepts, public opinion, pressure groups, and government systems.

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 a C grade in ABE 054 or ABE 055, and Accuplacer Sentence Skills score of 50 or a C grade in ENGL 092.

Process Technology

PTEC 101 Introduction to Process Technology

5 CR

In this course students will study various aspects of the Process Industry, including its history; roles, responsibilities, and expectations of the Process Technician; team dynamics; basic physics and chemistry; safety, and quality management. In addition, the course will cover basic components of the Process Industry environment, such as piping and valves; tanks, drums, and vessels; pumps and compressors; steam turbines; electricity and motors; heat exchangers; cooling towers and fans; furnaces and boilers; distillation columns; process control instrumentation; process utilities and auxiliary systems; and process print reading.

Prerequisite(s): CAP 101 and MATH 098 (AMATH 111 can be a corequisite with PTEC 101)

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): CAP 101 and MATH 098 (corequisite with PTEC 101)

PTEC 103 Safety, Health & Equipment I

5 CR

In this course, students will study industrial hazards types, including physical, chemical, ergonomic, and biological. Within these

four general types, specific agents, causative factors, and effects will be identified along with controls, alarms, and detection systems. The course will focus on hazardous chemicals found in the process industry.

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 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 and 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): 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): 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): 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 and valve 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): 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 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

Project Management

PMP 100 Project Management Fundamentals

1 CR

Learn the effective methods of planning and sequencing projects; complete them on schedule; list cost elements of the project budget; discuss ethical strategies for controlling the budget and schedule deviations; and identify communication methods and reporting tools that impact objectives. A manual is included with this course

PMP 120 Project Management Prep

3 CR

A standards-based approach to project management across applications and industries; focusing on the standards recognized by the Project Management Institute; and assistance with preparing for the Project Management Professional Certification exam. Topics include: project life cycle; criteria for management; common reasons for project failure; risk management plans; and project team-building. Text required.

PMP 130 PMP Integration

1 CR

Capstone course in the Project Management Certificate program with completion of a project plan (individual's choice) utilizing knowledge, skills and methodologies learned in the certificate program; while teaming with other project managers to work through project simulations and case studies.

Prerequisite(s): PMP 120.

PMP 160 Project Management

5 CR

Examines the theory and practice of project management from a managerial perspective. Students define projects, determine resources requirements, write requests for proposals, outline contract requirements, define and sequence tasks, and create project schedules.

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 B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100.

PSYC 111 Interpersonal & Organizational Psychology

5 CR

Topics include assertiveness, customer relations, teamwork, problem-solving/conflict resolution, business and work ethics, organizational development/skills, employment rights and responsibilities, equity and cultural issues, decision making, motivation, and self-esteem.

Prerequisite(s): Accuplacer reading score of 71 or higher

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 130.

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& 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 grade.

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.

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

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 B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100.

Quality Assurance

QA 110 Introduction to Quality Assurance for Machining

4 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 101 with a C or better

QA 115 Intermediate Quality Assurance for Machining

4 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

4 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

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.

T 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 be completed off-site and out of class time by students.

Prerequisite(s): RHI 111

Spanish

SPAN& 121 Spanish I

5 CR

An introductory course, which facilitates elementary ability in comprehension, speaking, reading, and writing in Spanish. This course provides some understanding of 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 grade.

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 participating 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.

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): Program admission; or instructor permission

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): TRANS 101 with a grade of C (2.0) or better; or instructor permission

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): TRANS 102 with a grade of C (2.0) or better; or instructor permission

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

3 CR

The goals of this module are to enable the student to learn the materials of Veterinary Technician medicine in a logical, goal-oriented manner. The 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

4 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

3 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

6 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

4 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 topographic landmarks and choose the appropriate radiographic technique to provide maximum diagnostic benefit in an appropriate and safe manner. The Veterinary Technician student will be able to assess the image quality and offer options to correct deficiencies. Also given the characteristics of the patient and the non-radiographic imaging study requested, the Veterinary Technician student will properly prepare the imaging site and equipment 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 & cardiac 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) Serology & 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) Ophthalmology; 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 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

10 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-

Welding

WELD 101 Introduction to Welding

1 CR

This is a great class for anyone who would like to try welding for the first time. The instructor will lead you through the steps to begin welding safely and successfully. After experiencing welding first-hand, students may choose to enroll in Creative Welding or Industrial Welding classes that will start later in the month. Students should wear appropriate work clothes and leather shoes or boots, no synthetic fabrics allowed. Equipment and supplies will be provided, but students may bring their own welding helmet, goggles, and gloves if desired.

WELD 102 Creative Welding

2 CR

This class is designed for beginners and returning students, it covers the fundamentals of GMAW (wire feed welding), oxyfuel and plasma arc cutting, safety, fabricating, and creative applications of metalwork. Student will complete to class projects.

Materials supplied by student.

Prerequisite(s): Welding experience in aluminum or steel

WELD 173 Basic Welding (Welding I & II)

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 101 Welding Safety I

2 CR

Introduction to the general welding industry, shop safety and orientation to the metal shop environment. Also electrical and compressed gas cylinder safety, and safe applications with grinders, band saws, and ironworkers.

Prerequisite(s): Admission to program.

WLD 102 Welding Safety II

2 CR

In depth welding & fabricating industry safety topics, including: general fabrication shop hazards; outside construction hazards; confined spaces, firewatch, fall protection hazard training and respirator/fresh air breathing apparatus training.

Prerequisite(s): WLD 101

WLD 103 Hand & Power Tools

4 CR

This course introduces students to the safe and proper use of hand and power tools used in the aluminum welding and fabrication trade. The uses, set-up, trouble shooting, maintenance, and proper care will be covered.

Prerequisite(s): WLD 101, WLD 110, WLD 120

WLD 104 Career Opportunities For Welders

2 CR

Survey course introduces students to careers in the welding & fabricating industry. Lecture topics will include code and non-code welding, fabricating, structural steel welding, aluminum welding, pipe welding & fitting, artistic, creative, and architectural welding, and local opportunities in the shop, refinery, and marine based industries. Guest speakers and tours of local industry will enhance the course to give students a broad-based view of the industry.

Prerequisite(s): Completion of or concurrent enrollment in WLD 101, WLD 105, WLD 110 and WLD 120

WLD 105 Thermal Cutting Processes

4 CR

This course will introduce the student to the basics of plasma arc cutting, and oxy-fuel cutting processes; cutting safety; theory of gases; and hands-on lab practice cutting exercises. Compressed bottle handling and equipment safety and orientation will be stressed.

Prerequisite(s): Completion of or concurrent enrollment in WLD 101, WLD 104, WLD 110 and WLD 120

WLD 106 Print Reading I

3 CR

Students will learn to use prints and drawings used in the welding trade. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques.

Prerequisite(s): WLD 101, WLD 104, WLD 105

WLD 107 Welding Leadership I

1 CR

Team and organizational skills are highlighted in a creative activity. Students may practice these skills by participating in the planning, organization, and execution of a multifaceted public performance event, such as the BTC Welding Rodeo, a two-day welding skills competition, or other Team-Based activity involving supervision and leadership, as determined by the Welding Faculty.

Prerequisite(s): WLD 101, WLD 102, WLD 104, WLD 105, WLD 110, WLD 120, WLD 130

WLD 108 Introduction to MIG Welding

1 CR

This class is a one-day introduction to MIG welding for the hobby welder. Topics will include safety, basic GMAW (MIG) welding and cutting processes. Safety gear will be provided.

Prerequisite(s): Instructor permission

WLD 109 Creative Welding

2 CR

Topics will include safety, specialized welding and cutting processes, fabrication and finishing techniques, aesthetics, connotations of materials, sculpture as metaphor and collage of materials. Students will use MIG and SMAW welding processes. Materials supplied by student. A supply list will be provided at the first class.

Prerequisite(s): 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.

Prerequisite(s): Completion of or concurrent enrollment in WLD 101, WLD 104, WLD 105 and WLD 120

WLD 111 Creative Welding & 3D Design

2 CR

Topics will include safety, specialized welding and cutting processes, fabrication and finishing techniques, aesthetics, connotations of materials, sculpture as metaphor and collage of materials. Students will use MIG and SMAW welding processes. Materials supplied by student. A supply list will be provided at the first class.

Prerequisite(s): Instructor permission

WLD 112 Basic Welding Welding I & II

2 CR

This course covers the basic skills needed for oxy/fuel cutting and electric welding as well as welding theory and applied work skills. Instruction is geared to the individual student's skill level, experience, and interests. Students furnish their own tools and a supply list will be provided at the first class.

Prerequisite(s): 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.

Prerequisite(s): WLD 101, WLD 104, WLD 105 and WLD 110

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 104, WLD 105, WLD 130

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 104 and WLD 105

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 and WLD 104 and WLD 105

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 and WLD 104 and WLD 105 and WLD 140

WLD 142 Intro to Aluminum Welding

2 CR

This course covers methods of fabricating aluminum, with special emphasis on marine applications. Students will learn material selection, storage and handling techniques, metal preparation for welding, and use of PAC, CAC, GTAW and GMAW.

Prerequisite(s): Instructor permission

WLD 150 Steel Fabricating I

4 CR

Students will learn and apply basic layout and fabricating techniques, applying simple print reading concepts, and cutting and welding techniques, to produce simple fabricated small projects. 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 and WLD 102 and WLD 105 and WLD 106 and WLD 110 and WLD 130

WLD 151 Aluminum Fabrication I

4 CR

Students will learn and apply weld joint theory, prep, and fabrication of aluminum, and application of print reading basics. Storage and handling techniques, metal preparation for fitting and welding, fixture and jiggling tools and contamination and distortion control will be demonstrated and practiced. The importance of accurate measuring; precision squares, angles, drilling and leveling; attention to detail, neatness, and the finished product will be demonstrated in an approved small fabrication project.

Prerequisite(s): WLD 101 and WLD 102 and WLD 105 and WLD 106 and WLD 120 and WLD 130 and WLD 140

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 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): All WLD level 100 courses 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. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques.

Prerequisite(s): All WLD 100 level courses or Instructor Permission

WLD 207 Welding Leadership II

1 CR

Team and organizational skills are highlighted in a creative activity. Students may practice these skills by participating in the planning, organization, and execution of a multifaceted public performance event, such as the BTC Welding Rodeo, a two-day welding skills competition, or other Team-Based activity involving supervision and leadership, as determined by the Welding Faculty.

Prerequisite(s): WLD 107 and WLD 208 or Instructor permission

WLD 208 Metallurgy

3 CR

Examines theory and application of metallurgic principles as they are applied to design, formation, selection, heat treating and distortion, heat effects on crystalline structures, and welding of non-ferrous and ferrous metals and their alloys, and includes a comprehensive study of welding filler metals and ANSI/AAS designations.

Prerequisite(s): All 100 level Welding courses

WLD 209 Codes & Standards

2 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 254, or WLD 257, 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 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): All WLD 100 level courses or Instructor Permission

WLD 211 SMAW III

6 CR

Shield Metal Arc Welding on steel, open-root groove welding on plate. Advanced SMAW Welding, including overhead welding and advanced welding positions on various shapes to simulate industry needs. Offered in Summer only.

WLD 212 CNC Practices

6 CR

Students will learn software programming principles and activities for use of the Torchmate CAD system for use in designing, developing, and plasma cutting parts for fabrication. Students will complete a project utilizing the CNC, including gage materials in Carbon Steel or Alloys, cut, grind, assemble, and weld to a finished project.

Prerequisite(s): WLD 213 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 205, or WLD 206, or Instructor permission

WLD 215 SMAW Pipe

7 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 practices follows AWS Welding Standard D1.1 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): All WLD 100 Level Courses or Instructor Permission

WLD 216 SMAW Practices TP

2 CR

Elective: SMAW process in E6010 Electrodes in the 1F, 2F, and 3F positions. Focus is skill development for the beginner or advanced welder. This is a Tech Prep articulated course.

Prerequisite(s): All WLD 100 level courses or Instructor permission

WLD 217 Advanced SMAW Practices

6 CR

Lab exploring avenues for overcoming the difficulties of advanced SMA welding, including confined space applications, and out of position welding. Will apply practices to SMAW of Small Bore ("Gun Barrel"), Large Bore (Down-hand API welding), and RMD or STT open root wire-feed welding of pipe in roll-outs on the weld positioner for shop applications.

WLD 218 SMAW Practices II TP

2 CR

Elective: SMAW process using E7018 Electrodes in the 2F, 3F, and 4F positions. Focus is skill development for the beginner or advanced welder. This is a Tech Prep articulated course.

Prerequisite(s): WLD 150

WLD 219 GTAW Aluminum Practices TP

2 CR

This course focuses on GTAW with fillet and groove welds in all positions on aluminum plate on the 1F, 2F, & 3F positions, for the beginning or advanced welder.

Prerequisite(s): All WLD 100 level courses, or Instructor permission

WLD 220 SMAW Test Practice III

3 CR

SMAW process in 3G and 4G positions with E7018 electrodes for the advanced welder. Practice mainly for AWS & WABO Plate Test.

Prerequisite(s): WLD 230 and WLD 242, or Instructor permission

WLD 223 GMAW Practices TP

2 CR

GMAW process in various positions on various thicknesses of material for the beginner or advanced welder. This is a Tech Prep articulated course.

Prerequisite(s): All WLD 100-level courses or Instructor permission

WLD 224 Advanced GMAW Practices

2 CR

GMAW welding practice on steel in all positions.

Prerequisite(s): WLD 130

WLD 225 GMAW Aluminum Practices TP

2 CR

GMAW aluminum welding practices in the 2F and 3F positions on various thickness of aluminum for the beginner or advanced welder. This is a Tech Prep articulated course.

Prerequisite(s): All WLD 100-level courses or Instructor permission

WLD 226 Advanced Aluminum Welding Practices

6 CR

Guided & self-guided Instructor-approved practices in GMAW or GTAW on aluminum.

Prerequisite(s): All WLD 100-level courses 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 WABO certification testing.

Prerequisite(s): WLD 215 or Instructor permission

WLD 231 FCAW Practices TP

2 CR

Students will practice FCAW process using ¼", ½" & 1" Steel Plate in the 1F, 2F, and 3F positions. Focus is on skill development for the beginner or advanced welder.

Prerequisite(s): All WLD 100-level courses or instructor permission

WLD 232 FCAW Practices II

3 CR

FCAW process in various positions for advanced welding techniques.

Prerequisite(s): All WLD 100 courses or Instructor permission

WLD 233 FCAW Practices III

3 CR

Advanced FCA welding techniques in all positions for Steel and Structural Steel Welding Applications. Welding will be in the booth, on the module, and or on the column. May also be used in preparation for WABO certification testing.

Prerequisite(s): WLD 230 or WLD 232, or Instructor permission

WLD 242 GTAW & GMAW Alloy

5 CR

This course focuses on GTAW with fillet and groove welds in all positions on aluminum, stainless steel and other alloys.

Prerequisite(s): All WLD 100 level courses or Instructor Permission

WLD 243 GTAW Steel Practices TP

2 CR

GTAW process in 2F and 3F positions on sheet metal for the beginner or advanced welder. This is a Tech Prep articulated course.

Prerequisite(s): All WLD 100-level courses or Instructor permission

WLD 244 Alloy Pipe Welding

9 CR

SMAW & GTAW welding applications for alloy pipe, including primarily medium carbon, chrome-moly, and stainless steel.

Prerequisite(s): WLD 271 and 295 or Instructor permission.

WLD 245 Advance GTAW Practices

6 CR

Lab focuses on proper joint preparation, fit-up and welding of alloy plate, including stainless steel GTAW welding, open root butt welds and various alloys and carbon steel.

Prerequisite(s): All WLD 100-level courses or Instructor permission

WLD 246 GTAW Aluminum Practices TP

2 CR

GTAW aluminum welding practice in 2F and 3F positions on 1/8" aluminum plate. This is a Tech Prep articulated course.

WLD 247 Advance GTAW Aluminum Practices

3 CR

Advanced GTA welding of aluminum alloys in all positions and confined spaces.

Prerequisite(s): All WLD 100-level courses or Instructor permission

WLD 248 GTAW III

5 CR

Advanced GTA welding on steel and stainless steel.

Prerequisite(s): All WLD 100-level courses or instructor permission

WLD 252 Alloy Fabrication

5 CR

This course covers advanced fabricating techniques for the job site, including material handling practice and safety, crane & hoist operation & safety, confined spaces and fresh air training. In position welding utilizing GMAW and GTAW on fillet and groove welds on Alloys in all positions, cutting and air carbon arc gouging, techniques in the Modular Training Facility. Fall protection & scaffold safety, and use of large shop equipment (brake, shear, power rolls) are covered.

Prerequisite(s): All WLD 100 level courses or Instructor permission

WLD 254 Steel Fabrication II

6 CR

This course covers advanced fabricating techniques for the jobsite, including material handling practice and safety, crane & hoist operation & safety, confined spaces and fresh air training, In position welding utilizing proper SMAW, GTAW, and FCAW technique in all positions, and cutting and air carbon arc gouging techniques in the Modular Training Facility. Also includes fall protection & scaffold safety, and use of large shop equipment (brake, shear, power rolls) Steel Fabrication.

Prerequisite(s): WLD 252 or Instructor permission

WLD 255 Structural Steel Fabrication

6 CR

Students will learn advanced fabricating techniques for industrial jobsite applications. In-position welding utilizing proper SMAW and FCAW technique in all positions, and cutting and air carbon arc gouging techniques in the Modular Training Facility (Module). Also includes fall protection & scaffold safety and use of large shop equipment.

Prerequisite(s): All WLD 100-level courses

WLD 256 Pipe Fabrication I

7 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, Volumes I & II from NCCER Pipefitting Levels 1-4.

Prerequisite(s): All WLD 100 level courses 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 256 or Instructor permission

WLD 258 Special Fabrication Projects

6 CR

Guided and self-guided steel or aluminum fabrication projects by instructor permission. Offered in Summer only.

Prerequisite(s): WLD 271 or Instructor Permission

WLD 259 Alloy Fabrication Projects

9 CR

Guided alloy and steel fabrication projects for the advanced welder. Primarily stainless steel and other common steel alloys. SMAW & GTAW welding applications for alloy pipe or plate, including primarily medium carbon, chrome-moly, and stainless steel.

Prerequisite(s): WLD 271 and WLD 295 or Instructor permission

WLD 262 GTAW Pipe Welding

5 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 215 or Instructor permission

WLD 267 Marine Welding

4 CR

Topics covered will include: ship yard safety and hazards, confined spaces, inclement weather, flame cutting, carbon arc gouging, and out-of-position welding (wire-feed and stick processes). Ideal for students preparing to job hunt or professionals looking to transition trades. Basic welding experience and personal protective equipment required. This class is physically demanding and will require kneeling, crouching, and crawling in awkward positions, standing on ladders, and working in tight spaces. This class is not recommended for inhibited individuals or those with severe claustrophobia.

Prerequisite(s): 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 220 and WLD 232; or WLD 230 and WLD 215; or Instructor permission

WLD 273 Testing II

6 CR

Guided Lab practice in preparation for WABO/ASME/ABS/in-house testing. Welder qualification and certification testing. Processes may include FCAW, SMAW, GTAW, or GMAW in all positions, including fit-up, and NDE principles.

Prerequisite(s): WLD 271 or Instructor Permission

WLD 274 Testing III

9 CR

Guided Lab practice in preparation for WABO/ASME/ABS/In-house testing. Welder qualification and certification testing. Processes may include FCAW, SMAW, GTAW, or GMAW in all positions, including fit-up, and NDE principles.

Prerequisite(s): WLD 271 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.

Prerequisite(s): Instructor Permission

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 290 Advanced Welding Practice III & IV

2 CR

Open lab will focus on individual advanced welding skills or pipe welding needs. Students must supply their own tools and materials. Contact instructor for tool list prior to class.

Prerequisite(s): Welding II or equivalent on-the-job experience.

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

WLD 295 Capstone Project

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 254 or WLD 257; or Instructor permission

WLD 298 Welding Internship II

6 CR

Industry on-the-job experience per individualized opportunities under guided practice.

Prerequisite(s): Instructor permission

WLD 299 Welding Internship III

6 CR

Industry on-the-job experience per individualized opportunities under guided practice.

Prerequisite(s): Instructor permission

Chapter 9: We Are Here for You

Faculty and Staff Directory

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M.Ed., Agricultural Education, University of California, Davis
B.S., Agricultural Education, University of California, Davis

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B.S., Secondary Education, Montana State University

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B.A., Biology/Business, Gonzaga University
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Certificate, Teaching Certificate, Washington State

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Certificate, Administrator of School Finance and Operations, Association of School Business Officials

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B.A., Spanish/Latin American Studies, Western Washington University
A.A., General Studies, Whatcom Community College

RaeLyn Axlund McBride

Executive Director of Institutional Effectiveness

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Dean

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B.S., Liberal Arts, Excelsior College

A.A., Liberal Arts, Mercy College

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B.A., Communication, University of Washington

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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

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Gordon Durham

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Certificate, ASME/ANSI Certified Journeyman Alloy Pipewelder
Certificate, AWS- Certified Welder Inspector (CWI), Certified Welding Educator (CWE)
Certificate, Navy Certified Journeyman Alloy Pipewelder
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Certificate, AWS-Certified Welding Educator (CWE)
Certificate, AWS-Certified Radiographic Interpreter (CRI)
WABO-Structural steel and Welding Inspector
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WABO-Weld Examiner
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Certificate, Certified Novell Administrator
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Certificate, Radiologic Technologist, Mammography, American Registry of Radiologic Technologists
Certificate, Radiologic Technologist Certification, Washington State Department of Health
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Chapter 8: Student Conduct Code

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 otherwise 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.

Copyright Policy: 4.24.490, RCW 28B.10.842, Title 17 US Code

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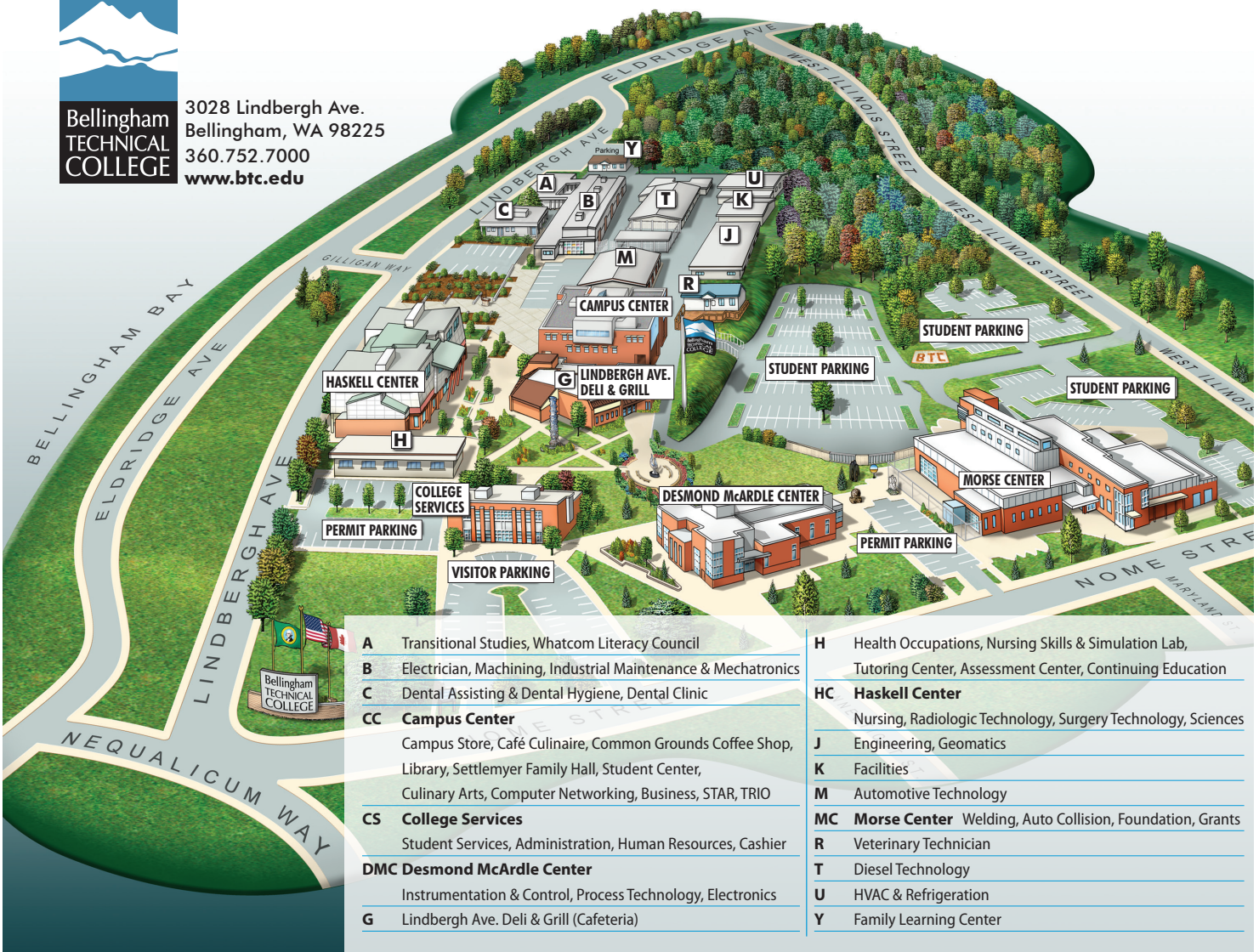
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- A** Transitional Studies, Whatcom Literacy Council
- B** Electrician, Machining, Industrial Maintenance & Mechatronics
- C** Dental Assisting & Dental Hygiene, Dental Clinic
- CC Campus Center**
 Campus Store, Café Culinaire, Common Grounds Coffee Shop,
 Library, Settlemyer Family Hall, Student Center,
 Culinary Arts, Computer Networking, Business, STAR, TRIO
- CS College Services**
 Student Services, Administration, Human Resources, Cashier
- DMC Desmond McArdle Center**
 Instrumentation & Control, 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