



Bellingham
TECHNICAL
COLLEGE

2014
2016

CATALOG

14

THROUGH

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CATALOG



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

Effective Fall 2014

MESSAGE FROM THE PRESIDENT



Welcome to Bellingham Technical College.

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

BTC is a leading educational institution and offers high-quality education in a supportive, student-first environment. BTC can help you prepare for a high-wage, high-demand career in just two years. With 37 associate degrees and 49 certificates, we prepare students for careers in fields ranging from Advanced Manufacturing to Accounting; Process Technology to Precision Machining; Nursing to Radiologic Technology. Our mission is to help you achieve your educational and career goals.

BTC continues to deliver student-centered, high-quality professional technical education for today's needs and tomorrow's opportunities. More than ever before, BTC is expanding transfer opportunities so our students can seek a baccalaureate degree. The college is part of several state initiatives to address the growing aerospace workforce needs as well as our regional advanced manufacturing and healthcare sectors. We have a large cadre of healthcare programs that are continually updating their curriculum and delivery to meet the changing workforce needs. Our industrial and technical programs are well known for their high quality, not only in Washington State but nationally. It is exciting to know the interest in employers for our graduates; our job placement rate is strong, remaining above 84%.

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

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

Patricia McKeown, Ed.D.
President

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ABOUT BTC

BTC History

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

About Our Students

In the 2012-2013 academic year, the college served over 5914 students. In fall of 2012, the student body was 51% female, 49% male, with 24% minority students. The average student age was 28 years old. BTC served over 2137 full-time equivalent students.

(Data source: SBCTC 2012-13 Academic Reports and Fall Qtr 2012 Reports)

Accreditation Status

Bellingham Technical College is accredited by Northwest Commission on Colleges and Universities, 8060 165th Avenue N.E., Suite 100, Redmond, Washington 98502-3981. The commission is an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education.

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

Advisory Committees

The degree and certificate programs at Bellingham Technical College rely on the involvement and support of over 350 business and industry employers and employees from the community. Advice and direction offered by experts in the working world ensure that students are acquiring knowledge and skills that are in demand in the workforce.

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

Drug-Free Workplace

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

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

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

Equal Opportunity Statement

Bellingham Technical College provides equal opportunity and access in education and employment and does not exclude, deny benefits to, or otherwise discriminate against any person on the basis of race, ethnicity, creed, color, sex, gender, citizenship status, national origin, age, marital status, religious preference, the presence of any sensory, mental, or physical disability, reliance on public assistance, sexual orientation, veteran status, political opinions or affiliations, or genetic information under any of its programs, activities, and services. The college complies with all Washington State anti-discrimination laws (RCW 49.60) and the following federal laws relating to equal opportunity: Title VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans with Disabilities Act (ADA) of 1990.

The following person has been designated to handle inquiries regarding non-discrimination, equal opportunity, affirmative action, or the ADA policies: Associate Director of Human Resources, 3028 Lindbergh Avenue, Bellingham, WA 98225, 360-752-8354. 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 360-752-8367. Director: 360-752-8396.



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.

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 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 stimulate private support for the programs, needs and enhancements of the College; to optimize student access to the college's programs and services; and to elevate the college to excellence through fundraising, public awareness activities, and partnerships with its diverse communities.

The Foundation Board of Directors and staff forward this mission through fundraising and special events that actively involve individuals, businesses, alumni, grant-making institutions, and other community organizations.

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

The Foundation Board has set ambitious three-year goals (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

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. Our staff is 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

COLLEGE CALENDAR 2014-2015

SUMMER QUARTER 2014

Summer BTC Classes Begin	Jul 1st
WAOL Classes Begin	Jul 3rd
Summer Last Day to drop and 100% Refund	
– 6 week course	(July 4th online) Jul 3rd
Independence Day Holiday	Jul 4th
Summer Last Day to Drop and 100% Refund	
– 8 week course	(July 6th online) Jul 7th
Summer Last Day to Withdraw with 50% Refund	
– 6 week course	(July 13th online) Jul 14th
Summer Last Day to Withdraw with 50% Refund	
– 8 week course	Jul 18th
Summer Last Day to Withdraw or Change Schedule	
– 6 week course	Jul 28th
Fall Quarterly Schedule Available	Jul 28th
Fall General Registration Begins 8:00 am	Jul 28th
Summer Quarter Ends – 6 week course	Aug 8th
Summer Last Day to Withdraw or Change Schedule	
– 8 week course	Aug 11th
Summer Grades Posted to student Transcripts	
– 6 week course	Aug 13th
Fall Tuition & Fees Due	Aug 20th
Summer Quarter Ends – 8 week course	Aug 22nd
Summer Grades Posted to Student Transcripts	
– 8 week course	Aug 27th
WAOL Classes End	Aug 27th

FALL QUARTER 2014

Labor Day Holiday	Sept 1st
Fall WAOL Classrooms Open	Sept 18th
Fall BTC Classes Begin	Sept 23rd
Fall WAOL Class Instruction Begins	Sept 25th
Fall Last Day to Drop and 100% Refund	Sept 29th
Fall Last Day to Withdraw with 50% Refund	Oct 13th
Faculty In-service Day – (no daytime program classes)	Oct 27th
Winter Registration Access Times Available	Nov 3rd
Winter Class Information Available Online	Nov 3rd
Winter Continuing Program	
Student Registration Access Begins	Nov 10th
Veterans Day Holiday	Nov 11th
Winter New Program Student	
Registration Access Begins	Nov 17th
Fall Last Day to Withdraw or Change Schedule	Nov 20th
Thanksgiving Holiday	Nov 27th & 28th
Winter Quarterly Schedule Available	Dec 1st
Winter General Registration Begins 8:00 am	Dec 1st
Fall WAOL Class Instruction Ends	Dec 3rd
Winter Tuition & Fees Due	Dec 4th
Fall Quarter Ends	Dec 12th
Fall Grades Posted to Student Transcripts	Dec 17th
Winter Break	Dec 15th – Jan 5th

WINTER QUARTER 2015

Winter Holiday	Dec 24th – 25th
Winter WAOL Classrooms Open	TBD
New Year's Day Holiday	Jan 1st
Winter WAOL Class Instruction Begins	TBD
Winter BTC Classes Begin	Jan 7th
Winter Last Day to Drop and 100% Refund	Jan 13th
Martin Luther King Day Holiday	Jan 19th
Winter Last Day to withdraw with 50% Refund	Jan 26th
Spring Registration Access Times Available	Feb 9th
Spring Class Information Available Online	Feb 9th
Presidents Day Holiday	Feb 16th
Spring Continuing Program	
Student Registration Access Begins	Feb 17th
Spring New Program Student	
Registration Access Begins	Feb 23rd
Winter Last Day to Withdraw or Change Schedule	Mar 5th
Spring Quarterly Schedule Available	Mar 9th
Spring General Registration Begins 8:00 am	Mar 9th
Winter WAOL Class Instruction Ends	TBD
Spring Tuition & Fees Due	Mar 18th
Winter Quarter Ends	Mar 26th
Winter Grades Posted to Student Transcripts	Mar 31st
Spring Break	Mar 27th – Apr 6th

SPRING QUARTER 2015

Spring WAOL Classrooms Open	TBD
Spring WAOL Class Instruction Begins	TBD
Spring BTC Classes Begin	April 7th
Spring Last Day to drop and 100% Refund	Apr 13th
Spring Last Day to withdraw with 50% Refund	Apr 28th
Summer/Fall Registration Access Times Available	May 12th
Summer/Fall Class Information Available Online	May 12th
Summer & Fall Continuing Program	
Student Registration Access Begins	May 20th
Memorial Day Holiday	May 25th
Summer & Fall New Program Student	
Registration Access Times Begin	May 27th
Spring Last Day to Withdraw or Change Schedule	June 3rd
Summer Quarterly Schedule Available	June 9th
Summer General Registration Begins 8:00 am	June 9th
Spring WAOL Class Instruction Ends	TBD
Summer Tuition & Fees Due	June 18th
Spring Quarter Ends	June 23rd
Commencement	June 23rd
Spring Grades Posted to Student Transcripts	June 26th

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

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

LIMITS OF CATALOG

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

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

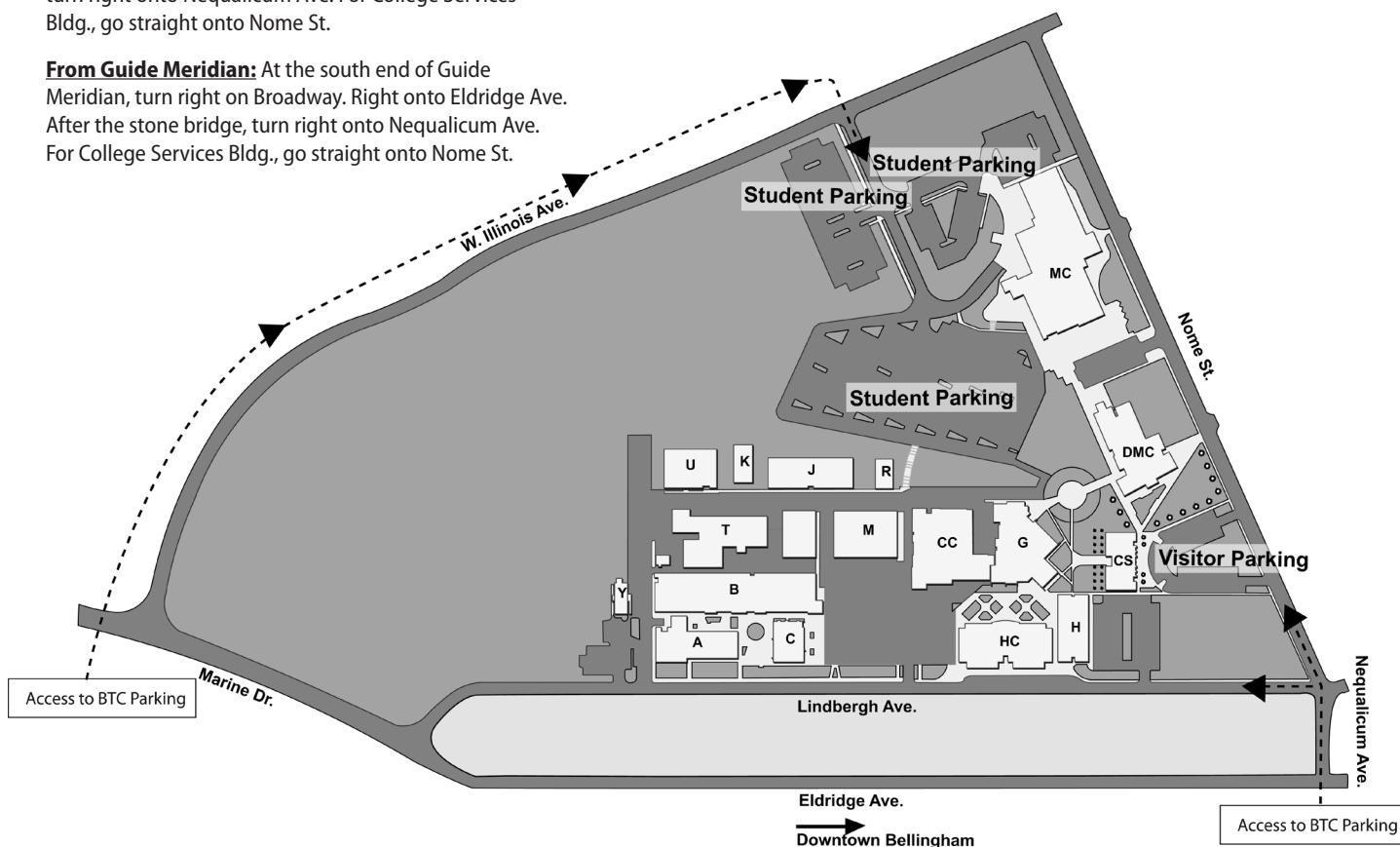
BTC Map & Directions to Campus

How to Find our Campus

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

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

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



A	Literacy Council, Basic Academic Skills	HC	Haskell Center Nursing, Radiologic Technology, Surgery Technology, Sciences
B	Electrician, Precision Machining, Electro Mechanical	J	Engineering, Geomatics (formerly Surveying & Mapping)
C	Dental Assisting & Dental Hygiene, Dental Clinic	K	Facilities
CC	Campus Center Campus Store, Business Courses, Cafe Culinaire, Culinary Arts, Computer Networking, Coffee Shop, Library, Student Center	M	Automotive Technology
CS	College Services Bldg Student Services, Administration, Human Resources, Cashier	MC	Morse Center Welding, Auto Collision, Foundation
DMC	Desmond McArdle Center Instrumentation, Process Technology, Electronics	R	Veterinary Technician
G	Cafeteria	T	Diesel Technology
H	Assessment Center, Health Occupations, Nursing Skills and Simulation Lab, Continuing Ed, Tutoring Center	U	HVAC
		Y	Family Learning Center

Instructional sites are easily accessible to students using wheelchairs or crutches. Building M is not barrier-free. Disabled students who wish to take a class at a site which does not accommodate their disability should contact Accessibility Resources at 360-752-8345 or AR@btc.ctc.edu.



ADMISSION AND ENROLLMENT

College Services Building, 106
Email: admissions@btc.ctc.edu Phone: 360-752-8345

Prospective students must apply for program admission to all programs and register in the degree/certificate program. Students may register for full-time or part-time, based on personal preference, availability of space, and/or specific program offerings. Most courses within the program will be offered at various times throughout the program, as scheduled by the instructor. General education course offerings vary and are also 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 a BTC faculty advisor or academic and career 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 Sequence and Schedule section on the Program pages of this catalog.

Placement testing is required for degree/certificate-seeking students in all programs except Child Development, 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. Students may also transfer in placement test scores or transcripts from a previous college for evaluation instead of taking the Accuplacer.

ASSESSMENT CENTER

PLACEMENT TESTING

Building H, Room 4
Email: assessment@btc.ctc.edu Phone: 360-752-8335

Because student success in individual degree/certificate programs and in subsequent employment is closely related to the ability to read and compute, acceptance into specific degree/certificate programs 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's Accuplacer placement test to assess students' academic skill levels. The Accuplacer testing requirement may be waived upon evaluation of official transcripts or placement test scores 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.ctc.edu/Assessment, for schedule, location and resources for test

preparation. The \$21 Accuplacer test fee includes one retest in each subject area per 12-month period. Test scores are valid for a period of five years. Students must present picture identification and payment receipt when they report for testing.

GED TESTING

GED testing is offered through BTC's Assessment Center. Visit the GED website, (www.gedtestingservice.com), for information about the new computerized GED test, registering and scheduling your GED test, transcript information and more. Contact the Assessment Center for additional information at assessment@btc.ctc.edu or 360-752-8335. Students must present a state or federally issued picture ID at the time of testing.

Testing candidates under the age of 19 need to complete a Request for Approval Form and obtain a signature from the school district in which they reside. Access the GED website to request testing accommodations.

ADDITIONAL TESTING

BTC's Assessment Center also offers a variety of industry and program tests. To learn more, visit the website, www.btc.ctc.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.ctc.edu/applyonline. Applications for program admission are accepted at any time. The application will be kept on file for a period of one year after the date of application. Applicants will need to reapply after one year of inactivity. Applicants who complete the admissions process and are placed on a program-ready list do not need to resubmit an application while waiting for a program opening.
2. Take the Accuplacer placement test or equivalent placement test, and achieve required scores for the specific program or college coursework as defined below. If the assessment scores are below the level identified for the specific program, the student will meet with an advisor to identify an individual plan of study. The Accuplacer is available on a drop-in basis through the Assessment Center. Visit the Assessment Center website, www.btc.ctc.edu/Assessment for schedule, location and resources for test preparation. The \$21 Accuplacer test fee includes one retest in each subject area per 12-month period. Test scores are valid for a period of five years. Students must present picture identification and payment receipt when they report for testing.
 - a. An applicant seeking program admission who has completed a minimum of three (3) credits for a course in English or mathematics with a C (2.0) grade or above, which at that college is deemed a prerequisite for a course equivalent to

the BTC course in which the student wishes to place, may have the Accuplacer requirement waived upon evaluation of an official transcript from a regionally accredited college or university and completion of the Evaluation Request form. Requests for evaluation of transcripts for Accuplacer waiver can be made through the Admissions and Student Resource Center.

- b. Washington State CTC Approved Placement Reciprocity Agreement Policy.

BTC now honors 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 request evaluation of the official scores for equivalency to the Accuplacer. Requests for test score equivalency may be made to Admissions and Student Resource Center.

- c. 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, or Electronics, must test into Precalculus I or complete Intermediate Algebra (MATH 099) at a minimum.

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 pages for additional details.

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

ADMISSION AND ENROLLMENT POLICY

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

1. Is competent to profit from the curricular offerings of the college. For degree/certificate programs, attainment of identified scores in reading comprehension, 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.

As of July 2012, the college does not admit students based on Ability to Benefit Criteria.

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 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.)

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 (no "CR" 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.ctc.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. Meet with his or her high school counselor 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. Complete the BTC Admissions Application Form available from his or her high school counselor or the Running Start Advisor at BTC and submit application to the BTC Running Start Advisor.
3. Take the Accuplacer Placement Test at BTC or, when available, at his or her high school. Running Start students may not enroll in remedial or pre-college courses (numbered below 100) at BTC 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.
4. Meet with the BTC Running Start Advisor to discuss program requirements, develop a completion plan, and review Running Start expectations.
5. Complete the Running Start Enrollment Verification Form and submit it to BTC Registration to sign up 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.

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

All new BTC students will complete the New Student Orientation prior to registering for courses.

Orientation requires a separate sign-up process. Plan ahead.

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 College 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.ctc.edu, or visit Whatcom County's Tech Prep web site at www.whatcomtechprep.org.

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, may not change their program of study, and may not hold employment while in attendance at BTC.

Before international students can be admitted into Bellingham Technical College or issued a Certificate of Eligibility Form I-20 for

2014-2016 Getting Started

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 application.
- **Placement Testing:** Applicants must demonstrate competency in English and math **before** an application can be accepted for program entry. Students may take the BTC Accuplacer Placement Test to accomplish math and reading score requirements. BTC also accepts equivalent college placement scores, the TOEFL (contact Admissions for specifics), or certain college coursework for test waiver. To schedule an appointment for testing or to inquire about test waiver, please email Admissions or Student Resource Center at admissions@btc.ctc.edu or call 360-752-8345.
- **Other Requirements:** The following programs have additional prerequisites or admissions requirements: Automotive Technology, Civil & Mechanical Engineering, Dental Assisting, Dental Hygiene, Diesel Technology, Electronics, Geomatics, Instrumentation, Nursing, Nursing Assistant, Pastry, Process Technology, Radiologic Technology, Surgery Technology, and Veterinary Technician. Applicants to these programs should contact Admissions at admissions@btc.ctc.edu or 360-752-8345 regarding requirements **before** sending 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

COURSE REGISTRATION PROCEDURE

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

REGISTRATION

A student is considered officially enrolled in a course or program after registering and paying all tuition and fees by specific due dates. The student has the responsibility of registering online or completing the registration form, reviewing the accuracy of the Student Schedule, and paying tuition and fees each quarter. Registration access times for new and continuing degree/certificate program students are assigned by cumulative credits earned at BTC. Students are notified by email to check their online registration access time prior to each registration period. All degree/certificate program tuition and fees must be paid on the due dates specified on the college calendar, located at www.btc.ctc.edu/calendar. Students may be dropped from a course or program if the student fails to attend or contact their instructor by the second day of class, or if tuition and fees are not paid in full when due.

CLASS WAITLISTS

Class waitlists are available for many classes. Students are responsible for their class schedule, choosing to place themselves on the class waitlist and removing themselves from a class waitlist if they no longer wish to take the class. 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.

CHANGES IN PROGRAM SCHEDULE

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

Students may change their schedule prior to the quarter start, as space in a class allows. After the quarter begins, students will have the first five (5) instructional days of the quarter (three (3) days in summer quarter) to change their schedule. Adding a class will depend on space available. Instructor permission is required to

add a class after the fifth day of the quarter (third day in summer 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.

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

WITHDRAWAL PROCEDURE

1. Students should meet with their instructor to discuss plans for withdrawal and potential plans for return. If appropriate, the student may also meet with their advisor to develop a plan for future enrollment.
2. Students receiving financial aid should contact the Financial Aid Office to give notification of intent to withdraw and to determine the impact on their financial aid status of withdrawing.
3. To officially withdraw from a course, students must drop 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.
4. If eligible, refunds for payments made by cash or check will be processed through the Business Office and a check mailed within three weeks. Refunds for payments made by credit card will be processed back to the credit card in two business days. Outstanding debts to the college will be deducted from refunds.
5. Refund amounts are based on prior full payment of tuition and fees. If payment has not been paid in full, a balance may still be owed if a student withdrew from a class during a partial refund period.

TUITION AND FEES

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

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 Card	\$7.50
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:

- o Refunds for state-supported classes which start before or after the regular quarter begins will be processed in proportion to the tuition and fee refund percentages above. Refund deadlines may differ for classes with different start dates, including Washington Online classes and classes which start mid-quarter.
- o Refunds for state-supported classes which are shorter than the full quarter and begin any time during the quarter will be processed in proportion to the tuition and fee refund percentages above.
- o State-supported classes which meet only once must be dropped prior to the class meeting time to be refund eligible.
- "Instructional days" are defined as days the college is in session, not including weekends or scheduled holidays.
- "Calendar days" are defined as all days the college is in session, including weekends and scheduled holidays.

Self-Support Class and Child & Family Studies Class Refund Policy

(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

How to drop, withdraw, petition

- Students are usually able to drop classes online during the 100% refund period or submit an Add/Drop form to the Registration office for assistance. After that time, an Official Withdrawal is required.
- An Official Withdrawal is defined as when a student has dropped online or submitted a completed Add/Drop form to the Registration Office before the withdrawal deadline. The refund will be calculated based on the date the form is **submitted** rather than the last day of attendance. No refund of tuition and fees will be made beyond the current quarter.
- Students who fail to attend or stop attending a course or program without notice, and do not officially withdraw will forfeit all claims to the refund of tuition and fees, and may receive a failing grade of F. The college may drop students in courses who fail to pay at the time of registration or by the tuition and fee payment due date.
- Refunds for Financial Aid students may be adjusted based on the type of aid received. Contact the Financial Aid Office at **360-752-8351** for 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.

Payment of Refunds

- Refunds for payments made by cash or check will be processed through the Business Office and a check mailed within three weeks. Refunds for payments made by credit card will be processed back to the credit card in two business days. Outstanding debts to the college will be deducted from refunds.
- Refund amounts are based on prior full payment of tuition and fees. If you have not paid in full, you may still owe a balance if you withdraw from your class during a partial refund period.

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.ctc.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.

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

An estimated Quarterly Program Costs for 2014-2015 is located online at www.btc.ctc.edu/tuition under Cost Estimates.

PAYING FOR COLLEGE

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

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.ctc.edu, read the available literature, 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 gives students the best chance of being reviewed before the beginning of each quarter, and of maximum funding eligibility each financial aid year.

Financial aid is intended to add to, but not replace, a person’s financial resources. If combined resources are not sufficient to cover expenses, students may be eligible for financial aid in the form of grants, scholarships, low-interest loans, and student employment. 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 eligibility for grants, scholarships, work-study, and low-interest loans.

FINANCIAL AID PROGRAMS

FINANCIAL AID APPLICATION PROCEDURE

Complete and submit the Free Application for Federal Student Aid (FAFSA) to the federal processor. This application collects financial data and other information used to calculate the Expected Family Contribution (EFC), which determines a student's basic aid eligibility. Students may complete their FAFSA online at www.fafsa.gov. Be sure to sign with an electronic signature from the PIN site. Once BTC receives your FAFSA, other information may be requested from you to complete your file. Most of the necessary forms may be downloaded from the Student Financial Aid Portal at www.btc.ctc.edu/financialaidportal, or from the financial aid forms section of the BTC Financial Aid website at www.btc.ctc.edu/financialaidforms.

Be certain that all required information has been received to complete your file. Students must reapply for financial aid each year via a new FAFSA after January 1 for the new award year beginning with summer quarter. 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 after completing your tax forms for the previous year.

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 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 begins in May.

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. Students will be notified when they approach excessive

credits, which is approximately 125% of their program. Students who change programs may run out of eligibility before completing a new program. Contact the Financial Aid Office 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 regulations, and any amounts owed are separate from and may be in addition to the college's own tuition refund policy. For a copy of the Return to Title IV Funds refund policy, please contact the Financial Aid Office.

AVAILABLE FINANCIAL AID PROGRAMS

FEDERAL PELL GRANT

The federal Pell Grant is free monetary assistance for educational expenses. Students who have earned a bachelor's degree are 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 FAFSA.

SCHOLARSHIPS

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

STUDENT WORK STUDY

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

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. 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.

WORKFORCE FUNDING & STUDENT SUPPORT

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

- **Basic Food Employment & Training (BFET)**

BFET is another funding source to help students get on and stay on their educational path. Students may be eligible if they receive or are eligible for federal Basic Food Assistance (food stamps) and do not receive TANF (Temporary Assistance to Needy Families). BFET can help with college and other support services. BFET at BTC facilitates child care subsidy eligibility through the Department of Social and Health Services (DSHS). Enrolling in the BFET program also keeps Basic Food recipients in good standing with DSHS so their food benefits will continue while they attend college. Call 360-752-8467 for more information and find us at www.btc.ctc.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 360-752-8467 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, Precision Machining, Electrician, Instrumentation, 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 360-752-8467 and find us at www.btc.ctc.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 360-752-8467 and find us at www.btc.ctc.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 two 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 honorably discharged within the past two 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 360-752-8467 and find us at www.btc.ctc.edu/workerretraining.

ADVISING & CAREER SERVICES

Once students declare their program major 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. To find out who your advisor is, go to www.btc.ctc.edu/MyAdvisor and enter your SID number.

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 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 by visiting www.btc.ctc.edu/Advising, emailing advising@btc.ctc.edu, calling 360-752-8345 or stopping by the Admissions & Student Resource Center (CS 106).



STUDENT SUPPORT RESOURCES

ADVISING & CAREER SERVICES

College Services Building 106
 Email: advising@btc.ctc.edu Phone: 360-752-8345
 Website: www.btc.ctc.edu/Advising

The goal of BTC academic and career advisors is to help students get started in their career and educational planning, be a 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

COUNSELING SERVICES

College Services Building 106
 Email: counseling@btc.ctc.edu
 Phone: 360-752-8345

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
 Email: registration@btc.ctc.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.ctc.edu
 Phone: 360-752-8345

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 current 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.ctc.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, at least four weeks prior to the quarter start date. Late requests may result in a delay of accommodation placement. Call 360-752-8345 for more information.

DIVERSITY/MULTICULTURAL SUPPORT SERVICES

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

Diversity/Multicultural Support Services assists students with diverse cultural and ethnic backgrounds, abilities, genders, and languages of origin to access, pursue, and attain success in achieving their educational goals. Students seeking assistance should contact the Director of Multicultural and Student Support Services, or schedule an appointment by calling 360-752-8345.

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.

BASIC ACADEMIC SKILLS

Building A
 Email: bas@btc.ctc.edu
 Phone: 360-752-8341

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

The Basic Academic Skills program offers:

- Adult Basic Education (ABE) including reading, writing, and math
- GED preparation

2014-2016 Student Life & Services

- Study skills
- English as a Second Language (ESL)
- Basic computer skills
- I-BEST programs

Adults seeking Basic Academic Skills classes should contact the Basic Academic Skills office for information. Basic Academic Skills hours are Monday through Friday from 8:00 am to 4:00 pm. See the Quarterly Schedule for details.

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

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

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

REFUGEE ESL

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

ASSOCIATED STUDENT GOVERNMENT

The 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.

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.

Interested in participating in the Student Senate? Contact ASBTC by email asbtc@btc.ctc.edu or call 360.752.8357.

The ASBTC office is located in the Campus Center (CC), Room 300.

PHI THETA KAPPA

College Services Building, Room 106
Email: ptk@btc.ctc.edu

Bellingham Technical College is pleased to offer membership in Phi Theta Kappa to students who exhibit academic excellence in associate degree programs. Phi Theta Kappa, the international honor

society of two-year colleges, aims to recognize and encourage scholarship among associate degree students. BTC's Beta Lambda Beta chapter of Phi Theta Kappa was chartered in 2002.

Invitation to membership is extended by the chapter to students who have completed at least 24 credits of coursework leading to an associate degree, in which they have a grade point average of 3.5 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.ctc.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.ctc.edu/library.

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

The BTC Library features the Information Commons, plus the campus'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.ctc.edu/library/AskLibrarian.asp. Library staff are always available to help you with your research, information, and technology questions. For more information visit us in the Campus Center Building, email us at library@btc.ctc.edu, or call 360-752-8383.

CAMPUS STORE

Campus Center Building
Phone: 360-752-8342

The BTC Campus Store is located on the ground floor of the Campus Center building. There you can find required texts, materials, and supplies to purchase for degree/certificate programs and courses.

Bring your printed class schedule and the staff will help find your required items. Text lists can be found at www.btc-store.com. Printed copies of the lists are also available to use inside the store. You may purchase a copy of any list for ten cents per copy.

Student ID cards are available for \$7.50. The Campus Store also carries office supplies, software, flash drives, calculators, book bags, BTC apparel, emblem gifts, coffee, soda, pastries, candy, and other snacks. Services include outgoing fax service, outgoing package shipping, stamp sales, bus pass sales, and special orders.

Students funded through an independent funding agency (DVR, Labor and Industries, etc.) or Workforce Investment Act (WIA) must work with counselors from their agency prior to purchasing books and supplies. Students receiving financial aid checks from BTC must pay for books and supplies at the time of purchase. The Campus Store does not cash financial aid or other two-party checks. The store accepts cash, VISA, MasterCard, most debit cards, and personal checks with identification.

FOOD SERVICES

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

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

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

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

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

INSURANCE

The college does not provide students with medical or accident insurance. We encourage students who lack personal accident insurance to purchase it if they are enrolled in any degree/certificate program that involves working with machinery. 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 Culinaire 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 Culinaire 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, available through Whatcom County Auditor's office. Please contact the Whatcom County Auditor at 360-676-6740 for information on obtaining either a long-term or a short-term ADA permit.

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 Student Services and the Vice President of Administrative Services for disciplinary action.

TUTORING SERVICES

Building H, Room 9
Email: tutoring@btc.ctc.edu
Phone: 360-752-8499

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

PROGRAM SERVICES FOR THE PUBLIC

Some of the college's degree/certificate programs provide services or repairs for staff, students, and the general public, if the work needed applies to the training of students in the program without negatively impacting community private enterprise. Services include automotive, auto collision, and dental.

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

4

POLICIES, REQUIREMENTS,

AND RECORDS

ACADEMIC REQUIREMENTS

DEGREE/CERTIFICATE PROGRAMS

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

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

Direct Transfer 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-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 Department. 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. Complete the BTC Graduation Application for each degree or certificate requested and submit application to the Registration and Enrollment Office.
3. Meet all financial obligations to the college.
4. Earn a cumulative grade point average of 2.0 or above. Individual programs may require a higher grade point average.
5. Complete the last 50% of the required coursework at BTC.

GENERAL EDUCATION REQUIREMENTS

General education courses are included in the programs to prepare

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

These requirements will be satisfied by completing 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.

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

Challenge (credit by exam) of some general education courses is permitted prior to the end of the quarter. Students must submit a Credit by Examination/Evaluation form to the Instructor for approval and pay the \$70.00 fee per credit earned/attempted at the Cashier prior to examination. Successful challenge of courses will be transcribed with a CR grade. Challenge procedure directions are available from the Transcript Evaluator located in the Admissions & Student Resource Center and the general education course instructor.

STUDENT GRADES

GRADING POLICY

BTC uses the following letter grading symbols:

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

INTERPRETATION OF GRADE SYMBOLS

A (4.0) Excellence in Achievement of Competency

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

2014-2016 Policies, Requirements & Records

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 in the cumulative GPA. This indicator appears after the letter grade of the lowest grade and suppresses the lowest grade on an official transcript.

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

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

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

AU - Audit

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

CR - Credit for Prior Experiential Learning/Prior Learning Assessment (PLA)

Prior experiential learning is credit granted toward the award of a degree or certificate for prior learning experiences, demonstrated

through various means of assessment, to be the equivalent of learning gained through formal collegiate instruction.

I - Incomplete

The student completed a significant portion (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 be repeating a course must fill out a Course Repeat form at the time of registration. If registering online, they should fill out a Course Repeat form before the course is complete. Students are not allowed to repeat a course for the purpose of obtaining a better grade; (this is defined as two repeats in addition to the original enrollment). Some programs may have more stringent restrictions for repeating courses (e.g. nursing). Courses with letter grades AU, CR, I, T or W, are excluded from the repeat policy because these grades do not affect the GPA calculation and will remain on the official transcript. The R-(Repeat) symbol indicates the course has been repeated. An "R" will be placed next to the lowest grade on an unofficial transcript. Only the highest grade will compute in the cumulative GPA. The repeated course with the highest grade will print on an official transcript and the repeated course with the lowest grade will be suppressed.

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

GRADES AND TRANSCRIPTS

Quarterly grades for all graded programs and courses are available online at www.btc.ctc.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.ctc.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 can be 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

ACADEMIC AWARDS

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.

President's List – Full-time students enrolled in a degree or certificate program of 90 credits or more with a cumulative grade point average of 3.75 or higher at the completion of all degree/certificate requirements are placed on the President's List. Full-time is defined as being enrolled for a minimum of 12 credits per quarter. This award is earned only upon completion and is noted on the student's transcript.

Certificate of Merit – Full- or part-time degree/certificate program students who demonstrate academic and/or program excellence in their program may be awarded the Certificate of Merit at program completion by the program faculty. One Certificate of Merit will be awarded per full-time program faculty per academic year per cohort of graduates. It is awarded at the discretion of the program faculty only upon completion.

ACADEMIC STANDARDS AND PROGRESS

ACADEMIC PROGRESS

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

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

ACADEMIC STANDARDS/CREDIT COMPLETION POLICY

Students who wish to graduate and receive a degree or certificate

must earn a quarterly grade point average of 2.0 or better in the program course requirements for the specific degree or certificate.

In order to demonstrate satisfactory progress:

1. All students will maintain regular attendance for each enrollment period. 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 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 signed by the student's instructor and submitted to the Appeals Committee for consideration of approval. All students readmitted following suspension will remain on academic probation for one quarter.

ATTENDANCE

Regular attendance is required to maintain satisfactory academic progress. This standard is reflected in the grading policy with each degree/certificate program 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.

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:

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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.

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 may obtain this form from their faculty.

POSSIBLE FEDERAL AND STATE DATA COLLECTION AND USE

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

STUDENT RIGHTS & RESPONSIBILITIES

DISCRIMINATION AND HARASSMENT

Bellingham Technical, as a place of work and study for all members of its community, will be free of all forms of discrimination and harassment. Any student subjected to offensive behavior is encouraged to pursue the matter in accordance with the title IX Policy, by contacting the Affirmative Action Officer in the college's Human Resources Office at 360-752-8354 or Vice President for Student Services at 360-752-8440. Sexual harassment complaints are treated as sexual discrimination complaints under state and federal regulations. Complaints are confidential.

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

CAMPUS CODE OF CONDUCT

NOTE: This code of conduct is in the process of being revised and once the new version is in effect, students will be expected to comply with any new version. — July 30, 2014

2014-2016 Policies, Requirements & Records

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

Copies of the entire Campus Code of Conduct are published and available to students and the campus community in the 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 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

2014-2016 Policies, Requirements & Records

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.ctc.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 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.ctc.edu/.

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

Credit for Prior Experiential Learning allows students to receive credit for courses in which the student demonstrates knowledge and expertise that meets the outcomes of each course. Credit for prior experiences must be shown, through various means of assessment, to be equivalent to learning gained through formal collegiate instruction. Prior experiences include industry certifications, work experiences, and military credit using the ACE Guide for the evaluation of educational experiences in the Armed Services.

Credit for prior experiential learning will be granted to students who have completed the admissions process. Credits granted will be based upon procedures developed and published by the program faculty and approved by the Instruction Council, in accordance with institutional policy. Credit for Prior Experiential Learning cannot duplicate credit granted by transfer or previously graded coursework, and may not exceed twenty-five percent (25%) of the total credits required for the degree or certificate.

Prior learning credit is available only for certain program courses. Approved programs include, but are not limited to, Automotive, BCIS, Civil Engineering, Computer Networking, Construction Management, Culinary, Diesel, Electrician, EMTEC, HIV/AIDS for Healthcare Workers, Instrumentation, Pastry, Precision 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 a signed approval, the student takes the copy of the form and pays the cashier the \$70.00 per credit fee by the third week of the quarter.

Upon successful completion of the assessment, which should include theory and practicum (if applicable), the instructor will submit the graded copy of the Credit by Examination/Evaluation form to Registration to post a CR grade 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 and Electronics
- Electrician and Electromechanical Technology
- 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.ctc.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.



ACCOUNTING

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

ACCOUNTING ASSISTANT CERTIFICATE

OVERVIEW

Choose this program to prepare for a rewarding accounting career. Employment choices are extensive in this high-demand field; you could work in a variety of office and business settings in jobs such as accounts receivable/payable clerk, general ledger clerk, or payroll clerk.

If you're good with numbers and have a high attention to detail, the Accounting Program will provide you with a wide range of skills to use with employers from wholesale firms and retail businesses; local, state, and federal governments; service providers; and 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 word 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

Program Start

Please see the BTC website for start times.

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

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

ASSOCIATE IN APPLIED SCIENCE DEGREE

Accounting

Quarter 1

ACCT 141	Practical Accounting I (substitute CMST& 210 spring quarter for ACCT 141)	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 274	Internship	4
ACCT 246	Computerized Accounting I	5
ACCT& 203	Managerial Accounting	5
BUS 100	Electronic Math Applications	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS& 201	Business Law	5
CAP 142	MS Excel	5
MGMT 154	Creating and Managing a Small Business	5

TOTAL Required Course Credits **83**

Electives (Any BCIS course not "required" for this degree)

BUS 123	Records Management	3
BUS 232	Office Procedures	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CAP 200	Integrated Computer Applications	5
LGL 132	Legal Terminology	5
MGMT 210	Human Resource Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits **19**

TOTAL PROGRAM CREDITS **102**

ASSOCIATE APPLIED SCIENCE - TRANSFER

Accounting

Quarter 1

ACCT 141	Practical Accounting I	5
	(substitute CMST& 210 spring quarter for ACCT 141)	
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 274	Internship	4
ACCT& 203	Managerial Accounting	5
BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
BUS& 201	Business Law	5
CAP 142	MS Excel	5
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
MGMT 154	Creating and Managing a Small Business	5
SOC& 101	Introduction to Sociology	5

TOTAL Required Course Credits **83**

Electives (Any BCIS course not "required" for this degree)

BUS 123	Records Management	3
BUS 232	Office Procedures	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CAP 200	Integrated Computer Applications	5
LGL 132	Legal Terminology	5
MGMT 210	Human Resource Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits **19**

TOTAL PROGRAM CREDITS **102**

CERTIFICATE

Accounting Assistant

Quarter 1

ACCT 141	Practical Accounting I	5
	(substitute CMST& 210 spring quarter for ACCT 141)	
BUS 188	Business English	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4

Required Courses for Program

ACCT 242	Practical Accounting II	5
ACCT 246	Computerized Accounting I	5
BUS 100	Electronic Math Applications	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS& 201	Business Law	5
CAP 142	MS Excel	5

TOTAL Required Course Credits **54**

Electives (Any BCIS course not "required" for this degree)

BUS 123	Records Management	3
BUS 232	Office Procedures	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CAP 200	Integrated Computer Applications	5
LGL 132	Legal Terminology	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5

Electives

TOTAL Elective Course Credits **7**

TOTAL PROGRAM CREDITS **61**

ADMINISTRATIVE ASSISTANT

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

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

- 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 employers.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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

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 IN APPLIED SCIENCE DEGREE

Administrative Assistant

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

ACCT 141	Practical Accounting I	5
BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 232	Office Procedures	5
BUS 276	Internship	6
BUS 280	Assessment	1
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CAP 200	Integrated Computer Applications	5

TOTAL Required Course Credits 83

Electives (Any BCIS course not "required" for this degree)

ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT&201	Principles of Accounting I	5
ACCT&202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 230	Medical Office Procedures	5
BUS& 201	Business Law	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CIS 145	Website Development	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits 20

TOTAL PROGRAM CREDITS 103

ASSOCIATE APPLIED SCIENCE - TRANSFER
Administrative Assistant

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

ACCT 141	Practical Accounting I	5
BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 188	Business English	5
BUS 232	Office Procedures	5
BUS 276	Internship	6
BUS 280	Assessment	1
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CAP 200	Integrated Computer Applications	5
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
SOC& 101	Introduction to Sociology	5

TOTAL Required Course Credits 83

Electives (Any BCIS course not "required" for this degree)

ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT&201	Principles of Accounting I	5
ACCT&202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 230	Medical Office Procedures	5
BUS& 201	Business Law	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CIS 145	Website Development	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits 20

TOTAL PROGRAM CREDITS 103

ANAEROBIC DIGESTER TECHNICIAN

ANAEROBIC DIGESTER TECHNICIAN CERTIFICATE

OVERVIEW

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

PROGRAM OUTCOMES

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

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

Degree and Certificate Requirements

Certificate completion requires a cumulative GPA of 2.0 or greater.

CERTIFICATE

Quarter 1

ADTEC 126	Basic Electricity	5
ADTEC 200	Anaerobic Digestion Essentials	4
ADTEC 237	Cooling Towers/Water Treatment	1
ADTEC 245	Commercial/Industrial Boilers	2

TOTAL PROGRAM CREDITS 12

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

AUTOMOTIVE REFINISHING CERTIFICATE

OVERVIEW

Train for a career as an automotive collision repair technician, automotive glass specialist, painter, or body shop manager. BTC's Auto Collision Repair program will prepare you for all aspects of automotive body repair, using the latest technological processes and equipment. You'll learn trade-specific skills, including how to repair and refinish damaged vehicles.

BTC's Auto Collision Repair program will give you the hands-on instruction that employers such as independent collision repair shops, detailing shops, automotive manufacturers, and automotive recyclers require.

Driving citations will restrict or prevent student participation in some lab activities, internships, and employment in the automotive repair industry.

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 damaged vehicle by 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

Program Start

Please see the BTC website for start times.

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 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

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 IN APPLIED SCIENCE DEGREE

Automotive Collision Repair Technology

Quarter 1

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

Quarter 2

ACRT 115	Non-Structural Repair	2
ACRT 123	Non-Structural Metal Finishing	5
ACRT 125	Refinishing Surface Preparation	5
ACRT 141	Outer Body Panel Repair	4
AENGL 100	Applied English	5

Quarter 3

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

Quarter 4

ACRT 140	Drive Train, Fuel, Brakes, HVAC	3
ACRT 251	Structural Welding	4
ACRT 253	Moveable Glass & Hardware	2
ACRT 254	Structural Fixed Glass	2
ACRT 256	Unibody Inspection	4
ACRT 262	Frame Inspection & Repair	4

Quarter 5

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

Quarter 6

ACRT 270	Shop Practicum IV	10
ACRT 275	Internship	7

TOTAL PROGRAM CREDITS **122**

ASSOCIATE APPLIED SCIENCE - TRANSFER

Auto Collision Repair Technology

Quarter 1

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

Quarter 2		
ACRT 115	Non-Structural Repair	2
ACRT 123	Non-Structural Metal Finishing	5
ACRT 125	Refinishing Surface Preparation	5
ACRT 141	Outer Body Panel Repair	4
ENGL& 101	English Composition I	5
PSYC& 100	General Psychology	5
Quarter 3		
ACRT 130	Damage Analysis	3
ACRT 133	Paint Matching & Blending	7
ACRT 138	Restoring Corrosion Protection	3
ACRT 142	Shop Practicum I	6
CMST& 210	Interpersonal Communications	5
Quarter 4		
ACRT 140	Drive Train, Fuel, Brakes, HVAC	3
ACRT 251	Structural Welding	4
ACRT 253	Moveable Glass & Hardware	2
ACRT 254	Structural Fixed Glass	2
ACRT 256	Unibody Inspection	4
ACRT 262	Frame Inspection & Repair	4
Quarter 5		
ACRT 255	Suspension & Steering	4
ACRT 260	Shop Practicum III	6
ACRT 263	Restraint Systems	2
ACRT 264	Plastics & Adhesives	4
ACRT 266	Electrical System Repair	3
Quarter 6		
ACRT 270	Shop Practicum IV	10
ACRT 275	Internship	7
TOTAL PROGRAM CREDITS		127

CERTIFICATE
Automotive Refinishing

Quarter 1		
ACRT 101	Introduction to Auto Collision Repair	4
ACRT 110	Refinishing Safety	2
ACRT 115	Non-Structural Repair	2
ACRT 125	Refinishing Surface Preparation	5
AMATH 100	Applied Occupational Math	5
Quarter 2		
ACRT 123	Non-Structural Metal Finishing	5
ACRT 138	Restoring Corrosion Protection	3
ACRT 142	Shop Practicum I	6
ACRT 268	Refinishing Final Detail	3
AENGL 100	Applied English	5
Quarter 3		
ACRT 133	Paint Matching & Blending	7
ACRT 143	Shop Practicum II	6
CMST& 210	Interpersonal Communications	5
Quarter 4		
ACRT 275	Internship	7
TOTAL PROGRAM CREDITS		65

AUTOMOTIVE TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

GENERAL AUTOMOTIVE REPAIR CERTIFICATE

VEHICLE SERVICE TECHNICIAN CERTIFICATE

OVERVIEW

Choose this program to prepare for a rewarding career as an automotive service technician or mechanic.

Occupational choices are extensive in this specialized field; you could work as an automatic transmission, brake, engine performance, or electrical specialist.

If you're looking for a program that provides a wide range of high-demand skills you'll use with employers such as automotive dealerships, auto rental companies, federal and local government repair shops, and fleet maintenance businesses, then check out Automotive Technology at BTC.

This program's entry points are usually fall and winter quarters. Students must have a valid driver's license and be insurable to participate in the work-based learning sections of this 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 coworkers, 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 coworkers, supervisors, and customers.

Continued on the next page

Automotive Technology continued

ASSOCIATE IN APPLIED SCIENCE DEGREE
Automotive Technology**PROGRAM ENTRY INFORMATION****Program Start**

Please see the BTC website for start times.

In addition to submitting an application, Automotive Technology students must complete the admissions completion form found at www.btc.ctc.edu/ and provide the following:

- Copy of a valid driver's license (with no restrictions due to driving offenses).
- Current complete 3-year driving record from Washington State DOL obtained within the week prior to submitting the admissions completion form. This copy of the driving record will be kept on file for advising purposes only.
- Signed statement indicating understanding of program admissions requirements and industry hiring standards.

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

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.

ADDITIONAL PROGRAM INFORMATION

- You are required to maintain a valid driver's license as long as you are enrolled in this program. A renewed copy of a valid driver's license (with no restrictions due to driving offenses) will again be required at the start of the second year in the program.
- Many employers in this field will only hire applicants who have a clean driving record.
- 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 a current "Abstract of Driving Record" at a local Department of Licensing or by accessing the Washington State Department of Licensing on the web at www.dol.wa.gov.
- All general education prerequisites must be completed prior to the beginning of the 2nd year.

Quarter 1

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

Quarter 2

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

Quarter 3

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

Quarter 4

AUTO 219	Applied Automotive Concepts I	15
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Quarter 5

AUTO 255	Electricity/Electronics 2	8
AUTO 265	Engine Performance 2	3
AUTO 229	Applied Automotive Concepts II	5

Quarter 6

AUTO 250	Automatic Transmissions/Transaxles	7
AUTO 260	Manual Transmission/Transaxle	3
AUTO 259	Applied Automotive Concepts III	5

Quarter 7

AUTO 275	Engine Performance 3	11
AUTO 279	Applied Automotive Concepts IV	5

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

TOTAL PROGRAM CREDITS **130-133**

ASSOCIATE APPLIED SCIENCE - TRANSFER

Automotive Technology

Quarter 1

TRANS 101	Basic Transportation Service & Systems 101	5
TRANS 102	Basic Transportation Service & Systems 102	5
TRANS 103	Basic Transportation Service & Systems 103	5
MATH& 141	Precalculus I	5
ENGL& 101	English Composition I	5

Quarter 2

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

Quarter 3

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

Quarter 4

AUTO 219	Applied Automotive Concepts I	15
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Quarter 5

AUTO 255	Electricity/Electronics 2	8
AUTO 265	Engine Performance 2	3
AUTO 229	Applied Automotive Concepts II	5

Quarter 6

AUTO 250	Automatic Transmissions/Transaxles	7
AUTO 260	Manual Transmission/Transaxle	3
AUTO 259	Applied Automotive Concepts III	5

Quarter 7

AUTO 275	Engine Performance 3	11
AUTO 279	Applied Automotive Concepts IV	5

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

TOTAL PROGRAM CREDITS **135-138**

CERTIFICATE

General Automotive Repair

Quarter 1

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

Quarter 2

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

Quarter 3

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

TOTAL PROGRAM CREDITS **70**

CERTIFICATE

Vehicle Service Technician

Quarter 1

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

TOTAL PROGRAM CREDITS **15**

TRANSFER DEGREE BUSINESS DTA/MRP

ASSOCIATE IN BUSINESS (DTA/MRP)

OVERVIEW

Are you intrigued by the fast-paced world of business and finance? A bachelor's degree in business could be a great fit for you. And, you can start at BTC!

BTC's Associate in Business DTA/MRP degree is designed for students planning to major in business at a Washington State college or university. Upon completing the 90-credit program, you may transfer as a junior into a Bachelor of Arts or Science program in Business Administration, Accounting, Management Information Systems, and more.

In this program, you'll study academic coursework in English, economics, mathematics, and accounting. You'll also develop interpersonal and communication skills that will prepare you for today's global, diverse, and competitive business environment.

PROGRAM OUTCOMES

- Upon completion of BTC's Associate in Business DTA/MRP degree, students are eligible to transfer to the following institutions in Washington State:

Central Washington University
B.S. in Business Administration
www.cwu.edu/business/resources

A minimum 2.5 GPA is required in business prerequisite classes. CWU will accept MATH& 146 in place of MATH 211. Transfer Policies and Course Equivalencies (click Current Washington State Course Equivalencies, then Course Equivalencies under Technical College Equivalencies).

University of Washington
B.A. in Business Administration
www.foster.washington.edu/academic/undergrad

Admissions is highly competitive. Students must apply to both the UW and the School of Business. The Business School admits both fall and winter quarters. Applicants must complete a proctored writing skills assessment and a personal statement. A minimum 2.5 GPA is required for all business classes. The UW requires two years of the same world language in high school or two quarters in college for admissions.

Seattle University
B.A. in Business Administration
B.A. in Economics
www.seattleu.edu/albers/undergraduate

SU offers majors in Accounting, Business Economics, E-Commerce & Information Systems, Finance, Individualized Major, International Business, Management, and Marketing. A minimum 2.75 overall GPA and a 2.75 GPA in business and math classes are required. World language and a study abroad program are required for International Business majors. SU does not accept BUS& 201.

Washington State University
B.A. in Business Administration
www.tricity.wsu.edu/business/undergraduate

WSU offers a Management & Operations track. In addition to business prerequisites, please note that WSU requires completion of major certification and general program requirements. International Business majors need to complete a year of a world language and a study abroad program. A minimum 2.5 GPA is required for admission into the Business program.

Western Washington University
B.A. in Accounting
B.A. in Business Administration
B.S. in Manufacturing Management
www.cbe.wvu.edu

A minimum of 2.75 GPA is required in all business prerequisite classes.

Eastern Washington University
www.ewu.edu/cbpa

There are numerous options for your program of study. Check the website for EWU admission requirements including minimum GPAs as noted.

Please Note:

Admission into many business schools is competitive and higher grade point averages and course grades are often required. Completion of the general Business DTA/MRP degree does not necessarily satisfy all transfer requirements; some institutions may have additional course requirements. Check individual school links listed for the most up-to-date admission requirements and recommendations; annotated text above is meant for general guidelines only.

PROGRAM ENTRY INFORMATION

Program Start
This program accepts students quarterly.

Testing Requirements
Admissions application and assessment testing in reading, math and sentence skills are required. Your score on the test and/or your previous transcripts will determine where you begin your course sequence. Contact an admissions advisor at 360-752-8345 or at admissions@btc.ctc.edu for assistance with academic planning.

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 for the degree.

ASSOCIATE IN BUSINESS (DTA/MRP)

Business Courses		
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS& 201	Business Law	5
		20
Communication Skills		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
		10
Humanities		
CMST& 220	Public Speaking	5
HIST& 146	United States History I	5
SPAN& 121	Spanish I	5
		15
Mathematics		
MATH& 141	Precalculus I	5
MATH& 146	Introduction to Statistics	5
MATH& 148	Business Calculus	5
		15
Physical and Natural Sciences		
BIOL& 160	General Biology with Lab	5
CHEM& 121	Intro to Chemistry	5
		10
Social Sciences		
ECON& 201	Micro Economics	5
ECON& 202	Macro Economics	5
SOC& 101	Introduction to Sociology	5
		15
Electives		
	Electives	5
TOTAL PROGRAM CREDITS		90

CHILD DEVELOPMENT ASSOCIATES (CDA) ESSENTIALS

CHILD DEVELOPMENT ASSOCIATES (CDA) ESSENTIALS CERTIFICATE

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. The BTC courses are taught by MERIT approved faculty.

PROGRAM OUTCOMES

- Establish and maintain a safe, healthy learning environment.
- Advance children's physical and intellectual development.
- 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

Program Start

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 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 10 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.

Continued on the next page

Child Development Associates (CDA) continued

CERTIFICATE

Child Development Associates (CDA) Essentials**Quarter 1**

ECED 120	CDA Essentials 1: Intro to ECE/Hlth, Safety, Nutrition	4
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Quarter 2

ECED 121	CDA Essentials 2: Child Dev./Learning Environments	4
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Quarter 3

ECED 122	CDA Essentials 3: Working with Families/Professionalism	4
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TOTAL PROGRAM CREDITS		12
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CIVIL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

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 Technology 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**

Please see the BTC website for start times.

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 Algebra score of 75 or a C grade in MATH 098.
- CAP 101 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

Civil Engineering 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 IN APPLIED SCIENCE DEGREE

Civil Engineering Technology

Quarter 1

AMATH 111	Applied Technical Math	5
ENGT 122	CAD I: BASICS	6
SURV 102	Fundamentals of Surveying I	7
SURV 140	Fundamentals of GIS & GPS	4

Quarter 2

AENGL 100	Applied English	5
ENGT 132	Engineering Applications Using MS Office	5
ENGT 153	Intermediate GIS	7

Quarter 3

CMST& 210	Interpersonal Communications	5
ENGT 251	AutoCAD Civil 3D I	7
SURV 104	Construction & Highway Surveys	6
SURV 116	Survey Data Systems	2

Quarter 4

CTE 108	Job Skills	1
ENGT 156	Earthmoving Fundamentals	5
ENGT 252	AutoCAD Civil 3D II	7
SURV 152	Zoning, Permitting & Platting	4

Quarter 5

ENGT 215	Statics	9
ENGT 258	Construction Materials	7
SURV 205	Advanced GIS Applications	7

Quarter 6

ENGT 152	Estimating & Scheduling	5
ENGT 216	Strength of Materials	7
ENGT 253	AutoCAD Civil 3D III	7
ENGT 256	Standards, Specifications, & Codes	3

TOTAL PROGRAM CREDITS **121**

Quarter 4

CTE 108	Job Skills	1
ENGT 156	Earthmoving Fundamentals	5
ENGT 252	AutoCAD Civil 3D II	7
PHYS& 221	Engineering Physics I w/Lab	5
SURV 152	Zoning, Permitting & Platting	4

Quarter 5

ENGT 215	Statics	9
ENGT 258	Construction Materials	7
SURV 205	Advanced GIS Applications	7

Quarter 6

ENGT 152	Estimating & Scheduling	5
ENGT 216	Strength of Materials	7
ENGT 253	AutoCAD Civil 3D III	7
ENGT 256	Standards, Specifications, & Codes	3

TOTAL PROGRAM CREDITS **136**

ASSOCIATE APPLIED SCIENCE - TRANSFER

Civil Engineering Technology

Quarter 1

ENGT 122	CAD I: BASICS	6
MATH& 141	Precalculus I	5
SURV 102	Fundamentals of Surveying I	7
SURV 140	Fundamentals of GIS & GPS	4

Quarter 2

ENGL& 101	English Composition I	5
ENGT 132	Engineering Applications Using MS Office	5
ENGT 153	Intermediate GIS	7
MATH& 142	Precalculus II	5

Quarter 3

CMST& 210	Interpersonal Communications	5
ENGT 251	AutoCAD Civil 3D I	7
MATH& 151	Calculus I	5
SURV 104	Construction & Highway Surveys	6
SURV 116	Survey Data Systems	2

COMPUTER NETWORKING

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

HEALTH INFORMATION TECHNOLOGY CERTIFICATE

COMPUTER NETWORK SUPPORT CERTIFICATE

OVERVIEW

Choose BTC's Computer Network Technology program to train for positions such as network technician, network specialist, network administrator, network security administrator, or Local Area Network (LAN) technician.

Learn how to manage computer networks, troubleshoot and repair computer systems, and design, install, and maintain LANs.

Graduates will find employment opportunities with computer support firms or with small-sized to large-sized companies that use computer networks, such as financial institutions, insurance companies, schools and universities, a range of corporations, and federal, state, and local government agencies.

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 settings.
- 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

Program Start

Please see the BTC website for start times.

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 IN APPLIED SCIENCE DEGREE

Computer Networking

Quarter 1

IT 112	PC Hardware	8
IT 121	Introduction To Programming	5
AMATH 100	Applied Occupational Math	5

Quarter 2

IT 102	IT Ethics and Careers	5
IT 140	Introduction to Linux Operating Systems	5
IT 141	A+ Operating Systems	8
CMST& 210	Interpersonal Communications	5

Quarter 3

IT 142	Client/Desktop Operating Systems	10
IT 160	Network Technologies	8
AENGL 100	Applied English	5

Quarter 4

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

Quarter 5

IT 210	Network Security Fundamentals	10
IT 243	Windows Server Network Infrastructure	5
IT 262	Advanced Special Topics II	5

Quarter 6

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

TOTAL PROGRAM CREDITS		123
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ASSOCIATE APPLIED SCIENCE - TRANSFER

Computer Networking

Quarter 1

IT 112	PC Hardware	8
IT 121	Introduction To Programming	5
MATH& 141	Precalculus I	5
SOC& 101	Introduction to Sociology	5

Quarter 2

IT 102	IT Ethics and Careers	5
IT 140	Introduction to Linux Operating Systems	5
IT 141	A+ Operating Systems	8
CMST& 210	Interpersonal Communications	5

Quarter 3

IT 142	Client/Desktop Operating Systems	10
IT 160	Network Technologies	8
ENGL& 101	English Composition I	5

Quarter 4

IT 230	Windows Powershell	5
IT 240	Linux Administration & Configuration	5

IT 242	Windows Server Administration	5
IT 261	Advanced Special Topics I	5
Quarter 5		
IT 210	Network Security Fundamentals	10
IT 243	Windows Server Network Infrastructure	5
IT 262	Advanced Special Topics II	5
Quarter 6		
CTE 108	Job Skills	1
IT 220	Network Communications Infrastructure	5
IT 270	Applied IT Career Skills	8
IT 272	Capstone Project	5
TOTAL PROGRAM CREDITS		128

CERTIFICATE

Computer Network Support

Quarter 1		
IT 112	PC Hardware	8
IT 121	Introduction To Programming	5
AMATH 100	Applied Occupational Math	5
Quarter 2		
IT 102	IT Ethics and Careers	5
IT 140	Introduction to Linux Operating Systems	5
IT 141	A+ Operating Systems	8
CMST& 210	Interpersonal Communications	5
Quarter 3		
IT 142	Client/Desktop Operating Systems	10
IT 160	Network Technologies	8
AENGL 100	Applied English	5
TOTAL PROGRAM CREDITS		64

CERTIFICATE

Health Information Technology

Quarter 1		
IT 112	PC Hardware	8
IT 121	Introduction To Programming	5
AMATH 100	Applied Occupational Math	5
Quarter 2		
IT 102	IT Ethics and Careers	5
IT 141	A+ Operating Systems	8
HT180	Healthcare & Technology	5
CMST& 210	Interpersonal Communications	5
Quarter 3		
IT 160	Network Technologies	8
HT 190	Health Information Management Systems	5
HT 200	Health Technology Professional	5
AENGL 100	Applied English	5
TOTAL PROGRAM CREDITS		64

COMPUTER SOFTWARE SUPPORT

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

COMPUTER APPLICATIONS SPECIALIST CERTIFICATE

OVERVIEW

Here's a program to consider if you enjoy combining technical and customer service skills in a variety of business and office settings. Our Computer Software Support Technology program will train you for a rewarding career as a computer support specialist, software specialist, help desk specialist, training and support coordinator, or PC support specialist.

You'll learn valuable skills needed by companies ranging from hospitals to financial institutions, large corporations, school districts, and universities. Hardware and software manufacturers also hire program graduates to work as customer service representatives and help desk personnel.

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 in 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 in the basic concepts used by networking professionals
- Graduates will be able to demonstrate competency in the basic components of a computer.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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 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.

Continued on the next page

Computer Software Support continued

ASSOCIATE IN APPLIED SCIENCE DEGREE

Computer Software Support

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

BUS 171	Technical Communications	5
BUS 150	Mathematics for Business	5
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CIS 145	Website Development	5
CIS 160	Computer User Support I	5
CIS 276	Computer Software Support Internship	6
IT 112	PC Hardware	8
IT 121	Introduction To Programming	5
IT 141	A+ Operating Systems	8
IT 160	Network Technologies	8

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 254	Managerial Accounting	5
ACCT 271	Internship	1
ACCT 272	Internship	2
ACCT 273	Internship	3
ACCT 274	Internship	4
ACCT 275	Internship	5
ACCT 276	Internship	6
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 232	Office Procedures	5
BUS 271	Internship	1
BUS 272	Internship	2
BUS 273	Internship	3
BUS 274	Internship	4
BUS 275	Internship	5
BUS 276	Internship	6
BUS 280	Assessment	1
BUS 281	Assessment	1
BUS& 201	Business Law	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
IT 102	IT Ethics and Careers	5
IT 140	Introduction to Linux Operating Systems	5

IT 142	Client/Desktop Operating Systems	10
IT 210	Network Security Fundamentals	10
IT 220	Network Communications Infrastructure	5
IT 230	Windows Powershell	5
IT 240	Linux Administration & Configuration	5
IT 242	Windows Server Administration	5
IT 243	Windows Server Network Infrastructure	5
IT 261	Advanced Special Topics I	5
IT 262	Advanced Special Topics II	5
IT 270	Applied IT Career Skills	8
IT 272	Capstone Project	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 223	Internship	3
LGL 224	Internship	4
LGL 225	Internship	3
LGL 226	Internship	6
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course **15**

TOTAL PROGRAM **89**

ASSOCIATE APPLIED SCIENCE - TRANSFER

Computer Software Support

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

ENGL& 101	English Composition I	5
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CIS 145	Website Development	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CIS 160	Computer User Support I	5
CIS 276	Computer Software Support Internship	6
IT 112	PC Hardware	8
IT 121	Introduction To Programming	5
IT 141	A+ Operating Systems	8
IT 160	Network Technologies	8
MATH& 141	Precalculus I	5
SOC& 101	Introduction to Sociology	5

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 254	Managerial Accounting	5
ACCT 271	Internship	1
ACCT 272	Internship	2
ACCT 273	Internship	3

ACCT 274	Internship	4
ACCT 275	Internship	5
ACCT 276	Internship	6
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 232	Office Procedures	5
BUS 271	Internship	1
BUS 272	Internship	2
BUS 273	Internship	3
BUS 274	Internship	4
BUS 275	Internship	5
BUS 276	Internship	6
BUS 280	Assessment	1
BUS 281	Assessment	1
BUS& 201	Business Law	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
IT 102	IT Ethics and Careers	5
IT 121	Introduction to Programming	5
IT 140	Introduction to Linux Operating Systems	5
IT 142	Client/Desktop Operating Systems	10
IT 210	Network Security Fundamentals	10
IT 220	Network Communications Infrastructure	5
IT 230	Windows Powershell	5
IT 240	Linux Administration & Configuration	5
IT 242	Windows Server Administration	5
IT 243	Windows Server Network Infrastructure	5
IT 261	Advanced Special Topics I	5
IT 262	Advanced Special Topics II	5
IT 270	Applied IT Career Skills	8
IT 272	Capstone Project	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 223	Internship	3
LGL 224	Internship	4
LGL 225	Internship	3
LGL 226	Internship	6
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1
TOTAL Elective Course Credits		15
TOTAL PROGRAM CREDITS		94

**CERTIFICATE
Computer Applications Specialist**

Quarter 1		
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5
Required Courses for Program		
BUS 171	Technical Communications	5
CAP 142	MS Excel	5
BUS 150	Mathematics for Business	5
CAP 138	MS WORD	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CIS 160	Computer User Support I	5
IT 112	PC Hardware	8
or		
IT 141	A+ Operating Systems	8
or		
IT 160	Network Technologies	8
Electives		
ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 271	Internship	1
ACCT 272	Internship	2
ACCT 273	Internship	3
ACCT 274	Internship	4
ACCT 275	Internship	5
ACCT 276	Internship	6
ACCT& 202	Principles of Accounting II	5
ACCT& 201	Principles of Accounting I	5
ACCT& 203	Managerial Accounting	5
BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 188	Business English	5
BUS 232	Office Procedures	5
BUS 271	Internship	1
BUS 272	Internship	2
BUS 273	Internship	3
BUS 274	Internship	4
BUS 275	Internship	5
BUS 276	Internship	6
BUS 280	Assessment	1
BUS 281	Assessment	1
BUS& 201	Business Law	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
CIS 276	Computer Software Support Internship	6
IT 102	IT Ethics and Careers	5
IT 112	PC Hardware	8

IT 112 can only be an elective depending on which of the 3 IT classes is taken to satisfy the requirement.

Continued on the next page

Computer Applications Specialist continued

IT 121	Introduction to Programming	5
IT 140	Introduction to Linux Operating Systems	5
IT 141	A+ Operating Systems	8
<i>IT 141 can only be an elective depending on which of the 3 IT classes is taken to satisfy the requirement.</i>		
IT 142	Client/Desktop Operating Systems	10
IT 160	Network Technologies	8
<i>IT 160 can only be an elective depending on which of the 3 IT classes is taken to satisfy the requirement.</i>		
IT 210	Network Security Fundamentals	10
IT 220	Network Communications Infrastructure	5
IT 230	Windows Powershell	5
IT 240	Linux Administration & Configuration	5
IT 242	Windows Server Administration	5
IT 243	Windows Server Network Infrastructure	5
IT 261	Advanced Special Topics I	5
IT 262	Advanced Special Topics II	5
IT 270	Applied IT Career Skills	8
IT 272	Capstone Project	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 223	Internship	3
LGL 224	Internship	4
LGL 225	Internship	3
LGL 226	Internship	6
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits	5
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TOTAL PROGRAM CREDITS	57
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CULINARY ARTS

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

PASTRY ARTS CERTIFICATE

CULINARY ARTS CERTIFICATE

OVERVIEW

BTC's programs in Culinary Arts are ideal for students with a passion for food and pastry and an interest in the fast-growing food service industry.

You'll be taught by an award-winning faculty in state-of-the-art facilities and learn the skills you need to function as a professional in this fast-paced field. BTC's Culinary Arts program offers the highest quality culinary education available; and you can put yours to work in a wide range of restaurants, bakeries, pastry shops, hotels, schools and universities, hospitals, and catering companies.

Culinary Arts program graduates prepare for careers as sous chefs, line, pantry and prep cooks, bakers, deli workers, food managers, and caterers. The employment outlook for program graduates is very strong, and students can expect to earn excellent wages. Skilled workers in Culinary Arts are in high demand.

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, and plated banquets.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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

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.

Pre-Program Requirements (for Pastry Certificate ONLY)

CAP 100 Introductory Digital Literacy (or concurrent with instructor permission)

ADDITIONAL PROGRAM INFORMATION

A grade of C- will be the minimum passing grade for any culinary and pastry courses.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Culinary Arts

Quarter 1

CAP 100	Introductory Digital Literacy	2
CUL 110	Sanitation and Safety	3
CUL 112	Introduction to Hospitality	2
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 118	Commercial Kitchen Equipment	2

Quarter 2

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

Quarter 3

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

Quarter 4

CUL 150	Internship	9
	or	
CUL 152	Culinary Competition Fundamentals	11

Quarter 5

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

Quarter 6

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

Quarter 7

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

TOTAL PROGRAM CREDITS 118-120

ASSOCIATE APPLIED SCIENCE - TRANSFER

Culinary Arts

Quarter 1

CAP 100	Introductory Digital Literacy	2
CUL 110	Sanitation and Safety	3
CUL 112	Introduction to Hospitality	2
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 118	Commercial Kitchen Equipment	2

Quarter 2

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

Quarter 3

CUL 142	Nutrition	3
CUL 144	American Regional a' la carte Cookery	6
ENGL& 101	English Composition I	5
PST 202	Pastry Basic I	3
PST 204	Introduction to Artisan Breads & Laminated Dough	4

Quarter 4

CUL 150	Internship	9
	or	
CUL 152	Culinary Competition Fundamentals	11

Quarter 5

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

Quarter 6

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

Quarter 7

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

TOTAL PROGRAM CREDITS 123-125

CERTIFICATE

Culinary Arts

Quarter 1

CAP 100	Introductory Digital Literacy	2
CMST& 210	Interpersonal Communications	5
CUL 110	Sanitation and Safety	3
CUL 112	Introduction to Hospitality	2
CUL 114	Culinary Skill Development I	7
CUL 116	Meat Identification and Fabrication	4
CUL 118	Commercial Kitchen Equipment	2

Quarter 2

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

Quarter 3

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

TOTAL PROGRAM CREDITS 65

Continued on the next page

*Culinary Arts continued***CERTIFICATE****Pastry Arts****Quarter 1**

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

Quarter 2

CTE 108	Job Skills	1
CUL 142	Nutrition	3
PST 202	Pastry Basic I	3
PST 204	Introduction to Artisan Breads & Laminated Dough	4
PST 220	Advanced Artisan & Decorative Breads	3
AMATH 100	Applied Occupational Math	5

Quarter 3

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

TOTAL PROGRAM CREDITS		63
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DATA ENTRY SPECIALIST

DATA ENTRY SPECIALIST CERTIFICATE

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**Program Start**

Please see the BTC website for start dates.

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

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.

CERTIFICATE**Data Entry Specialist****Quarter 1**

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

Required Courses for Program

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

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 230	Medical Office Procedures	5
BUS 232	Office Procedures	5
BUS& 201	Business Law	5
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 145	Website Development	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5

TOTAL Elective Course Credits	15 credits
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TOTAL PROGRAM CREDITS	30
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DENTAL ASSISTING

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

DENTAL ASSISTING CERTIFICATE

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 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.
- Apply 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

Program Start

Please see BTC website for start times.

To be eligible for placement on 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.

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 REQUIREMENTS

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

- Be 18 years of age.

- Demonstrate satisfactory oral health by dental examination.
- Demonstrate satisfactory health status by physical examination and current immunization status.
- Provide evidence of negative test for tuberculosis from physician or health department.
- Complete hepatitis B immunization series (students should note that the cost of this immunization is estimated to be approximately \$225.00).
- Possess and maintain a current CPR card. Minimum CPR required is HO 127-Healthcare Provider (6-hour).
- Complete a criminal background check.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Dental Assisting

Quarter 1

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

Quarter 2

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

Quarter 3

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

Pre-Program

BIO 105	Essentials of Anatomy Physiology	5
CMST& 210	Interpersonal Communications	5
AENGL 100	Applied English	5
DEN 100	Introduction to Dental Assisting	1
DEN 105	Head and Neck Anatomy	2
HLTH 133	HIV/AIDS: For Healthcare Professional	1
HO 127	Healthcare Provider CPR	0.5
AMATH 100	Applied Occupational Math	5
PSYC& 100	General Psychology	5

TOTAL PROGRAM CREDITS **90.5**

ASSOCIATE APPLIED SCIENCE - TRANSFER

Dental Assisting

Quarter 1

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

Quarter 2

DEN 120	Patient Assessment	8
DEN 122	Chairside Assisting II	6

Continued on the next page

Associate in Applied Science continued

DEN 124	Radiography	3
DEN 125	Dental Clinic Practicum II	4

Quarter 3

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

Pre-Program

BIO 105	Essentials of Anatomy Physiology	5
MATH& 141	Precalculus I	5
CMST& 210	Interpersonal Communications	5
ENGL& 101	English Composition I	5
HLTH 133	HIV/AIDS: For Healthcare Professional	1
HO 127	Healthcare Provider CPR	0.5
DEN 100	Introduction to Dental Assisting	1
DEN 105	Head and Neck Anatomy	2
PSYC& 100	General Psychology	5

TOTAL PROGRAM CREDITS **90.5**

CERTIFICATE
Dental Assisting

Quarter 1

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

Quarter 2

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

Quarter 3

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

Pre-Program

BIO 105	Essentials of Anatomy Physiology	5
CMST& 210	Interpersonal Communications	5
AENGL 100	Applied English	5
DEN 100	Introduction to Dental Assisting	1
DEN 105	Head and Neck Anatomy	2
HLTH 133	HIV/AIDS: For Healthcare Professional	1
HO 127	Healthcare Provider CPR	0.5
AMATH 100	Applied Occupational Math	5

TOTAL PROGRAM CREDITS **85.5**

DENTAL: EXPANDED FUNCTION DENTAL AUXILIARY

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**Program Start**

Please see the BTC website for start times.

- 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 (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;
- Provide evidence of negative test for tuberculosis from physician or health department;
- Complete Hepatitis B immunization series (students should note that the cost of this immunization is estimated to be approximately \$225.00).

Testing Requirements

- Accuplacer Sentence Skills score 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.

CERTIFICATE

Expanded Function Dental Auxiliary

Quarter 1

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

Quarter 2

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

Quarter 3

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

TOTAL PROGRAM CREDITS **18**

- 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

Program Start

The Dental Hygiene program uses a selective admissions process. Students are typically offered enrollment every other year.

For more information, please see the most recent Dental Hygiene application packet available on the BTC website under the ENTRY tab for the Dental Hygiene program.

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 AENGL 100.
- BTC College Level Math score of 32 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.

DENTAL HYGIENE

ASSOCIATE APPLIED SCIENCE - TRANSFER

OVERVIEW

If you are interested in pursuing a career in the healthcare 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.

ASSOCIATE APPLIED SCIENCE - TRANSFER

Dental Hygiene

Quarter 1

DHYG 112	Dental Hygiene Clinical Practice I	5
DHYG 113	Dental Materials	4
DHYG 114	Principles of Dental Hygiene I	3
DHYG 115	Oral & Dental Anatomy	2
DHYG 116	Oral Radiology I	4
DHYG 118	Histology & Embryology	2

Quarter 2

DHYG 122	Dental Hygiene Clinical Practice II	5
DHYG 124	Principles of Dental Hygiene II	3
DHYG 125	Medical Emergencies	3
DHYG 126	Oral Radiology II	3
DHYG 128	General Pathology	4

Quarter 3

DHYG 131	Restorative Dentistry I	2
DHYG 132	Dental Hygiene Clinical Practice III	6
DHYG 134	Principles of Dental Hygiene III	3
DHYG 137	Pharmacology	3
DHYG 138	Periodontology	3

Continued on next page

*Associate in Applied Science continued***Quarter 4**

DHYG 141	Restorative Dentistry I	2
DHYG 142	Hygiene Clinical Practice IV	6
DHYG 144	Principles of Dental Hygiene IV	3
DHYG 149	Pain Management	4

Quarter 5

DHYG 213	Restorative Dentistry V	1
DHYG 214	Principles of Dental Hygiene V	3
DHYG 216	Community Oral Health I	4
DHYG 219	Oral Pathology	3

Quarter 6

DHYG 222	Dental Hygiene Clinical Practice VI	8
DHYG 223	Restorative Dentistry VI	3
DHYG 224	Principles of Dental Hygiene VI	3
DHYG 226	Community Oral Health II	4
DHYG 228	Oral Therapy	3
DHYG 229	Dental Hygiene Seminar	1

Quarter 7

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

TOTAL PROGRAM CREDITS		126
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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, and 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**Program Start**

Please see the BTC website for start times.

In addition to submitting an application, Automotive Technology students must complete the admissions completion form found at www.btc.ctc.edu/ and provide the following:

- Copy of a valid driver's license (with no restrictions due to driving offenses).
- Current complete 3-year driving record from Washington State DOL obtained within the week prior to submitting the admissions completion form. This copy of the driving record will be kept on file for advising purposes only.
- Signed statement indicating understanding of program admissions requirements and industry hiring standards.

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

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.

ADDITIONAL PROGRAM INFORMATION

- You are required to maintain a valid driver's license as long as you are enrolled in this program. A renewed copy of a valid driver's license (with no restrictions due to driving offenses) will again be required at the start of the second year in the program.
- Many employers in this field will only hire applicants who have a clean driving record.
- 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 a current "Abstract of Driving Record" at a local Department of Licensing or by accessing the Washington State Department of Licensing on the web at www.dol.wa.gov.
- All general education prerequisites must be completed prior to the beginning of the 2nd year.

DIESEL TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

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

ENGINE & ELECTRONIC SYSTEMS CERTIFICATE

VEHICLE SERVICE TECHNICIAN CERTIFICATE

DIESEL HYDRAULICS PREVENTATIVE MAINTENANCE & ELECTRICAL/
ELECTRONIC SYSTEMS CERTIFICATE

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.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Diesel Technology

Quarter 1

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

Quarter 2

CMST& 210	Interpersonal Communications	5
DET 129	Applied Diesel Concepts I	15
	Elective	12

Quarter 3

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

Quarter 4

DET 139	Applied Diesel Concepts II (or DET 240 - 7 credits, DET 242 - 8 credits; see program advisor)	15
	Elective	12

Quarter 5

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

Quarter 6

DET 239	Applied Diesel Concepts III (or DET 240 - 7 credits, DET 242 - 8 credits; see program advisor)	15
	Elective	12

Quarter 7

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

Electives

ADTEC 126	Basic Electricity	5
ADTEC 200	Anaerobic Digestion Essentials	4
ADTEC 237	Cooling Towers/Water Treatment	1
ADTEC 245	Commercial/Industrial Boilers	2
CHEM& 161	General Chemistry w/ Lab I	5
CODR 125	Forklift Driver Certification	1
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
MATH& 141	Precalculus I	5
PHYS& 221	Engineering Physics I w/Lab	5

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 APPLIED SCIENCE - TRANSFER

Diesel Technology

Quarter 1

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
TRANS 101	Basic Transportation Service & Systems 101	5
TRANS 102	Basic Transportation Service & Systems 102	5
TRANS 103	Basic Transportation Service & Systems 103	5

Quarter 2

CMST& 210	Interpersonal Communications	5
DET 129	Applied Diesel Concepts I	15
PSYC& 100	General Psychology	5
	Elective	15

Quarter 3

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

Quarter 4

DET 139	Applied Diesel Concepts II	15
	Elective	15

Quarter 5

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

Quarter 6

DET 239	Applied Diesel Concepts III	15
	Elective	15

Quarter 7

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

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

Electives

ADTEC 126	Basic Electricity	5
ADTEC 200	Anaerobic Digestion Essentials	4
ADTEC 237	Cooling Towers/Water Treatment	1
ADTEC 245	Commercial/Industrial Boilers	2
CHEM& 161	General Chemistry w/ Lab I	5
CODR 125	Forklift Driver Certification	1
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
PHYS& 221	Engineering Physics I w/Lab	5

Continued on the next page

Associate Applied Science - Transfer continued

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**

CERTIFICATE
Diesel Drive Train

Quarter 1

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

Quarter 2

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

TOTAL PROGRAM CREDITS **46**

CERTIFICATE
Diesel Hydraulics

Quarter 1

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

Quarter 2

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

TOTAL PROGRAM CREDITS **46**

CERTIFICATE
Engine & Electronic Systems

Quarter 1

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

Quarter 2

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

TOTAL PROGRAM CREDITS **46**

CERTIFICATE
Vehicle Service Technician

Quarter 1

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

TOTAL PROGRAM CREDITS **15**

EARLY CHILDHOOD EDUCATION

CERTIFICATE Early Learning

EARLY LEARNING CERTIFICATE

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 and families.

The various early learning/parenting courses offered provide the knowledge and skills that are relevant to people working in early learning settings including home or group settings.

PROGRAM OUTCOMES

- 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

Program Start

Please see the BTC website for start times.

- Students begin the program by registering for the certificate courses on a space-available basis.
- 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.

Degree and Certificate Requirements

Certificate completion requires a cumulative GPA of 2.0 or greater.

Electives

Take 8-10 credits from the following coursework towards the certificate:

ECED 130	Adult/Infant: The Developing Infant	2
ECED 131	Adult/Infant: Approaching Toddlerhood	2
ECED 135	Adult/Child: One Year Old Development - Level A	2
ECED 136	Adult/Child: One Year Old Development - Level B	2
ECED 137	Adult/Child: One Year Old Development - Level C	2
ECED 140	Adult/Child: Two Year Old Development - Level A	2
ECED 141	Adult/Child: Two Year Old Development - Level B	2
ECED 142	Adult/Child: Two Year Old Development - Level C	2
ECED 155	Adult/Child: Toddler & Preschooler Dev. - Level A	2
ECED 156	Adult/Child: Toddler & Preschooler Dev. - Level B	2
ECED 157	Adult/Child: Toddler & Preschooler Dev. - Level C	2

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

ECED 160	Positive Discipline	1
ECED 161	Early Childhood STEP for Parents & Teachers	1
ECED 162	How To Talk So Kids Will Listen	1
ECED 163	School Age STEP Effective Parenting of School Age Child	1
ECED 170	Love & Logic for Successful Parenting	1

TOTAL PROGRAM CREDITS 12

ELECTRICIAN

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

ELECTRICAL CONSTRUCTION CERTIFICATE

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 also in high demand by local manufacturers.

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

Please see the BTC website for start times.

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 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.

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.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Electrician

Quarter 1

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

Quarter 2

CMST& 210	Interpersonal Communications	5
ELCN 102	AC Circuits	3
ELCN 112	Introduction to National Electrical Code	4
ELCN 132	AC Circuit Lab	3
ELCN 142	Residential Wiring Projects	6

Quarter 3

AENGL 100	Applied English	5
ELCN 104	Grounding & Bonding	2
ELCN 105	Transformers, Motors & Generators	4
ELCN 113	Advanced NEC Calculations	3
ELCN 143	Electrical Distribution	3
ELCN 151	Commercial Wiring Methods & Materials	5

Quarter 4

ELCN 201	Electronics for Electricians	2
ELCN 202	Machine Control Fundamentals	5
ELCN 251	Commercial & Renewable Energy Projects	5
ELCN 261	Industrial Control Wiring Methods & Materials	6
ELCN 280	Renewable Electrical Sources	4

Quarter 5

ELCN 203	PLCs & VFDs	5
ELCN 214	Special Occupancies, Equipment & Conditions	3
ELCN 262	Specialty Industrial Wiring Projects	5
ELCN 263	Automated Control Projects	6
ELCN 281	Electrical Estimating & Design	3

TOTAL PROGRAM CREDITS

108

ASSOCIATE APPLIED SCIENCE - TRANSFER

Electrician

Quarter 1

ELCN 100	Trade & Safety	2
ELCN 101	DC Circuits	4
ELCN 103	Electrical Drawings & Blueprints	2
ELCN 125	Electrical Applied Mechanics	4
ELCN 131	DC Circuit Lab	4
MATH& 141	Precalculus I	5
PSYC& 100	General Psychology	5

Quarter 2

CMST& 210	Interpersonal Communications	5
ELCN 102	AC Circuits	3
ELCN 112	Introduction to National Electrical Code	4
ELCN 132	AC Circuit Lab	3
ELCN 142	Residential Wiring Projects	6

Quarter 3

ELCN 104	Grounding & Bonding	2
ELCN 105	Transformers, Motors & Generators	4
ELCN 113	Advanced NEC Calculations	3
ELCN 143	Electrical Distribution	3
ELCN 151	Commercial Wiring Methods & Materials	5
ENGL& 101	English Composition I	5

Quarter 4

ELCN 201	Electronics for Electricians	2
ELCN 202	Machine Control Fundamentals	5
ELCN 251	Commercial & Renewable Energy Projects	5
ELCN 261	Industrial Control Wiring Methods & Materials	6
ELCN 280	Renewable Electrical Sources	4

Quarter 5

ELCN 203	PLCs & VFDs	5
ELCN 214	Special Occupancies, Equipment & Conditions	3
ELCN 262	Specialty Industrial Wiring Projects	5
ELCN 263	Automated Control Projects	6
ELCN 281	Electrical Estimating & Design	3

TOTAL PROGRAM CREDITS **113**

CERTIFICATE

Electrical Construction

Quarter 1

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

Quarter 2

CMST& 210	Interpersonal Communications	5
ELCN 102	AC Circuits	3
ELCN 112	Introduction to National Electrical Code	4
ELCN 132	AC Circuit Lab	3
ELCN 142	Residential Wiring Projects	6

Quarter 3

AENGL 100	Applied English	5
ELCN 104	Grounding & Bonding	2
ELCN 105	Transformers, Motors & Generators	4
ELCN 113	Advanced NEC Calculations	3
ELCN 143	Electrical Distribution	3
ELCN 151	Commercial Wiring Methods & Materials	5

TOTAL PROGRAM CREDITS **64**

ELECTRO MECHANICAL TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

MACHINE MAINTENANCE CERTIFICATE

OVERVIEW

BTC's EMTEC program places graduates in solid careers as industrial electricians, millwrights, manufacturing technicians, or instrument technicians. Demand for skilled workers is strong in high-growth industries such as refining, water treatment, petrochemical, pharmaceutical, aerospace, and power generation.

As an EMTEC 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 Technology is a great program choice if you want a high-wage career.

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, supervisors, 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

Please see the BTC website for start times.

Testing Requirements

These requirements are for the AAS degree.

- 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 Algebra score of 75 or a C grade in Math 098.

Degree and Certificate Requirements

Electro Mechanical 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 IN APPLIED SCIENCE DEGREE

Electro Mechanical Technology

Quarter 1

AMATH 111	Applied Technical Math	5
CMST& 210	Interpersonal Communications	5
EMTEC 105	Trade Safety	3
EMTEC 125	Applied Mechanics	5
EMTEC 237	Computerized Maintenance & Management Systems	3

Quarter 2

AENGL 100	Applied English	5
EMTEC 121	Fundamentals Of Hydraulic & Pneumatics	5
EMTEC 126	Engineering Graphics	4
EMTEC 131	Rigging	4
EMTEC 231	Bearings & Drives	5

Quarter 3

EMTEC 123	Hydraulics & Pneumatics Circuits	5
EMTEC 180	Manufacturing Computer Applications	4
EMTEC 232	Drive Alignment-Conveyors & Machining Systems	4
EMTEC 234	Valves, Pumps & Traps	5

Quarter 4

EMTEC 110	DC Circuits	6
EMTEC 210	AC Circuits	6
EMTEC 218	Introduction to National Electrical Code	2
EMTEC 225	Solid State Components	4

Quarter 5

EMTEC 205	Programmable Logic Controllers	5
EMTEC 211	Electrical Controls I	5
EMTEC 217	Instrumentation & Controls	4
EMTEC 260	Automated Manufacturing Systems	4

Quarter 6

EMTEC 133	Introduction to Machinery Skills	4
EMTEC 215	Programmable Logic Controllers II	5
EMTEC 220	Micro-Controllers	5
EMTEC 230	Problem Solving for Manufacturing & the Trades	3
WLD 173	Basic Welding	2

TOTAL PROGRAM CREDITS **117**

CERTIFICATE
Machine Maintenance

Quarter 1

AMATH 111	Applied Technical Math	5
CMST& 210	Interpersonal Communications	5
EMTEC 105	Trade Safety	3
EMTEC 125	Applied Mechanics	5
EMTEC 237	Computerized Maintenance & Management Systems	3

Quarter 2

AENGL 100	Applied English	5
EMTEC 121	Fundamentals Of Hydraulic & Pneumatics	5
EMTEC 126	Engineering Graphics	4
EMTEC 131	Rigging	4
EMTEC 231	Bearings & Drives	5

TOTAL PROGRAM CREDITS **44**

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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.
- BTC College Level Math score of 32 or a C grade in MATH 099.

Pre-Program Requirements

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

Degree and Certificate Requirements

Electronics Engineering 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.

ELECTRONICS ENGINEERING

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

ELECTRONICS TECHNICIAN

OVERVIEW

Choose BTC's Electronics Engineering program to prepare for an exciting career as an electronics technician. Electronics technicians are in high demand as engineering assistants, field service technicians, electronic equipment technicians, service technicians, and broadcast technicians.

At BTC, 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.
- Obtain national certification through Electronics Technicians Association International (ETA-i).

ASSOCIATE IN APPLIED SCIENCE DEGREE

Electronics Engineering

Quarter 1

ELTR 100	Direct Current 1	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current 1	4
ELTR 115	Alternating Current II	4
MATH& 141	Precalculus I	5

Quarter 2

ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	Op-Amps 01	3
ELTR 135	Op-Amps 2	3
ENGL& 101	English Composition I	5

Quarter 3

CMST& 210	Interpersonal Communications	5
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
EETEC 150	Electronic Communications	6

Quarter 4

EETEC 200	Introduction to Programming	5
EETEC 282	Certified Electronics Technician Test Prep.	3
	Certified Electronics Technician Exam (see program advisor)	

Quarter 5

CTE 108	Job Skills	1
EETEC 212	Micro-Controller System I	6
EETEC 213	Micro-Controller System II	6
EETEC 281	Robotics	5
EETEC 290	Capstone Project I	2

Quarter 6

CHEM& 161	General Chemistry w/ Lab I	5
EETEC 241	Photonics & Fiber Optic	4

Continued on the next page

Associate in Applied Science Continued

ETEC 245	Mechatronics I	5
ETEC 246	Mechatronics II	5
ETEC 291	Capstone Project II	2
Quarter 7		
CTE 109	Job Skills II	1
ETEC 250	Wireless Communication	5
	Circuit Simulation/FPGA	5
ETEC 264	Emerging Technology	4
ETEC 292	Capstone Project III	2
MATH& 142	Precalculus II	5
TOTAL PROGRAM CREDITS		135

ASSOCIATE APPLIED SCIENCE - TRANSFER
Electronics Engineering

Quarter 1		
ELTR 100	Direct Current 1	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current 1	4
ELTR 115	Alternating Current II	4
MATH& 141	Precalculus I	5
Quarter 2		
ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	Op-Amps 01	3
ELTR 135	Op-Amps 2	3
MATH& 142	Precalculus II	5
Quarter 3		
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ENGL& 101	English Composition I	5
ETEC 150	Electronic Communications	6
Quarter 4		
ETEC 200	Introduction to Programming	5
ETEC 282	Certified Electronics Technician Test Prep. Certified Electronics Technician Test Exam (see program advisor)	3
Quarter 5		
ETEC 212	Micro-Controller System I	6
ETEC 281	Robotics	5
MATH& 151	Calculus I	5
PHYS& 221	Engineering Physics I w/Lab	5
Quarter 6		
CHEM& 161	General Chemistry w/ Lab I	5
ETEC 245	Mechatronics I	5
MATH& 152	Calculus II	5
PHYS& 222	Engineering Physics II w/Lab	5
Quarter 7		
ENGL& 235	Technical Writing	5
	Circuit Simulation/FPGA	6
MATH 204	Introduction to Linear Algebra	5

	ALGEBRA (5)	
PHYS& 223	Engineering Physics III w/Lab	5
TOTAL PROGRAM CREDITS		133

CERTIFICATE
Electronics Technician

Quarter 1		
ELTR 100	Direct Current 1	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current 1	4
ELTR 115	Alternating Current II	4
MATH& 141	Precalculus I	5
Quarter 2		
ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	Op-Amps 01	3
ELTR 135	Op-Amps 2	3
ENGL& 101	English Composition I	5
Quarter 3		
CMST& 210	Interpersonal Communications	5
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 150	Electronic Communications	6
Quarter 4		
ETEC 282	Certified Electronics Technician Test Prep. Certified Electronics Technician Exam (see program advisor)	3
TOTAL PROGRAM CREDITS		66

EMERGENCY MEDICAL TECHNICIAN

EMERGENCY MEDICAL TECHNICIAN CERTIFICATE

OVERVIEW

The EMT program will train individuals to the EMT level, per national standards curriculum and per the requirements of the State of Washington. Students will be able to recognize, at basic life support level, how to assess and treat medical and trauma-related emergencies.

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 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 healthcare professionals.
- Apply knowledge of the pathophysiology of respiration and lifespan 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

Program Start

Applications for program entry are typically due 6 weeks prior to the start of the quarter. Acceptance is conditional on successfully passing a criminal background check. Candidates from sponsored agencies are given priority consideration for program admission.

Refer to website for current information on program admission and application dates.

Students are typically admitted for fall and spring quarters.

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 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.

Pre-Program Requirements

Applicants are required to:

- 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.
- Be 17 years of age prior to the first day of the course and must be 18 by the end of the program.
- Have a high school diploma or GED certificate.
- Show a 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.)
- Show a current First Aid card.
- Take a 4-hour Infectious Disease Prevention for EMS Provider's class or 7 hours HIV/AIDS education.
- Pass a criminal background check.

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 EMT

Quarter 1

EMS 121	EMT I Fundamentals of Emergency Care	4
EMS 122	EMT II Medical Disorders and Emergencies	4
EMS 123	EMT III Traumatic Emergencies and Special Circumstances	4

TOTAL PROGRAM CREDITS **12**

TRANSFER DEGREE

Pre-ENGINEERING TECHNOLOGY: ELECTRONICS OR COMPUTER AS-T/MRP

ASSOCIATE IN SCIENCE-TRANSFER DEGREE: ELECTRONICS OR COMPUTER ENGINEERING TECHNOLOGY (AS-T/MRP)

OVERVIEW

This degree is designed for students who plan to transfer into a bachelor's degree program at a university.

Choose BTC's Associate in Electronics or Computer Engineering Technology AS-T/MRP program if you are intrigued by technology and would like to learn in-demand skills for a career in a leading-edge industry.

This program is designed for students planning to major in electronics or computer engineering at a Washington State college or university. Upon completing the 90-credit program, you may transfer as a junior into a Bachelor of Science program and complete your education in electronics or computer engineering.

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

- Upon completion of BTC's Associate in Science AS-T/MRP: Electronics or Computer Engineering 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 bachelor's of science degrees.
- At EWU, students can work towards completion of a Computer Engineering Technology degree.
- 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.

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 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.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

Testing Requirements

Admissions application and assessment testing in reading, math and sentence skills is required. Your scores on the test and/or your previous transcripts will determine where you begin your course sequence. Contact an Admissions advisor at 360-752-8345 or at admissions@btc.ctc.edu for assistance with academic planning.

Degree and Certificate Requirements

Electronics Engineering 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 for the degree.

ASSOCIATE IN SCIENCE-TRANSFER DEGREE

Communication Skills

ENGL& 101	English Composition I	5
ENGL& 235	Technical Writing	5
		10

Humanities

CMST& 220	Public Speaking	5
SPAN& 121	Spanish I	5
		10

Physical and Natural Sciences

CHEM& 161	General Chemistry w/ Lab I	5
PHYS& 221	Engineering Physics I w/Lab	5
PHYS& 222	Engineering Physics II w/Lab	5
PHYS& 223	Engineering Physics III w/Lab	5
		20

Quantitative/Symbolic Reasoning Skills

MATH& 142	Precalculus II	5
MATH& 146	Introduction to Statistics	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
		20

Social Sciences

PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
		10

Electives

ELTR 120	Semiconductors I	5
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ENGR& 204	Electrical Circuits	5
		20

TOTAL PROGRAM CREDITS

90

TRANSFER DEGREE Pre-ENGINEERING TECHNOLOGY: MECHANICAL, MANUFACTURING OR PLASTICS AS-T/MRP

ASSOCIATE IN SCIENCE - TRANSFER DEGREE: MECHANICAL,
MANUFACTURING, OR PLASTICS ENGINEERING (AS-T/MRP)

OVERVIEW

This degree is designed for students who plan to transfer into a bachelor's degree program at a university.

This is a program that could fit you well if you're mechanically inclined, good at math, or interested in how the products we use every day are designed and developed.

BTC's AS-T/MRP in Mechanical, Manufacturing, or Plastics Engineering Technology degree provides the academic coursework and hands-on education that will prepare you for a Bachelor of Science degree program at a four-year college or university. Upon completing the 91-credit program, you may transfer as a junior into a bachelor's program in mechanical, manufacturing, and 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

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

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 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.

PROGRAM ENTRY INFORMATION

Program Start

This program accepts students quarterly.

Testing Requirements

Admissions application and assessment testing in reading, math and sentence skills are required. Your scores on the test and/or your previous transcripts will determine where you begin your course sequence. Contact an admissions advisor at 360-752-8345 or at admissions@btc.ctc.edu for assistance with academic planning.

Degree and Certificate Requirements

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

ASSOCIATE IN SCIENCE-TRANSFER DEGREE

Mechanical, Manufacturing, or Plastics Engineering (AS-T/MRP)

Communication Skills

ENGL& 101	English Composition I	5
ENGL& 235	Technical Writing	5
		10

Engineering Technology Pre-Major Prerequisites

ELTR 140	Digital 1	5
ENGT 122	CAD I: BASICS	6
		10

Humanities

CMST& 220	Public Speaking	5
SPAN& 121	Spanish I	5
		10

Physical and Natural Sciences

CHEM& 161	General Chemistry w/ Lab I	5
PHYS& 221	Engineering Physics I w/Lab	5
PHYS& 222	Engineering Physics II w/Lab	5
PHYS& 223	Engineering Physics III w/Lab	5
		20

Quantitative/Symbolic Reasoning Skills

MATH& 142	Precalculus II	5
MATH& 146	Introduction to Statistics	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
		20

Social Sciences

PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
		10

Electives

ENGR& 214	Statics	5
ENGR& 225	Mechanics of Materials	5
		10

TOTAL PROGRAM CREDITS		91
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FISHERIES & AQUACULTURE SCIENCES

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER DEGREE FOR FISHERIES
AQUACULTURE SCIENCE

ASSOCIATE APPLIED SCIENCE-TRANSFER DEGREE FOR FISHERIES &
AQUATIC SCIENCES ARTICULATION TO WWU & NWIC

FISHERIES RESOURCES CERTIFICATE

OVERVIEW

If you have a love for the great outdoors and an interest in biology and wildlife, consider the Fisheries program at BTC. You can prepare for a rewarding career as a fish hatchery specialist, fish culturist, fisheries technician, net pen worker, shellfish hatchery worker, scientific aid, water quality technician, or in habitat restoration.

You'll learn high-demand skills like fish culture, aqua culture, and fish spawning that will position you for a rewarding career in the fisheries industry. Instruction takes place in the classroom as well as at the Whatcom Creek Hatchery, which is operated by BTC's Fisheries and Aquaculture program, at the Maritime Heritage Park in Bellingham.

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 coworkers and supervisors.
- Graduates will be able to receive interpret, and convey written, verbal, and graphic information to communicate effectively with coworkers, 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 and conferences and conduct research to stay current with new and emerging equipment and techniques.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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

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.

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 IN APPLIED SCIENCE DEGREE Fisheries & Aquaculture Sciences

Quarter 1

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

Quarter 2

FISH 161	Fish Aquaculture Techniques	6
FISH 170	Hatchery Operations II	4
AENGL 100	Applied English	5
AMATH 100	Applied Occupational Math	5
CAP 100	Introductory Digital Literacy	2

Quarter 3

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

Quarter 4

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

Quarter 5

CMST& 210	Interpersonal Communications	5
CTE 290	Job Search	4
FISH 155	Environmental Awareness	3
	Electives	9

Quarter 6

FTEC 250	Applied Concepts II	10
FTEC 255	Field Projects II	4
FISH 270	Sampling Techniques II	4
	Electives	5

Electives

FISH 194	Fisheries Current Topics I	4
FISH 196	Fisheries Current Topics II	4
FISH 197	Fisheries Current Topics III	4

Continued on the next page

Associate in Applied Science Continued

FISH 198	Fisheries Current Topics IV	8
FISH 296	Aquatic Ecology Current Topics I	4
FISH 297	Aquatic Ecology Current Topics II	4
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CODR 125	Forklift Driver Certification	1
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
MARIN 110	Boating Safety and Piloting	1.5
WELD 101	Introduction to Welding	2
WELD 102	Creative Welding	2
Any other Fisheries related College Level courses or any other course approved from the Transfer Degree Track		
TOTAL PROGRAM CREDITS		126

**ASSOCIATE APPLIED SCIENCE - TRANSFER
Fisheries & Aquaculture Sciences**

Quarter 1

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

Quarter 2

FISH 161	Fish Aquaculture Techniques	6
FISH 170	Hatchery Operations II	4
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
CAP 100	Introductory Digital Literacy	2

Quarter 3

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

Quarter 4

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

Quarter 5

FISH 155	Environmental Awareness	3
CTE 290	Job Search	4
CMST& 210	Interpersonal Communications	5
SOC& 101	Introduction to Sociology	5
	Electives	9

Quarter 6

FTEC 250	Applied Concepts II	10
FTEC 255	Field Projects II	4
FISH 270	Sampling Techniques II	4
	Electives	5

Electives

FISH 194	Fisheries Current Topics I	4
FISH 196	Fisheries Current Topics II	4
FISH 197	Fisheries Current Topics III	4
FISH 198	Fisheries Current Topics IV	8
FISH 296	Aquatic Ecology Current Topics I	4
FISH 297	Aquatic Ecology Current Topics II	4
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CODR 125	Forklift Driver Certification	1
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
MARIN 110	Boating Safety and Piloting	1.5
WELD 101	Introduction to Welding	2
WELD 102	Creative Welding	2
Any other Fisheries related College Level courses or any other courses approved from the Transfer Degree Track will be recognized as electives.		
TOTAL PROGRAM CREDITS		131

**ASSOCIATE APPLIED SCIENCE - TRANSFER
Articulation to WWU & NWIC**

Quarter 1

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

Quarter 2

CMST& 210	Interpersonal Communications	5
FISH 194	Fisheries Current Topics I	4
FTEC 205	Field Projects I	4
MATH& 141	Precalculus I	5
CAP 100	Introductory Digital Literacy	2

Quarter 3

AQSCI 186	Rivers, Lakes, and Streams	5
BIOL& 160	General Biology with Lab	5
FISH 146	Aquatic Invertebrate Biology	3
FISH 195	Fisheries Internship	6
	Electives	2

Quarter 4

AQSCI 211	Fundamentals of Fisheries Biology	5
AQSCI 225	Fisheries Techniques I	8
FTEC 255	Field Projects II	4
FISH 296	Aquatic Ecology Current Topics I	4

Quarter 5

ENGL& 101	English Composition I	5
FISH 155	Environmental Awareness	3
FTEC 200	Applied Concepts I	10
CHEM& 121	Intro to Chemistry	5

Continued on the next page

Associate in Applied Science - Transfer Continued

Quarter 6

AQSCI 226	Fisheries Techniques II	8
AQSCI 266	Aquatic Habitat Assessment	4
CTE 290	Job Search	4
FISH 297	Aquatic Ecology Current Topics II	4
SOC& 101	Introduction to Sociology	5

Electives

FISH 196	Fisheries Current Topics II	
FISH 197	Fisheries Current Topics III	4
FISH 198	Fisheries Current Topics IV	8
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	3
CODR 125	Forklift Driver Certification	1
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
MARIN 110	Boating Safety and Piloting	1.5
WELD 101	Introduction to Welding	2
WELD 102	Creative Welding	2

Any other Fisheries related College Level courses or any other courses approved from the Transfer Degree Track will be recognized as electives.

TOTAL PROGRAM CREDITS		129
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CERTIFICATE**Fisheries Resources****Quarter 1**

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

Quarter 2

FISH 161	Fish Aquaculture Techniques	6
FISH 170	Hatchery Operations II	4
AENGL 100	Applied English	5
AMATH 100	Applied Occupational Math	5
CAP 100	Introductory Digital Literacy	2

Quarter 3

FISH 146	Aquatic Invertebrate Biology	3
FISH 163	Shellfish Aquaculture Techniques	5
FISH 186	Hatchery Operations III	5
CMST& 210	Interpersonal Communications	5

Quarter 4

CTE 290	Job Search	4
FISH 155	Environmental Awareness	3
FISH 195	Fisheries Internship	6
FISH 236	Spawning Techniques II	6

TOTAL PROGRAM CREDITS		80
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GEOMATIC TECHNOLOGY**ASSOCIATE IN APPLIED SCIENCE DEGREE****ASSOCIATE APPLIED SCIENCE - TRANSFER****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 Geomatic Technology. You can put your math and computer skills to work as a geomatic technician in a construction firm, a surveying and engineering firm, mining, oil or gas company, 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.

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**

Please see the BTC website for start times.

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 Algebra score of 75 or a C grade in MATH 098.
- CAP 101 or 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.

Degree and Certificate Requirements

Geomatic 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 IN APPLIED SCIENCE DEGREE
Geomatic Technology

Quarter 1		
ENGT 122	CAD I: BASICS	6
AMATH 111	Applied Technical Math	5
SURV 102	Fundamentals of Surveying I	7
SURV 140	Fundamentals of GIS & GPS	4
Quarter 2		
AENGL 100	Applied English	5
ENGT 132	Engineering Applications Using MS Office	5
ENGT 153	Intermediate GIS	7
SURV 103	Fundamentals of Surveying II	5
Quarter 3		
CMST& 210	Interpersonal Communications	5
ENGT 251	AutoCAD Civil 3D I	7
SURV 104	Construction & Highway Surveys	6
SURV 116	Survey Data Systems	2
Quarter 4		
CTE 108	Job Skills	1
ENGT 252	AutoCAD Civil 3D II	7
SURV 113	Boundary Law & Land Description	5
SURV 204	Environmental Mapping	4
SURV 152	Zoning, Permitting & Platting	4
Quarter 5		
SURV 202	GPS Systems	7
SURV 205	Advanced GIS Applications	7
Quarter 6		
ENGT 253	AutoCAD Civil 3D III	7
SURV 112	Public Lands Survey System	5
SURV 191	Professional Development and Safety	2
SURV 201	Advanced Survey Seminar	7
TOTAL PROGRAM CREDITS		120

ASSOCIATE APPLIED SCIENCE - TRANSFER
Geomatic Technology

Quarter 1		
ENGT 122	CAD I: BASICS	6
MATH& 141	Precalculus I	5
SURV 102	Fundamentals of Surveying I	7
SURV 140	Fundamentals of GIS & GPS	4
Quarter 2		
ENGL& 101	English Composition I	5
ENGT 132	Engineering Applications Using MS Office	5
ENGT 153	Intermediate GIS	7
SURV 103	Fundamentals of Surveying II	5
Quarter 3		
CMST& 210	Interpersonal Communications	5
ENGT 251	AutoCAD Civil 3D I	7
PSYC& 100	General Psychology	5
SURV 104	Construction & Highway Surveys	6
SURV 116	Survey Data Systems	2
Quarter 4		
ENGT 252	AutoCAD Civil 3D II	7
CTE 108	Job Skills	1
SURV 113	Boundary Law & Land Description	5
SURV 204	Environmental Mapping	4
SURV 152	Zoning, Permitting & Platting	4
Quarter 5		
SURV 202	GPS Systems	7
SURV 205	Advanced GIS Applications	7
Quarter 6		
ENGT 253	AutoCAD Civil 3D III	7
SURV 112	Public Lands Survey System	5
SURV 191	Professional Development and Safety	2
SURV 201	Advanced Survey Seminar	7
TOTAL PROGRAM CREDITS		125

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

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 seeking.

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

Please see the BTC website for start times.

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

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 IN APPLIED SCIENCE DEGREE Heating, Ventilation, Air Conditioning & Refrigeration

Quarter 1

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

Quarter 2

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

Quarter 3

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

Quarter 4

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

Quarter 5

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

Quarter 6

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

TOTAL PROGRAM CREDITS **131**

ASSOCIATE APPLIED SCIENCE - TRANSFER
Heating, Ventilation, Air Conditioning & Refrigeration

Quarter 1

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

Quarter 2

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

Quarter 3

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

Quarter 4

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

Quarter 5

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

Quarter 6

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

TOTAL PROGRAM CREDITS **136**

HYPNOTHERAPY

HYPNOTHERAPY CERTIFICATE

OVERVIEW

This is 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 for Washington State Licensure through the Department of Health (DOH).

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

- Courses must be taken in sequence.

Pre-Program 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.

**CERTIFICATE
Hypnotherapy**

HYPN 101	Basic Hypnosis - Lrng for Healthcare Field	5
HLTH 131	HIV/AIDS: for Counselors and Health Professionals	0.5
HLTH 103	CPR: Adult Heartsaver	0.5
HYPN 102	Intermediate Hypnotherapy for Healthcare Field	5
HYPN 103	Advanced Hypnotherapy Techniques	5

Electives

The follow course is optional and open to program graduates

HYPN 104	Preparing for a Hypnotherapy Practice	2
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TOTAL PROGRAM CREDITS **16**

INSTRUMENTATION & CONTROL

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

OVERVIEW

This program will prepare you for a career as an instrumentation and control technician for high-tech industries such as power generation plants, water treatment facilities, chemical manufacturing plants, canneries, aerospace plants, bio-pharmaceutical plants, semi conductor manufacturing plants, and pulp and paper mills.

You will learn how to maintain, repair, and troubleshoot instrumentation 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

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

PROGRAM ENTRY INFORMATION

Program Start

Please see BTC website for start times.

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.
- BTC College Level Math score of 32 or a C grade in MATH 099.

Degree and Certificate Requirements

Instrumentation & Control Technology AAS Degree and Certificate completion requires a cumulative GPA of 2.0 or greater and minimum grade of C-/1.7 for 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.

ADDITIONAL PROGRAM REQUIREMENTS

Students are encouraged to have their high school diploma or GED by graduation, because many employers require this credential as a condition of employment.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Instrumentation & Control

Quarter 1

ELTR 100	Direct Current 1	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current 1	4
ELTR 115	Alternating Current II	4
MATH& 141	Precalculus I	5

Quarter 2

AENGL 100	Applied English	5
ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	Op-Amps 01	3
ELTR 135	Op-Amps 2	3

Quarter 3

CMST& 210	Interpersonal Communications	5
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
EETC 150	Electronic Communications	6

Quarter 4

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

Quarter 5

INST 200	Introduction to Instrumentation	2
INST 240	Pressure and Level Measurement	6
INST 241	Temperature & Flow Measurement	6
INST 242	Analytical Measurement	5

Quarter 6

INST 205	Job Preparation I	1
INST 250	Final Control Elements	5
INST 251	PID Control	5
INST 252	Loop Tuning	4
CHEM& 161	General Chemistry w/ Lab I	5

Quarter 7

ENGT 122	CAD I: BASICS	6
INST 206	Job Preparation II	1
INST 260	Data Acquisition Systems	4
INST 262	DCS & Fieldbus	5
INST 263	Control Strategies	5

Electives		
INST 233	Protective Relays	3
INST 290	Internship	5
INST 292	Internship	10
TOTAL PROGRAM CREDITS		132

ASSOCIATE APPLIED SCIENCE - TRANSFER
Instrumentation & Control

Quarter 1		
ELTR 100	Direct Current 1	4
ELTR 105	Direct Current II	4
ELTR 110	Alternating Current 1	4
ELTR 115	Alternating Current II	4
MATH& 141	Precalculus I	5
Quarter 2		
ELTR 120	Semiconductors I	5
ELTR 125	Semiconductors II	5
ELTR 130	Op-Amps 01	3
ELTR 135	Op-Amps 2	3
ENGL& 101	English Composition I	5
Quarter 3		
CMST& 210	Interpersonal Communications	5
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 150	Electronic Communications	6
Quarter 4		
INST 230	Motor Controls	3
INST 231	PLC Programming	3
INST 232	PLC Systems	3
PSYC& 100	General Psychology	5
Quarter 5		
INST 200	Introduction to Instrumentation	2
INST 240	Pressure and Level Measurement	6
INST 241	Temperature & Flow Measurement	6
INST 242	Analytical Measurement	5
Quarter 6		
INST 205	Job Preparation I	1
INST 250	Final Control Elements	5
INST 251	PID Control	5
INST 252	Loop Tuning	4
CHEM& 161	General Chemistry w/ Lab I	5
Quarter 7		
ENGT 122	CAD I: BASICS	6
INST 206	Job Preparation II	1
INST 260	Data Acquisition Systems	4
INST 262	DCS & Fieldbus	5
INST 263	Control Strategies	5
Electives		
INST 233	Protective Relays	3
INST 290	Internship	5
INST 292	Internship	10
TOTAL PROGRAM CREDITS		137

LEGAL ADMINISTRATIVE ASSISTANT

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

LEGAL ASSISTANT CERTIFICATE

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 with 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

Program Start

Please see the BTC website for start times.

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

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 IN APPLIED SCIENCE DEGREE

Legal Administrative Assistant

Quarter 1		
BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CAP 148	MS PowerPoint	3
CMST& 210	Interpersonal Communications	5

Continued on next page

*Associate in Applied Science Continued***Required Courses for Program**

ACCT 141	Practical Accounting I	5
BUS 123	Records Management	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS& 201	Business Law	5
BUS 280	Assessment	1
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 143	Adobe Acrobat & Electronic File Management	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 225	Internship	3
LGL 226	Internship	6
TOTAL Required Course Credits		93

Electives

ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT& 203	Managerial Accounting	5
BUS 188	Business English	5
BUS 232	Office Procedures	5
CAP 146	MS Access	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1
TOTAL Elective Course Credits		10
TOTAL PROGRAM CREDITS		103

ASSOCIATE APPLIED SCIENCE - TRANSFER

Legal Administrative Assistant**Quarter 1**

BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CAP 148	MS PowerPoint	3
CMST& 210	Interpersonal Communications	5

Required Courses for Program

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

CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 143	Adobe Acrobat & Electronic File Management	5
ENGL& 101	English Composition I	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 225	Internship	3
LGL 226	Internship	6
MATH& 141	Precalculus I	5
SOC& 101	Introduction to Sociology	5

TOTAL Required Course Credits 93**Electives**

ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT& 203	Managerial Accounting	5
BUS 188	Business English	5
BUS 232	Office Procedures	5
CAP 146	MS Access	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits 10**TOTAL PROGRAM CREDITS 103****CERTIFICATE
Legal Assistant****Quarter 1**

BUS 100	Electronic Math Applications	3
BUS 188	Business English	5
CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CAP 148	MS PowerPoint	3
CMST& 210	Interpersonal Communications	5

Required Courses for Program

BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS& 201	Business Law	5
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 143	Adobe Acrobat & Electronic File Management	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 225	Internship	3
TOTAL Required Course Credits		57

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT& 203	Managerial Accounting	5
BUS 232	Office Procedures	5
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Elective Course Credits	5
TOTAL PROGRAM CREDITS	62

- Utilize MS Office products such as Word, Excel, and PowerPoint to generate engineering documents, reports, tables, charts, spread sheets, and presentations.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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 32 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.
- CAP 101 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

Mechanical Engineering 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.

MECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

MECHANICAL ENGINEERING DRAFTING CERTIFICATE

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, and 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.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Mechanical Engineering Technology

Quarter 1

ENGT 121	Drafting I	6
ENGT 122	CAD I: BASICS	6
MATH& 141	Precalculus I	5

Quarter 2

AENGL 100	Applied English	5
ENGT 123	Descriptive Geometry	6
ENGT 132	Engineering Applications Using MS Office	5
MATH& 142	Precalculus II	5

Quarter 3

ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
CMST& 210	Interpersonal Communications	5

Quarter 4

CTE 108	Job Skills	1
ENGT 210	CAD III: Advanced Applications	6
ENGT 211	Project Design 1- 3D Models & Working Drawings	4
ENGT 220	Parametric Modeling	7

Quarter 5

ENGT 212	Project Design 2	4
ENGT 215	Statics	9
ENGT 224	Process Piping Design	8

Quarter 6

ENGT 213	Project Design 3	4
ENGT 216	Strength of Materials	7
ENGT 223	Structural Detailing	6

TOTAL PROGRAM CREDITS	114
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ASSOCIATE APPLIED SCIENCE - TRANSFER
Mechanical Engineering Technology

Quarter 1		
ENGT 121	Drafting I	6
ENGT 122	CAD I: BASICS	6
MATH& 141	Precalculus I	5
Quarter 2		
ENGL& 101	English Composition I	5
ENGT 123	Descriptive Geometry	6
ENGT 132	Engineering Applications Using MS Office	5
MATH& 142	Precalculus II	5
Quarter 3		
CMST& 210	Interpersonal Communications	5
ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
MATH& 151	Calculus I	5
Quarter 4		
CTE 108	Job Skills	1
ENGT 210	CAD III: Advanced Applications	6
ENGT 211	Project Design 1- 3D Models & Working Drawings	4
ENGT 220	Parametric Modeling	7
Quarter 5		
PHYS& 221	Engineering Physics I w/Lab	5
ENGT 212	Project Design 2	4
ENGT 215	Statics	9
ENGT 224	Process Piping Design	8
Quarter 6		
ENGT 213	Project Design 3	4
ENGT 216	Strength of Materials	7
ENGT 223	Structural Detailing	6
TOTAL PROGRAM CREDITS		124

CERTIFICATE
Drafting

Quarter 1		
ENGT 121	Drafting I	6
ENGT 122	CAD I: BASICS	6
MATH& 141	Precalculus I	5
Quarter 2		
AENGL 100	Applied English	5
ENGT 123	Descriptive Geometry	6
ENGT 132	Engineering Applications Using MS Office	5
MATH& 142	Precalculus II	5
Quarter 3		
ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
CMST& 210	Interpersonal Communications	5
TOTAL PROGRAM CREDITS		58

MEDICAL CODING & BILLING GENERALIST

MEDICAL CODING & BILLING GENERALIST CERTIFICATE

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 healthcare 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

Program Start

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.

Please see the BTC website for start times.

Testing Requirements

- Accuplacer reading comprehension and sentence skills test scores of 71 or higher.
- Accuplacer arithmetic test score of 50 or higher.

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

Quarter 1		
BIO 105	Essentials of Anatomy Physiology	5
BIO 127	Diseases of the Human Body	4
BUS 100	Electronic Math Applications	3
CAP 105	Computerized Touch Keyboarding	2
HT 126	Fundamentals of Medical Terminology	5
Quarter 2		
HT 120	Medical Insurance Billing	5
HT 135	Pharmacology for the Medical Office	2
HT 230	Medical Coding - ICD-9	3

HT 240	Medical Coding - CPT	4
CAP 101	Introduction to Computer Applications	5

Quarter 3

HT 265	Medical Coding and Billing Practicum	5
BUS 230	Medical Office Procedures	5
HT 270	Excel for the Medical Office	3

Electives

Electives may be any course with BUS, CAP, HLTH, HR or HT prefix. Refer to course description for any prerequisites.

		4
TOTAL PROGRAM CREDITS		55

MEDICAL RECEPTIONIST

MEDICAL RECEPTIONIST CERTIFICATE

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 healthcare industry need. You might work in a hospital, physician's office, dental office, or healthcare 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

Program Start

Please see the BTC website for start times.

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

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

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5
BUS 123	Records Management	3

Required Courses for Program

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

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 271	Internship	1
ACCT 272	Internship	2
ACCT 273	Internship	3
ACCT 274	Internship	4
ACCT 275	Internship	5
ACCT 276	Internship	6
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 100	Electronic Math Applications	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 232	Office Procedures	5
BUS 271	Internship	1
BUS 272	Internship	2
BUS 273	Internship	3
BUS 274	Internship	4
BUS 275	Internship	5
BUS 276	Internship	6
BUS 280	Assessment	1
BUS 281	Assessment	1
BUS& 201	Business Law	5
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	5
CAP 150	Project - Level 1	1
CAP 151	Project - Level 2	1
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
CIS 160	Computer User Support I	5
CIS 276	Computer Software Support Internship	6
HT 126	Fundamentals of Medical Terminology	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
LGL 223	Internship	3
LGL 224	Internship	4
LGL 225	Internship	3
LGL 226	Internship	6
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
PMP 100	Project Management Fundamentals	1
PMP 120	Project Management - PMP Prep	3
PMP 130	Project Management Integration Project	1

TOTAL Electives Course Credits **15 credits**

TOTAL PROGRAM CREDITS **27**

NURSING

ASSOCIATE IN APPLIED SCIENCE - TRANSFER

OVERVIEW

The Associate Degree Nursing program is approved by the Washington State Nursing Care Quality Assurance Commission. Graduates of the Associate Degree Nursing program are prepared to take the state licensure exam for Registered Nurses, NCLEX-RN.

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.

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 coworkers; 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 healthcare 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

Program Start

Please see the BTC website for start times.

LPNs may apply for entry into the fourth quarter. See the website for details.

Degree and Certificate Requirements

Nursing AAS-T Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of B-/2.7 for all nursing courses, and minimum grade of B/3.0 for all academic courses.

ASSOCIATE APPLIED SCIENCE - TRANSFER Nursing

Quarter 1		
NURS 110	Introduction to Health Concepts	7
NURS 115	Introduction to Health Concepts- Clinical Lab	6
NURS 150	Pharmacology Concepts	2
Quarter 2		
NURS 120	Health and Illness Concepts 1	7
NURS 125	Health & Illness Concepts 1- Clinical Lab	6
Quarter 3		
NURS 130	Health & Illness Concepts 2	7
NURS 135	Health & Illness Concepts 2- Clinical Lab	6
Quarter 4 (LPNs may apply for entry into quarter 4)		
NURS 210	Acute Health Concepts	7
NURS 215	Acute Health Concepts- Clinical Lab	6
Quarter 5		
NURS 220	Complex Health Concepts	7
NURS 225	Complex Health Concepts- Clinical Lab	6
Quarter 6		
NURS 230	Professional Nursing Concepts	6
NURS 235	Professional Nursing Concepts- Clinical Lab	4
Pre-Program		
BIOL& 160	General Biology with Lab	5
BIOL& 241	Human A&P 1	5
BIOL& 242	Human A&P 2	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry	5
ENGL& 101	English Composition I	5
MATH& 146	Intro to Statistics	5
PSYC& 200	Lifespan Psychology	5
TOTAL PROGRAM CREDITS		122

TRANSFER DEGREE NURSING (Pre-NURSING) DTA/MRP

ASSOCIATE IN PRE-NURSING (DTA/MRP)

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 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, Seattle Pacific University, Seattle University, University of Washington, Walla Walla College, Washington State University, and Western Washington University.

Please 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. For example (only):

University of Washington

B.S. in Nursing

Students transferring to the UW must meet high school core admission requirements, including two years of the same world language in high school or two quarters in college. UW requires an additional Q/SR course, such as:

MATH& 141 or AMATH 111 or PHIL& 120. Of the seven pre-Nursing requirements, a minimum 3.0 GPA is required for 3 of the 7 science prerequisites, or a 2.8 GPA for 4 of the 7 science prerequisites at the time of application (January). Please review class catalog descriptions and speak with an advisor in order to plan your coursework.

Seattle Pacific University

B.S. in Nursing

SPU offers an RN to BSN program.

Pacific Lutheran University

B.S. in Nursing

PLU requires two years of a foreign language in high school or two quarters in college for admission.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

Testing Requirements

Admissions application and assessment testing in reading, math and sentence skills is required. Your scores on the test and/or your previous transcripts will determine where you begin your course sequence. Contact an

admissions advisor at 360-752-8345 or at admissions@btc.ctc.edu for assistance with academic planning.

Degree and Certificate Requirements

Nursing (Pre-Nursing DTA/MRP Degree completion requires a cumulative GPA of 2.0 or greater and minimum grade of C/2.0 for all required courses for the degree.

ASSOCIATE IN PRE-NURSING (DTA/MRP)

Communication Skills

ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
		10

Humanities

CMST& 220	Public Speaking	5
HIST& 146	United States History I	5
SPAN& 121	Spanish I	5
		15

Physical and Natural Sciences

BIOL& 160	General Biology with Lab	5
BIOL& 241	Human Anatomy & Physiology 1	5
BIOL& 242	Human Anatomy & Physiology 2	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry	5
CHEM& 131	Introduction to Organic/Bio-Chemistry	5
NUTR& 101	Nutrition	5
		35

Quantitative/Symbolic Reasoning Skills

MATH& 146	Introduction to Statistics	5
		5

Social Sciences

PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
SOC& 101	Introduction to Sociology	5
		10

Electives

	Elective	5
	Elective	5
		10

TOTAL PROGRAM CREDITS		90
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NURSING ASSISTANT

NURSING ASSISTANT CERTIFICATE

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 healthcare industry employers such as hospitals, assisted living facilities, nursing homes, and home health agencies.

PROGRAM OUTCOMES

- Demonstrate clinical competencies defined in WAC 246-841.
- Identify and apply nursing knowledge necessary in the nursing assistant role.

PROGRAM ENTRY INFORMATION

Program Start

Students are offered enrollment in the Nursing Assistant program on a space-available basis.

Please see the BTC website for start times.

Testing Requirements

Accuplacer Reading Comprehension test score of 50 or higher OR Essential Reading ABE 054

Accuplacer Arithmetic test score of 38 or higher OR Essential Math ABE 050

Pre-Program Requirements

For details, click on the Nursing Assistant Admissions Information link under the Entry tab for this program on the BTC website.

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 Nursing Assistant

Quarter 1

NA 101	Nursing Assistant Essentials	4
NA 102	Nursing Assistant Clinical	2
HO 127	Healthcare Provider CPR	0.5
HLTH 133	HIV/AIDS: For Healthcare Professional	1
TOTAL PROGRAM CREDITS		7.5

OFFICE ASSISTANT

OFFICE ASSISTANT CERTIFICATE

OVERVIEW

Choose this program to train for a career as a receptionist or office assistant. Employers such as physician's offices, law firms, temporary help agencies, and consulting firms are in need of skilled office staff. You could also work for manufacturing and industrial firms, telecommunications companies, and retail and wholesale organizations, plus many other businesses that need office clerical support.

PROGRAM OUTCOMES

- Graduates will be able to demonstrate competency in touch keyboarding at 40 wpm on a three-minute timing with a three-error limit.
- Graduates will be able to demonstrate 73 percent competency in word processing, written business communication, business math, effective oral communication skills, office skills and procedures, and MS Windows.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 188	Business English	5
BUS 281	Assessment	1
CAP 107	Computerized Keyboard Skillbuilding I	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 148	MS PowerPoint	3

Continued on the next page

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 230	Medical Office Procedures	5
BUS 232	Office Procedures	5
BUS& 201	Business Law	5
CAP 109	Computerized Keyboard Skill Building II	3
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 146	MS Access	5
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5
TOTAL Electives Course Credits		13 credits
TOTAL PROGRAM CREDITS		54

PERSONAL FITNESS TRAINER

PERSONAL FITNESS TRAINER CERTIFICATE

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 and fitness. Completion of the program will prepare students for jobs in the fitness industry, both in a fitness facility and as 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

Please see the BTC website for start times.

Pre-Program Requirements

It is recommended that students have good basic academic skills.

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
Fitness Trainer**

Quarter 1

PFT 100	Foundations of Health and Fitness	6
HLTH 155	First Aid Fundamentals	1

Quarter 2

PFT 110	Program Development and Training Principles	6
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Quarter 3

PFT 120	Facility Management and Marketing for a Fitness Trainer	6
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TOTAL PROGRAM CREDITS		19
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PHLEBOTOMY

PHLEBOTOMY CERTIFICATE

OVERVIEW

A certificate in Phlebotomy will provide the student with 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. Upon completion, 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, with 80% accuracy, the Washington State Health Care Assistant Law and how it applies to the phlebotomist.
- Describe, with 80% accuracy, the phlebotomist's role in a medical lab setting.
- State eight rules, with 100% accuracy, for safety within the laboratory.
- Explain, with 80% accuracy, the disease cycle of infectious pathogens.
- Select, with 100% accuracy, the appropriate PPE (Personal Protection Equipment), demonstrate proper hand washing technique and safe removal of contaminated gloves.
- Explain, with 80% accuracy, 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).
- Define quality control and state the principle of quality assurance with 80% accuracy.
- With at least 80% accuracy, define the difference between arteries, veins and capillaries, and describe the different cells and components of blood and their functions.
- Define the difference between serum and plasma with 100% accuracy.
- Identify, with at least 80% accuracy, the different supplies and equipment used in venipuncture and capillary collection.
- Demonstrate proper, safe, and successful venipuncture with at least 80% accuracy.
- 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.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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 Intro 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.

Testing Requirements

- Accuplacer Reading Comprehension 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.

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.

ADDITIONAL PROGRAM REQUIREMENTS

Students may be required to travel to Skagit County for clinical placement.

To comply with requirements at some externship clinical sites, students may need to get a tuberculin skin test.

CERTIFICATE Phlebotomy

Quarter 1

HO 157	Introduction to Phlebotomy Skills	4
HT 160	Phlebotomy Externship	3

Pre-Program

BIO 105	Essentials of Anatomy Physiology	5
BIO 127	Diseases of the Human Body	4
HT 126	Fundamentals of Medical Terminology	5
BUS 230	Medical Office Procedures	5
CAP 105	Computerized Touch Keyboarding	2
HLTH 133	HIV/AIDS: For Healthcare Professional	1
HLTH 155	First Aid Fundamentals	1

TOTAL PROGRAM CREDITS		30
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PRECISION MACHINING

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE APPLIED SCIENCE - TRANSFER

QUALITY ASSURANCE CERTIFICATE

PRINCIPLES OF PRECISION MACHINING CERTIFICATE

OVERVIEW

If you'd like a high-paying career upon graduating from BTC, then you should consider Precision Machining. You'll be prepared to work right away as a machinist; with experience you can advance to positions such as journey level machinist, tool programmer, CNC operator/programmer or engineer. You'll learn how to use machine tools such as lathes, drill presses, and milling machines, plus blueprint reading, CNC programming and machine processes. Employers who hire graduates from the Precision Machining program include aerospace, boat, and automobile manufacturers, industrial machinery firms, and machine shops.

PROGRAM OUTCOMES

- Demonstrate competency in operating machine shop equipment: lathes, mills, grinders, and drills.
- Demonstrate competency in reading and interpreting blueprints per industry standards.
- Successfully demonstrate the 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

Please see the BTC website for start times.

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

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 IN APPLIED SCIENCE DEGREE

Precision Machining

Quarter 1

MACH 100	Introduction/Safety/Environment	1
MACH 101	Machine Theory I	2
MACH 119	Machine Fundamentals I A	5
MACH 120	Machine Fundamentals I B	5
MACH 131	Blueprint Reading I	4
AMATH 100	Applied Occupational Math	5

Quarter 2

MACH 122	Machine Fundamentals II	2
MACH 132	Blueprint Reading II	4
MACH 241	Introduction to CNC Machining	8
QA 101	Measuring Instruments	4
AENGL 100	Applied English	5

Quarter 3

CMST& 210	Interpersonal Communications	5
MACH 143	CAD for Machining	5
MACH 242	CNC Programming and Operation	8
QA 102	Principles of Manufacturing	4

Quarter 4

CAP 101	Introduction to Computer Applications	5
CTE 108	Job Skills	1
MACH 113	Machinery's Handbook I	1
MACH 123	Machine Fundamentals III	5
MACH 244	CNC Cam Programming & Operation A	6
QA 103	Quality for Manufacturing	4

Quarter 5

MACH 102	Machine Technology II	2
MACH 221	Machine Fundamentals IV	5
MACH 243	CNC-CAD/CAM Programming & Operations	10
MACH 245	CNC Cam Programming & Operation B	5

Quarter 6

MACH 201	Machine Technology III	3
MACH 222	Machine Fundamentals V	10
MACH 275	Precision Machining Current Topics	5

TOTAL PROGRAM CREDITS 129

ASSOCIATE APPLIED SCIENCE - TRANSFER

Precision Machining

Quarter 1

MACH 100	Introduction/Safety/Environment	1
MACH 101	Machine Theory I	2
MACH 119	Machine Fundamentals I A	5
MACH 120	Machine Fundamentals I B	5
MACH 131	Blueprint Reading I	4
MATH& 141	Precalculus I	5

Quarter 2

ENGL& 101	English Composition I	5
MACH 122	Machine Fundamentals II	2
MACH 132	Blueprint Reading II	4
MACH 241	Introduction to CNC Machining	8
QA 101	Measuring Instruments	4

Quarter 3

CMST& 210	Interpersonal Communications	5
MACH 143	CAD for Machining	5
MACH 242	CNC Programming and Operation	8
QA 102	Principles of Manufacturing	4

Quarter 4

CAP 101	Introduction to Computer Applications	5
CTE 108	Job Skills	1
MACH 113	Machinery's Handbook I	1

Continued on next page

Associate in Applied Science - Transfer continued

MACH 123	Machine Fundamentals III	5
MACH 244	CNC Cam Programming & Operation A	6
QA 103	Quality for Manufacturing	4
Quarter 5		
MACH 102	Machine Technology II	2
MACH 221	Machine Fundamentals IV	5
MACH 243	CNC-CAD/CAM Programming & Operations	10
MACH 245	CNC Cam Programming & Operation B	5
Quarter 6		
MACH 201	Machine Technology III	3
MACH 222	Machine Fundamentals V	10
MACH 275	Precision Machining Current Topics	5
PSYC& 100	General Psychology	5
TOTAL PROGRAM CREDITS		134

CERTIFICATE**Principles of Precision Machining**

Quarter 1		
MACH 100	Introduction/Safety/Environment	1
MACH 101	Machine Theory I	2
MACH 119	Machine Fundamentals I A	5
MACH 120	Machine Fundamentals I B	5
MACH 131	Blueprint Reading I	4
AMATH 100	Applied Occupational Math	5
Quarter 2		
MACH 122	Machine Fundamentals II	2
MACH 132	Blueprint Reading II	4
MACH 241	Introduction to CNC Machining	8
QA 101	Measuring Instruments	4
TOTAL PROGRAM CREDITS		40

CERTIFICATE**Quality Assurance**

Quarter 1		
AMATH 100	Applied Occupational Math	5
QA 101	Measuring Instruments	4
QA 102	Principles of Manufacturing	4
QA 103	Quality for Manufacturing	4
Quarter 2		
CAP 101	Introduction to Computer Applications	5
AENGL 100	Applied English	5
CMST& 210	Interpersonal Communications	5
TOTAL PROGRAM CREDITS		32

PROCESS TECHNOLOGY**ASSOCIATE IN APPLIED SCIENCE DEGREE****ASSOCIATE APPLIED SCIENCE - TRANSFER****PROCESS TECHNOLOGY CERTIFICATE****OVERVIEW**

If you'd like a high-paying career upon graduating from BTC, then you should consider Process Technology. This program will prepare you for a position as a process technician or operator for employers in power generation, refining, manufacturing, and many other industries.

You'll learn how to monitor and control processing equipment, troubleshoot and solve equipment problems, test product quality, and implement safety standards and procedures. The Process Technology program provides the technical and academic knowledge you need, along with valuable communication and interpersonal skills that employers want.

PROGRAM OUTCOMES

- Analyze 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.
- Evaluate fundamentals of refining and power generation processes; know core functions and principles of operation of typical process equipment such as pumps, compressors, filters and dryers, lubrication systems, valves, piping systems, and draw from memory Process Flow Diagrams.
- Integrate the principles of process automatic control and Data Control Systems (DSC) to manage simulated DSC scenarios.
- Compare actual process plant experience versus preconceived notions.

PROGRAM ENTRY INFORMATION**Program Start**

Please see the BTC website for start times.

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 Algebra score of 75 or a C grade in Math 098.
- CAP 101 or 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.

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 IN APPLIED SCIENCE DEGREE

Process Technology

Quarter 1

AMATH 111	Applied Technical Math	5
PTEC 101	Introduction to Process Technology	5
PTEC 102	Process Technology I (Equipment)	5
	General Elective (outside of the program)	

Quarter 2

CMST& 210	Interpersonal Communications	5
CTE 108	Job Skills	1
PTEC 103	Safety, Health & Equipment I	5
PTEC 105	Process Technology II (Systems)	5

Quarter 3

AENGL 100	Applied English	5
CHEM& 161	General Chemistry w/ Lab I	5
PTEC 110	Process Instrumentation	5
	Program Elective (PTEC 190 series)	3

Quarter 4

CHEM& 162	General Chemistry w/Lab II	5
PTEC 203	Safety, Health & Environment II	5
PTEC 211	Process Instrumentation II and Troubleshooting	5
	Program Elective (PTEC 190 series)	3

Quarter 5

PTEC 205	Dynamic Process Control	5
PTEC 212	Industrial Processes & Equipment	5
PTEC 270	Process Technology Project I	5
	General Elective (outside of the program)	

Quarter 6

PTEC 207	Quality Control	5
PTEC 215	Process Technology III (Operations)	5
PTEC 272	Process Technology Project II	5
	General Elective (outside of the program)	

Electives

Program Electives

PTEC 190	Food Processing	3
PTEC 191	Non-Refining Processes	3
PTEC 192	Pulp & Paper Processing	3
PTEC 193	Upstream Process	3
PTEC 194	Wastewater Treatment	3
PTEC 195	Biodiesel Fundamentals	3
PTEC 196	Green Energy	3
PTEC 197	Cooperative Education	3
PTEC 198	Basic Mechanical Skills	3
PTEC 199	Power Generation	3
PTEC 290	Process Technology Practicum/Internship I	5
PTEC 291	Process Technology Practicum/Internship II	5

General Elective

ADTEC 126	Basic Electricity	5
ADTEC 200	Anaerobic Digestion Essentials	4
ADTEC 237	Cooling Towers/Water Treatment	1
ADTEC 245	Commercial/Industrial Boilers	2
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5

CAP 148	MS PowerPoint	3
CODR 125	Forklift Driver Certification	1
ENGT 122	CAD I: BASICS	6
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
INST 200	Introduction to Instrumentation	2
SOC& 101	Introduction to Sociology	5
WELD 101	Introduction to Welding	2
WELD 173	Basic Welding (Welding I & II)	2

TOTAL PROGRAM CREDITS 106

ASSOCIATE APPLIED SCIENCE - TRANSFER

Process Technology

Quarter 1

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PTEC 101	Introduction to Process Technology	5
PTEC 102	Process Technology I (Equipment)	5

Quarter 2

CMST& 210	Interpersonal Communications	5
CTE 108	Job Skills	1
PTEC 103	Safety, Health & Equipment I	5
PTEC 105	Process Technology II (Systems)	5

Quarter 3

CHEM& 161	General Chemistry w/ Lab I	5
ENGL& 235	Technical Writing	5
PTEC 110	Process Instrumentation	5
	Program Elective (PTEC 190 series)	3

Quarter 4

CHEM& 162	General Chemistry w/Lab II	5
PTEC 203	Safety, Health & Environment II	5
PTEC 211	Process Instrumentation II and Troubleshooting	5

Quarter 5

MATH& 142	Precalculus II	5
PTEC 205	Dynamic Process Control	5
PTEC 212	Industrial Processes & Equipment	5
PTEC 270	Process Technology Project I	5
PHYS& 221	Engineering Physics I w/Lab	5

Quarter 6

MATH& 151	Calculus I	5
PTEC 207	Quality Control	5
PTEC 215	Process Technology III (Operations)	5
PTEC 272	Process Technology Project II	5

Electives

Program Electives

PTEC 190	Food Processing	3
PTEC 191	Non-Refining Processes	3
PTEC 192	Pulp & Paper Processing	3
PTEC 193	Upstream Process	3
PTEC 194	Wastewater Treatment	3
PTEC 195	Biodiesel Fundamentals	3
PTEC 196	Green Energy	3

Continued on the next page

Associate in Applied Science - Transfer Continued

PTEC 197	Cooperative Education	3
PTEC 198	Basic Mechanical Skills	3
PTEC 199	Power Generation	3
PTEC 290	Process Technology Practicum/Internship I	5
PTEC 291	Process Technology Practicum/Internship II	5

General Electives

ADTEC 126	Basic Electricity	5
ADTEC 200	Anaerobic Digestion Essentials	4
ADTEC 237	Cooling Towers/Water Treatment	1
ADTEC 245	Commercial/Industrial Boilers	2
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	5
CODR 125	Forklift Driver Certification	1
ENGT 122	CAD I: BASICS	6
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
INST 200	Introduction to Instrumentation	2
SOC& 101	Introduction to Sociology	5
WELD 101	Introduction to Welding	2
WELD 173	Basic Welding (Welding I & II)	2

TOTAL PROGRAM CREDITS		106
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CERTIFICATE
Process Technology

Quarter 1

AMATH 111	Applied Technical Math	5
PTEC 101	Introduction to Process Technology	5
PTEC 102	Process Technology I (Equipment)	5

Quarter 2

CMST& 210	Interpersonal Communications	5
CTE 108	Job Skills	1
PTEC 103	Safety, Health & Equipment I	5
PTEC 105	Process Technology II (Systems)	5

Quarter 3

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

TOTAL PROGRAM CREDITS		46
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PROJECT MANAGEMENT

PROJECT MANAGEMENT CERTIFICATE

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.

PROGRAM ENTRY INFORMATION**Program Start**

Please see the BTC website for start times.

Degree and Certificate Requirements

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

CERTIFICATE
Project Management

Quarter 1

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

TOTAL PROGRAM CREDITS		7
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RADIOLOGIC TECHNOLOGY

ASSOCIATE APPLIED SCIENCE- TRANSFER

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.

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 oneself 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

Please see the BTC website for start times.

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, students are asked to select and rank a preference for placement at the Bellingham or Everett cohort sites.

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.
- 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 to waive the CAP 101 requirement.

Pre-Program Requirements

Prior to registration for Radiologic Technology program classes, admitted students must be eighteen (18) years of age and submit evidence of the following requirements:

- Physical exam and specified immunizations
- Criminal background check

- 11-panel drug screen
- Current American Heart Association BLS for Healthcare Provider CPR
- 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.

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.

ADDITIONAL PROGRAM REQUIREMENTS

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 Quarter 5, second-year students must complete a second criminal background check for a \$22 fee.

ASSOCIATE APPLIED SCIENCE - TRANSFER Radiologic Technology

Quarter 1

RT 112	Patient Care in Radiology	4
RT 101	Radiographic Positioning I	6
RT 114	Leadership Seminar	2
RT 120	Imaging & Processing	4
CMST& 220	Public Speaking	5

Quarter 2

RT 102	Radiographic Positioning & Anatomy II	6
RT 121	Radiographic Physics I	4
RT 131	Radiographic Clinic I	7

Quarter 3

RT 103	Radiographic Positioning and Anatomy III	5
RT 123	Radiographic Physics II	4
RT 132	Radiographic Clinic II	7

Quarter 4

RT 133	Radiographic Clinic III	8
RT 205	Pharmacology	3

Quarter 5

RT 108	Medical Informatics	4
RT 231	Radiographic Clinic IV	10
BIO 130	Sectional Anatomy	4

Quarter 6

RT 210	Radiation Biology	4
RT 201	Advanced Patient Procedures and Pathology I	4
RT 232	Radiographic Clinic V	10

Quarter 7

RT 230	Registry Review and Employment Readiness	4
RT 233	Radiographic Clinic VI	10

Continued on the next page

Associate in Applied Science - Transfer Continued

CERTIFICATE
Receptionist

RT 202	Advanced Patient Procedures and Pathology II	4
Pre-Program		
ENGL& 101	English Composition I	5
MATH 107	Math In Society	5
PSYC& 100	General Psychology	5
HT 126	Fundamentals of Medical Terminology	5
BIOL& 241	Human Anatomy & Physiology 1	5
BIOL& 242	Human Anatomy & Physiology 2	5
CAP 101	Introduction to Computer Applications	5
HLTH 133	HIV/AIDS: For Healthcare Professional	1
TOTAL PROGRAM CREDITS		154

Quarter 1

CAP 101	Introduction to Computer Applications	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MSWord	4
CMST& 210	Interpersonal Communications	5

Required Courses for Program

BUS 100	Electronic Math Applications	3
BUS 123	Records Management	3
BUS 171	Technical Communications	5
BUS 188	Business English	5
CAP 107	Computerized Keyboard Skillbuilding I	3

Electives

ACCT 141	Practical Accounting I	5
ACCT 242	Practical Accounting II	5
ACCT 243	Practical Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Managerial Accounting	5
BUS 150	Mathematics for Business	5
BUS 230	Medical Office Procedures	5
BUS 232	Office Procedures	5
BUS& 201	Business Law	5
CAP 109	Computerized Keyboard Skill Building II	3
CAP 138	MS WORD	5
CAP 142	MS Excel	5
CAP 143	Adobe Acrobat & Electronic File Management	5
CAP 145	Website Development	5
CAP 146	MS Access	5
CAP 148	MS PowerPoint	5
CAP 200	Integrated Computer Applications	5
LGL 127	Legal Office Procedures	5
LGL 132	Legal Terminology	5
LGL 211	Legal Document Processing	5
MGMT 154	Creating and Managing a Small Business	5
MGMT 210	Human Resource Management	5

TOTAL Electives Course Credits	6 credits
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TOTAL PROGRAM CREDITS	35
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RECEPTIONIST

RECEPTIONIST CERTIFICATE

OVERVIEW

Choose this program to train for a career as a receptionist or office assistant. Employers such as physician's offices, law firms, temporary help agencies, and consulting firms are in need of skilled office staff. You could also work for manufacturing and industrial firms, telecommunications companies, and retail and wholesale organizations, plus many other businesses that need office clerical support.

PROGRAM OUTCOMES

- Graduates will be able to demonstrate competency in touch keyboarding at 40 wpm on a three-minute timing with a three-error limit.
- Graduates will be able to demonstrate 73 percent competency in word processing, written business communication, business math, effective oral communication skills, office skills and procedures, and MS Windows.

PROGRAM ENTRY INFORMATION**Program Start**

Please see the BTC website for start times.

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 C grade 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.

RESIDENTIAL HOME INSPECTION

RESIDENTIAL HOME INSPECTION CERTIFICATE

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 program.

As of September 1, 2009, Washington State requires all home inspectors in the state to be licensed. BTC's Fundamentals of Home Inspection program was the first to receive approval from the Department of Licensing. This intensive, full-time program 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!

PROGRAM OUTCOMES

- Students will be able to describe the systems and components found in homes and be prepared to carry out non-invasive home inspections per WA State laws at residential properties while employing special training and education.
- Students will complete five thorough home inspection reports that meets state standards.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

This program is offered on the BTC campus.

Pre-Program Requirements

A personal laptop with Wi-Fi capability is required for participants.

It is recommended that students have good basic academic skills.

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

Residential Home Inspection

Quarter 1

RHI 111	Fundamentals of Home Inspection	12
RHI 112	Home Inspection Field Training	3
TOTAL PROGRAM CREDITS		15

SURGERY TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE - TRANSFER

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 by hospitals, outpatient surgery centers, and dental surgery offices.

PROGRAM OUTCOMES

- Utilize critical and logical thinking processes to evaluate and interpret requests from the surgical field while performing surgical procedures.
- Understand current practices and demonstrate sound decision making to provide patient, staff, and personal safety.
- Strive for excellence in the practice of sterile technique; recognize and respond immediately to any breaks in sterile technique.
- Successfully demonstrate professionalism and positive work ethics.
- Effectively write the National Certification Exam for Surgical Technologists (CST).

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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.

Accuplacer Algebra score of 75 or a C grade in MATH 098.

Pre-Program Requirements

Prior to registration for SURG 120, admitted students must be eighteen (18) years of age and submit evidence of the following requirements:

- Physical exam and specified immunizations
- Criminal background check
- 11-panel drug screen
- Current American Heart Association BLS for Healthcare Provider CPR
- 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.

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.

Continued on the next page

*Surgery Technology Continued*ASSOCIATE APPLIED SCIENCE - TRANSFER
Surgery Technology

Quarter 1		
SURG 120	Surgery Technology I	12
SURG 125	Surgery Technology Lab I	10
Quarter 2		
SURG 133	Surgery Technology II	10
SURG 136	Surgery Technology Clinical Practice I	12
Quarter 3		
SURG 143	Surgery Technology III	6
SURG 145	Surgery Technology Clinical Practice II	10
Pre-Program		
BIOL& 160	General Biology with Lab	5
BIOL& 241	Human A&P 1	5
BIOL& 242	Human A&P 2	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry	5
CMST& 210	Interpersonal Communications	5
ENGL& 101	English Composition I	5
HLTH 133	HIV/AIDS: For Healthcare Professional	1
HT 126	Fundamentals of Medical Terminology	5
MATH& 107	Math in Society (or any MATH course from the alternate course list)	5
SURG 100	Intro to Surgery Technology	2
TOTAL PROGRAM CREDITS		108

SUSTAINABLE TECHNOLOGY

SUSTAINABLE TECHNOLOGY CERTIFICATE

PROGRAM ENTRY INFORMATION**Program Start**

Please see the BTC website for start times.

Degree and Certificate Requirements

Certificate completion requires a cumulative GPA of 2.0 or greater.

CERTIFICATE

Sustainable Technology Certificate

Quarter 1		
SUST 101	Fundamentals of Sustainability	5
Quarter 2		
SUST 102	Fundamentals of Renewable Energy	5
Quarter 3		
ENVS& 101	Fundamentals of Environmental Science	5
	Approved Elective Course (minimum 2 credits)	2
TOTAL PROGRAM CREDITS		17

**TRANSFER DEGREE
TECHNOLOGY DTA/MRP**

ASSOCIATE IN TECHNOLOGY (DTA/MRP)

OVERVIEW

Transform your interest in technology into career opportunities in high-demand fields with BTC's Associate in Technology DTA/MRP degree. This degree is designed for students who plan to transfer into a bachelors degree program

BTC's Associate in Technology DTA/MRP program 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 OUTCOMES

- Upon completion of BTC's Associate in Technology DTA/MRP degree, students are eligible to transfer to the following institutions in Washington State:

Central Washington University: Construction Management, Safety and Health Management, or Industrial Technology & Technology Education degrees

Eastern Washington University: Design, Construction, Manufacturing, and Electronics Technology degrees

Please note: Admission into many institutions is competitive and higher grade point averages and course grades are often required. Completion of the general Technology 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**Program Start**

Please see the BTC website for start times.

Testing Requirements

Admissions application and assessment testing in reading, math and sentence skills is required. Your scores on the test and/or your previous transcripts will determine where you begin your course sequence. Contact an admissions advisor at 360-752-8345 or at admissions@btc.ctc.edu for assistance with academic planning.

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 for the degree.

ASSOCIATE IN TECHNOLOGY (DTA/MRP)

Communication Skills		
ENGL& 101	English Composition I	5
ENGL& 235	Technical Writing	5
		10
Humanities		
CMST& 220	Public Speaking	5
HIST& 146	United States History I	5
SPAN& 121	Spanish I	5
		10
Physical and Natural Sciences		
CHEM& 161	General Chemistry w/ Lab I	5
PHYS& 221	Engineering Physics I w/Lab	5
PHYS& 222	Engineering Physics II w/Lab	5
		15
Quantitative/Symbolic Reasoning Skills		
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
		10
Social Sciences		
ECON& 201	Micro Economics	5
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
		15
Technology Course Work		
ENGT 122	CAD I: BASICS	6
		5
Electives		
ELTR 140	Digital 1	5
EMTEC 125	Applied Mechanics	5
EMTEC 217	Instrumentation & Controls	4
ENGR& 204	Electrical Circuits	5
		20
TOTAL PROGRAM CREDITS		90

VETERINARY TECHNICIAN

ASSOCIATE APPLIED SCIENCE - TRANSFER

VETERINARY ASSISTANT CERTIFICATE

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 by veterinary hospitals, surgery centers, specialty care providers, zoos, and wildlife facilities.

PROGRAM OUTCOMES

- Demonstrate current veterinary techniques in areas such as: animal husbandry, necropsy, anesthesia, medicine and materials usage and application, safety and health standards.
- Provide support for companion animal, equine, food animal practice, biomedical research and other veterinary medical activities.
- Comprehend basic medical terminology and sciences; demonstrate clinical application skills; integrate skills such as nursing, surgical, pharmacological, dental, and imaging knowledge and/or skills to care for live animals.
- Demonstrate cognitive retention of medical terminology, theory and science, including anatomy and physiology, clinical pathology, and microbiology.
- Demonstrate positive work ethics, professionalism, and understanding of team healthcare delivery.
- Participate in professional organizations, activities and continuing education opportunities.
- Incorporate into practice professional laws, regulations, and policies established by the licensing state and regulatory agencies.
- Promote humane animal care and management through counseling owners to reduce health risks and provide community veterinary health services in a variety of settings.
- Demonstrate understanding of veterinary office management and economics, and the varying roles and organizational structures present in veterinary practice.
- Provide preventive and therapeutic services, including nutrition, nursing, and dental care that promote animal health according to the needs of the patient.

PROGRAM ENTRY INFORMATION

Program Start

Please see the BTC website for start times.

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.

Accuplacer Algebra score of 75 or a C grade in MATH 098.

Continued on the next page

*Veterinary Technician continued***Pre-Program Course Requirements**

Prior to registration for Vet Tech program classes, admitted students must be eighteen (18) years of age and submit evidence of the following requirements:

- Physical exam and recommended immunizations
- 11-panel drug screen
- Criminal background check
- 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.

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.

Intro to Chemistry (CHEM& 121) is the preferred science, but courses in the following life science fields: BIOL, CHEM, OCEA, ZOOL will be accepted.

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.

ASSOCIATE APPLIED SCIENCE - TRANSFER

Veterinary Technician**Quarter 1**

VETT 101	Veterinary Nursing I	5
VETT 102	Veterinary Anatomy & Physiology I	6
VETT 103	Veterinary Medical Terminology	3
VETT 201	Mentorship Lab I	3
VET 120	Medical Dosages and Calculations	4

Quarter 2

VETT 104	Veterinary Nutrition I	3
VETT 106	Microbiology, Virology, & Mycology	4
VETT 107	Small Animal Parasitology	3
VETT 108	Radiology I	6
VETT 109	Clinical Laboratory Sciences	5
VETT 202	Mentorship Lab II	3

Quarter 3

VETT 105	Learning for a Lifetime	3
VETT 110	Veterinary Anatomy & Physiology II	3
VETT 111	Small Animal Medicine I	4
VETT 112	Veterinary Nursing II (Surgical)	5
VETT 113	Immunology & Pharmacology I	6
VETT 114	Dentistry	4
VETT 203	Mentorship Lab III	3

Quarter 4

VETT 115	Radiology II	5
VETT 118	Small Animal Medicine II	3
VETT 119	Advanced Clinical Lab Sciences	4
VETT 120	Anesthesia	5
VETT 121	Exotic Animal Medicine	3
VETT 125	Humanity of Veterinary Medicine	2
VETT 204	Mentorship Lab IV	3
CTE 108	Job Skills	1

Quarter 5

VETT 116	Large Animal Medicine	3
VETT 117	Veterinary Nursing III (Large Animal)	5
VETT 122	Veterinary Nutrition II	2
VETT 123	Veterinary Nursing IV (Critical Care)	5
VETT 124	Specialty Medicine	3
VETT 126	Pharmacology II	3
VETT 205	Mentorship Lab V	3

Quarter 6

VETT 130	Veterinary Clinical Work Experience	10
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Pre-Program

ENGL& 101	English Composition I	5
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
BIOL& 160	General Biology with Lab	5
CHEM& 121	Intro to Chemistry	5

TOTAL PROGRAM CREDITS**155**

CERTIFICATE

Veterinary Assistant**Quarter 1**

VETT 101	Veterinary Nursing I	5
VETT 102	Veterinary Anatomy & Physiology I	6
VETT 103	Veterinary Medical Terminology	3
VET 120	Medical Dosages and Calculations	4
VETT 201	Mentorship Lab I	3

Quarter 2

VETT 104	Veterinary Nutrition I	3
VETT 106	Microbiology, Virology, & Mycology	4
VETT 107	Small Animal Parasitology	3
VETT 108	Radiology I	6
VETT 109	Clinical Laboratory Sciences	5
VETT 202	Mentorship Lab II	3

Quarter 3

VET 117	Veterinary Assistant Internship	2
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Pre-Program

ENGL& 101	English Composition I	5
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
BIOL& 160	General Biology with Lab	5
CHEM& 121	Intro to Chemistry	5

TOTAL PROGRAM CREDITS**72**

WELDING TECHNOLOGY

ASSOCIATE APPLIED SCIENCE DEGREE (Pipe Welding & Fabricating)

ASSOCIATE APPLIED SCIENCE DEGREE (Welding & Fabricating)

ASSOCIATE APPLIED SCIENCE - TRANSFER

INDUSTRIAL WELDING CERTIFICATE

BASIC WELDING SKILLS CERTIFICATE (Minimum two quarters)

OVERVIEW

Prepare for your welding career through this program. Then put your high-demand skills to work in the metal and construction trades as a welder, cutter, or welding machine operator. Students choose to specialize in one of three areas: aluminum, structural fabrication, or pipe welding.

In our state-of-the-art welding and fabrication facility, you'll learn valuable skills that high-wage employers seek. From safety practices and blueprint reading, to technical skills like metallurgy, MIG, and TIG welding, BTC's hands-on training will prepare you for a career in boat manufacturing, steel manufacturing, refining, and transportation, or with federal, state, or local governments.

PROGRAM OUTCOMES

- Exhibit and maintain essential employability behaviors.
- Observe and practice industry safety guidelines.
- Analyze and interpret prints, drawings, and symbols for welding and fabrication of parts and structures.
- Achieve competency in a variety of major manual and semi-automatic welding processes in all positions.
- Demonstrate proper set-up and use of welding and fabricating equipment.
- Troubleshoot and solve basic welding, fabricating, and equipment problems.
- Pass at least one WABO certification or industry-accepted certification welding test (ASME, AWS, ABS, etc.).
- Exhibit knowledge of occupational environments, metallurgy, materials, tools, fabrication, layout, and mechanical and thermal cutting processes and techniques.
- Demonstrate appropriate oral and written communication with customers, coworkers, 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

Program Start

Please see the BTC website for start times.

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

Welding Technology - Pipe Welding & Fabricating 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.

Additional Program Information

All required first year courses must be successfully completed prior to entering the second year of program.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Pipe Welding & Fabricating

Quarter 1

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

Quarter 2

WLD 102	Welding Safety II	2
WLD 103	Hand & Power Tools	4
WLD 106	Print Reading I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
AENGL 100	Applied English	5

Quarter 3

WLD 107	Welding Leadership I	1
WLD 121	GMAW Aluminum I	5
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
CMST& 210	Interpersonal Communications	5

Quarter 4

WLD 205	Print Reading II - Pipe	3
WLD 210	SMAW II	2
WLD 215	SMAW Pipe	7
WLD 256	Pipe Fabrication I	7

Quarter 5

WLD 208	Metallurgy	3
WLD 257	Pipe Fabrication II	4
WLD 262	GTAW Pipe Welding	6
	Electives	6
CTE 108	Job Skills	1

Quarter 6

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

TOTAL PROGRAM CREDITS **126**

ASSOCIATE IN APPLIED SCIENCE DEGREE

Welding & Fabricating

Quarter 1

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

Quarter 2

WLD 102	Welding Safety II	2
WLD 103	Hand & Power Tools	4
WLD 106	Print Reading I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
AENGL 100	Applied English	5

Quarter 3

WLD 107	Welding Leadership I	1
WLD 121	GMAW Aluminum I	5
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
CMST& 210	Interpersonal Communications	5

Quarter 4

WLD 206	Print Reading II	3
WLD 230	FCAW II	5
WLD 242	GTAW & GMAW Alloys II	5
WLD 254	Steel Fabrication II	6

Quarter 5

WLD 208	Metallurgy	3
WLD 232	FCAW Practices II	4
WLD 255	Structural Steel Fabrication	6
	Electives	6
CTE 108	Job Skills	1

Quarter 5

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

TOTAL PROGRAM CREDITS 126

ASSOCIATE APPLIED SCIENCE - TRANSFER

Welding Technology

Quarter 1

WLD 101	Welding Safety I	2
WLD 104	Career Opportunities For Welders	2
WLD 105	Thermal Cutting Processes	4
WLD 110	SMAW I	5
WLD 120	GMAW I	5
MATH& 141	Precalculus I	5

Quarter 2

WLD 102	Welding Safety II	2
WLD 103	Hand & Power Tools	4

WLD 106	Print Reading I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
ENGL& 101	English Composition I	5

Quarter 3

WLD 107	Welding Leadership I	1
WLD 121	GMAW Aluminum I	5
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
CMST& 210	Interpersonal Communications	5
PSYC& 100	General Psychology	5

Quarter 4

	2nd Yr: Pipe Welding & Fabricating	
WLD 205	Print Reading II - Pipe	3
WLD 210	SMAW II	2
WLD 215	SMAW Pipe	7
WLD 256	Pipe Fabrication I	7

2nd Yr: Welding & Fabricating

WLD 206	Print Reading II	3
WLD 230	FCAW II	5
WLD 242	GTAW & GMAW Alloys II	5
WLD 254	Steel Fabrication II	6

Quarter 5

	2nd Yr: Pipe Welding & Fabricating	
WLD 208	Metallurgy	3
WLD 257	Pipe Fabrication II	4
WLD 262	GTAW Pipe Welding	6
	Electives	6

2nd Yr: Welding & Fabricating

WLD 208	Metallurgy	3
WLD 232	FCAW Practices II	4
WLD 255	Structural Steel Fabrication	6
	Electives	6

Quarter 5

CTE 108	Job Skills	1
	2nd Yr: Pipe Welding & Fabricating	
WLD 207	Welding Leadership II	1
WLD 209	Codes & Standards	2
WLD 271	Welder Testing	6
WLD 295	Capstone Project	3
	Electives	6

2nd Yr: Welding & Fabricating

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

TOTAL PROGRAM CREDITS 131

CERTIFICATE
Basic Welding Skills

Quarter 1

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

Quarter 2

WLD 102	Welding Safety II	2
WLD 103	Hand & Power Tools	4
WLD 106	Print Reading I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
AENGL 100	Applied English	5

Quarter 3

WLD 107	Welding Leadership I	1
WLD 121	GMAW Aluminum I	5
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
CMST& 210	Interpersonal Communications	5

TOTAL PROGRAM CREDITS 69

CERTIFICATE
Industrial Welding

Quarter 1

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

Quarter 2

WLD 102	Welding Safety II	2
WLD 103	Hand & Power Tools	4
WLD 106	Print Reading I	4
WLD 130	FCAW I	4
WLD 140	GTAW I	4
AENGL 100	Applied English	5

Quarter 3

WLD 107	Welding Leadership I	1
WLD 121	GMAW Aluminum I	5
WLD 141	GTAW Aluminum I	4
WLD 150	Steel Fabricating I	4
WLD 151	Aluminum Fabrication I	4
CMST& 210	Interpersonal Communications	5

Quarter 4

2nd Yr: Pipe Welding & Fabricating		
WLD 205	Print Reading II - Pipe	3
WLD 210	SMAW II	2
WLD 215	SMAW Pipe	7
WLD 256	Pipe Fabrication I	7

2nd Yr: Welding & Fabricating

WLD 206	Print Reading II	3
WLD 230	FCAW II	5
WLD 242	GTAW & GMAW Alloys II	5
WLD 254	Steel Fabrication II	6

Quarter 5

CTE 108	Job Skills	1
2nd Yr: Pipe Welding & Fabricating		
WLD 208	Metallurgy	3
WLD 257	Pipe Fabrication II	4
WLD 262	GTAW Pipe Welding	6
	Electives	6

2nd Yr: Welding & Fabricating

WLD 208	Metallurgy	3
WLD 232	FCAW Practices II	4
WLD 255	Structural Steel Fabrication	6
	Electives	6

Electives

Certificate students please see program advisor for quarter electives.

CODR 125	Forklift Driver Certification	1
ENVS 151	Basic CSTOP Course	0.8
HLTH 155	First Aid Fundamentals	1
WLD 211	SMAW III	9
WLD 216	SMAW Practices TP	2
WLD 217	Advanced SMAW Practices	6
WLD 218	SMAW Practices II TP	2
WLD 219	GTAW Aluminum Practices TP	2
WLD 220	SMAW Practice III	4
WLD 223	GMAW Practices TP	2
WLD 224	Advanced GMAW Practices	2
WLD 225	GMAW Aluminum Practices TP	2
WLD 226	Advanced Aluminum Welding Practices	6
WLD 231	FCAW Practices TP	2
WLD 232	FCAW Practices II	4
WLD 233	FCAW Practices III	6
WLD 243	GTAW Steel Practices TP	2
WLD 244	Alloy Pipe Welding	9
WLD 245	Advance GTAW Practices	6
WLD 246	GTAW Aluminum Practices TP	2
WLD 247	Advance GTAW Aluminum Practices	3
WLD 258	Special Fabrication Projects	6
WLD 259	Alloy Fabrication Projects	9
WLD 273	Testing II	6
WLD 274	Testing III	9
WLD 281	Welding Upgrade 20hr	1
WLD 282	Welding Upgrade 50hr	2
WLD 283	Welding Upgrade 70hr	3
WLD 293	Welding Internship I	3
WLD 298	Welding Internship II	6
WLD 299	Welding Internship III	6

TOTAL PROGRAM CREDITS 108

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.

PREREQUISITES: Accuplacer Scores: 71 Reading, 40 Arithmetic, 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.

PREREQUISITES: 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.

PREREQUISITES: ACCT 242 or instructor permission.

ACCT 245

PAYROLL PROCEDURES 5 CR

Covers complete payroll records and procedures. Students complete assignments about federal and state laws that affect compensation of employees.

PREREQUISITES: ACCT 141 or instructor permission.

ACCT 246

COMPUTERIZED ACCOUNTING I 5 CR

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

PREREQUISITES: ACCT 141 or instructor permission.

ACCT 274

INTERNSHIP 4 CR

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

ACCT& 201

PRINCIPLES OF ACCOUNTING I 5 CR

This course is the first of a series of three accounting courses in the Business DTA program. 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 of primary financial statements.

PREREQUISITES: Minimum Accuplacer score of 75 in Algebra or completion of MATH 098 with a grade of C or higher; 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 program 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.

PREREQUISITES: ACCT& 201 with a grade of C or higher; or instructor permission.

ACCT& 203

MANAGERIAL ACCOUNTING 5 CR

This is the third course of a series of three accounting courses in the Business DTA program 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: planning operations, controlling activities, and 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.

PREREQUISITES: ACCT 242 or ACCT& 202 with a grade of C or higher; or instructor permission.

ADULT BASIC EDUCATION

ABE 020

ESSENTIAL COMPUTERS 3 CR

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

ABE 050

ESSENTIAL MATH 5 CR

A math course designed for students who need better math skills to pass the GED math test or Accuplacer arithmetic test or to progress to prealgebra. This course is intended to reinforce and extend students' knowledge of basic mathematics and to build the foundation for success in beginning algebra. Topics covered include basic operations with whole numbers, decimals and fractions; understanding and application of ratio, proportion and percent; elements of geometry, problem solving, and signed numbers; and solving simple equations. The course is designed to use interactive software and a variety of classroom strategies.

PREREQUISITES: CASAS Math score of 211.

ABE 052

ESSENTIAL WRITING 5 CR

This course helps students develop basic English writing skills such as organization of ideas, conventions of English language usage (grammar, spelling, sentence structure, and punctuation), and feedback and revision. Students will apply critical thinking skills such as analyzing and synthesizing ideas from authentic readings. Basic

computer use is required. This course prepares students for entry into ENGL 092. Recommended concurrent registration in Essential Reading.

PREREQUISITES: Level 4 ABE or 6 ESL in writing

ABE 054

ESSENTIAL READING 5 CR

This course helps student develop English reading skills including, comprehension, vocabulary and study skills, through real-world investigations directed by student interest. Focus is placed on 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 RDG 085. Recommended concurrent registration in Essential Writing.

PREREQUISITES: CASAS reading score of 221 or higher.

ABE 055

ESSENTIAL RDG/WR 5 CR

This intensive course helps students develop English reading and writing skills, including comprehension, vocabulary, and 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. This course prepares students for entry into RDG 085 and ENGL 092.

PREREQUISITES: CASAS reading score of 221 or higher.

ANAEROBIC DIGESTER

ADTEC 126

BASIC ELECTRICITY 5 CR

This course presents the fundamentals of controls, motors, electrical theory, and applications. Emphasis is placed on proper diagnostic and troubleshooting procedures. Lectures and textbook are supplemented by the student's individual work on projects.

ADTEC 200

ANAEROBIC DIGESTION ESSENTIALS 4 CR

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

ADTEC 237

**COOLING TOWERS/
WATER TREATMENT 1 CR**

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

ADTEC 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.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

PREREQUISITES: ACRT 101

ACRT 115

NON-STRUCTURAL REPAIR 2 CR

This course addresses basic personal safety, vehicle safety, equipment, product knowledge, and basic knowledge required to perform non-structural analysis and damage repair. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

ACRT 138

**RESTORING CORROSION
PROTECTION 3 CR**

This course covers corrosion and its effect on vehicles, how to restore corrosion protection to collision-damaged areas, and how to work safely with chemicals. Students plan effective and correct corrosion protection treatment for welded areas and exposed seams, interior seams, exposed surfaces, and trim and accessories during repairs. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

ACRT 140

**DRIVE TRAIN, FUEL, BRAKES,
HVAC 2 CR**

This course covers repair of a vehicle involved in a collision, including removal of mechanical parts, such as drive train and engine parts. This course also covers servicing heating and a/c systems of a vehicle involved in a collision. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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, plas-

tics and adhesives, and painting and refinishing. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

ACRT 256

UNIBODY INSPECTION 4 CR

This course covers inspection, diagnosis, measurement, and repair of steel and aluminum unibody vehicles. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

ACRT 262

FRAME INSPECTION & REPAIR 4 CR

This course covers inspection, diagnosis, measurement, and repair of steel framed vehicles. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

ACRT 263

RESTRAINT SYSTEMS 2 CR

This course covers diagnosis and inspection of restraint and SRS systems. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

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. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

ACRT 275

INTERNSHIP 7 CR

The student will gain hands-on work experience with an auto collision repair employer. Students must have a grade of C (2.0) or better in all Automotive Collision Repair Technology courses.

AUTOMOTIVE TECHNOLOGY

AUTO 104

ENGINES LIGHT 7 CR

An introductory look at the 4-stroke gasoline engine followed by an 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.

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, and compression and leak down testing. This course will center on a thorough exploration of internal engine components, measurements and major repairs to those components.

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 113

HVAC 4 CR

Students will be introduced to the operation of a heating, circulation and airconditioning 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.

PREREQUISITES: TRANS 103, AENGL 100, CMST& 210, AMATH 100

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.

PREREQUISITES: TRANS 103

AUTO 151

ELECTRICITY/ELECTRONICS I 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.

PREREQUISITES: 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.

PREREQUISITES: TRANS 103

AUTO 219

APPLIED AUTOMOTIVE CONCEPTS I 15 CR

Students are required to intern in a business that performs vehicle repairs. Students will obtain and maintain their employment. Students normally work with or under the direct supervision of a journeyman-level technician. It is recommended that the students' 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. Students' work will be monitored by an instructor from BTC who will periodically visit the work site.

PREREQUISITES: AENGL 100, CMST& 210, AMATH 100

AUTO 229

APPLIED AUTOMOTIVE CONCEPTS II 5 CR

Students are required to intern in a business that performs vehicle repairs. Students will obtain and maintain their employment. Students normally work with or under the direct supervision of a journeyman-level technician. It is recommended that the students' 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. Students' work will be monitored by an instructor from BTC who will periodically visit the work site. 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.

PREREQUISITES: AENGL 100, CMST& 210, 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 troubleshooting hydraulic, electrical/electronic controls and mechanical systems and practicing proper R&R techniques.

PREREQUISITES: 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 and 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.

PREREQUISITES: AUTO 151, AENGL 100, CMST& 210, and AMATH 100

AUTO 259

APPLIED AUTOMOTIVE CONCEPTS III 5 CR

Students are required to intern in a business that performs vehicle repairs. Students will obtain and maintain their employment. Students normally work with or under the direct supervision of a journeyman-level technician. It is recommended that the students' 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. Students' work will be monitored by an instructor from BTC who will periodically visit the work site. 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.

PREREQUISITES: AENGL 100, CMST& 210, AMATH 100

AUTO 260

MANUAL TRANSMISSIONS/TRANSAXLES AND DRIVE TRAIN 3 CR

This course will focus on theory, description and operation of manual drive train systems. This course will include clutches, transfer cases and differentials.

PREREQUISITES: AUTO 122, AENGL 100, CMST& 210, AMATH 100

AUTO 265

ENGINE PERFORMANCE 2 3 CR

This course will cover computerized engine management systems including OBD2 and diagnostic trouble code interpretation. It will also cover vehicle computer networks including typical topologies and troubleshooting techniques.

PREREQUISITES: AENGL 100, CMST& 210, AMATH 100

AUTO 275

ENGINE PERFORMANCE 3 10 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 includes an introduction to alternative fuel vehicles.

PREREQUISITES: AENGL 100, CMST& 210, AMATH 100

AUTO 279

APPLIED AUTOMOTIVE CONCEPTS IV 5 CR

Students are required to intern in a business that performs vehicle repairs. Students will obtain and maintain their employment. Students normally work with or under the direct supervision of a journeyman-level technician. It is recommended that the students' 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. Students' work will be monitored by an instructor from BTC who will periodically visit the work site. 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.

PREREQUISITES: AENGL 100, CMST& 210, AMATH 100

AUTO 291

SHOP PRACTICUM 1 8 CR

Students will work in the automotive lab on various projects as assigned under the direct instruction of the instructor and shop manager. This is a self-paced course, allowing students to apply the fundamental principles and competencies in the coursework up to and including the current quarter of enrollment. The lab will attempt to duplicate a working shop environment including all aspects of industry employability. This course is taken in lieu of an off-campus internship.

PREREQUISITES: AENGL 100, CMST& 210 AMATH 100

AUTO 292

SHOP PRACTICUM 2 8 CR

Students will work in the automotive lab on various projects as assigned under the direct instruction of the instructor and shop manager. This is a self-paced course, allowing students to apply the fundamental principles and competencies in the coursework up to and including the current quarter of enrollment. The lab will attempt to duplicate a working shop environment including all aspects of industry employability. This course is taken in lieu of an off-campus internship.

PREREQUISITES: AENGL 100, CMST& 210, AMATH 100

AUTO 293

SHOP PRACTICUM 3 8 CR

Students will work in the automotive lab on various projects as assigned under the direct instruction of the instructor and shop manager. This is a self-paced course, allowing students to apply the fundamental principles and competencies in the coursework up to and including the current quarter of enrollment. The lab will attempt to duplicate a working shop environment including all aspects of industry employability. This course is taken in lieu of an off-campus internship.

PREREQUISITES: AENGL 100, CMST& 210 AMATH 100

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. Text required.

BIO 127

DISEASES OF THE HUMAN BODY 4 CR

Introduction to the effects of system diseases on the human body. Course includes discussions of selected diseases, including causes and treatments. Course also includes an overview of principles of pharmacology and description/purposes of selected laboratory tests.

PREREQUISITES: BIO 105 (or BIOL& 241 and BIOL& 242) 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. This course is taught on-

line using WAOL Blackboard management. Course will present lectures, student discussion, student / instructor interactions, quizzes and exam.

PREREQUISITES: BIO& 241 & BIO& 242

BIOL& 160

GENERAL BIOLOGY w/ LAB 5 CR

This course provides introduction to basic concepts of biology, with an emphasis on the cells as the fundamental unit of life. Topics include cell structure, basic chemical and biochemical concepts, metabolism, cell division, principles of genetics, biological diversity, and methods of scientific inquiry and critical thinking. Course establishes foundation necessary for continued biology study, especially in human anatomy and physiology. Lab included.

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

PREREQUISITES: 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 and 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.

PREREQUISITES: 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.

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

BUSINESS & SUPERVISION

BUS 100

ELECTRONIC MATH APPLICATIONS 3 CR

Focuses on the application of the electronic calculator to business transactions and accounting activities. Students will develop speed on the 10-key by touch method.

PREREQUISITES: Accuplacer score of 50 in Arithmetic or a grade of C or better in MATH 090

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 150

MATHEMATICS FOR BUSINESS 5 CR

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

PREREQUISITES: Accuplacer score of 50 in Arithmetic or a grade of C or better in MATH 090

BUS 171

TECHNICAL COMMUNICATIONS 5 CR

This course introduces students to effective written and oral business communication through application and study of text. Students will learn to compose effective business writings including letters, memos, resumes, technical manuals, e-mail, and newsletters. They will also learn to evaluate formatting, grammar, graphics, and general appearance. Students will learn effective oral presentation and job interviewing skills.

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

BUS 188

BUSINESS ENGLISH 5 CR

Business English focuses on the improvement of basic grammar and proofreading skills needed to effectively compose and edit written business documents. Standard English grammar rules and proofreading exercises are presented in order of increasing difficulty.

PREREQUISITES: Accuplacer Scores: 71 Reading; 71 Sentence Skills 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.

PREREQUISITES: Accuplacer Reading Comprehension score of 71.

BUS 230

MEDICAL OFFICE PROCEDURES 5 CR

The aim of this course is to educate the student for administrative duties in the medical office. This course teaches computerized medical office procedures as well as exercises in judgment, independent action, and coping with interruptions. In addition to computerized appointment scheduling and billing, the student will learn about the major insurances with ICDA and CPT coding.

BUS 232

OFFICE PROCEDURES 5 CR

This course 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.

PREREQUISITES: At least a C (2.0) in CAP 106

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.

PREREQUISITES: 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 advisor. Assessment, required for a completion certificate or degree, will be assigned relative to the student's certificate or degree.

BUS& 201

BUSINESS LAW 5 CR

This course introduces students to principles underlying the legal environment of business through lectures, classroom activities, and study of text. Students will be exposed to basic information relating business and personal aspects of law as set forth in the course outline.

PREREQUISITES: 71 Reading Accuplacer Score

CHEMISTRY

CHEM& 121

INTRO TO CHEMISTRY 5 CR

Introductory course for non-science majors, nursing, and environmental science students. Includes basic concepts of inorganic and organic chemistry, the nature of atoms, molecules and chemical bonds, chemical notation, chemistry of solutions, scientific reasoning, and problem-solving in the study of the theory and application of chemistry. Lab work is included.

PREREQUISITES: Accuplacer Reading Comprehension score of 85 or B grade in RDG 085, and Accuplacer

er 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

INTRO 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 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.

PREREQUISITES: CHEM& 121 with a C grade

CHEM& 161

GENERAL CHEMISTRY w/LAB I 5 CR

For programs requiring strong backgrounds in chemistry. Atomic theory, stoichiometry, periodic table, nomenclature, reactions in aqueous solutions, gases, and thermochemistry. Lab included.

PREREQUISITES: College Level Math score of 32 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.

PREREQUISITES: CHEM& 161 with C grade

COLLEGE SUCCESS

CDEV 090

COLLEGE SUCCESS FOUNDATIONS 3 CR

This course has been designed based on research that indicates a strong correlation between the development of critical "soft skills" and academic success. These skills include personal responsibility, self-motivation, time-management, teamwork, self-awareness, emotional intelligence, self-advocacy, and lifelong learning. Classes are learner-centered and highly participatory. Students will practice and complete coursework in all skills areas. This course is mandatory for students who test into ENGL092, MATH090 or RDG085.

COMMUNICATIONS

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 develop-

ment and maintenance, assertiveness, teamwork and group dynamics, conflict management strategies, and diversity issues.

PREREQUISITES: 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.

PREREQUISITES: 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

COMPUTERS

CAP 100

INTRODUCTORY DIGITAL LITERACY **2 CR**

This course will address the diversity of technology landscapes, providing students with the tools and skill sets to focus on the basics of devices and platforms, communicating in the network world, and on the traditional aspects of creating, organizing and sharing content. By the end of this course, students will be able to differentiate between types of computing devices; use an operating system; demonstrate appropriate digital citizenship; use online search engines/applications; and demonstrate basic proficiencies in Microsoft Word, Excel and PowerPoint.

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. If you have little or no experience with computers consider taking BAS 020 COMPUTER BASICS prior to taking CAP 101. For off-campus work, a Windows-based computer is required.

PREREQUISITES: Accuplacer score: 71 Reading

CAP 105

COMPUTERIZED TOUCH KEYBOARDING **2 CR**

A touch typing course for beginners, as well as those needing to brush up on their keyboarding skills. Course covers learning to type alphabetical keys by touch using proper technique.

CAP 106

FORMATTING WITH MS WORD **4 CR**

Provides skill building, production typing, and Microsoft Word fundamentals at the beginning or review level. Students use MS Word to format letters, memos, reports, and tables.

PREREQUISITES: CAP 105 or instructor permission

CAP 107

COMPUTERIZED KEYBOARD SKILL BUILDING 1 **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.

PREREQUISITES: CAP 106 or instructor permission

CAP 109

COMPUTERIZED KEYBOARD SKILL BUILDING 1 **3 CR**

Designed to help students improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement.

PREREQUISITES: CAP 107

CAP 138

MS WORD **5 CR**

Students receive hands-on instruction using the commands and features of MS Word to create simple to complex business documents. For off-campus work, a Windows-based computer is required.

PREREQUISITES: CAP 101, CAP 106

CAP 142

MS EXCEL **5 CR**

This course provides a practical hands-on approach to developing the skills to use the powerful spreadsheet application, MS Excel. Students will use Excel to organize and analyze data, perform numerical calculations, and illustrate relationships in numerical data by displaying charts. For off-campus work, a Windows-based computer is required.

PREREQUISITES: BUS100 or BUS150 or MATH100 or MATH&107 or higher; and CAP101 or instructor permission

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; adding headers and footers; rendering 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.

PREREQUISITES: CAP 101

CAP 148

MS POWERPOINT **3 CR**

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

PREREQUISITES: CAP 101 or instructor permission

CAP 150

PROJECT - LEVEL 1 **1 CR**

This course is the first in a series of two courses designed for individuals who will use Microsoft Project 2002 as a tool to assist them in managing projects. The topics in this course cover the critical skills necessary to create and modify a project plan file that contains tasks, resources, and resource assignments. You will create a project plan file containing tasks, organize these tasks in a work breakdown structure containing task relationships, create and assign resources, and finalize the project in order to implement the project plan. Microsoft Project 2002 (XP) is used in this class, but those using an earlier version will still benefit from this class.

CAP 151

PROJECT - LEVEL 2 **1 CR**

In Project - Level 1, you used your project management skills to create a complete project plan. This course will build upon that knowledge and give you the opportunity to work with a project plan once it has entered the project implementation phase. You will exchange project plan data with other applications, update project plans, create custom reports, reuse project plan information, and collaborate on project plans with others. Microsoft Project 2002 (XP) is used in this class, but those using an earlier version will still benefit from this class.

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.

PREREQUISITES: CAP 138, CAP142, CAP 146, CAP 148 or instructor permission

CIS 145

WEBSITE DEVELOPMENT **5 CR**

This course will introduce students to HTML, graphics, and other programming languages for use in web pages. Students will learn the use of programming editors, preparation of graphics,

content development, and page layout.

PREREQUISITES: CAP 101 or instructor permission

CIS 160

COMPUTER USER SUPPORT I 5 CR

This course provides an overview of topics relevant to working at a help desk. Students will learn computer user support skills and strategies, including problem solving, customer service, and call tracking.

PREREQUISITES: CAP 101 or instructor permission

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.

IT 102

IT ETHICS AND CAREERS 5 CR

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

PREREQUISITES: Either IT 112 or IT 141 or IT 160

IT 112

PC HARDWARE 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.

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

A+ OPERATING SYSTEMS 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.

IT 142

CLIENT/DESKTOP OPERATING SYSTEMS 10 CR

This course is designed to facilitate in-depth study of a client computer operating system commonly found in the business environment. Areas of study include installation, configuration, troubleshooting, deployment, and networking.

PREREQUISITES: IT 141

COREQUISITE: IT 160

IT 210

NETWORK SECURITY FUNDAMENTALS 10 CR

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

PREREQUISITES: IT 160, IT 142

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.

PREREQUISITES: IT 160, IT 142

IT 230

WINDOWS POWERSHELL 5 CR

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

PREREQUISITES: IT 242 or IT 243

IT 240

LINUX ADMINISTRATION & CONFIGURATION 5 CR

This course introduces students to system administration fundamentals of the Linux operating sys-

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

PREREQUISITES: IT 140 and either IT 141 or IT 142

IT 242

WINDOWS SERVER ADMINISTRATION 5 CR

Covers installation, configuration, and system administration of Windows server. Topics include managing accounts, groups, folders, and files; object security; active directory; Dfs; disk quotas; server monitoring and optimization; and troubleshooting.

PREREQUISITES: IT 160, IT 142

IT 243

WINDOWS SERVER NETWORK INFRASTRUCTURE 5 CR

This course covers managing and maintaining a Windows Server network infrastructure. Students will learn how to install, configure, and troubleshoot TCP/IP, DHCP, DNS, routing and remote access, and VPNs. Students will also learn to monitor traffic, troubleshoot connectivity, implement secure network administration procedures and resolve service issues on a Windows server.

PREREQUISITES: IT 160, IT 142

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.

PREREQUISITES or COREQUISITE: 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 internship will provide exposure to a typical work environment, opportunities for customer interaction skill development, and an opportunity to make connections with professionals already working in the field.

PREREQUISITES: IT 261 OR

COREQUISITE: IT 262

IT 272

CAPSTONE PROJECT 5 CR

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

PREREQUISITES: IT 261 OR

COREQUISITE: IT 262

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 AND 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. ServeSafe course text and national certification examination are required.

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-costing are covered as well.

CUL 114
CULINARY SKILL DEVELOPMENT I 7 CR

This course focuses on the foundational cooking techniques utilized in the culinary industry. Topics of study include basic mise en place skill development, foundational cooking methods, related terminology and additional foundational cooking preparations. Theory and lab topics include focus on meat cookery; the preparation of stocks, classical and contemporary mother sauces and derivative sauces, and the application of herbs, spices, and flavorings used in the professional kitchen today. Weekly labs provide students time to practice these foundational skills.

COREQUISITES: CUL 110, CUL 112, CUL 118

CUL 116
MEAT IDENTIFICATION AND FABRICATION 4 CR

This course provides an introduction to basic identification and use of hand tools and equipment in meat and fish fabrication. Activities include composition, skeletal structures, muscle types, and fabrication of meats, poultry and seafood. Students will apply basic yield analysis, portion cost calculations, purchasing and receiving, basic cooking methods, inspection and USDA regulations, sanitation and hygiene.

COREQUISITES: CUL 110, CUL 112, CUL 118

CUL 118
COMMERCIAL KITCHEN EQUIPMENT 2 CR

This course provides comprehensive information about common kitchen equipment used in hotels, restaurants, resorts, and other food service establishments. Emphasis is placed on safety measures used in commercial kitchens, identification of a wide variety of commercial kitchen equipment, their common use in professional kitchens, correct operation, safety, breakdown and cleaning procedures.

COREQUISITES: CUL 110, CUL 112, CUL 116

CUL 120
INTERNATIONAL CUISINE 5 CR

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

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118

COREQUISITES: CUL 122, CUL 124

CUL 122
CULINARY SKILL DEVELOPMENT II 7 CR

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

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118

COREQUISITES: CUL 120, CUL 124

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.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118

COREQUISITES: CUL 120, CUL 124

CUL 140
GARDE MANGER 6 CR

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

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144, PST 202, PST 204

CUL 142
NUTRITION 3 CR

This course provides students with an introduction to nutrition and cultural food pyramids, including nutritive value of food; factors influencing body food requirements; their importance in promoting health and preventing disease; and the body processes and their relation to total nutrition. We examine nutritional requirements throughout the human life cycle while retaining nutritive values in 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/prepared in lecture and labs. Students will study the cuisine of Chesapeake Bay shore, Louisiana; Mid-Atlantic States; Appalachian South, Western Ranchlands, Plantation South; South Florida and the Caribbean; the Central Plains, Rocky Mountains and Great Basin, Mexican Border, California, Hawaii, and the Pacific Northwest. Lab practice topics include station set-up/organization, food preparation planning sheets, portion control, timing, temperature control, teamwork, communication, productivity skills and sanitary/safety production skills. Weekly participation in à la carte production provides students with opportunities to refine fundamental culinary skills and develop à la minute production skills. Upon completion of this course, the student should be able to effectively setup and operate an à la carte station.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118

CUL 150
CULINARY ARTS INTERNSHIP 9 CR

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

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144, PST 202, PST 204

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).

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144, PST 202, PST 204

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.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144, PST 202, PST 204

CUL 222

HOSPITALITY SUPERVISION**4 CR**

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

PREREQUISITES: 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 beverage service are also discussed. Upon completion, students will be able to determine which wines compliment various cuisines and particular tastes.

PREREQUISITES: CUL 110, CUL 112, CUL 114, CUL 116, CUL 118, CUL 120, CUL 122, CUL 124, CUL 142, CUL 144, PST 202, PST 204

CUL 230

NORTHWEST À LA CARTE COOKERY**9 CR**

This course allows students to apply the majority of the culinary arts curriculum as they rotate through stations, creating Northwest cuisine in the à la carte restaurant kitchen. Students become familiar with the theory/lab responsibilities involved in setting up and running an à la carte restaurant station: food preparation, planning sheets, organization, portion control, timing, temperature control, teamwork, communication, productivity and sanitary/safety production skills. Students also supervise first-year student commis practice

expeditor skills such as coordinating/controlling the flow of finished menu items from the station chefs, while working closely with student service staff/maitre d' positions.

PREREQUISITES: Successful completion of first 5 quarters of Culinary Arts curriculum with passing scores (C- or better) in 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 212, CUL 214, CUL 216, CUL 220, CUL 222, CUL 224.

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 Culinnaire. The students are responsible for excellent customer service under all conditions. Students work in various dining room positions at Bellingham Technical College's Café Culinnaire, such as maitre d', front server and back server.

PREREQUISITES: Successful completion of first 5 quarters of Culinary Arts curriculum with passing scores (C- or better) in 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 212, CUL 214, CUL 216, CUL 220, CUL 222, CUL 224

CUL 234

CAPSTONE PROJECT & PRACTICAL EXAM**2 CR**

This course is a formal written examination designed to review the students' 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.

PREREQUISITES: A passing score of C- or better in 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 212, CUL 214, CUL 216, CUL 220, CUL 222, CUL 224

CUL 236

WINE APPRECIATION**2 CR**

This course provides comprehensive information about wine from all the major wine producing countries in the world. Emphasis is placed on the history of wine, production characteristics and laws, food and wine pairing, cooking with wine, wine menus, purchasing, formal wine service and storage requirements. Upon completion, students should be able to determine what wines compliment various cuisines and particular tastes.

PREREQUISITES: 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 212, CUL 214, CUL 216, CUL 220, CUL 222, CUL 224

PST 101

PASTRY AND 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.

PREREQUISITES or COREQUISITES: CUL 101

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.

PREREQUISITES or COREQUISITES: PST 101

PST 202

PASTRY BASIC I**3 CR**

This course applies the knowledge of 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, éclair 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.

PREREQUISITES: CUL 110

PST 204

INTRODUCTION TO ARTISAN BREADS & LAMINATED DOUGH**4 CR**

This course covers beginning/intermediate bread baking. Students are 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 are the focus of this course. Product finishes are 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.

PREREQUISITES: CUL 110

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 to 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 of baking for special diets.

PREREQUISITES: PST 202, CUL 110

PST 208

INTRO TO CAKES, DESSERTS, CHOCOLATE & SUGAR DECORATIONS 5 CR

This course provides a study in the elements of mixing, baking, assembling, and decorating simple cakes; introduction to specialty cakes, gateaux and tortes; 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 cakes, 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.

PREREQUISITES: CUL 110, PST 202, PST 206

PST 220

ADVANCED ARTISAN & DECORATIVE BREADS 3 CR

This course provides an advanced study in the art and craft of bread making. Topics include pertinent formulas and techniques associated with naturally leavened loaves, sponge and straight dough methods, hearth breads, bagels, flatbreads, decorative breads, and other breads utilizing a variety of grains. Upon completion, students should be able to prepare artisan and decorative breads that meet or exceed the expectations of restaurant and retail establishments.

PREREQUISITES: CUL 110, PST 204

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 of chocolate and sugar showpiece structures.

PREREQUISITES: CUL 110 or COREQUISITES: PST 208

PST 224

SPECIALTY CAKES I 5 CR

This course covers an introduction to 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.

PREREQUISITES: CUL 110, PST 202, PST 206 or COREQUISITES: PST 208

DENTAL ASSISTING

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.

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 bite-wing technique.

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 operator. 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.

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.

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, clinic 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.

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 they relate 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.

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, 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.

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.

DEN 130

PREVENTATIVE DENTISTRY 3 CR

This course provides the student with a working knowledge of preventative dentistry and 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.

DEN 132

DENTAL SPECIALTIES 1 CR

Provides the knowledge and skills necessary to assist in dental specialties, including prosthodontics, oral surgery, pediatrics and orthodontics.

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.

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.

DENTAL: EXPANDED FUNCTION DENTAL AUXILIARY

EFDA 100

DENTAL ANATOMY**1 CR**

This course will provide students with terminology and features of the dentition and oral cavity. Emphasis will be on detailed study of each permanent and primary tooth in order to prepare students for restoring harmonious function and form.
PREREQUISITES: Admission to the EFDA program

EFDA 101

RESTORATIVE DENTISTRY I**3 CR**

This course covers foundational knowledge in dental materials science. These principles will be specifically applied to amalgam and composite restorations. This course will be intense to allow us to begin placing restorations in the companion lab course EFDA 102 as soon as possible.
PREREQUISITES: Admission to the EFDA program

EFDA 110

PRINCIPLES OF DENTAL ASSISTING**2 CR**

This course will provide students with the knowledge and skills to perform certain EFDA procedures under general supervision. Students will be familiar with legal and ethical aspects of dental practice and be versed in common medical conditions and pharmacology.
PREREQUISITES: EFDA 100

EFDA 111

RESTORATIVE DENTISTRY II**2 CR**

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

EFDA 112

RESTORATIVE LAB II**2 CR**

This course is a continuation of EFDA 102. 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.
PREREQUISITES: EFDA 102

EFDA 120

FINAL IMPRESSIONS**1 CR**

Theory and practice of preliminary and final impressions as well as bite registration. Computer assisted design will be included.
PREREQUISITES: EFDA 110

EFDA 122

RESTORATIVE LAB III**2 CR**

This course will focus on preparing students for the Restorative WREB exam. Class II composites and amalgams will be emphasized. Students will participate in a mock exam. Students will also

place final impressions on a typodont concurrent with EFDA 120.

PREREQUISITES: EFDA 111

EFDA 123

RESTORATIVE CLINICAL PRACTICE**3 CR**

This clinical course provides practice in EFDA skills. Emphasis will be on the placement of amalgam and composite restorations on patients. Patient care will be provided in both on-campus clinics and off-campus extern sites.
PREREQUISITES: EFDA 112

DENTAL HYGIENE

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.

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.

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, critical thinking related to patient assessment and management, communication skills, and professionalism are emphasized.

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.

DHYG 116

ORAL RADIOLOGY I**4 CR**

Theoretical background and practical application of dental radiography. Exposure techniques, processing, mounting, and evaluation of dental radiographs, principles of production, use of X-radiation, radiation safety procedures and patient education.

DHYG 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 cranio-facial 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.

DHYG 122

DENTAL HYGIENE CLINICAL PRACTICE II**5 CR**

Theoretical background and practical application of dental radiography. Exposure techniques; processing, mounting, and evaluation of dental radiographs; principles of production; use of X-radiation; radiation safety procedures and patient education.

DHYG 124

PRINCIPLES OF DENTAL HYGIENE II**3 CR**

Sequential course providing theoretical background for the practice of dental hygiene. Problem solving and critical thinking related to patient assessment and management.

DHYG 125

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, oxygen, rescue CPR and AED.

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.

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.

DHYG 131

RESTORATIVE DENTISTRY I**2 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 dentofoms. Alginate impressions and model trimming for working and study models. Rubber dam, matrix and wedge application. Case studies for clinic preparation.
PREREQUISITES: DHYG 113

- DHYG 132**
DENTAL HYGIENE CLINICAL PRACTICE III 6 CR
 Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self assessment.
- DHYG 134**
PRINCIPLES OF DENTAL HYGIENE III 3 CR
 Sequential course providing theoretical background for the clinical practice of dental hygiene. Emphasis on patient education and treatment planning related to patients' age and stage. Nutrition and relationship to oral diseases.
- DHYG 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.
- DHYG 138**
PERIODONTOLOGY 3 CR
 Study of the periodontium emphasizing periodontal diseases, their classifications, and the etiological factors involved. Preventive measures within the scope and responsibility of the dental hygienist are correlated with basic sciences and clinical aspects of periodontal diseases.
- DHYG 141**
RESTORATIVE DENTISTRY I 2 CR
 Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam, glass ionomer and composite restorations on dentofoms.
PREREQUISITES: DHYG 131
- 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.
- DHYG 144**
PRINCIPLES OF DENTAL HYGIENE IV 3 CR
 Sequential course providing theoretical background of dental hygiene skills. Literature review and research reports, oral cancer and tobacco cessation emphasized.
- DHYG 149**
PAIN MANAGEMENT 4 CR
 Exploration of pain control methods including local anesthesia and nitrous oxygen analgesia. Health history evaluation, local and systemic complications, anesthetic solutions, vasoconstrictors and drug interactions. Techniques of local anesthesia, including block and infiltration techniques are practiced. Administration of nitrous oxide is also practiced.
- DHYG 211**
RESTORATIVE DENTISTRY III 1 CR
 Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam and composite restorations on dentofoms.
PREREQUISITES: DHYG 141
- 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.
PREREQUISITES: DHYG 142
- DHYG 214**
PRINCIPLES OF DENTAL HYGIENE V 3 CR
 Sequential course providing theoretical background in dental hygiene skills. Quality assurance, advanced instrumentation theory, periodontal files, planning dental hygiene treatment for special needs patients. Research paper, case studies.
- DHYG 216**
COMMUNITY ORAL HEALTH 1 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.
PREREQUISITES: DHYG 144
- DHYG 219**
ORAL PATHOLOGY 3 CR
 A study of oral diseases and manifestations of systemic diseases. Utilizes independent learning and internet resources.
- DHYG 221**
RESTORATIVE DENTISTRY VI 2 CR
 Laboratory experience with direct restorative dental materials. Placement, carving, finishing, and polishing of amalgam and composite restorations on dentofoms.
PREREQUISITES: DHYG 211
- DHYG 222**
DENTAL HYGIENE CLINICAL PRACTICE VI 8 CR
 Sequential course providing practice of dental hygiene skills. Problem solving and critical thinking related to patient assessment and management. Demonstration of professional growth and self assessment.
- DHYG 224**
PRINCIPLES OF DENTAL HYGIENE VI 3 CR
 Sequential course providing theoretical background in dental hygiene skills. Ethics and jurisprudence, current therapeutic trends, insurance coding, scheduling and patient recall, hygiene assisting and record keeping.
- DHYG 226**
COMMUNITY ORAL HEALTH II 4 CR
 Assessment indices, dental hygiene diagnosis. Program planning, funding and budgets; legislation. Cultural issues in public health. Implementation of a team community oral health project. Epidemiology and biostatistics related to community oral health.
PREREQUISITES: DHYG 216
- DHYG 228**
ORAL THERAPY 3 CR
 Philosophy and theoretical background of advanced periodontal therapy. Soft tissue management planning. Periodontal surgery techniques. Management of other oral conditions: implants, supportive perio therapy.
- DHYG 229**
DENTAL HYGIENE SEMINAR 1 CR
 Review and practice for the National Dental Hygiene Board Examination.
COREQUISITES: 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.
PREREQUISITES: DHYG 221
- 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.
- DHYG 234**
PRINCIPLES OF DENTAL HYGIENE VII 3 CR
 Sequential course providing theoretical background in dental hygiene skills. Focus is to meet needs of graduating dental hygiene students: current therapeutic trends, research, career opportunities and job search strategies. Financial planning, guest speakers. Dental practice act and licensure requirements. Application for board examinations. Specialized clinical skills.
- DHYG 236**
COMMUNITY ORAL HEALTH III 2 CR
 Careers in public health, table clinics or poster presentations. Involvement in local projects; community health program completion and evaluation. Leadership for community projects. Research.

DIESEL

DET 104 HYDRAULIC BRAKES 2 CR

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

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

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.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

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.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

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.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

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, 102, 103 MUST meet with the instructor to discuss DET 129 requirements.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

DET 139 APPLIED DIESEL CONCEPTS II 1 5 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.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

DET 202 DIESEL ENGINES 1 3 CR

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

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

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.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

DET 204 AIR BRAKES 5 CR

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

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

DET 205 SUSPENSION/STEERING 5 CR

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

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

DET 208 PREVENTIVE MAINTENANCE 6 CR

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

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103

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.

PREREQUISITES: TRANS 101, TRANS 102, TRANS 103, AENGL 100 or ENGL& 101, AMATH 100 or MATH& 107 or MATH& 141, CMST& 210 or PSYC& 100 with a grade of C (2.0) or better.

EARLY CHILDHOOD

ECED 120 CDA ESSENTIALS 1: INTRO TO ECE/HLTH, SAFETY, NUTRITION 4 CR

This course is one of the three courses that provides the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in this course include safe and healthy environments, ways children grow, and an introduction to early childhood. Fieldwork is required in addition to coursework.

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

ECED 121 CDA ESSENTIALS 2: CHILD DEV./LEARNING ENVIRONMENTS 4 CR

This course is one of three courses that provides 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.

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

ECED 122 CDA ESSENTIALS 3: WORKING WITH FAMILIES/PROFESSIONALISM 4 CR

This course is one of the three courses that provides the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in this course include family relationships, early childhood professionalism, and curriculum and portfolio development.

PREREQUISITES: 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, 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 2CR

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 & PRESCHOOL-ER DEVELOPMENT - LEVEL A 2 CR

Adults and children attend this course together in an instructional program that focuses on children's development within the context of caring for and teaching more than one child. Developmentally appropriate activities are planned for adults and children from birth to age five to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 156

ADULT/CHILD: TODDLER & PRESCHOOL-ER DEVELOPMENT - LEVEL B 2 CR

Adults and children attend this course together in an instructional program that focuses on children's

development within the context of caring for and teaching more than one child. Developmentally appropriate activities are planned for adults and children from birth to age five to do together in class. Topics include child development, language and literacy, play, guidance and discipline, nutrition, and health and safety.

ECED 157

ADULT/CHILD: TODDLER & PRESCHOOL-ER DEVELOPMENT - LEVEL C 2 CR

Adults and children attend this course together in an instructional program that focuses on children's development within the context of caring for and teaching more than one child. Developmentally appropriate activities are planned for adults and children from birth to age five to do together in class. 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 and teachers to help develop skills to guide and encourage children as they grow. Topics include information on understanding young children and their behavior, building self-esteem, effective communication, cooperation, discipline techniques, and emotional and social development.

ECED 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 1 CR

Based on the highly acclaimed Love and Logic philosophy developed by Jim Fay and Foster Cline, this class unlocks the secrets of successful parenting. Participants in this class will learn the specific

"how-to's" of successful parenting, not just theoretical concepts. The 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.

PREREQUISITES: 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.

PREREQUISITES: ECON& 201 with a C grade

ELECTRICIAN

ELCN 100

TRADE & SAFETY 2 CR

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

ELCN 101

DC CIRCUITS 4 CR

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

PREREQUISITES: AMATH 100 or MATH& 141 or concurrent

ELCN 102

AC CIRCUITS 3 CR

Prepares the electrician to diagnose and repair AC electrical circuits. Instruction emphasizes AC electrical theory, phase relationships with inductance, capacitance and resistance.

PREREQUISITES: ELCN 101 and AMATH 100 or MATH& 141

ELCN 103

ELECTRICAL DRAWINGS & BLUEPRINTS 2 CR

Introduction to and discussion of various types of electrical drawings, including wiring, schematic, line, and construction diagrams.

PREREQUISITES: ELCN 101 or concurrent

ELCN 104

GROUNDING & BONDING 2 CR

Standards, theory and application of grounding and bonding applied to electrical systems.

PREREQUISITES: ELCN 102, ELCN 112

ELCN 105

TRANSFORMERS, MOTORS & GENERATORS 4 CR

Theory and operation of rotating electrical machines and transformers.

PREREQUISITES: ELCN 102

ELCN 112

INTRODUCTION TO NATIONAL ELECTRICAL CODE 4 CR

Wire, conduit, and box size requirements of the National Electrical Code. Beginning branch circuit calculations.

ELCN 113

ADVANCED NEC CALCULATIONS 3 CR

National Electrical Code required calculations for occupancy loads, transformer and motor circuits, services, feeders and equipment rooms.

PREREQUISITES: ELCN 112

ELCN 125

ELECTRICAL APPLIED MECHANICS 4 CR

Studies introduce material strengths relating to forces, such as tension, shear, and torque. Students develop knowledge and skills through application of pulley ratios and levers. Instruction also covers properties of materials, such as solids, liquids and gasses. 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.

PREREQUISITES: ELCN 100, ELCN 101, ELCN 103 or concurrent

ELCN 132

AC CIRCUIT LAB 3 CR

AC electrical theory is examined and verified with

hands-on experiments utilizing standard test equipment

PREREQUISITES: ELCN 102, ELCN 131 or concurrent

ELCN 142

RESIDENTIAL WIRING PROJECTS 6 CR

Project based lab. Student crews complete electrical construction projects including a model house wiring installation.

PREREQUISITES: ELCN 101, ELCN 103, ELCN 125 or concurrent

ELCN 143

ELECTRICAL DISTRIBUTION 3 CR

Electrical lab installation of services, panel boards, switches, and feeders.

PREREQUISITES or COREQUISITES: ELCN 104, ELCN 105, ELCN 113

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.

PREREQUISITES: ELCN 103, ELCN 142

ELCN 201

ELECTRONICS FOR ELECTRICIANS 2 CR

Diagnose and repair of industrial control devices emphasizing electronic theory and industrial solid state devices.

PREREQUISITES: ELCN 102, ELCN 103

ELCN 202

MACHINE CONTROL FUNDAMENTALS 5 CR

Prepare for fabrication, diagnose and repair of industrial control devices emphasizing motor control theory, system wiring, and diagrams.

PREREQUISITES: ELCN 104, ELCN 105

ELCN 203

PLCS & VFDS 5 CR

This course is an in-depth study of programmable logic controllers including configuring hardware and software for controlling devices that drive industrial machinery.

PREREQUISITES: ELCN 201, ELCN 202

ELCN 214

SPECIAL OCCUPANCIES, EQUIPMENT & CONDITIONS 3 CR

Examine and locate the National Electrical Code requirements and limitations for specialized circumstances such as hazardous areas, healthcare, industrial locations, assembly areas, alternate energy sources, elevators, and commercial specialty equipment.

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 hands-on lab exploring the design and construction of motor control systems. Control circuits are fabricated in industrial enclosures using control relays, sensors and motor starters.

PREREQUISITES: ELCN 151

ELCN 262

SPECIALTY INDUSTRIAL WIRING PROJECTS 5 CR

This is an electrical construction lab class. Students will build projects utilizing a variety of standard industrial techniques.

PREREQUISITES: ELCN 261

ELCN 263

AUTOMATED CONTROL PROJECTS 6 CR

This is a hands-on lab, integrating motor controls, programmable logic controllers, variable frequency drives and industrial wiring distribution.

PREREQUISITES: ELCN 202, 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.

ELECTRO MECHANICAL

EMTEC 105

TRADE SAFETY 3 CR

The topics will be health and safety core rules, material safety data sheets, fall protection, confined spaces, Lock out/Tag out requirements, ladder, scaffolding and portable power tools, as well as navigating the Washington State Labor and Industries website. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry.

EMTEC 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 online with selected modules emphasizing hydraulic pumps, safety, compressed air basics and types of gauges.
PREREQUISITES: 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.
PREREQUISITES: EMTEC 121

EMTEC 125
APPLIED MECHANICS **5 CR**

This course introduces the student to fundamental mechanical concepts necessary for the installation, operation, and maintenance of industrial machinery.
PREREQUISITES: EMTEC 105 or concurrent

EMTEC 126
ENGINEERING GRAPHICS **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.
PREREQUISITES: 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.
PREREQUISITES: 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.

PREREQUISITES: EMTEC 126

EMTEC 180
MANUFACTURING COMPUTER APPLICATIONS **4 CR**

In this course, students are introduced to Micro-soft 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.
PREREQUISITES: 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.
PREREQUISITES: 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.
PREREQUISITES: 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.
PREREQUISITES: 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.
PREREQUISITES: EMTEC 215

EMTEC 218
INTRODUCTION TO NATIONAL ELECTRICAL CODE **2 CR**

Students are introduced to some of the common industrial applications of the National Electrical

Codes such as grounding, bonding, wire sizing, conduit selection, junction box selection, motor overload protection and current protection selection. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

PREREQUISITES: EMTEC 210

EMTEC 220
MICRO-CONTROLLERS **5 CR**

This course focuses on the application of micro-processors 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.
PREREQUISITES: 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.
PREREQUISITES: 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.
PREREQUISITES: 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.
PREREQUISITES: 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.

PREREQUISITES: 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.

PREREQUISITES: 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.

PREREQUISITES: EMTEC 210, EMTEC 220

ELECTRONICS

ELTR 100

DIRECT CURRENT I 4 CR

A thorough introduction 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.

PREREQUISITES: ETEC 150

ELTR 105

DIRECT CURRENT II 4 CR

The development of a working knowledge of the basic principles of DC electronics. The purpose and operation of such devices as resistors, capacitors, inductors and meters are covered in labs and theory.

PREREQUISITES: ELTR 100

ELTR 110

ALTERNATING CURRENT I 4 CR

An introduction and examination of the principles and applications of alternating current, including frequency, reactance, impedance, and resonance.

PREREQUISITES: ELTR 105

ELTR 115

ALTERNATING CURRENT II 4 CR

Students continue their exploration of AC with transformers and filter circuits (low-pass, high-pass, band-stop and band-pass), with theory and labwork.

PREREQUISITES: ELTR 110

ELTR 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.

PREREQUISITES: ELTR 115.

ELTR 125

SEMICONDUCTORS II 5 CR

This course introduces the student to various "building block" circuits including amplifiers, oscillators, and power supply circuits, through theory and labwork.

PREREQUISITES: ELTR 120

ELTR 130

OP-AMPS 1 3 CR

Explores the design and operation of basic operational amplifier circuits through theory and labwork to illustrate and confirm the design and operation of linear amplifiers, voltage and current converters, comparators and precision rectifiers.

PREREQUISITES: ELTR 125

ELTR 135

OP-AMPS 2 3 CR

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

PREREQUISITES: ELTR 130

ELTR 140

DIGITAL 1 5 CR

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

PREREQUISITES: ELTR 135

ELTR 145

DIGITAL 2 5 CR

Flip-flops, sequential logic, combination logic, semiconductor memory, data conversion and digital troubleshooting theory and practical labs help the student understand digital circuits and techniques.

PREREQUISITES: ELTR 140

ETEC 150

ELECTRONIC COMMUNICATIONS 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 PC.

ETEC 200

INTRODUCTION TO PROGRAMMING 5 CR

This course is designed for beginners. The goal is to make programming fun and learn how to build game applications. Primary emphasis of this course is to introduce Microsoft Small Basic by using the Microsoft Small Basic Development Environment. Topics include: text window applications, graphics window applications, looping, arrays and subroutines. Using objects such as clock, controls, shapes, mouse, timer, sound, text and ImageList to develop animation game programs.

PREREQUISITES: MATH&141

ETEC 212

MICRO-CONTROLLER SYSTEM I 6 CR

This course introduces the students to basic computer theory; Intel 808X microprocessor architecture, 68HC12 processor architecture and its instruction sets. Students will also be introduced to hardware design concepts for a stand-alone and an expanded system; the data address bus, control signals, microprocessor architecture, digital circuits and programming with emphasis in learning from a systems approach.

PREREQUISITES: ELTR 145, MATH& 141

ETEC 213

MICRO-CONTROLLER SYSTEM II 6 CR

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

PREREQUISITES: ELTR 212, MATH& 141.

ETEC 241
PHOTONICS & FIBER OPTIC **4 CR**

This course introduces the students to the basic concepts of light properties, index of refraction, light interactions on reflection and refraction plane surfaces or optical interface, a good understanding of how optical fiber devices work and practical implementation of fiber optic cabling for industrial applications, laser safety while applying theory into lab work and projects.

PREREQUISITES: ELTR 140

ETEC 245
MECHATRONICS I **5 CR**

This course introduces the students to open- and close-loop control systems; the microprocessor-based control; 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.

PREREQUISITES: ELTR 145, MATH& 141

ETEC 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.

PREREQUISITES: ETEC 245, MATH& 141

ETEC 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.

PREREQUISITES: ELTR 145, MATH& 141

ETEC 255
CIRCUIT SIMULATION/FPGA **6 CR**

This course focus in two areas: 1) Multisim provides the SPICE simulation and prototyping tools for reliable analog/digital circuit design and schematic capture. 2) Using HDL or VHDL to create simple logic gates and simulate logical functions and synthesizer the timing diagram.

PREREQUISITES: ELTR 140

ETEC 264
EMERGING TECHNOLOGY **4 CR**

This course is designed to keep students current with technology. Currently this course is an introduction to nano-technology, solar cells and fuel cell (PEM) technologies. Students will learn the characteristics and the efficiency of the solar and PEM fuel cell. Applications of nano-technology in the field of electronics, medicine, and pharmaceuticals will be examined. This course will change as

new emerging technologies move to the forefront.

PREREQUISITES: ELTR 145, MATH& 141

ETEC 281
ROBOTICS **5 CR**

This course teaches students the basic concepts of robot technology, including major elements in a robotic system, understanding a robot's linkages and joint-spherical geometry and motion transfer from axis motors plus programming robot motion.

PREREQUISITES: ELTR 145, MATH& 141

ETEC 282
CERTIFIED ELECTRONICS TECHNICIAN TEST PREP **3 CR**

This course prepares students for the nationally recognized Certified Electronics Technician (CET) Test.

ETEC 290
CAPSTONE PROJECT I **2 CR**

This capstone project I is one of the three part series. This course emphasizes 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' proposals must be completed and approved by their program instructors before the next capstone project.

PREREQUISITES: ELTR 140

ETEC 291
CAPSTONE PROJECT II **2 CR**

This capstone project II is the second phase of the three-part series. This course emphasizes construction, test and evaluation for the students' projects. Topics include: procurement with critical components, prototype testing and evaluation, a PowerPoint presentation to highlight critical paths and challenges, alternative solutions to meet schedule delivery and overall accomplishments.

PREREQUISITES: ETEC 290

ETEC 292
CAPSTONE PROJECT III **2 CR**

This capstone project III is the final phase of the overall project. This course emphasizes delivery. 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.

PREREQUISITES: ETEC 291

ETEC 294
WORK BASED LEARNING **3 CR**

This optional course gives the student hands-on work experience with an electronics employer.

PREREQUISITES: Instructor permission

ETEC 295
WORK BASED LEARNING **6 CR**

This optional course gives the student hands-on work experience with an electronics employer.

PREREQUISITES: Instructor permission

EMERGENCY MEDICAL TECHNICIAN

EMS 121
EMT I FUNDAMENTALS OF EMERGENCY CARE **4 CR**

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

EMS 122
EMT II MEDICAL DISORDERS 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.

EMS 123
EMT III TRAUMATIC EMERGENCIES AND SPECIAL CIRCUMSTANCES **4 CR**

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

ENGINEERING

ENGR& 204
ELECTRICAL CIRCUITS **4 CR**

Introduces fundamental concepts of electrical science. Topics include resistors, sources, capacitors, inductors, and operational amplifiers as individual components and as circuit systems. Also covers simultaneous algebraic equations and differential equations in solution methods.

PREREQUISITES: MATH& 142 and PHYS 122.

ENGR& 214
STATICS **4 CR**

Explores principles of statics, vector algebra, force-couple relationships, equilibrium analysis, structures, area properties, beams, and friction.

PREREQUISITES: PHYS 121

ENGR& 215
DYNAMICS **4 CR**
 Surveys the dynamics of particles and rigid bodies using vector analysis. Specific topics include kinematics, kinetics, momentum, and energy principles for particles and rigid bodies, as well as Euler's Equations of Motion.
PREREQUISITES: ENGR& 214.

ENGR& 224
THERMODYNAMICS **4 CR**
 Introduces basic principles of thermodynamics from a predominately macroscopic point of view. Topics include the basic laws of thermodynamics as relating to energy transformations and state changes in engineering problems. Recommended: CHEM& 161 and MATH& 152

ENGINEERING TECHNOLOGY

ENGT 121
DRAFTING I **6 CR**
 This course is an introduction to engineering drawing and graphics technology. Topics include sketching and drafting techniques, drafting concepts and terminology, methods for improving visualization skills, standards for object views and drawing sizes, and proper usage of drafting equipment to construct geometric shapes and mechanical drawings.

ENGT 122
CAD I: BASICS **6 CR**
 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 123
DESCRIPTIVE GEOMETRY **6 CR**
 This course presents step-by-step graphical techniques for solving 3D spatial problems. Students will develop and enhance their spatial visualization skills while learning specific topics such as projection methods, determining the true length of a line and true shape of a plane, and finding the intersection between lines and planes in space. Students will also gain an appreciation for how such techniques are applied to various engineering disciplines including mechanical, piping, civil, structural and HVAC.
PREREQUISITES: ENGT 121, ENGT 122

ENGT 125
DRAFTING II: ADVANCED CONCEPT & STANDARDS **8 CR**
 This course is a continuation of the mechanical engineering graphic technology foundation. It utilizes

es CAD to develop advanced drawing techniques in accordance with industry standards. Instruction includes projection techniques for intersecting irregular surfaces, the purpose and proper application of auxiliary views, various manufacturing processes and their relationship to dimensioning and design, and methods for applying dimensions and tolerances to drawings according to ANSI standards.
PREREQUISITES: ENGT 123

ENGT 126
CAD II: INTERMEDIATE APPLICATIONS **7 CR**
 This course is a continuation of CAD I and utilizes intermediate drawing and editing tools. Coursework includes generating and editing dimensions and tolerances in CAD, methods for creating isometric drawings, use and application of multiple viewports, advanced techniques for printing/plotting to scale, and applications and procedures for creating attributed blocks.
PREREQUISITES: ENGT 123

ENGT 132
ENGINEERING APPLICATIONS USING MS OFFICE **5 CR**
 This course focuses on applied projects to exercise higher level spreadsheet and word processing skills. Projects include utilization of mathematical and logical functions on multiple linked sheets, document formatting and headers/footers, generation of charts, graphs, and tables, automated document production, graphics and drawing tools, and toolbar customization and custom button macros.
PREREQUISITES: CAP 101, ENGT 122

ENGT 152
ESTIMATING AND SCHEDULING **5 CR**
 An introduction to the construction process, project scheduling, and estimation of concrete, rebar, and earthwork quantities.
PREREQUISITE: ENGT 251

ENGT 153
INTERMEDIATE GIS **7 CR**
 An introduction to desktop mapping, focusing on the use of ArcView software in Geographic Information Systems applications.
PREREQUISITES: ENGT 122, SURV 140

ENGT 156
EARTHMOVING FUNDAMENTALS **5 CR**
 An introduction to earthmoving production fundamentals of construction equipment. The production of heavy equipment, including excavators, scrapers, trucks, bulldozers, and front end loaders is examined from a production perspective. In addition, earthwork conversions to and from loose cubic yards, bank cubic yards, and compacted cubic yards is introduced.
PREREQUISITES: ENGT 251

ENGT 210
CAD III: ADVANCED APPLICATIONS **6 CR**
 A continuation in the series of CAD courses,

coursework involves utilizing advanced drawing, editing, and customization techniques. Topics include data exchange using various file formats, creation and editing of tables, external references, writing script files for repetitive tasks, custom line types and hatch patterns, and menu customization.
PREREQUISITES: ENGT 125, ENGT 126

ENGT 211
PROJECT DESIGN 1- 3D MODELS & WORKING DRAWINGS **4 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 designs. Each student will generate a complete working drawing set for their assembly including engineering details, assembly drawings, and bill of materials in accordance with industry standards.
PREREQUISITES: ENGT 125, ENGT 126, ENGT 220 or concurrent

ENGT 212
PROJECT DESIGN 2 **4 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 member based on strength of materials, geometric and trigonometric calculations, data exchange, etc..
PREREQUISITES: ENGT 125, ENGT 126, ENGT 220

ENGT 213
PROJECT DESIGN 3 **4 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 designs. In contrast to previous project design courses, students draw on skills developed throughout the entire program to tackle more complex part modeling and assembly techniques. Students will generate a complete working drawing set for their assembly including engineering details, assembly drawings, and bill of materials in accordance with industry standards. A portfolio including preliminary sketches, detail drawings, and assembly drawings will be submitted.
PREREQUISITES: ENGT 125, ENGT 126, ENGT 220

ENGT 215
STATICS **9 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.
PREREQUISITES: MATH& 142 or instructor permission

ENGT 216

STRENGTH OF MATERIALS 7 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.

PREREQUISITES: ENGT 215

ENGT 220

PARAMETRIC MODELING 7 CR

This course is an introduction to 3D solid modeling with an emphasis in parametric CAD applications and instruction on its usage. Topics include methods for creating solid model components, joining components to form assemblies, and generation of 2D manufacturing drawings from 3D solid models.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 223

STRUCTURAL DETAILING 6 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 AutoCAD Structural Detailing software to create 3D design models. The 3D design models will be subsequently used to generate structural member detail drawings.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 224

PROCESS PIPING DESIGN 8 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.

PREREQUISITES: ENGT 125, ENGT 126

ENGT 251

AUTOCAD CIVIL 3D I 7 CR

Study and use of the Civil Engineering and Survey industry-specific CAD software for computer aided drafting. Focuses on land development and survey applications with AutoCAD on Civil/Survey specific software applications.

PREREQUISITES: ENGT 122, SURV 102 or instructor permission

ENGT 252

AUTOCAD CIVIL 3D II 7 CR

Study and use of the Civil Engineering and Survey Industry specific CAD software for computer aided drafting. Focuses on roadway and infrastructure design with AutoCAD on Civil/Survey specific software applications.

PREREQUISITES: ENGT 251

ENGT 253

AUTOCAD CIVIL 3D III 7 CR

Study and use of the civil engineering and survey industry specific CAD software for computer-aided drafting. Focuses on land development and grading with AutoCAD on civil/survey specific software applications.

PREREQUISITES: ENGT 252

ENGT 256

STANDARDS, SPECIFICATIONS, & CODES 3 CR

This course provides an introduction to the as-built process and current civil improvement inspection practice. The course focuses on field measurements and inspection during and after construction of sewer, water, storm, and roadway civil improvements.

PREREQUISITES: ENGT 251

ENGT 258

CONSTRUCTION MATERIALS 7 CR

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.

PREREQUISITES: ENGT 156

ENGLISH

RDG 085

READING SKILLS 5 CR

This course focuses on developing technical/college-level reading skills, including comprehension, vocabulary in context, locating main ideas, making inferences, outlining, and summarizing content.

PREREQUISITES: 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

ENGL 092

FUNDAMENTALS OF ENGLISH 5 CR

This course focuses on the fundamentals of college-level standard written English. Coursework includes a study of the conventional grammatical

rules of English in the construction of effective sentences and paragraphs, leading to the practice of crafting an essay. Critical readings of paragraphs and short essays are also part of the curriculum.

PREREQUISITES: Accuplacer Reading Comprehension score of 50 or a P grade in ABE 054, and Accuplacer Sentence Skills score of 50 or a grade P in ABE 052

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.

PREREQUISITES: 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.

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

PREREQUISITES: ENGL& 101 with a C or above

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 with 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.

PREREQUISITES: ENGL& 101 with a C grade

ENGLISH AS A SECOND LANGUAGE

ESL 030

BEGINNING ESL: RDG/WR A 2 CR

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

ESL 031

BEGINNING ESL: RDG/WR B 3 CR

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

ESL 032

BEGINNING ESL: SPK/LI A 2 CR

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

ESL 033

BEGINNING ESL: SPK/LI B 3 CR

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

ESL 040

INTERMED ESL: RDG/WR A 2 CR

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

basic verb tenses; and completing forms and applications.

ESL 041

INTERMEDIATE ESL: RDG/WR B 3 CR

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

ESL 042

INTERMEDIATE ESL: SPK/LI A 2 CR

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

ESL 043

INTERMEDIATE ESL: SPK/LI B 3 CR

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

ESL 050

ADVANCED ESL: RDG/WR A 2 CR

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

ESL 051

ADVANCED ESL: RDG/WR B 3 CR

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

ESL 052

ADVANCED ESL: SPK/LI A 2 CR

This course is designed for adults who can speak fluently and accurately with some support in settings that may not be entirely familiar and can comprehend relatively unstructured conversations. Emphasis is on communicating effectively,

face-to-face and on the phone; applying critical thinking skills; and making oral presentations.

ESL 053

ADVANCED ESL: SPK/LI B 3 CR

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

ENVIRONMENTAL SCIENCE

ENVS& 101

FUNDAMENTALS OF ENVIRONMENTAL SCIENCE 5 CR

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

PREREQUISITES: Accuplacer Reading Comprehension score of 85 or B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100

FISHERIES & AQUACULTURE

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.

AQSCI 225

FISHERIES TECHNIQUES I 8 CR

These introductory courses focus on common methods of fish enumeration, tagging, mark and

recapture, and estimation of escapement. Topics include coded wire tag recovery and reading, otolith recovery and reading, scale sampling and age determination, and spawning grounds surveys.

AQSCI 226

FISHERIES TECHNIQUES II 8 CR

These introductory courses focus on common methods of fish enumeration, tagging, mark and recapture, and estimation of escapement. Topics include coded wire tag recovery and reading, otolith recovery and reading, scale sampling and age determination, and spawning grounds surveys.

AQSCI 266

AQUATIC HABITAT 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.

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 students 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.

PREREQUISITES: First-year status

FISH 161

FISH AQUACULTURE TECHNIQUES 6 CR

This lecture and 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

Students will work in hatcheries to gain experience by rearing fingerlings in ponds and net pens. Other hatchery equipment will be utilized.

PREREQUISITES: 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.

PREREQUISITES: FISH 133 or FISH 170

FISH 195

FISHERIES INTERNSHIP 6 CR

This course provides practical application through work experience for students in a field of their choice with employees in the industry. Students will be able to demonstrate their skills and work habits to prospective employers.

PREREQUISITES: FISH 133 or FISH 170

FISH 196

FISHERIES CURRENT TOPICS II 4 CR

In consultation with the instructor, students will develop customized objectives and individualized projects to increase their skills and knowledge in specific areas of current fisheries technology.

PREREQUISITES: FISH 133 or FISH 170

FISH 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.

PREREQUISITES: FISH 133 or FISH 170

FISH 236

SPAWNING TECHNIQUES II 6 CR

Students will employ proper fish spawning techniques according to state, federal and private hatchery procedures. They will transport eggs and milt, sterilize eggs, and use a Moist Air Incubation Unit to eye eggs and mark otoliths.

FISH 270

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

Designed for the second-year student, this course presents topics in the field of aquatic ecology. Current topics include fisheries management, ichthyology, marine conservation reserves, stream habitat restoration, environmental conservation research, and public lands.

FISH 297

AQUATIC ECOLOGY CURRENT TOPICS II 4 CR

Designed for the second-year student, this course presents topics in the field of aquatic ecology. Current topics include fisheries management, ichthyology, marine conservation reserves, stream habitat restoration, environmental conservation research, and public lands.

FTEC 200

APPLIED CONCEPTS I 10 CR

The student will focus on one of five specialty areas: hatchery technician, fisheries technician,

shellfish technician, net pen worker, or habitat enhancement technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 250
APPLIED CONCEPTS II **10 CR**
The student will focus on one of five specialty areas: hatchery technician, fisheries technician, shellfish technician, net pen worker, or habitat enhancement technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 255
FIELD PROJECTS II **4 CR**
The student will do an internship in one of the following specialty areas: hatchery technician, fisheries technician, shellfish technician, net pen worker, or habitat enhancement technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

GENERAL EDUCATION DEVELOPMENT

GED 040
GED PREP: FAST TRACK A **2 CR**
This GED preparation course includes instruction in reading, writing and math as well as the content areas of social studies, science, arts, and literature. Emphasis is placed on GED test-taking skills, reasoning skills, and critical thinking skills.

GED 041
GED PREP: FAST TRACK B **3 CR**
This GED preparation course includes instruction in reading, writing and math as well as the content areas of social studies, science, arts, and literature. Emphasis is placed on GED test-taking skills, reasoning skills and critical thinking skills.

GED 042
GED & BEYOND: RDG/WTG **3 CR**
This course provides instruction in ABE and GED levels of reading and writing as well as college success and career planning. Upon completion, students are prepared to enter Essential Reading and/or Essential Writing.

GED 043
GED & BEYOND: MATH **3 CR**
This course provides instruction in ABE and GED levels of math as well as college success and career planning. Upon completion, students are prepared to enter Essential Math.

HEALTH & SAFETY

HLTH 103
CPR: ADULT HEARTSAVER **.5 CR**
This AHA three-hour course includes adult one-person CPR, obstructed airway techniques, and discussion on barrier devices. Skills Completion and written exam are required for card. Pocket mask required. Card is valid for two years.

HLTH 131
HIV/AIDS: FOR COUNSELORS AND HEALTH PROFESSIONALS **.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
7-HOUR HIV/AIDS **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 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 it 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.

HEALTH OCCUPATIONS

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 a background in medical terminology and anatomy and physiology, either through previous schooling or work-related experience. Manual dexterity to perform skills is essential for the successful completion of the course. A supply kit and

book must be purchased in the bookstore prior to the course.

PREREQUISITES: Program admission

HT 120
MEDICAL INSURANCE BILLING **5 CR**
This course focuses on insurance billing procedures; billing requirements in relation to insurance companies, clinics, and physicians' offices; and insurance coding to include CPT and ICD-9-CM codes. Students will learn skills that will enable them to process insurance claims. Other subjects include basic health office duties as related to medical insurance, accounts receivable, and collection techniques.
PREREQUISITES: BIO 105, BIO 127, HT 126 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.
PREREQUISITES: Accuplacer Reading Comprehension and Sentence Skills scores of 71 or higher

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 those medications commonly prescribed in the medical office setting.
PREREQUISITES: BIO 105, BIO 127, HT 126

HT 160
PHLEBOTOMY EXTERNSHIP **3 CR**
Per the requirements of WAC 246-826-130, the phlebotomy student will demonstrate competency and be evaluated in a laboratory setting to perform venipuncture procedures successfully, utilizing appropriate equipment with correct technique in a medical lab setting, all within approved medical safety standards.
PREREQUISITES: HO 157

HT 230
MEDICAL CODING - ICD-9 **3 CR**
Learn to assign codes in medical/health records to ensure accurate and complete reimbursement documentation. The focus will be on ICD-9 codes with some discussion of CPT codes.
PREREQUISITES: BIO 105, BIO 127, HT 126

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.
PREREQUISITES: BIO 105, BIO 127, HT 126

HT 265

MEDICAL CODING AND BILLING PRACTICUM 5 CR

This course uses the information learned in medical insurance billing and coding to 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.

PREREQUISITES: HT 230, HT 240

HT 270

EXCEL FOR THE MEDICAL OFFICE 3 CR

This course will teach the basics of MS Excel as it relates to functions commonly used in the medical office. Students will learn efficient use of a spreadsheet in order to create records pertinent to the medical office, such as patient and insurance information, operational and capital budgets, tracking quality indicators and productivity by person, and tracking delinquent and incomplete records by type. Text required.

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.

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 students' individual work on projects in this course.

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 book work are supplemented by students' individual work on projects in concurrent course, CREF 127. Proper electrical codes are observed in the coursework.

PREREQUISITES: CREF 122, CREF 123

CREF 127

FUNDAMENTALS LAB II 5 CR

This course provides the opportunity to use the fundamentals of electricity, tools and equipment, controls, motors, electrical theory. Emphasis is placed on safe use of electricity while building electrical circuits on an electrical trainer and refrigeration trainer. Lectures in the concurrent course, CREF 126, are supplemented by student's individual work on projects in this course.

PREREQUISITES: CREF 122, CREF 123

CREF 132

COMMERCIAL SELF CONTAINED SYSTEMS 5 CR

This course 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 CREF 133.

PREREQUISITES: Completion of CREF 120 series

CREF 133

COMMERCIAL SELF CONTAINED SYSTEMS LAB 5 CR

This course presents medium and low temperature refrigeration systems and equipment used in commercial applications. Emphasis is placed on troubleshooting techniques on live equipment as installed in industry. The concurrent course, CREF 132, is supplemented by students' individual work on projects in this course.

PREREQUISITES: 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.

PREREQUISITES: CREF 133

CREF 137

COMMERCIAL ICE SYSTEMS LAB 4 CR

This course applies 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 manufacturers' designs, as all are different. The student will verify proper production, learn how to build a wiring schematic, identify faults inserted by instructor, and repair. Maintenance and proper cleaning and sanitation are also stressed in the coursework.

PREREQUISITES: 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. Students will prepare

and deliver a presentation to their peer group on one selected brand and model of ice machine and essentially teach the peer group on the aspects of installation, wiring, sequence of operation and maintenance. Steps included in this lesson are research, public speaking, audio/visual aids, audience participation and self/peer-evaluation.

PREREQUISITES: 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.

PREREQUISITES: CREF 132 -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.

PREREQUISITES: CREF 132 - 139, CREF 141

CREF 145

DUCT LAYOUT & FABRICATION 4 CR

This entry level fabrication course prepares students for the HVAC sheet metal installation industry. Parallel line, radial line, and triangulation layout techniques are utilized to develop sheet metal patterns of common fittings used in the installation of HVAC systems. Students will apply these techniques in the lab and fabricate assigned fittings.

PREREQUISITES: CREF 132 - 139

CREF 147

APPLIED AIR CONDITIONING SYSTEMS 4 CR

This course prepares the learner to install, start-up, troubleshoot and diagnose problems in comfort cooling air conditioning systems. Emphasis is given to wiring techniques, proper refrigeration piping, controls, start-up and maintenance.

PREREQUISITES: CREF 132 - 139, CREF 145

CREF 149

APPLIED HEAT PUMP SYSTEMS 4 CR

This course prepares the learner to install, start-up, troubleshoot and diagnose problems in residential and commercial heat pump systems. Emphasis is given to wiring techniques, proper refrigeration piping, controls, start-up and maintenance. Integration of auxiliary heat components, balance point identification, cost analysis to other fuels, and geothermal systems are all introduced and applied in the lab.

PREREQUISITES: CREF 132 -139, CREF 141-147

CREF 221

ELECTRIC HEATING TECHNOLOGY 4 CR

This course introduces electricity as a heat source for stationary and forced air systems. Emphasis is placed on electrical safety, BTU calculations, and airflow calculations, cost analysis, wiring diagrams, and troubleshooting techniques. Classroom discussion and hands-on lab activities are designed to enable students to quickly identify system problems and propose solutions.

PREREQUISITES: CREF 132 - 139

CREF 223

GAS HEATING TECHNOLOGY 7 CR

This course provides hands-on theory and application of forced air and stationary gas heating systems used in residential and light commercial buildings. Natural gas (methane) and LPG systems are discussed and implemented. Emphasis is placed on diagnosis and troubleshooting techniques for service technicians.

PREREQUISITES: CREF 132 - 139, CREF 221

CREF 225

FUEL OIL HEATING TECHNOLOGY 4 CR

This course provides hands-on theory and application of oil fired heating systems in homes and commercial buildings. Proper system installation, set-up, diagnosis, and troubleshooting techniques are emphasized.

PREREQUISITES: CREF 132 - 139, CREF 221 - 223

CREF 227

HYDRONIC HEATING TECHNOLOGY 5 CR

This course explores the use of hydronics to heat residential and commercial buildings. Students will apply proper tools and techniques to identify components, design, install, maintain and troubleshoot problems in hydronic heating systems for residential and commercial use. Radiant heat systems and most types of commercially available fuels are utilized.

PREREQUISITES: CREF 132 - 139, CREF 221 - 225

CREF 231

COMMERCIAL/INDUSTRIAL REFRIGERATION APPLIED COMPONENTS 5 CR

This course expands on commercial refrigeration systems presented in CREF 132-139. Industrial systems such as chillers for RSW, supermarket refrigeration, commercial chillers for process control, industrial open drive compressors, and associated components are studied. Each ancillary component is analyzed for compatibility, proper selection, operation, need, energy savings and equipment reliability. Wiring diagrams are emphasized and diagnosis of failed components is also addressed. How the system operates as a whole is critical and students are encouraged to research new and innovative applications for these systems.

PREREQUISITES: CREF 227, AMATH 100, AENGL 100
COREQUISITES: CREF 233

CREF 233

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

PREREQUISITES: AMATH 100, AENGL 100

COREQUISITES: CREF 231

CREF 237

COOLING TOWERS & WATER TREATMENT 1 CR

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

PREREQUISITES: 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 students' individual and group work on projects.

PREREQUISITES: 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.

PREREQUISITES: 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 lab course CREF 242.

PREREQUISITES: CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210

COREQUISITES: CREF 242

CREF 242

CONTROL THEORY LAB 5 CR

This course presents the student with opportunities to apply knowledge gained in concurrent course, CREF 241. System start-up, proper operation, calibration and electrical safety and codes are

emphasized. Students work individually and in teams on projects.

PREREQUISITES: CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210 or

COREQUISITES: CREF 241

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.

PREREQUISITES: 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, 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 are requirements to become certified.

PREREQUISITES: CREF 120 series, CREF 130 series, CREF 140 series, CREF 220 series, CREF 230 series, CMST& 210

CREF 247

JOB, INTERNSHIP & NATIONAL TESTING PREP 5 CR

This course prepares students with the necessary skills to successfully create a professional resume and cover letter, and practice interviewing for employment and research companies. An internship opportunity to gain on-the-job experience is required as part of this course and often leads to a permanent position. Preparation and review for ARI national testing is also included as part of this course.

PREREQUISITES: CREF 120 series, 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.
PREREQUISITES: HIST& 146 with a C grade.

HYPNOTHERAPY

HYPN 101
BASIC HYPNOSIS - LRNG FOR HEALTHCARE FIELD 5 CR
 A course which teaches basic hypnosis/self-hypnosis, and is the first in a three-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 three-part series that is designed to teach the serious student of hypnosis how to apply hypnotherapy techniques for motivation and goal achievement.
PREREQUISITES: HYPN 101

HYPN 103
ADVANCED HYPNOTHERAPY TECHNIQUES 5 CR
 This course is the third in a three-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.
PREREQUISITES: HYPN 102

HYPN 104
PREPARING FOR A HYPNOTHERAPY PRACTICE 2 CR
 This course will provide additional hands-on experience through supervised practice for students who have received the BTC Hypnotherapy program certificate and will assist hypnotherapist to gain confidence and prepare 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.
PREREQUISITES: HYPN 103

INSTRUMENTATION

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.
PREREQUISITES OR COREQUISITES: MATH& 141 or instructor permission

INST 205
JOB PREPARATION I 1 CR
 Preparation for employment including resume preparation, cover letter writing, job search engine use, and interviewing skills.
PREREQUISITES: MATH& 141, INST 200 or instructor permission

INST 206
JOB PREPARATION II 1 CR
 This course teaches 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.
PREREQUISITES: MATH& 141, INST 205 or instructor permission

INST 230
MOTOR CONTROLS 3 CR
 In this course you will learn the theory of electric motor operation and the practice of wiring and configuring electric motor control circuits. Coverage of DC and three-phase AC electric motor controls, as well as variable-frequency AC motor drives is included in this course.
PREREQUISITES OR COREQUISITES: MATH& 141, ELTR 125

INST 231
PLC PROGRAMMING 3 CR
 In this course you will learn how to wire, configure, and program programmable logic controllers (PLCs) to perform useful control functions.
PREREQUISITES: MATH& 141
COREQUISITES: INST 230

INST 232
PLC SYSTEMS 3 CR
 In this course you will apply programmable logic controllers (PLCs) to the control of real processes, as well as learn to effectively test and troubleshoot PLC-controlled systems.
PREREQUISITES: MATH& 141
COREQUISITE 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.
PREREQUISITES: MATH&141, INST 232 or concurrent

INST 240
PRESSURE AND LEVEL MEASUREMENT 6 CR
 In this course the student will learn how to precisely measure both fluid pressure and fluid/solids level in a variety of applications, as well as accurately calibrate and efficiently troubleshoot pressure and level measurement systems.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: 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.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: 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. A review of INST 240 and INST 241 is also included in this course.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: 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, motors, and other actuating devices. You will also learn how fluid power systems work and how to efficiently troubleshoot final control elements.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 200

INST 251
PID CONTROL 5 CR
 This course teaches you how the most basic and widely-used control algorithm, proportional-integral-derivative (PID), works. In this course you will see how the PID algorithm is implemented in pneumatic as well as electronic controllers and also how to tune a PID controller for stability.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 250

INST 252
LOOP TUNING **4 CR**
 This course teaches more advanced loop tuning techniques as well as advanced process control strategies including cascade, feed forward, ratio, and model-based control algorithms. You will also explore common types of controlled processes found in industry to see how these algorithms are practically applied. A review of INST 250 and INST 251 is included in this course.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 251

INST 260
DATA ACQUISITION SYSTEMS **4 CR**
 This course reviews digital communication and analog/digital conversion theory learned in the first year core electronics courses, building upon that foundation to explore industrial data buses, including Etherne, and indicating, data logging, and SCADA systems.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 200

INST 262
DCS AND FIELDBUS **5 CR**
 This course teaches the basic principles of distributed instrumentation, including both distributed control systems (DCS) and Fieldbus instruments. Safety instrumented system (SIS) concepts and components are also covered here.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 260

INST 263
CONTROL STRATEGIES **5 CR**
 This course teaches the theory and practical application of process control strategies including cascade, feedforward, selector, and override controls. You will also explore common types of controlled processes found in industry to see how these algorithms are practically applied. A review of INST 260 and INST 262 is included in this course.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 262

INST 290
INTERNSHIP **5 CR**
 This optional elective course provides work experience in related industry, refining technical and workforce skills in a work environment. The specific student's performance skills will be developed for each individual student internship. Clock hours are variable and may be repeated for clock hour credit.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 200 or instructor permission

INST 292
INTERNSHIP **10 CR**
 This optional elective course provides work experience in related industry, refining technical and workforce skills in a work environment. The specific student's performance skills will be developed for each individual student internship. Clock

hours are variable and may be repeated for clock hour credit.
PREREQUISITES: MATH& 141 and/or
COREQUISITES: INST 200 or instructor permission

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 have skills in Microsoft Word before enrolling in this course.
PREREQUISITES: 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 is not listed in classified advertisements or job search engines. Students will apply for positions in their field of interest and provide feedback from their experiences.

LEGAL

LGL 127
LEGAL OFFICE PROCEDURES **5 CR**
 Designed to introduce students who have little or no background in the legal field with the terminology, background, and knowledge of the legal procedures required to work in a law office. It presents basic legal concepts and the various fields of law and outlines the preparation of documents commonly used in those fields. Student projects give the students practice in various areas of law.
PREREQUISITES or COREQUISITES: CAP 106, LGL 132

LGL 132
LEGAL TERMINOLOGY **5 CR**
 Designed to help students learn the legal terminology, English skills, legal formatting skills, and transcription guidelines needed to transcribe accurate legal documents in a law office.

LGL 211
LEGAL DOCUMENT PROCESSING **5 CR**
 This course makes use of a self-contained comprehensive job simulation designed to give students practice on the types of activities most often performed in legal office settings. Students gain hands-on exposure to the various types of law while formatting documents. Word processing

functions are incorporated into the course.
PREREQUISITES or COREQUISITES: CAP 106, LGL 132

LGL 223
INTERNSHIP **3 CR**
 Students will work in a legal-related job receiving pay or as a volunteer.
PREREQUISITES: Instructor permission

LGL 226
INTERNSHIP **6 CR**
 Students will work in a legal office-related job receiving pay or volunteering.
PREREQUISITES: Instructor permission

MACHINING

MACH 100
INTRODUCTION/SAFETY/ ENVIRONMENT **1 CR**
 This course will provide the student with an overview of the Machine Technology program, college and program policies and procedures, student equipment requirements, machine occupations and material safety data.
PREREQUISITES: Program enrollment

MACH 101
MACHINE THEORY I **2 CR**
 This course is designed to cover basic machine tool operation and safety on grinders, lathes, and drills.
COREQUISITES: MACH 119

MACH 102
MACHINE TECHNOLOGY II **2 CR**
 This course covers saws, surface grinders, milling machines, operation, setup, speeds, feeds and accessories.
PREREQUISITES: MACH 100, MACH 101, MACH 120

MACH 113
MACHINERY'S HANDBOOK I **1 CR**
 An introduction to the use of the Machinery's Handbook, how to research, identify, and find basic information.

MACH 119
MACHINE FUNDAMENTALS I A **5 CR**
 This lab course provides for basic experience using pedestal grinders, hand tools, metal cutting drills, and lathes.
COREQUISITES: MACH 101

MACH 120
MACHINE FUNDAMENTALS I B **5 CR**
 Building on the knowledge acquired in MACH 119, this course provides additional training and opportunities for students to apply knowledge and skills in the shop environment by using lathes, grinders and drill presses.
PREREQUISITES: MACH 119

MACH 122
MACHINE FUNDAMENTALS II 2 CR
 This lab course is a continuation of Machine Fundamentals I, exploring the set up and operation of saws, manual mills, and precision grinders.
PREREQUISITES: MACH 120

MACH 123
MACHINE FUNDAMENTALS III 5 CR
 This lab course is taken in conjunction with MACH 244. The student will manufacture parts programmed in Mastercam.
PREREQUISITES: MACH 122

MACH 131
BLUEPRINT READING I 4 CR
 This course provides instruction for development in print reading using basic sketching techniques, lettering, dimensioning, lines and makeup of a print as a form of communication.
COREQUISITES: Mach 120

MACH 132
BLUEPRINT READING II 4 CR
 This course covers thread forms and specifications, metric dimensions and symbols, geometric tolerances and gear formulas.
PREREQUISITES: MACH 131

MACH 143
CAD FOR MACHINING 5 CR
 This course is an introduction to CAD (Computer Aided Design) with emphasis on machining applications. Students have immediate hands-on computer usage while applying basic command concepts and terminology. These include basic drawing and editing techniques, and are reinforced with exercises and practice tests designed to help students reach an in-depth understanding.

MACH 201
MACHINE TECHNOLOGY III 3 CR
 Covers precision measuring tools, metal cutting technology, carbide cutting tools, and advanced grinding operations.
PREREQUISITES: MACH 102

MACH 221
MACHINE FUNDAMENTALS IV 5 CR
 This lab course includes advanced instruction in turning, milling and grinding machines. Also gear cutting, along with the selection and use of carbide cutting tools, will be emphasized.

MACH 222
MACHINE FUNDAMENTALS V 10 CR
 This lab course includes advanced instruction of turning, milling, and grinding machines. The selection and use of carbide cutting tools will be emphasized.
PREREQUISITES: MACH 221

MACH 241
INTRODUCTION TO CNC MACHINING 8 CR
 This course teaches the operation and programming of the HAAS CNC lathe and the Bridgeport EZ Trac milling machine. Also taught is the basic rapid, linear and circular G codes needed for machine operation.

MACH 242
CNC PROGRAMMING AND OPERATION 8 CR
 This course teaches complete manual programming and operation of the CNC milling machine and also basic computer commands.
PREREQUISITES: MACH 132, AMATH 100

MACH 243
CNC-CAD/CAM PROGRAMMING & OPERATIONS 10 CR
 Course focuses on advanced programming related to CNC, including macros and subroutines and computer-aided programming using the Master CAM programming system.

MACH 244
CNC CAM PROGRAMMING & OPERATION A 6 CR
 This course covers Mastercam programming techniques including: basic 2D geometry, toolpath fundamentals (drilling and milling), engraving, and editing.
COREQUISITES: MACH 123

MACH 245
CNC CAM PROGRAMMING & OPERATION B 5 CR
 This course is a continuation of MACH 244. It covers creating lathe toolpaths in Mastercam.

MACH 275
PRECISION MACHINING CURRENT TOPICS 5 CR
 This course is an individual self-paced study of precision machining current topics. A topic or project is decided on by both instructor and student.
PREREQUISITES: Instructor permission

MANAGEMENT

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
 Provides 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.

MATHEMATICS

MATH 090
PRE-ALGEBRA 5 CR
 A developmental math course to help students make the transition from arithmetic to algebra. Students will increase their math skills and gain the foundation for algebraic concepts and problem-solving. Student should have a working knowledge of arithmetic. Included are topics on fractions, sets of numbers, applied problem solving, use of variables, simplifying expressions, and setting up equations to solve.
PREREQUISITES: Accuplacer Arithmetic score of 38 or a C grade in ABE 050

MATH 098
ELEMENTARY ALGEBRA 5 CR
 This course will cover solving different forms of equations; manipulation of exponents and radicals as needed on the job; as well as factoring and graphing. It is equivalent to one year of high school algebra. This course is targeted for those students whose programs involve more algebra than included in BTC's occupational and technical math courses. This course will also serve as a prerequisite to intermediate algebra or as a refresher for those students who have had algebra in the past.
PREREQUISITES: Accuplacer Arithmetic score of 75 or a C grade in MATH 090

MATH 099
INTERMEDIATE ALGEBRA 5 CR
 This course prepares students for entry into college-level math courses. Topics include second degree equations and inequalities, relations and their graphs, exponential and logarithmic functions, and rational expressions. A graphing calculator may be required.
PREREQUISITES: Accuplacer Algebra score of 75 or a C grade in MATH 098

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. Text required.
PREREQUISITES: Accuplacer Arithmetic score of 50 or a C grade in MATH 090 or ABE 050

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.
PREREQUISITES: 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.

PREREQUISITES: BTC College Level Math score of 32 or a C grade in MATH 099 or higher

MATH& 141

PRECALCULUS I**5 CR**

The focus of this course will be functions. Students manipulate and graph linear, polynomial, rational, exponential, logarithmic and quadratic functions. The course will also cover systems of equations, matrices and determinants, and their applications.

PREREQUISITES: BTC College Level Math score of 32 or a C grade in MATH 099 or higher

MATH& 142

PRECALCULUS II**5 CR**

The majority of this course will cover trigonometry. Students will explore trigonometric 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.

PREREQUISITES: 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.

PREREQUISITES: BTC College Level Math score of 32 or a C grade in MATH 099 or higher

MATH& 148

BUSINESS CALCULUS**5 CR**

Limits, derivatives, marginal analysis, optimization, antiderivatives, and definite integrals.

PREREQUISITES: 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.

PREREQUISITES: MATH& 142 with a C grade

MATH& 152

CALCULUS II**5 CR**

The study of Riemann Sums, methods of integra-

tion, 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.

PREREQUISITES: MATH& 151 with a C or better

NURSING

NURS 110

INTRODUCTION TO HEALTH CONCEPTS**7 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 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**7 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 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**7 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, healthcare 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 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, healthcare 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 150

PHARMACOLOGY CONCEPTS**2 CR**

This course provides an introduction to the basic concepts required by nurses to practice safe and effective drug administration. These concepts include the metabolism and actions of drugs in the body and basic clinical nursing implications, with an emphasis on the principles of safe drug administration. Students are instructed in mathematical formulas necessary to safely calculate medication doses in a clinical setting.

NURS 210

ACUTE HEALTH CONCEPTS 7 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 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 7 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 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 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, healthcare 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.

NURS 235

PROFESSIONAL NURSING CONCEPTS-CLINICAL LAB 4 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, healthcare 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.

NURSING ASSISTANT

NA 101

NURSING ASSISTANT ESSENTIALS 4 CR

The student is given 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.

PREREQUISITES: Reading Comprehension score of 50 or successful completion of ABE 054 and Arithmetic score of 38 or successful completion of ABE 050

NA 102

NURSING ASSISTANT CLINICAL 2 CR

During the clinical practicum the student is given the opportunity to put into practice those skills learned in the classroom and lab settings. The clinical experiences include orientation to the extended care facility and a clinical final exam which

is conducted in the college lab.

PREREQUISITES: Reading Comprehension score of 50 or successful completion of ABE 054 and Arithmetic score of 38 or successful completion of ABE 050

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; and 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.

PERSONAL FITNESS TRAINER

PFT 100

FOUNDATIONS OF HEALTH AND FITNESS 6 CR

In this introductory course, participants will study the science and structure of the human organism and how it relates to exercise science; learn about food requirements, values and how food is broken down into usable fuel; and develop and learn techniques to regulate and prescribe appropriate eating systems. Participants 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, participants will investigate structure, function and cellular adaptations with exercise. 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 course will cover the mechanics of muscle development, as well as behavior and performance guidelines to achieve prescribed results with specialized instruction. The specialty field of the supplementation of nutrients, vital elements and their effects on aging and longevity will be introduced and the principles to aid in prevention of degenerative health risks will be covered.

PREREQUISITES: PFT 100

PFT 120

FACILITY MANAGEMENT AND MARKETING FOR A FITNESS TRAINER 6 CR

In this final course, participants will learn the day

to day operations of a professional trainer in a fitness facility. Topics covered include: equipment maintenance, purchasing and budget management, multi-client training principles; guidelines for supervisor and management positions, the basics for designing an effective plan to run a successful training facility, and the evaluation of new and existing programs for implementation and development. This course is designed to assist students in marketing their own personal trainer services as well as developing a successful marketing program for a progressive fitness facility. Learn proven methods for marketing and research to develop networking techniques and employment leads. Recognize and develop personal talents to be better able to determine career direction.

PREREQUISITES: PFT 110

PHYSICS

PHYS& 221

ENGINEERING PHYSICS I w/LAB 5 CR

Kinematics and dynamics of particles, work and energy, gravitation, collisions, and conservation of momentum.

PREREQUISITES: ENGL& 101 with a grade of C or better

PREREQUISITES or COREQUISITES: MATH& 151 with a grade of C or better

PHYS& 222

ENGINEERING PHYSICS II w/LAB 5 CR

Basic principles of thermodynamics, mechanics of fluids and oscillatory motion, and mechanical waves.

PREREQUISITES: PHYS& 221 with a grade of C or better

PREREQUISITES or COREQUISITES: MATH& 152 with a C grade or better

PHYS& 223

ENGINEERING PHYSICS III w/LAB 5 CR

Basic principles of electricity and magnetism, waves, optics and atomic structure.

PREREQUISITES: PHYS& 222 with a grade of C or better

PROCESS TECHNOLOGY

PTEC 101

INTRODUCTION TO PROCESS TECHNOLOGY 5 CR

In this course students will study various aspects of the process industry, including its history; roles, responsibilities, and expectations of the process technician; team dynamics; basic physics and chemistry; safety; and quality management. In addition, the course will cover basic components of the process industry environment, such as piping and valves; tanks, drums, and vessels; pumps and compressors; steam turbines; electricity and motors; heat exchangers; cooling towers and fans;

furnaces and boilers; distillation columns; process control instrumentation; process utilities and auxiliary systems; and process print reading.

PREREQUISITES: CAP 101 or 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.

PREREQUISITES or COREQUISITES: PTEC 101

PTEC 103

SAFETY, HEALTH AND EQUIPMENT I 5 CR

In this course, students will study industrial hazards types, including physical, chemical, ergonomic, and biological. Within these four general types, specific agents, causative factors, and effects will be identified along with controls, alarms, and detection systems. The course will focus on hazardous chemicals found in the process industry. This course may be either live, a hybrid, or on-line.

PREREQUISITES: PTEC 101

PTEC 105

PROCESS TECHNOLOGY II (SYSTEMS) 5 CR

In this course, students will study the interrelation of process equipment and process systems. Specifically, students will be able to arrange process equipment into basic systems, describe the purpose and function of specific process systems, explain how factors affecting process systems are controlled under normal conditions; and recognize abnormal process conditions. In addition, students are introduced to the concept of system and plant economics.

PREREQUISITES: PTEC 101, 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.

PREREQUISITES: PTEC 103, PTEC 105

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.

PREREQUISITES: CAP 101

PTEC 191

NON-REFINING PROCESSES 3 CR

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

PREREQUISITES: 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 do a project related to pulp and paper processing. This course may be either live, a hybrid, or on-line.

PREREQUISITES: CAP 101

PTEC 193

UPSTREAM PROCESS 3 CR

In this course, students will be introduced to the various methods and processes for locating and producing oil. In addition, the geology of the formation of oil deposits will be covered as well as an overview of the regulations for oil exploration. The methods and operations include exploration, drilling, and completion of the well. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will do a project related to upstream processing. This course may be either live, a hybrid, or on-line.

PREREQUISITES: CAP 101

PTEC 194

WASTEWATER TREATMENT 3 CR

In this course, students will be introduced to the various methods and processes for wastewater treatment. These will include the steps of preliminary, primary, secondary and tertiary treatment, which involve the operations of sedimentation, biological and chemical reacting, thickening, drying, filtration, mixing, and disinfection. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will do a project related to pulp and paper processing.

PREREQUISITES: 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 feed-stock 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 prepare biodiesel in the laboratory and in a pilot plant. A project related to biodiesel production will be required. This course may be either live, a hybrid, or on-line with access to the laboratory and pilot plant.

PREREQUISITES: CAP 101

PTEC 196

GREEN ENERGY 3 CR

In this course, students will be introduced to the various methods and processes for producing green energy. These will include the production of renewable energy by wind, solar, hydroelectric, wave, and biofuels. The equipment necessary to provide and control these operations, quality control, safety, and jobs available in this industry will also be covered. Students will do a project related to green energy. This course may be either live, a hybrid or on-line.

PREREQUISITES: CAP 101

PTEC 197

COOPERATIVE EDUCATION 3 CR

In this course, students will be given credit for courses or portions of courses taken at other educational institutions. Examples 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.

PREREQUISITES: PTEC 103, PTEC 105

Open to currently enrolled PTEC students with instructor permission

PTEC 198

BASIC MECHANICAL SKILLS 3 CR

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

PREREQUISITES: CAP 101

PTEC 199

POWER GENERATION 3 CR

In this course, students will be introduced to multiple types of power generation such as boilers, co-generation, wind and hydro power. This will include the operations of boilers, steam turbines, gas turbines, and 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 be required. This course may be either live, a hybrid, or online with access to the laboratory and pilot plant.

PREREQUISITES: CAP 101

PTEC 203

SAFETY, HEALTH & ENVIRONMENT II 5 CR

Continued instruction in the application of concepts presented in PTEC 103, with an emphasis on emergency response concepts. The students will demonstrate appropriate response to emergency situations; recognize hazardous situations for personnel, environment, and the community; and apply team skills in response to emergency situations.

PREREQUISITES: PTEC 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.

PREREQUISITES: 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.

PREREQUISITES: ECON 103, PTEC 107, PTEC 110

PTEC 211

PROCESS INSTRUMENTATION II AND TROUBLESHOOTING 5 CR

In this course, students will be introduced to controllers, control schemes, and advanced control schemes covered at a level appropriate for the process technician. The student will learn about different types of process technology troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collections and analysis, cause-effect relationships, and reasoning.

PREREQUISITES: PTEC 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.

PREREQUISITES: 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.

PREREQUISITES: 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.

PREREQUISITES: 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.

PREREQUISITES: PTEC 101

PTEC 290

PROCESS TECHNOLOGY PRACTICUM/ INTERNSHIP 5 CR

This elective course provides work experience in a process technology-related environment so that students may expand their technical knowledge and skills. Specific performance skills and customized objectives will be developed for each student.

Clock hours are available and the course may be repeated for clock hour credit.

PREREQUISITES: 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.

PREREQUISITES: PTEC 101

PROJECT MANAGEMENT

PMP 100

PROJECT MANAGEMENT FUNDAMENTALS 1 CR

Learn the effective methods for 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 - PMP 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. To prepare for this class you should have taken PMP 100 and CAP 150 and CAP 151.

PMP 130

PROJECT MANAGEMENT INTEGRATION PROJECT 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.

PREREQUISITES: PMP 120

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 the project plan file. A manual is included with this course.

CAP 151

PROJECT LEVEL 2 1 CR

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

PSYCHOLOGY

PSYC& 100

GENERAL PSYCHOLOGY 5 CR

An overview of the factors affecting behavior, including topics related to theories of learning, the senses, perceptions, nervous system, emotions, personality theory, motivation, abnormal behavior and therapy, and social psychology.

PREREQUISITES: Accuplacer 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& 200

LIFESPAN PSYCHOLOGY 5 CR

A systematic study of the developmental processes in humans from conception to late adulthood. Special emphasis will be given to the topics of physical development, cognitive development, and personality/social development.

PREREQUISITES: PSYC& 100 with a C grade

QUALITY ASSURANCE

QA 101

MEASURING INSTRUMENTS 4 CR

Introduction to the use of various types of precision measuring tools.

QA 102

PRINCIPLES OF MANUFACTURING 4 CR

This course will summarize the history and evolution of turning stuff into things. It will highlight major manufacturing developments pre-Roman through the Industrial Revolution, examine the rapid advances from WW1 to the advent of computers, then focus on modern manufacturing materials and the systems and processes that turn this material into products. The definition, management, engineering and economics, of quality improvement will inform discussions of methods and materials, equipment and processes.

QA 103

QUALITY FOR MANUFACTURING 4 CR

This course will examine issues affecting quality in manufacturing. It will provide the statistical methods and the management philosophy which allow problems in production processes to be found and fixed, resulting in continuous quality improvement.

RADIOLOGY

RT 101

RADIOGRAPHIC POSITIONING I 6 CR

This course introduces the basic positioning techniques used in the radiography of the respiratory system, abdomen, and upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification pathologies and an energized section using phantoms.

PREREQUISITES: Acceptance into Radiologic Technology program

RT 102

RADIOGRAPHIC POSITIONING & 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.

RT 108

MEDICAL INFORMATICS 4 CR

This course will investigate the integration of computer capabilities, information science, and healthcare. This course will include key elements that are driving our national healthcare system to electronic records and the complex issues that arise in this transition. Issues addressed include methods required to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine. Imaging informatics, PACS systems, RIS (Radiology Information Systems) and HIS (Hospital Information Systems) will be included in this course.

RT 112

PATIENT CARE IN RADIOLOGY 4 CR

This course provides the student with basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine patient care will be included, as well as infection control techniques, vital signs, safety and transfer positioning, medical emergencies, barium studies, oxygen therapy and catheters. Patient education and documentation will be addressed.

RT 114

LEADERSHIP SEMINAR 2 CR

This course is designed to encourage leadership principles in students, including participation and project development for professional organizations.

RT 120

IMAGING & PROCESSING 4 CR

This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiologic images. Emphasis will be on filming and electronic imaging with related accessories. Topics to be included are basic radiographic production, imaging standards,

radiographic density and contrast, recorded detail, distortion, exposure latitude, beam-limiting devices, beam filtration, technique formulation, exposure calculations, image receptors and processing. Lab exercises will provide application of theories using energized equipment and test tools.

RT 121
RADIOGRAPHIC PHYSICS I **4 CR**

This course is designed to establish a knowledge base in atomic structure and terminology. Included are the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interactions with matter. An introduction to the principles of radiation protection is included. Lab activities will provide application for the course theories.

RT 123
RADIOGRAPHIC PHYSICS II **4 CR**

This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile, tomography equipment requirements and design. Content includes manual versus automatic exposure control, equipment calibration, beam restriction, and recognition of malfunctions.

RT 132
RADIOGRAPHIC CLINIC II **7 CR**

This course consists of two clinical assignments of eight-hour work shifts per week. Students are assigned clinical experience in a radiology department to complete clinical competencies correlating with academic coursework.

RT 133
RADIOGRAPHIC CLINIC III **8 CR**

This course consists of clinical assignments correlating with current academic coursework. Assignments will include rotations at hospitals, clinics or doctors offices in regional areas. Rotations may include day, evening, or weekend schedules.

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.

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.

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.

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 include acute and chronic effects of radiation. Examination of standards, measurements and requirements required by government guidelines will be included.

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.

RT 231
RADIOGRAPHIC CLINIC IV **10 CR**

This course consists of clinical assignments correlating with current academic coursework. Assignments will include rotations at hospitals, clinics or doctors offices in regional areas. Rotations may include day, evening or weekend schedules.

RT 232
RADIOGRAPHIC CLINIC V **10 CR**

This course consists of three clinical assignments of eight-hour shifts per week. Students are assigned clinical experience in a radiology department to complete sixth quarter clinical competencies and select specialized rotations.

RT 233
RADIOGRAPHIC CLINIC VI **10 CR**

This course consists of clinical assignments correlating with current academic coursework. Assignments will include rotations at hospitals, clinics or doctors offices in regional areas. Rotations may include day, evening or weekend schedules.

RESIDENTIAL HOME INSPECTION

RHI 111
FUNDAMENTALS OF HOME INSPECTION **12 CR**

This course 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, condu-

cive 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. This course 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 RHI 111 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.

PREREQUISITES: RHI 111

SOCIOLOGY

SOC& 101
INTRODUCTION TO SOCIOLOGY **5**

This course introduces the major concepts and definitions of the science of sociology. Basic sociological inquiry and how social forces shape communal and individual behaviors and attitudes are covered. 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.

PREREQUISITES: Accuplacer Reading Comprehension score of 85 or B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100.

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.

PREREQUISITES: 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.

SURG 120

SURGERY TECHNOLOGY I 12 CR
Students will gain theoretical and practical knowledge of general equipment, instrumentation, surgical team member roles, and healthcare 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. Students 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.

PREREQUISITES: Acceptance into the Surgery Technology program.

SURG 125

SURGERY TECHNOLOGY LAB I 10 CR
Students 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, students will orient to healthcare facilities.

PREREQUISITES: Acceptance into the Surgery Technology program.

SURG 133

SURGERY TECHNOLOGY II 10 CR
In this course, students will gain further theoretical and practical knowledge of specialty equipment, instrumentation, and surgical supplies. Students will detail intra operative care techniques and the surgical technologists' role in surgical case preparation and surgical procedures.

PREREQUISITES: SURG 120, SURG 125

SURG 136

SURGERY TECHNOLOGY CLINICAL PRACTICE I 12 CR

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 student surgical technologists participating in surgical procedures in affiliated hospitals, surgery centers or clinics.

PREREQUISITES: SURG 120, SURG 125

SURG 143

SURGERY TECHNOLOGY III 6 CR

In this course, students will gain further theoretical and practical knowledge of specialty equipment, instrumentation, and surgical supplies. Students will detail the surgical technologists' role in procedures and techniques used to achieve intra-operative hemostasis, proper patient documentation and patient care emergencies. Students will also describe the surgical technologists' professional and legal responsibilities.

PREREQUISITES: SURG 133, SURG 136

SURG 145

SURGERY TECHNOLOGY CLINICAL PRACTICE II 10 CR

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 student surgical technologists with emphasis on independent scrubbing on surgical procedures in affiliated hospitals, surgery centers, or clinics.

SURVEYING/GEOMATIC TECHNOLOGY

SURV 102

FUNDAMENTALS OF SURVEYING I 7 CR

Emphasis is placed on familiarization with the different types of surveys and their purpose and teaches students to be able to differentiate between "accuracy" and "precision". It teaches students to measure distances in a vertical direction and relate these measurements to a datum plane or elevation from sea level. Course also teaches students how to measure directions from known points to find or establish other points and will enable the students to gain necessary skills in operating surveying instruments.

PREREQUISITES: MATH 098 or instructor permission

SURV 103

FUNDAMENTALS OF SURVEYING II 5 CR

Emphasis on field work with the Total Station and Digital Level. A traverse will be run and adjusted and a topo made of the enclosed ground.

PREREQUISITES: SURV 102

SURV 104

CONSTRUCTION & HIGHWAY SURVEYS 6 CR

Students will learn stakeout procedures for a variety of construction projects. In addition, students will develop techniques to help them learn to use horizontal and vertical curves in the field and office to join tangent lines. The layout of a horizontal curve will also be done as a portfolio project.

PREREQUISITES: ENGT 122 and SURV 102

SURV 112

PUBLIC LANDS SURVEY SYSTEM 5 CR

This course will familiarize the student with the public land system of the U.S. and the subdivision of sections.

SURV 113

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.

PREREQUISITES: SURV 103

SURV 116

SURVEY DATA SYSTEMS 2 CR

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

PREREQUISITES: ENGT 122, SURV 102

SURV 140

FUNDAMENTALS OF GIS & GPS 4 CR

Students develop knowledge and designing skills in topology, features attributes, relational operators, data capture, coverage editing, coordinate systems, and map projections.

PREREQUISITES: MATH 098

SURV 152

ZONING, PERMITTING & PLATTING 4 CR

Introduction to Whatcom County and City of Bellingham zoning ordinances and an introduction to the various state, county, and city permits associated with construction and land use in Whatcom County.

SURV 191

PROFESSIONAL DEVELOPMENT AND SAFETY 2 CR

Provides an introduction to the licensing and certification procedures for land surveyors and engineers in the state of Washington as well as the RCWs and WACs that apply. The course also provides an examination of safety hazards and accident awareness that is related to both professions.

SURV 201

ADVANCED SURVEY SEMINAR 7 CR

Offers opportunities for the second-year student to study advanced techniques in GPS, GIS, data collection, research, and surveying/mapping software. The structure is self-motivated and supports transition from college structure to jobs in the surveying and mapping profession.

PREREQUISITES: SURV 103

SURV 202

GPS SYSTEMS 7 CR

Global Positioning System software will be used to adjust raw field data collected with Trimble 4000 SST receivers.

PREREQUISITES: SURV 204

SURV 204

ENVIRONMENTAL MAPPING 4 CR

Coursework includes current industry mapping techniques and equipment as it relates to environmental issues such as wetlands mapping and habitat restoration.

PREREQUISITES: SURV 116

SURV 205

ADVANCED GIS APPLICATIONS 7 CR

An advanced course in desktop mapping focusing on the use of the extensions in Geographic Information Systems applications.

PREREQUISITES: ENGT 153

SUSTAINABLE TECHNOLOGY

SUST 101

FUNDAMENTALS OF SUSTAINABILITY 5 CR

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

PREREQUISITES: Accuplacer Reading Comprehension score of 85 or B grade in RDG 085, and Accuplacer Sentence Skills score of 86 or B grade in ENGL 092 or C grade in AENGL 100

SUST 102

FUNDAMENTALS OF RENEWABLE ENERGY 5 CR

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

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

TRANSPORTATION

TRANS 101

BASIC TRANSPORTATION SERVICE & SYSTEMS 101 5 CR

This is a hybrid class; a portion of the lecture component will be delivered through an on-line "text-book". Students will be introduced to basic automotive and diesel repair practices. Proper interaction with customers, shop managers, and fellow employees will be emphasized.

PREREQUISITES: Program admission or instructor permission

TRANS 102

BASIC TRANSPORTATION SERVICE & SYSTEMS 102 5 CR

This is a hybrid class; a portion of the lecture component will be delivered through an on-line "text-book". Students will begin to apply tool use and shop practices introduced in TRANS 102. These practices will be demonstrated on shop and customer vehicles.

PREREQUISITES: TRANS 101

TRANS 103

BASIC TRANSPORTATION SERVICE & SYSTEMS 103 5 CR

This is a hybrid class; a portion of the lecture component will be delivered through an on-line "text-book". Students 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 for dealing with customer concerns, verifying their concerns, and beginning to diagnose basic problems.

PREREQUISITES: TRANS 102

VETERINARY TECHNICIAN

VET 117

VETERINARY ASSISTANT INTERNSHIP 2 CR

This course is for students enrolled in the Veterinary Technician program who choose the "early out" option and are pursuing a certificate in Veterinary Assistant. Students need to have completed VETT 101, 102, 103, 104, 106, 107, 108 and 109, as well as VET 120. Students are to gain work experience as a Veterinary Assistant in an appropriate setting.

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

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.

PREREQUISITES: Admission to Veterinary Technician program.

VETT 102

VETERINARY ANATOMY & PHYSIOLOGY I 6 CR

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

VETT 103

VETERINARY MEDICAL TERMINOLOGY 3 CR

Upon completion of this module, 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.

VETT 104

VETERINARY NUTRITION I 3 CR

Given the characteristics of the patient, the student will understand appropriate and inappropriate dietary components for various life stages to promote optimal health. Also, the student will be able to explain nutritional recommendations to clients and reinforce owner compliance.

VETT 105

LEARNING FOR A LIFETIME 3 CR

The goals of this module are to enable the student to learn the materials of veterinary technician medicine in a logical, goal-oriented manner. The student should be empowered with critical thinking and problem-solving skills. The student should be able to utilize a variety of reference media and assess that material for quality of content. Finally, the student should be able to tailor study skills to address personal strengths and weaknesses with the goal of maximizing retention of material learned during the Veterinary Technician program and in continuing education pursuits throughout his or her career.

VETT 106

MICROBIOLOGY, VIROLOGY, & MYCOLOGY 4 CR

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

VETT 107

SMALL ANIMAL PARASITOLOGY 3 CR

Upon completion of this course, the student will be able to:

1. Identify and describe the life cycle of ecto- and endo- parasites.
2. Understand the importance of parasites in veterinary and zoonotic disease.
3. Understand the importance of, and demonstrate proper diagnostic fecal techniques.
4. Identify parasite ova, adults and non-parasite artifacts.
5. Review therapy and prevention of parasitic diseases

VETT 109

CLINICAL LABORATORY SCIENCES 5 CR

Upon completion of this course, the student will be able to properly handle and submit appropriate samples for diagnostic analysis to ensure maximum accuracy of results. Given the characteristics of the laboratory equipment, the student will determine proper maintenance and quality control procedures necessary to ensure accurate results.

VETT 110

VETERINARY ANATOMY & PHYSIOLOGY II 3 CR

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

PREREQUISITES: VETT 102

VETT 111

SMALL ANIMAL MEDICINE I 4 CR

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

VETT 112

VETERINARY NURSING II (SURGICAL) 5 CR

Given the characteristics of the patient and the surgical procedure to be performed, the student will be able to:

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.

PREREQUISITES: VETT 101

VETT 113

IMMUNOLOGY & PHARMACOLOGY I 6 CR

Upon completion of this course, the student will be able to calculate the correct amount of medication in the prescribed form and administer it by the prescribed route as directed by a veterinarian. The student shall also be able to differentiate between normal and abnormal responses to medications and communicate necessary information to clients in order to maximize safety and compliance for effective treatment. Finally, the student should be proficient at inventory control procedures, especially as applied to controlled substances.

VETT 114

DENTISTRY 4 CR

Upon completion of this course, the student will be knowledgeable in: dental anatomy and pathophysiology; dental radiographs; dental instruments and usage; large animal dentistry (equine and swine); and small mammal dentistry and avian beaks.

VETT 116

LARGE ANIMAL MEDICINE 3 CR

Upon completion of this course, the student will be knowledgeable in: equine preventative health-care, gastrointestinal diseases, respiratory and cardiac diseases, lameness, and reproductive and neonate diseases; bovine gastrointestinal and reproductive diseases; and important diseases of sheep, goats, & llamas.

VETT 117

VETERINARY NURSING III (LARGE ANIMAL) 5 CR

Upon completion of this course, the student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of the patient with minimum stress and

maximum safety. In addition, the student will be able to carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

PREREQUISITES: VETT 112

VETT 118

SMALL ANIMAL MEDICINE II 3 CR

Upon completion of this course, the student will be knowledgeable with the following relative small animal medicine; lymphatics, spleen, and bone marrow; reproductive disorders; trauma medicine; transfusion medicine: sepsis; diabetes mellitus & diabetic ketoacidosis (DKA); and acute abdomen stabilization.

PREREQUISITES: VETT 111

VETT 119

ADVANCED CLINICAL LAB SCIENCES 4 CR

Upon completion of this course, the student will be knowledgeable in the following advanced clinical laboratory sciences: seology and antigen testing; pulse oximetry, capnography, and blood gas analysis; electrocardiogram (EKG); arthrocentesis, CSF tap, and bone marrow evaluation; blood pressure evaluation; thoracocentesis, abdominocentesis, and transtracheal wash; blood collection for transfusion or blood culture; and advanced hematology.

PREREQUISITES: VETT 109

VETT 120

ANESTHESIA 5 CR

Given the characteristics of the anesthetic patient and the procedure, (assisted by the veterinarian) the student will assess patient risk status and determine appropriate perianesthetic, anesthetic and pain management protocols. Also (assisted by the veterinarian), the student will choose appropriate monitoring equipment and techniques to maintain safe anesthesia, pain management, and anesthesia recovery.

VETT 121

EXOTIC ANIMAL MEDICINE 3 CR

Given the unique requirements for exotic species, the student will safely obtain subjective and objective data that will allow evaluation of these animals. The student will be able to identify husbandry issues and recognize normal from abnormal behaviors and vital signs.

VETT 123

VETERINARY NURSING IV (CRITICAL CARE) 5 CR

Upon completion of this course, the student will be able to safely and effectively obtain subjective and objective patient data that will allow accurate evaluation of the patient with minimum stress and maximum safety. Also, the student will be able to carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

PREREQUISITES: VETT 117

VETT 124

SPECIALTY MEDICINE 3 CR

Upon completion of this course, the student will be knowledgeable in the following veterinary medicine specialties: ophthalmology; dermatology; oncology; alternative and complementary medicine; physical therapy; cardiology; theriogenology; and hospice care.

VETT 125

HUMANITY OF VETERINARY MEDICINE 2 CR

Upon completion of this course, the student will be able to effectively contribute to the professional and efficient operation of the veterinary facility in order to provide maximum benefits to clients, patients and the facility. Also, the student will be able to effectively and accurately acquire and convey information to the client and to veterinary colleagues.

VETT 126

PHARMACOLOGY II 3 CR

Upon completion of this course, the student will be knowledgeable in: gastrointestinal drugs; hormones; anticonvulsants; therapies for hypertension, airway disease, allergic disease, heart disease, and behavior disorders.

PREREQUISITES: VETT 113

VETT 130

VETERINARY CLINICAL WORK EXPERIENCE 10 CR

A cooperative effort between practicing veterinary facilities and Bellingham Technical College to provide hands-on training. The student will observe, assist, and perform tasks at selected facilities as directed by veterinary staff, using all knowledge gained during program.

PREREQUISITES: VETT 205

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 includes animal restraint, physical exam, diagnostic sampling, and small animal patient care.

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 includes advanced sampling techniques and beginning radiology.

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 quar-

ter's didactic material as well as previous skill sets. Primary skills focus includes surgical assisting and nursing, dressing and bandaging techniques, and dentistry.

PREREQUISITES: VETT 202

VETT 204

MENTORSHIP LAB IV 3 CR

This lab requires students, under the supervision of a mentor or the faculty, to demonstrate competency in an escalating list of skills in the lab and the clinical sites. Each quarter builds upon that quarter's didactic material as well as previous skill sets. Primary skills focus includes anesthesia, advanced diagnostics, and advanced radiology.

PREREQUISITES: VETT 203

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 includes equine patient care, bovine patient care, and advanced nursing care.

PREREQUISITES: VETT 204

WELDING

WELD 101

INTRODUCTION TO WELDING 2 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 firsthand, 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 two class projects. Materials supplied by student.

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 general welding industry shop safety and orientation to the metal shop environment. Electrical and compressed gas cylinder safety and safe applications with grinders, band saws, and ironworkers.

WLD 102

WELDING SAFETY II 2 CR

In-depth welding and fabricating industry safety topics, including general fabrication shop hazards, outside construction hazards, confined spaces, firewatch, fall protection hazard training and respirator/fresh air breathing apparatus training.

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.

WLD 104

CAREER OPPORTUNITIES FOR WELDERS 2 CR

Survey course introduces students to careers in the welding and fabricating industry. Lecture topics will include code and non-code welding, fabricating, structural steel welding, aluminum welding, pipe welding and fitting, artistic, creative, and architectural welding, and local opportunities in the shop, refinery, and marine-based industries. Guest speakers and tours of local industry will enhance the course to give students a broad-based view of the industry.

WLD 105

THERMAL CUTTING PROCESSES 4 CR

This course will introduce the student to the basics of plasma arc cutting and oxy-fuel cutting processes; cutting safety, theory of gases, and hands-on lab practice cutting exercises. Compressed bottle handling and equipment safety and orientation will be stressed.

WLD 106

PRINT READING I 4 CR

Students will learn to use prints and drawings used in the welding trade. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques.

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.

WLD 110

SMAW I 5 CR

Students will learn applications of power sources, electrode identification, and basic steel metallurgy, while practicing lab techniques in E6010 and E7018 SMAW electrodes in the weld booth.

WLD 120

GMAW I 5 CR

Introduction to the gas metal arc welding process for mild steel. Power sources, techniques, shielding gases, metallurgy, and electrode identification will be covered. The student will learn the application of this process through lab practice in the weld booth.

WLD 121

GMAW ALUMINUM I 5 CR

This introduction to the gas metal arc welding process on aluminum covers safety, power sources, metallurgy, gases, filler metals, and lab practice.

WLD 130

FCAW I 4 CR

This 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.

WLD 140

GTAW I 4 CR

This introduction to gas tungsten arc welding process covers safety, power sources, metallurgy, gases, filler metals and welding lab practice on mild steel in the weld booth.

WLD 141

GTAW ALUMINUM I 4 CR

This introduction to gas tungsten arc welding process on aluminum covers safety, power sources, metallurgy, gases, filler metals, and lab practice.

WLD 150

STEEL FABRICATING I 4 CR

Students will learn and apply basic layout and fabricating techniques, applying simple print reading concepts, and cutting and welding techniques, to produce simple fabricated small projects. GMAW, and FCAW welding processes may be used, as well as plasma and oxy/fuel thermal cutting processes, and introduction to bevellers. The importance of accurate measuring; precision squares, angles, drilling and leveling; attention to detail, neatness, and the finished product will be demonstrated in an approved small fabrication project.

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

WLD 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.

<p>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. <i>PREREQUISITES: All WLD 100-LEVEL COURSES</i></p>	<p>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 practice 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. <i>PREREQUISITES: ALL WLD 100-LEVEL COURSES</i></p>	<p>WLD 226 ADVANCED ALUMINUM WELDING PRACTICES 6 CR Guided and self-guided Instructor-approved practices in GMAW or GTAW on aluminum. <i>PREREQUISITES: WLD 222 or WLD 242 or Instructor permission</i></p>
<p>WLD 206 PRINT READING II 3 CR Students will learn to use prints and drawings used in the welding trade. Students will study interpretation of basic drawings and prints, dimensions, terminology, notes, applied mathematics and sketching and drawing techniques. <i>PREREQUISITES: WLD 106</i></p>	<p>WLD 216 SMAW PRACTICES TP 2 CR 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.</p>	<p>WLD 230 FCAW II 5 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. <i>PREREQUISITES: WLD 130</i></p>
<p>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. <i>PREREQUISITES: ALL WLD 100-LEVEL COURSES</i></p>	<p>WLD 217 ADVANCED SMAW PRACTICES 6 CR Lab exploring avenues for overcoming the difficulties of advanced SMA welding, confined space applications, and out of position welding. <i>PREREQUISITES: WLD 216 or Instructor permission</i></p>	<p>WLD 231 FCAW PRACTICES TP 2 CR FCAW process in various positions for advanced welding techniques. <i>PREREQUISITES: WLD 120 or WLD 223</i></p>
<p>WLD 208 METALLURGY 3 CR Examines theory and application of metallurgical principles as they are applied to design, formation, selection, heat treating and distortion, heat effects on crystalline structure, and welding of non-ferrous and ferrous metals and their alloys, and includes a comprehensive study of welding filler metals and ANSI/AAS designations. <i>PREREQUISITES: ALL WLD 100-LEVEL COURSES</i></p>	<p>WLD 218 SMAW PRACTICES II TP 2 CR 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.</p>	<p>WLD 232 FCAW PRACTICES II 4 CR FCAW process in various positions for advanced welding techniques.</p>
<p>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. <i>PREREQUISITES: ALL WLD 100-LEVEL COURSES</i></p>	<p>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.</p>	<p>WLD 233 FCAW PRACTICES III 6 CR FCAW process in various positions for advanced welding techniques.</p>
<p>WLD 210 SMAW II 2 CR Shield metal arc welding on steel in all positions using fillet and groove plates and structural shapes in the welding booth. Emphasis on open-root groove welding on 3/8 - 1/2 plate; 2G, 3G, 4G.</p>	<p>WLD 223 GMAW PRACTICES TP 2 CR GMAW process in 2F, and 3F up positions on 1/4" steel plate for the beginner or advanced welder. This is a Tech Prep articulated course.</p>	<p>WLD 242 GTAW & GMAW ALLOYS II 5 CR This course focuses on GTAW with fillet and groove welds in all positions on aluminum. <i>PREREQUISITES: All WLD 100-LEVEL COURSES</i></p>
<p>WLD 211 SMAW III 9 CR Shield metal arc welding on steel; open-root groove welding on plate. Advanced SMAW including overhead welding and advanced welding positions on various shapes to simulate industry needs. Offered in summer only.</p>	<p>WLD 224 ADVANCED GMAW PRACTICES 2 CR GMAW welding practice on steel in all positions. <i>PREREQUISITES: WLD 120 or WLD 223</i></p>	<p>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.</p>
	<p>WLD 225 GMAW ALUMINUM PRACTICES TP 2 CR GMAW aluminum welding practices in the 2F and 3F positions on various thicknesses of aluminum for the beginner or advanced welder. This is a Tech Prep articulated course.</p>	<p>WLD 244 ALLOY PIPE WELDING 9 CR SMAW & GTAW welding applications for alloy pipe, including primarily medium carbon, chrome-moly, and stainless steel. <i>PREREQUISITES: WLD 215</i></p>
		<p>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. <i>PREREQUISITES: WLD 243</i></p>
		<p>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.</p>

<p>WLD 247 ADVANCED GTAW ALUMINUM PRACTICES 3 CR Advanced GTA welding of aluminum alloys in all positions and confined spaces. <i>PREREQUISITES: Instructor permission</i></p>	<p>WLD 247 PIPE FABRICATION II 4 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. <i>PREREQUISITES: WLD 256</i></p>	<p>WLD 273 TESTING II 6 CR Elective: Guided Lab practice in preparation for WABO/ASME/ABS/in-house testing. Welder qualification and certification testing. Processes may include FCAW, SMAW, GTAW, or GMAW in all positions, including fit-up, and NDE principles. <i>PREREQUISITES: WLD 230, WLD 210, WLD 262, WLD 271 or equivalent; Instructor permission</i></p>
<p>WLD 248 GTAW III 5 CR Advanced GTA welding on steel and stainless steel. <i>PREREQUISITES: Instructor permission</i></p>	<p>WLD 252 ALUMINUM FABRICATION II 5 CR This course covers advanced fabricating techniques for the job site, including material handling practice and safety, crane and hoist operation and safety, confined spaces and fresh air training. In-position welding, utilizing GMAW and GTAW on fillet and groove welds in all positions, cutting and air carbon arc gouging, and techniques in the Modular Training Facility, as well as fall protection and scaffold safety, and use of large shop equipment (brake, shear, power rolls) are covered.</p>	<p>WLD 274 TESTING III 9 CR Elective: Guided Lab practice in preparation for WABO/ASME/ABS/in-house testing. Welder qualification and certification testing. Processes may include FCAW, SMAW, GTAW, or GMAW in all positions, including fit-up, and NDE principles. <i>PREREQUISITES: Instructor permission</i></p>
<p>WLD 252 ALUMINUM FABRICATION II 5 CR This course covers advanced fabricating techniques for the job site, including material handling practice and safety, crane and hoist operation and safety, confined spaces and fresh air training. In-position welding, utilizing GMAW and GTAW on fillet and groove welds in all positions, cutting and air carbon arc gouging, and techniques in the Modular Training Facility, as well as fall protection and scaffold safety, and use of large shop equipment (brake, shear, power rolls) are covered.</p>	<p>WLD 258 SPECIAL FABRICATION PROJECTS 6 CR Guided and self-guided steel or aluminum fabrication projects by instructor permission. Offered in Summer only. <i>PREREQUISITES: ALL WLD 100-LEVEL COURSES</i></p>	<p>WLD 275 TESTING IV 9 CR Elective: Guided lab practice in preparation for WABO/AWS in-house certification testing. Also, 2" "gun-barrel" weld practice for employer-based ASME Welder Qualification for refinery-based job applicants. Processes may include FCAW, SMAW, GTAW, or GMAW in all positions, including proper fit-up, welding, and NDE principles. Offered in Summer only. <i>PREREQUISITES: Instructor permission</i></p>
<p>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). <i>PREREQUISITES: WLD 150</i></p>	<p>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. Offered in Summer only. <i>PREREQUISITES: WLD 254 or WLD 258</i></p>	<p>WLD 281 WELDING UPGRADE - 20HR 1 CR Self-guided welding practice in the welding booth. A 20-hour upgrade is 1 credit. <i>PREREQUISITES: Instructor permission</i></p>
<p>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. <i>PREREQUISITES: WLD 254</i></p>	<p>WLD 262 GTAW PIPE WELDING 5 CR GTAW open root welding on carbon steel will be discussed, as well as 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.</p>	<p>WLD 282 WELDING UPGRADE 50HR 2 CR Self-guided welding practice in the welding booth. A 50-hour upgrade in one credit. <i>PREREQUISITES: Instructor permission</i></p>
<p>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. <i>PREREQUISITES: WLD 150</i></p>	<p>WLD 266 ALUMINUM FABRICATION PROJECTS ADVANCED 6 CR Guided and self guided fabrication projects. <i>PREREQUISITES: WLD 265</i></p>	<p>WLD 283 WELDING UPGRADE 70HR 3 CR Self-guided welding practice in the welding booth. A 70-hour upgrade in one credit. <i>PREREQUISITES: Instructor permission</i></p>
<p>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. <i>PREREQUISITES: WLD 150</i></p>	<p>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. <i>PREREQUISITES: All WLD 101-LEVEL COURSES</i></p>	<p>WLD 293 WELDING INTERNSHIP I 3 CR Industry on-the-job experience per individualized opportunities under guided practice. <i>PREREQUISITES: Instructor permission</i></p>
<p>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. <i>PREREQUISITES: WLD 150</i></p>	<p>WLD 293 WELDING INTERNSHIP I 3 CR Industry on-the-job experience per individualized opportunities under guided practice. <i>PREREQUISITES: Instructor permission</i></p>	<p>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. <i>PREREQUISITES: All WLD courses 270 & under</i></p>

WLD 297

**WELDING 10, 30, 60 HR UPGRADE –
DAYTIME 4 CR**

Self-Guided welding practice in the welding booth. A 10 hour upgrade is 1 credit, 30 hour upgrade is 2 credits, and a 60 hour upgrade is 4 credits.

PREREQUISITES: Instructor permission

WLD 298

WELDING INTERNSHIP II 6 CR

Industry on-the-job experience per individualized opportunities under guided practice.

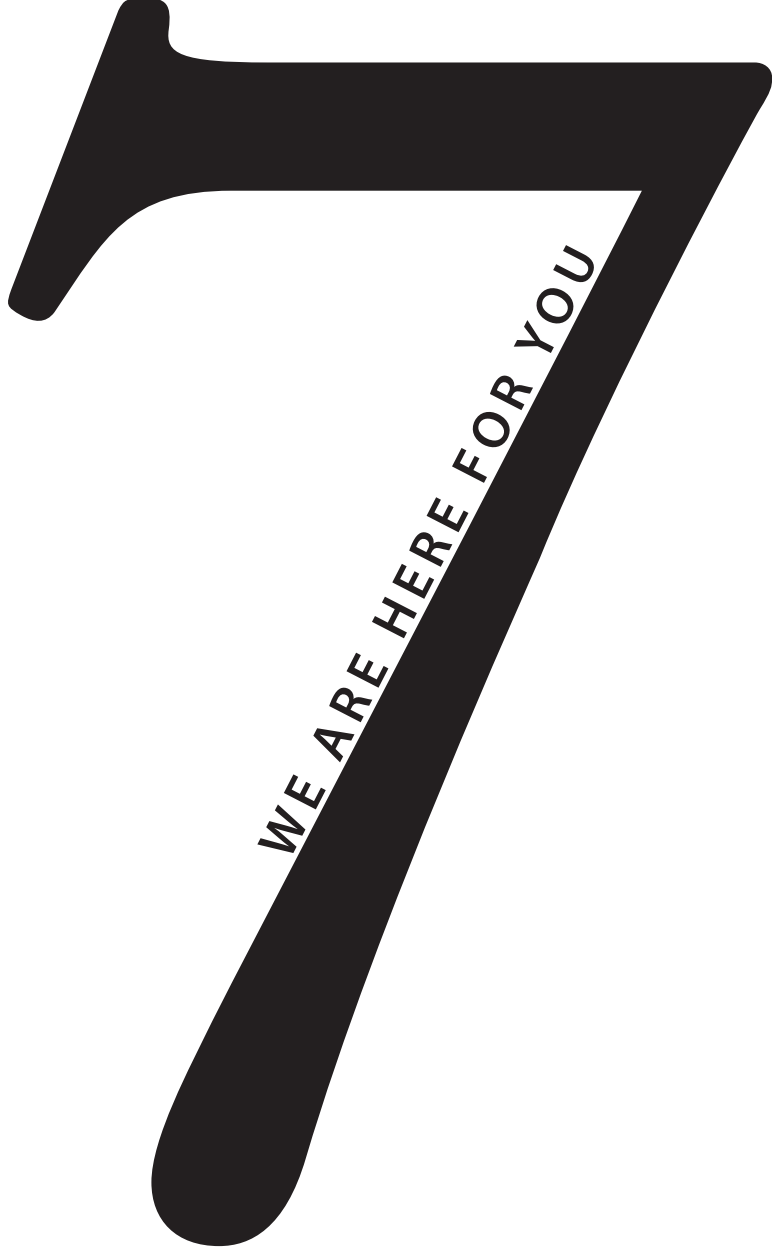
PREREQUISITES: Instructor permission

WLD 299

WELDING INTERNSHIP III 6 CR

Industry on-the-job experience per individualized opportunities under guided practice.

PREREQUISITES: Instructor permission



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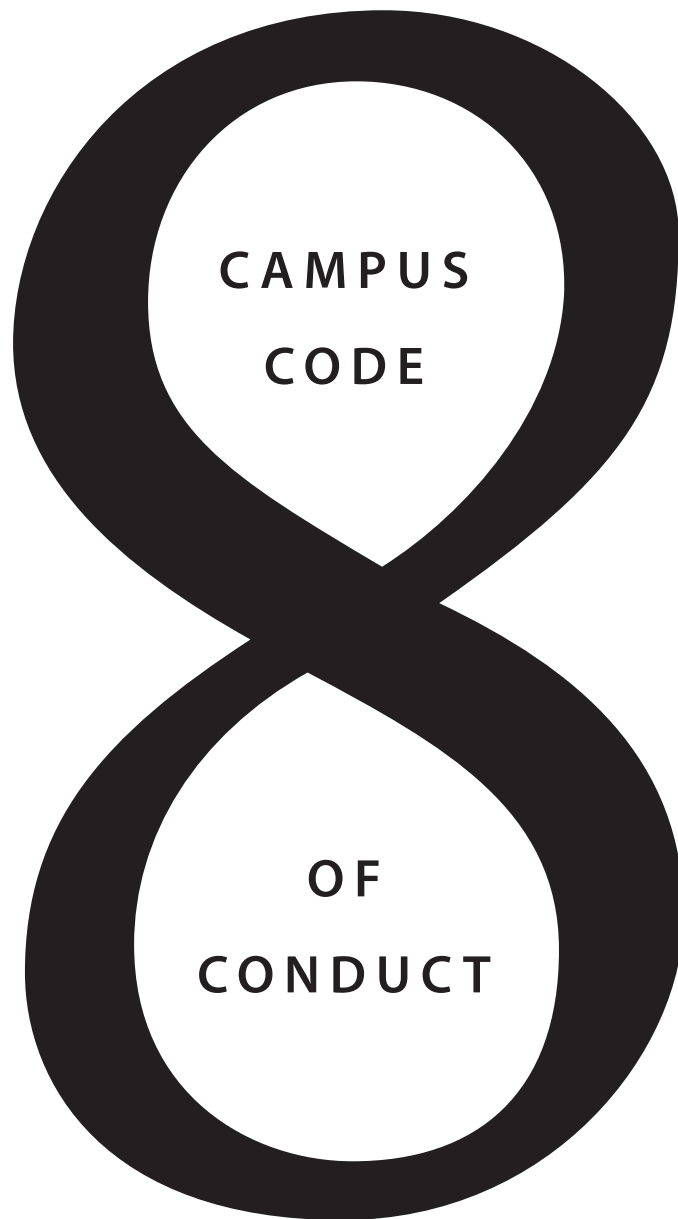
Associate Director of Human Resources

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Chris Zwolenski

Director of Academics and Basic Skills



CAMPUS
CODE

OF
CONDUCT

CAMPUS CODE OF CONDUCT

NOTE: THIS CODE OF CONDUCT IS IN THE PROCESS OF BEING REVISED AND ONCE THE NEW VERSION IS IN EFFECT, STUDENTS WILL BE EXPECTED TO COMPLY WITH ANY NEW VERSION-JUNE 30, 2014.

495B-120

495B-120-010

Definitions.

The definitions set forth in this section apply throughout this chapter.

- (1) "Board" means the board of trustees of Bellingham Technical College.
- (2) "College" means Bellingham Technical College.
- (3) "Alcohol" or "alcoholic beverages" means the definition of liquor as contained within RCW 66.04.010 as now law or hereinafter amended.
- (4) "Drugs" means a narcotic drug as defined in RCW 69.50.101, a controlled substance as defined in RCW 69.50.201 through 69.50.212, or a legend drug as defined in RCW 69.41.010.
- (5) "College facilities" includes all buildings, structures, grounds, office space and parking lots..
- (6) "President" means the chief executive officer of the college appointed by the board of trustees.
- (7) "Disciplinary officials" means the disciplinary committee as denominated in WAC 495B-120-170, the vice-president of student services, the vice-president of instruction, and the president.
- (8) "Student" means a person who is enrolled at the college.
- (9) "Disciplinary action" means the reprimand, disciplinary warning, probation, summary suspension, deferred suspension, suspension, or expulsion of a student under WAC 495B-120-120 for the violation of a rule adopted in this chapter.

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

495B-120-020

Statement of purpose.

- (1) Bellingham Technical College is maintained by the state of Washington for the provision of programs of instruction in higher education and related community services. Like any other institution having its own special purposes, the college must maintain conditions conducive to the effective performance of its functions. Consequently, it has special expectations regarding the conduct of the various participants in the college community.
- (2) Admission to the college carries with it the prescription that the student will conduct himself or herself as a responsible member of the college community. This includes an expectation that the student will obey appropriate laws, will comply with the rules of the college and its departments, and will maintain a high standard of integrity and honesty.
- (3) Sanctions for violations of college rules or conduct that interferes with the operation of college affairs may be applied by the college, and the college may impose sanctions independently of any action taken by civil or criminal authorities. In the case of minors, misconduct may be referred to parents or legal guardians.
- (4) The rules and regulations prescribed in this title shall be observed by guests and visitors while on campus, at all college functions and events, and on or within any other college-controlled or college-owned property.

Guests and visitors who willfully refuse to obey college security or other duly designated college authorities to desist from conduct prohibited by such rules and regulations may be ejected from the premises. Refusal to obey such an order may subject

the person to arrest under the provisions of the Washington criminal trespass law, in addition to such other sanctions as may be applicable.

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

495B-120-030

Jurisdiction.

All rules in this chapter concerning student conduct and discipline apply to every student enrolled at the college whenever the student is on campus or is engaged in or present at a college-related activity whether occurring on or off college facilities.

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

495B-120-035

Hazing.

- (1) Bellingham Technical College prohibits college-sponsored organizations or associations and their members from engaging individually or collectively in hazing activities.
- (2) Hazing is defined as any method of initiation into a student organization or association or any pastime or amusement engaged in with respect to such an organization or association that causes or is likely to cause bodily danger or physical harm or serious mental or emotional harm to any student or other person attending any institution of higher education or postsecondary institution. "Hazing" does not include customary athletic events or other similar contests or competitions.
- (3) Penalties.
 - (a) Any organization or association that knowingly permits hazing shall:
 - (i) Be liable for harm caused to persons or property resulting from hazing; AND
 - (ii) Be denied recognition by Bellingham Technical College as an official organization or association on the Bellingham Technical College campus. If the organization or association is a corporation, whether for profit or nonprofit, the individual directors of the corporation may be held individually liable for damages.
 - (b) The campus conduct code, WAC 495-120-040 through 495-120-150, may be applicable to hazing violations.
 - (c) Members of student organizations or associations who participate in or conspire to participate in hazing activities will be subject to appropriate college disciplinary actions in accordance with the campus conduct code.
 - (d) Other disciplinary actions for individuals of student organizations or associations participating in hazing activities may include forfeiture of any entitlement to state-funded grants, scholarships or awards for a period of time determined by the college.
 - (e) Hazing violations are also misdemeanors punishable under state criminal law according to RCW 9A.20.021.
 - (i) Impermissible conduct associated with initiation into a student organization or association or any pastime or amusement engaged in, with respect to the organization or association, will not be tolerated.
 - (ii) Impermissible conduct that does not amount to hazing may include conduct that causes embarrassment, sleep deprivation or personal humiliation, or may include ridicule or unprotected speech amounting to verbal abuse.
 - (iii) Impermissible conduct not amounting to hazing is subject to any sanctions available under the campus conduct code in WAC 495-120-040 through 495-120-150, depending upon the seriousness of the violation.

2012-2014 Campus Code of Conduct

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

495B-120-040

Student misconduct.

Disciplinary action may be taken for a violation of any provision of this campus conduct code, for a violation of other college rules that may from time to time be properly adopted, or for any of the following types of misconduct including, but not limited to:

- (1) Smoking is prohibited on campus except in designated smoking areas;
- (2) The possession, use, being demonstrably under the influence of, sale, or distribution of any alcoholic beverage or illegal drug on the college campus and/or the use of any alcoholic beverage or illegal drug while attending a college-sponsored event on or off campus. Alcoholic beverages may be permissible, however, at sanctioned events where consumption of alcohol is approved by the president or designee in compliance with state law;
- (3) Engaging in lewd, indecent, or obscene behavior;
- (4) Presenting an imminent danger to staff, other students, or community members in college facilities on or off campus or while attending a college-sponsored event on or off campus;
- (5) Engaging in academic dishonesty including, but not limited to, cheating, plagiarism, or knowingly furnishing false information to the college;
- (6) Willful failure or demonstrated inability to comply with college standards;
- (7) Intentionally making false statements or filing false charges against the college and/or members of the college community;
- (8) Forgery, alteration, or misuse of college documents, records, funds, or instruments of identification with the intent to defraud;
- (9) Intentional or negligent damage to or destruction of any college facility, equipment, or other private real or personal property;
- (10) Failing to comply with the direction of college officials acting in the legitimate performance of their duties;
- (11) Carrying, exhibiting, displaying, or drawing any weapon (e.g., firearm, club, dagger, sword, knife, or other cutting or stabbing instrument), or incendiary device or explosive, or any facsimile weapon, or any other weapon apparently capable of producing bodily harm and/or property damage is prohibited on or in college-owned or college-operated facilities and premises and/or during college-sponsored events;
- (12) Computer, telephone, or electronic technology violations. Conduct that violates the college-published acceptable use rules on computer, telephone, or electronic technology use, including electronic mail and the internet;
- (13) Engaging in unwelcome sexual advances, requests for sexual favors, and/or any other verbal or physical conduct of a sexual nature where such behavior offends the recipient, causes discomfort or humiliation, or interferes with job or school performance;
- (14) Assault on, reckless endangerment of, intimidation of, or interference with another person;
- (15) Disorderly, abusive, or bothersome conduct. Disorderly or abusive behavior that interferes with the rights of others or obstructs or disrupts teaching, research, or administrative functions;
- (16) Failure to follow instructions. Inattentiveness, inability or failure to follow instructions of a college official, thereby infringing upon the rights and privileges of others;
- (17) Malicious harassment. Malicious harassment involves intimidation or bothersome behavior directed toward another person because of or related to that person's race, color, religion, gender, sexual orientation, ancestry, national origin, or mental, physical, or sensory disability;
- (18) Theft and robbery. Theft of the property of the college or of another as defined in the RCW 9A.56.010 through 9A.56.050 and 9A.56.100 as now law or hereafter

amended. Includes theft of the property of the college or of another; actual or attempted theft of property or services belonging to the college, any member of its community, or any campus visitor; or knowingly possessing stolen property;

- (19) Criminal law violations, illegal behavior, other unlawful violations. Any person can be reported to proper authorities for acts that constitute violations of applicable local, state, and federal laws;
- (20) Violation of other published college policies, rules, or regulations.

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

495B-120-045

Loss of eligibility — College-sponsored activities.

Any student found to have violated chapter 69.41 RCW, legend drugs, by virtue of a criminal conviction or by final decision of the college president shall, in lieu of or in addition to any other disciplinary action which may be imposed, be disqualified from participation in any college-sponsored events or activities.

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

495B-120-050

Civil disturbances.

In accordance with provisions contained in RCW 28B.10.571 and 28B.10.572:

- (1) It shall be unlawful for any person, singly or in concert with others, to interfere by force or violence with any administrator, faculty member or student of the college who is in the peaceful discharge or conduct of his duties or studies.
- (2) It shall be unlawful for any person, singly or in concert with others, to intimidate by threat of force or violence any administrator, faculty member or student of the college who is in the peaceful discharge of his duties or studies.
- (3) The crimes described in RCW 28B.10.571 and 28B.10.572 shall not apply to any administrator or faculty member who is engaged in the reasonable exercise of their disciplinary authority.
- (4) Any person or persons who violate the provisions of subparagraphs (1) and (2) above will be subject to disciplinary action and may be referred for prosecution.

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

495B-120-060

Free movement on campus.

The president is authorized to prohibit the entry of or to withdraw the privileges of any person or group of persons to enter onto or remain upon any portion of the college campus if he/she deems that an individual or a group of individuals disrupts the ingress or egress of others from the college facilities. The president may act through the vice-president of student services or any other person he/she may designate.

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

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

495B-120-070

Right to demand identification.

For the purpose of determining whether probable cause exists for the application of any section of this code to any person on the college campus or at a college-sponsored event off campus, any college personnel or other authorized personnel may demand

that any person on the college campus or at a college-sponsored event off-campus produce evidence of student enrollment at the college.

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

495B-120-080

Academic dishonesty/classroom conduct.

- (1) Academic dishonesty. Honest assessment of student performance is of crucial importance to all members of the academic community. Acts of dishonesty are serious breaches of honor and shall be dealt with in the following manner:
 - (a) Any student who, for the purpose of fulfilling any assignment or task required by a faculty member as part of the student's program of instruction, shall knowingly tender any work product that the student fraudulently represents to the faculty member as the student's work product, shall be deemed to have committed an act of academic dishonesty. Acts of academic dishonesty shall be cause for disciplinary action.
 - (b) Any student who aids or abets the accomplishment of an act of academic dishonesty, as described in subsection (a) of this section, shall be subject to disciplinary action.
 - (c) This section shall not be construed as preventing an instructor from taking immediate disciplinary action when the instructor is required to act upon such breach of academic dishonesty in order to preserve order and prevent disruptive conduct in the classroom. This section shall also not be construed as preventing an instructor from adjusting the student's grade on a particular project, paper, test, or class grade for academic dishonesty.
- (2) Classroom conduct. Instructors have the authority to take whatever summary actions may be necessary to maintain order and proper conduct in the classroom and to maintain the effective cooperation of the class in fulfilling the objectives of the course.
 - (a) Any student who, by any act of misconduct, substantially disrupts any college class by engaging in conduct that renders it difficult or impossible to maintain the decorum of the faculty member's class shall be subject to disciplinary action.
 - (b) The instructor of each course offered by the college is authorized to take such steps as may be necessary to preserve order and to maintain the effective cooperation of the class in fulfilling the objectives of the course, provided that a student shall have the right to appeal the disciplinary action through the discipline appeal procedure (WAC 495B-120-180, discipline appeal procedure).

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

495B-120-090

Campus speakers.

- (1) Student organizations officially recognized by the college may invite speakers to the campus to address their own membership and other interested students and faculty if suitable space is available and there is no interference with the regularly scheduled program of the college. Although properly allowed by the college, the appearance of such speakers on the campus implies neither approval nor disapproval of them or their viewpoints. In case of speakers who are candidates for political office, equal opportunities shall be available to opposing candidates if desired by them. Speakers are subject to the normal considerations for law and order and to the specific limitations imposed by the state constitution regarding religious worship, exercise, or instruction on state property.
- (2) In order to ensure an atmosphere of open exchange and to ensure that the educational objectives of the college are not obscured, the president, in a case attended by strong emotional feeling, may prescribe conditions for the conduct of

the meeting including, but not limited to, the time, the manner, and the place for the conduct of such a meeting. Likewise, the president may require permission for comments and questions from the floor and/or may encourage the appearance of one or more additional speakers at a meeting or at a subsequent meeting so that other points of view may be expressed.

- (3) The college has designated an area as the sole limited public forum area for first amendment activities on campus. This area is identified in the college facilities use policy and may change from time to time as decided by the college president.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-090, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-090, filed 2/10/93, effective 3/13/93.]

495B-120-100

Distribution of information.

- (1) Handbills, leaflets, newspapers and similar materials may be distributed free of charge by any student or students, or by members of recognized student organizations at locations specifically designated by the vice-president of student services, provided such distribution does not interfere with the ingress or egress of persons or interfere with the instructional process or the free flow of vehicular or pedestrian traffic.
- (2) Such handbills, leaflets, newspapers and related matter must bear identification as to the publishing agency and distributing organization or individual.
- (3) All nonstudents shall register with the vice-president of student services prior to the distribution of any handbill, leaflet, newspaper or related matter. Such distribution must not interfere with the instructional process or the free flow of vehicular or pedestrian traffic.
- (4) Any person or persons who violate provisions of subparagraphs (1) and (2) above will be subject to disciplinary action.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-100, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-100, filed 2/10/93, effective 3/13/93.]

495B-120-110

Commercial activities.

- (1) College facilities will not be used for a commercial solicitation, advertising or promotional activities except when such activities clearly serve educational objectives including, but not limited to, display of books of interest to the academic community or the display or demonstration of technical or research equipment, and when such commercial activities relate to educational objectives and are conducted under the sponsorship or at the request of the college or the student association if such solicitation does not interfere with or operate to the detriment of the conduct of college affairs or the free flow of vehicular or pedestrian traffic.
- (2) For the purpose of this regulation, the term "commercial activities" does not include handbills, leaflets, newspapers and similarly related materials as regulated in WAC 495B-120-100.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-110, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-110, filed 2/10/93, effective 3/13/93.]

495B-120-120

Disciplinary process.

- (1) Any infractions of college rules may be referred by any college faculty or staff member to the vice-president of student services or a designee. That official shall then follow the appropriate procedures for any disciplinary action that he or she deems necessary relative to the alleged misconduct. In addition, a student may appeal disciplinary action taken pursuant to the provisions in WAC 495B-120-180.
- (2) The disciplinary official may take whatever action deemed appropriate within the framework of the disciplinary rules as defined in WAC 495B-120-130. If the

student concludes that any sanction imposed is inappropriate, the student may appeal the sanction pursuant to the provision in WAC 495B-120-180.

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

495B-120-130

Disciplinary terms.

The definitions set forth in this section apply throughout WAC 495B-120-135 through 495B-120-200.

- (1) "Disciplinary warning" means oral notice of violation of college rules.
- (2) "Reprimand" means formal action after censuring a student for violation of college rules for failure to satisfy the college's expectations regarding conduct. Reprimands are made in writing to the student by the disciplinary official. A reprimand indicates to the student that continuation or repetition of the specific conduct involved or other misconduct will result in one or more serious disciplinary actions described below.
- (3) "Disciplinary probation" means formal action placing conditions upon the student's continued attendance because of violation of college rules or failure to satisfy the college's expectations regarding conduct. The disciplinary official placing the student on probation will specify, in writing, the period of probation and the conditions. Disciplinary probation warns the student that any further misconduct will automatically raise the question of dismissal from the college. Disciplinary probation may be for a specified term or for an indefinite period that may extend to graduation or other termination of the student's enrollment in the college.
- (4) "Summary suspension" means temporary dismissal from the college and temporary termination of a student's status for a period of time not to exceed ten days that occurs prior to invocation of the formal hearing procedures specified in these rules due to a necessity to take immediate disciplinary action, where a student presents an imminent danger to the college property, or to himself or herself, or to other students or persons in college facilities on or off campus, or to the educational process of the college.
- (5) "Deferred suspension" means notice of suspension from the college with the provision that the student may remain enrolled contingent on meeting a specified condition. Not meeting the contingency shall immediately invoke the suspension for the period of time and under the conditions originally imposed.
- (6) "Suspension" means temporary dismissal from the college and temporary termination of student status for violation of college rules or for failure to meet college standards of conduct.
- (7) "Expulsion" means dismissal from the college and termination of student status for an indefinite period of time or permanently for violation of college rules or for failure to meet the college standards of conduct.

[Statutory Authority: RCW 28B.50.130, 11-04-016, § 495B-120-130, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-130, filed 2/10/93, effective 3/13/93.]

495B-120-135

Refunds and access.

- (1) Refund of fees for the quarter in which disciplinary action is taken shall be in accordance with the college's refund policy.
- (2) A student suspended on the basis of conduct that disrupted the orderly operation of the campus or any facility of the college may be denied access to all or any part of the campus or other college facility.

[Statutory Authority: RCW 28B.50.130, 11-04-016, § 495B-120-135, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-135, filed 2/10/93, effective 3/13/93.]

495B-120-140

Readmission after suspension or expulsion.

Any student suspended from the college for disciplinary reasons will normally be readmitted upon expiration of the time period for which the suspension was issued. If the student has been expelled or feels that circumstances warrant reconsideration of a temporary suspension prior to its expiration, or if the student was suspended with conditions imposed for readmission, the student may be readmitted following approval of a written petition submitted to the vice-president of student services. Such petition must state reasons that support a reconsideration of the matter. Before readmission may be granted, such petition must be reviewed and approved by the college president or designee.

[Statutory Authority: RCW 28B.50.130, 11-04-016, § 495B-120-140, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-140, filed 2/10/93, effective 3/13/93.]

495B-120-150

Reestablishment of academic standing.

Students who have been suspended pursuant to disciplinary procedures set forth in WAC 495B-120-120 and 495B-120-130 and whose suspension upon appeal has been overturned pursuant to the appeal procedure set forth in WAC 495B-120-180 shall be provided the opportunity to reestablish their academic and student standing to the extent possible within the abilities of the college, including an opportunity to retake examinations or otherwise complete course offerings missed by reason of such action.

[Statutory Authority: RCW 28B.50.130, 11-04-016, § 495B-120-150, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-150, filed 2/10/93, effective 3/13/93.]

495B-120-160

Disciplinary authority of the vice-president of student services.

- (1) The vice-president of student services or a designee is responsible for initiating disciplinary proceedings for infractions of rules. The vice-president of student services may delegate this responsibility to members of his/her staff and/or establish committees or other hearing bodies to advise or act for them in disciplinary matters.
- (2) In order that any informality in disciplinary proceedings not mislead a student as to the seriousness of the matter under consideration, the student involved shall be informed at the initial meeting or hearing of the several sanctions that may be applied for the misconduct.
- (3) After considering the evidence in a case and interviewing the student or students involved, the vice-president of student services or a designee may take any of the following actions:
 - (a) Terminate the proceeding, exonerating the student or students;
 - (b) Dismiss the case after whatever counseling and advice may be appropriate;
 - (c) Directly impose any of the disciplinary sanctions that are outlined in WAC 495B-120-130, subject to the student's right of appeal pursuant to WAC 495B-120-180. The student shall be notified in writing of the action taken except where the disciplinary warning is given verbally;
 - (d) Refer the matter to the student disciplinary committee for appropriate action (WAC 495B-120-170). The student shall be notified in writing that the matter has been referred to the committee.
- (4) This section shall not be construed as preventing the appropriate official, as set forth in subsection (1) of this section, from summarily suspending a student. In the event of summary suspension, the student will be given oral or written notice of the charges, an explanation of the evidence, and an informal opportunity to present his or her side of the matter. The student may elect, as well, to utilize the appeal procedures pursuant to WAC 495B-120-180.

[Statutory Authority: RCW 28B.50.130, 11-04-016, § 495B-120-160, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-160, filed 2/10/93, effective 3/13/93.]

495B-120-165**Summary suspension.**

The vice-president of student services or a designee may summarily suspend any student from the college if the vice-president has reason to believe that the student presents a danger either to self or to others on the college campus, threatens campus safety, or severely disrupts the educational process. The summary suspension procedure provides an emergency method of suspension for purposes of investigation, reviewing the impact on the campus community due to serious infraction of student behavior standards, or removing a threat to the safety and well-being of the college community.

- (1) Initial summary suspension proceedings. If the vice-president of student services believes it is necessary to exercise the authority to summarily suspend a student, the vice-president shall notify the student of the alleged misconduct and violation(s) of the campus conduct code.
 - (a) This notification may initially be given orally, but written notification shall be sent by certified and regular mail to the student's last known address or shall be personally served.
 - (b) The notice shall be entitled "Notice of Summary Suspension Proceedings" and shall state:
 - (i) The charges against the student, including the reference to the law and/or code of conduct;
 - (ii) The specified date, time, and location that the student must appear before the vice-president for a hearing, which shall be held as soon as practical after the summary suspension;
 - (iii) A warning that the student shall be considered trespassing and that the police will be called if the student enters the college campus other than to meet with the vice-president of student services or to attend the disciplinary hearing described in subsection (2) of this section.
- (2) Emergency procedure. The summary suspension procedure shall not prevent faculty members or college officials from taking reasonable summary action to maintain order if they have reason to believe that such action is necessary for the physical safety and well-being of the student or the safety and protection of other students or of college property or where the student's conduct seriously disrupts the educational process. The faculty member or college official should immediately bring the matter to the attention of the vice-president of student services for appropriate disciplinary action.
- (3) Procedures of summary suspension hearing.
 - (a) The summary suspension hearing shall be considered an informal hearing. The hearing must be conducted as soon as possible and the vice-president of student services will preside over the meeting.
 - (b) The vice-president of student services shall, at a summary suspension proceeding, determine whether there is probable cause to believe that continued suspension is necessary and/or whether some other disciplinary action is appropriate.
- (4) Decision by the vice-president of student services. The vice-president of student services may continue to enforce the suspension of the student from the college and may impose any other disciplinary action that is appropriate if the vice-president finds probable cause to believe that:
 - (a) The student against whom specific violations are alleged has actually committed one or more such violations; AND
 - (b) Summary suspension of the student is necessary for the safety of the student, other students or persons on college facilities, the educational process of the institution, or to restore order to the campus; AND
 - (c) The violation or violations constitute grounds for disciplinary action.

The vice-president of student services is authorized to enforce the suspension in the event the student has been served according to the notice requirement and fails to appear at the time designated for the summary suspension proceeding.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-165, filed 1/21/11, effective 2/21/11.]

495B-120-170**Student disciplinary committee.**

- (1) The student disciplinary committee, convened for that purpose, will hear, de novo, and make recommendations on all disciplinary cases referred to it by the appropriate authority or appealed to it by students. The committee will be appointed by the president of the college or a designee and shall be composed of one administrator, two members of the faculty, two representatives from the student council, and one counselor.
- (2) None of the above-named persons shall sit on any case in which he or she is a complainant or witness, in which he or she has a direct or personal interest, or in which he or she has acted previously in an advisory or official capacity. Decisions in this regard, including the selection of alternates, shall be made by the college president or a designee. The disciplinary committee chairperson will be elected by the members of the disciplinary committee.
- (3) After conducting its investigation, the disciplinary committee will recommend to the proper authority that the student in question:
 - (a) Be given a disciplinary warning; or
 - (b) Be given a reprimand; or
 - (c) Be placed on disciplinary probation; or
 - (d) Be placed on deferred suspension; or
 - (e) Be given a suspension; or
 - (f) Be expelled; or
 - (g) Be exonerated with all proceedings terminated and with no sanctions imposed; and/or
 - (h) Be disqualified from participation in any college-sponsored activities.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-170, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-170, filed 2/10/93, effective 3/13/93.]

495B-120-180**Discipline appeal procedure.**

Any disciplinary action taken resulting from the student disciplinary committee's recommendations as described in WAC 495B-120-170 may be appealed following the process outlined below.

- (1) The student may file an appeal using the appropriate forms. (An appointment must be made with the vice-president of student services or designee to obtain the necessary form and information.)
- (2) Appeals must be filed with the vice-president of student services or a designee.
- (3) Appeals must be filed within ten calendar days of the college giving notice of the disciplinary action. The date of notification shall be deemed to be the date the notice is mailed by the college to the student.
- (4) The vice-president of student services or a designee will monitor the appeal process.
- (5) The student will receive acknowledgment of the filing of a formal appeal. The student may withdraw the appeal at any point during the formal procedure. The vice-president of student services or a designee will notify all parties involved.
- (6) An appeal committee will be appointed annually by the college president and will consist of five individuals representing the various college constituencies. The committee will be made up of one administrator, two faculty members, and two support staff members. The complainant may request student representation on the committee. If requested, the president may select two students to substitute for a like number of existing members of the committee. Members of the committee will remove themselves from the process if they deem themselves biased or personally interested in the outcome of the appeal.
- (7) The committee will review the appeal and all other documentation related to the incident and the resulting discipline. They may request further investigation if facts warrant the need to do so. The vice-president of student services or a designee will serve as the investigating officer.

- (8) If an investigation is ordered, the investigating officer will:
- Meet with the student and the staff member(s) who initiated the discipline;
 - Examine documentation and interview witnesses;
 - Consult with the appropriate vice-president or equivalent unit head and/or other appropriate administrator; AND
 - Prepare a written investigative report.
- (9) After a full review, the committee's decision will be limited to one of the following statements:
- "Based on the evidence presented to us, we find probable cause for believing that an improper or unfair disciplinary decision or act has been committed"; or
 - "Based on the evidence presented, we find no probable cause for believing that an improper or unfair disciplinary decision or act has been committed."
- The committee will make its report in writing to the vice-president of student services or a designee. The deliberations of the committee will not be disclosed to anyone except the vice-president of student services or a designee who will hold them confidential.
- (10) If no probable cause is found, the matter will be considered concluded. However, the student may submit a written appeal to the president within ten calendar days from the date the decision is made. The appeal must specify in detail what findings, recommendations, or other aspects of the decision were not acceptable. The appeal should also include what corrective action the student desires after consideration of the appeal by the president. The president may uphold the decision of the committee, and at that point no further appeals within the college will be considered. Or, the president may instruct the committee to go forward with an appeal hearing.
- (11) If probable cause is found, a hearing will be held.
- The committee will select a chair. The chair of the committee will establish a date for the hearing. A notice establishing the date, time, and place of the hearing will be provided to all involved parties.
 - The hearing will be held within thirty calendar days from the time of the hearing notice. The date of notification shall be deemed to be the date the notice is mailed by the college to the student.
 - The student will have the privilege to challenge one member of the committee without cause (stated reason). Unlimited challenges may be issued if it is felt that a member of the committee is biased. In the case of a challenge for bias, a majority of the committee members must be satisfied that a challenged member cannot hear the case impartially before the member can be disqualified. In the case of removal of a member through the challenge process, the president will restore the committee to full membership.
 - The hearing will be conducted as expeditiously as possible and on successive days, if possible.
 - The student and any others the committee deems necessary to the proceedings will make themselves available to appear at the proceeding unless the individual can verify to the committee that their absence is unavoidable.
 - The student will be permitted to have with him/her a party of his/her own choosing to act as advisor and counsel. The hearing may be monitored by the assistant attorney general assigned to the college.
 - The hearing will be closed to all except those persons directly involved in the case as determined by the committee. Statements, testimony, and all other evidence given at the hearing will be confidential and will not be released to anyone and may be used by the committee only for the purpose of making its findings and recommendations to the president.
 - The chair of the committee will convene and regulate the proceeding. The student, identified staff, and the members of the hearing panel must be present during the proceeding unless excused by the chair for good cause. Repeated failure, without reasonable explanation, of either the student or

identified staff to appear will be grounds for defaulting that party's case. The student will have the burden of presenting the case and staff will have the burden of challenging the evidence presented.

- All parties will have the opportunity to present evidence, respond to evidence presented, and examine and cross examine witnesses.
 - The hearing committee will be empowered to examine witnesses and receive evidence; exclude any person(s) felt to be unreasonably disruptive of the proceedings; hold conferences for the settlement of the issues involved; make decisions or proposals for decisions; and take any other actions authorized by the rule consistent with this procedure.
 - No individual will be compelled to divulge information in any form that he/she could not be compelled to divulge in or in connection with court proceedings.
- Any legal opinion or interpretation given to the committee by the parties may be shared with all parties to the case.
 - The committee will file its findings and recommendations with the president, the vice-president of student services, the student, and involved staff after the conclusion of the hearing. If the findings and recommendations of the committee are acceptable to the student, the president may direct implementation of the recommendations.
- (12) If the student objects to the findings and recommendations and wishes to appeal, a written appeal may be submitted to the president within ten calendar days from the date the finding is issued. The appeal must specify in detail the findings, recommendations, or other aspects of the report or decision that are not acceptable. The appeal should also include what corrective action the student desires after consideration of the appeal by the president.
- (13) After considering an appeal, the president will issue a written decision to the parties involved. The decision of the president will be final and no further appeals within the college will be considered.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-180, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-180, filed 2/10/93, effective 3/13/93.]

495B-120-190

Reporting.

Records of all disciplinary cases shall be kept by the disciplinary official taking or initiating the action. Except in proceedings where the student is exonerated, all documentary or other physical evidence produced or considered in disciplinary proceedings and all recorded testimony shall be preserved, insofar as is reasonably possible, for five years. No other records of proceedings wherein the student is exonerated, other than the fact of exonerated, shall be maintained in the student's file or other college repository after the date of the student's graduation or not more than five years.

[Statutory Authority: RCW 28B.50.130. 11-04-016, § 495B-120-190, filed 1/21/11, effective 2/21/11. Statutory Authority: RCW 28B.10.140, 42.30.075 and chapter 34.05 RCW. 93-05-018, § 495B-120-190, filed 2/10/93, effective 3/13/93.]



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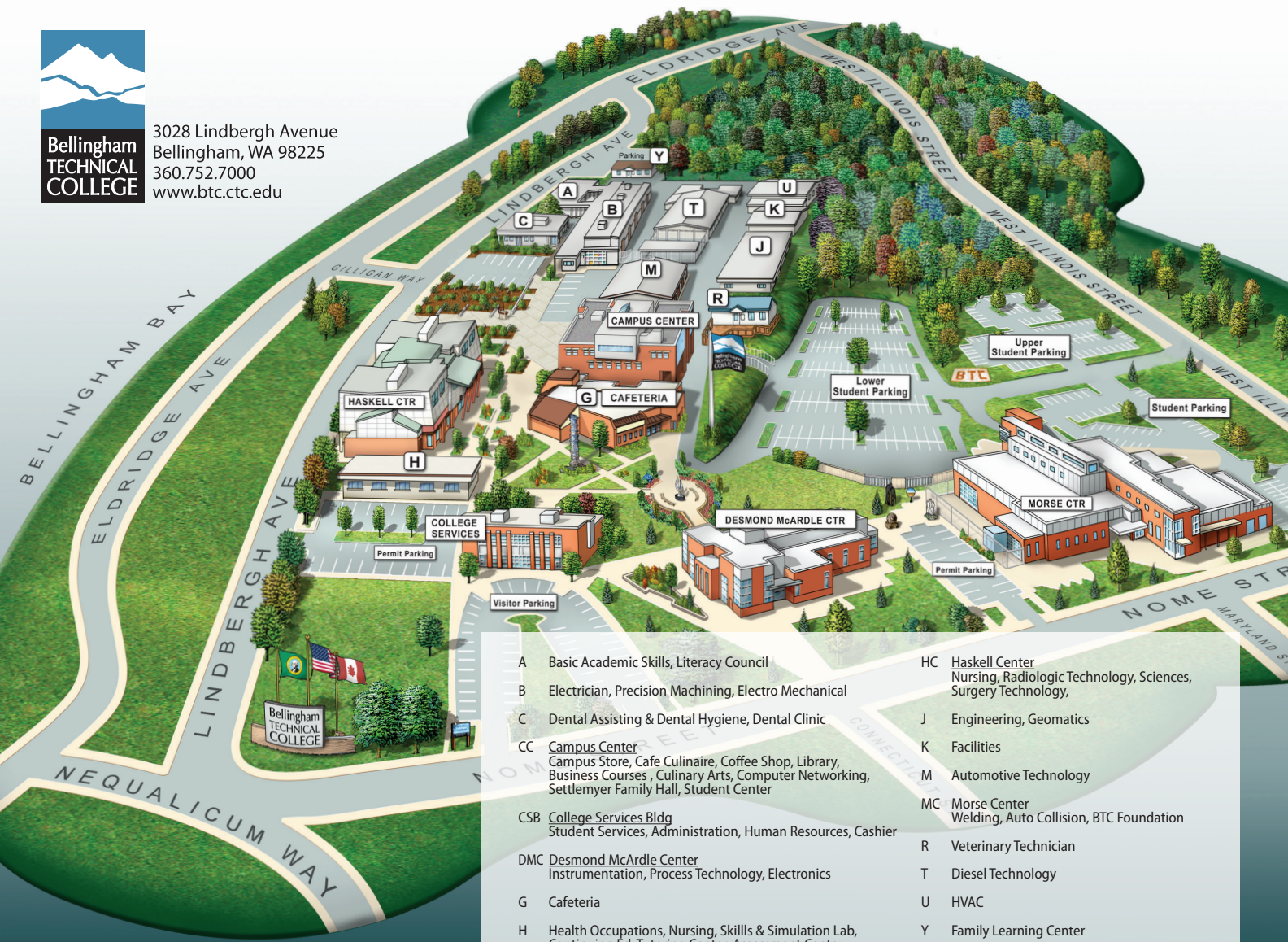
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| A | Basic Academic Skills, Literacy Council | HC | Haskell Center
Nursing, Radiologic Technology, Sciences,
Surgery Technology, |
| B | Electrician, Precision Machining, Electro Mechanical | J | Engineering, Geomatics |
| C | Dental Assisting & Dental Hygiene, Dental Clinic | K | Facilities |
| CC | Campus Center
Campus Store, Cafe Culinaire, Coffee Shop, Library,
Business Courses , Culinary Arts, Computer Networking,
Settlemyer Family Hall, Student Center | M | Automotive Technology |
| CSB | College Services Bldg
Student Services, Administration, Human Resources, Cashier | MC | Morse Center
Welding, Auto Collision, BTC Foundation |
| DMC | Desmond McArdele Center
Instrumentation, Process Technology, Electronics | R | Veterinary Technician |
| G | Cafeteria | T | Diesel Technology |
| H | Health Occupations, Nursing, Skills & Simulation Lab,
Continuing Ed, Tutoring Center, Assessment Center | U | HVAC |
| | | Y | Family Learning Center |