Bellingham TECHNICAL COLLEGE

2007-2008 CATALOG




BELLINGHAM TECHNICAL COLLEGE

PROFESSIONAL TECHNICAL EDUCATION

Welcome to Bellingham Technical College

Thank you for considering Bellingham Technical College. We are very pleased you are taking this time to get to know us.

First and foremost, know that Bellingham Technical College exists to serve you. Our diverse team of faculty and staff are all committed to help you achieve your dreams and career goals. This educational quest will be a partnership formed of your hard work and effort and our experience and expertise. We can, together, truly transform your life.

Bellingham Technical College prides itself on providing the finest in educational programming and top-notch services to aid you in this quest. Every year we conduct a survey of our current students to learn what they think of the education and services we provide. One of the questions we ask is, "In general, would you recommend BTC to other potential students?" Ninety-five percent of the students said "yes." When we ask employers if they are satisfied with our graduates and would hire more BTC students, ninety-six percent answered "yes." These numbers speak for themselves and are strong testimony to the quality that is Bellingham Technical College and the education we provide.

Bellingham Technical College has achieved such positive results for several reasons. First, we are a community of students, faculty, and staff engaged in the purposeful pursuit of learning. We form close-knit teams of students and staff in our programs, most students graduating with the same classmates with whom they began. Second, we have a solid group of experienced professionals in our Student Services division who strive to provide the finest quality support for students possible. Third, we work diligently with area employers and businesses to make sure that our programs and courses are as current as possible, our equipment up to the quality standards of the industry, and that we know where future trends are emerging. Fourth, although we are growing, our faculty and staff have been able to maintain the one-to-one attention with students that are the hallmark and advantage of a small campus.

Our goal at Bellingham Technical College is your success. Come join us and become a part of the BTC family.

Thomas Eckert

Thomas Eckert, Ed.D.
President

COLLEGE CALENDAR - 2007-2008

FALL QUARTER 2007

Classes Begin	September 18
Faculty Inservice (no daytime program classes)	October 26
Veteran's Day Holiday	November 12
Continuing Program Student Registration for Winter	November 13-15
Winter Quarterly Schedule Available	November 15
Course Registration for Winter begins	November 19
Thanksgiving Holiday	November 22-23
Last day to officially withdraw or change schedule in a fall program	November 29
New Program Student Registration for Winter	November 27-30
Tuition/fees due for Winter	December 12
Quarter Ends	December 14

WINTER QUARTER 2008

Winter Break	December 16 - January 1
Classes Begin	January 2
Martin Luther King Jr. Day Holiday	January 21
President's Day Holiday	February 18
Continuing Program Student Registration for Spring	February 20-22
Spring Quarterly Schedule Available	February 21
Course Registration for Spring begins	February 25
New Program Student Registration for Spring	February 26 - 29
Last day to withdraw or change schedule in a winter program	March 13
Tuition/fees due for Spring	March 20
Quarter Ends	March 27

SPRING QUARTER 2007

Spring Break	March 28-April 4
Classes Begin	April 7
Continuing Program Student Registration for Summer & Fall	May 13-June 13
New Program Student Registration for Summer & Fall	May 20-23
Summer Quarterly Schedule Available	May 22
Course Registration for Summer begins	May 27
Last day to withdraw or change schedule in a program	June 17
Tuition/fees due for Summer	June 12
Quarter Ends	June 30

SUMMER QUARTER 2008

Classes Begin	July 1
Independence Day Holiday	July 4
Last day to withdraw or change schedule in a summer program	July 31
Fall Quarterly Schedule Available	July 31
Quarter Ends	August 12
Tuition/fees due for Fall	August 28

Note: Quarter start and end dates for Fisheries Technology, Automotive Technology and Diesel Equipment Technology are different than other programs. See their specific program pages for start and end dates.

PHONE DIRECTORY

Admissions	360.752.8345
e-mail	admissions@btc.ctc.edu
Adult Basic Education	360.752.8341
Advising	360.752.8345
Basic Academic Skills	360.752.8341
Bookstore	360.752.8342
Business Services	360.752.8343
Cafe Culinaire/Cafeteria	360.752.8347
Career Center	360.752.8450
Cashier	360.752.8311
Counseling & Guidance	360.752.8450
Degree/Certificate Programs	360.752.8345
Dental Clinic	360.752.8349
Disability Support Services	360.752.8367
Diversity Student Services	360.752.8377
English as a Second Language	360.752.8428
Faculty	360.752.7000
Financial Aid	360.752.8351
e-mail	beltcfa@btc.ctc.edu
Foundation	360.752.8378
General Information	360.752.7000
Grades Inquiry	360.752.8350
Job Resource Center	360.752.8396
Learning Center	360.752.8341
Library	360.752.8383
	http://bellingham.library.ctc.edu
Registration	360.752.8350
e-mail	registration@btc.ctc.edu
Single-Parent/Displaced Homemaker Program	360.752.8441
Transcripts - BTC	360.752.8434
TTY	360.752.8515
Tuition and Fees	360.752.8350
Veterans Assistance	360.752.8374
Workfirst	360.752.8397
Worker Retraining	360.752.8324

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.

Table of Contents

CHAPTER 1
ABOUT OUR COLLEGE

BTC HISTORY

Bellingham Technical College began in 1957, serving Whatcom County adults as Bellingham Vocational Technical Institute and was operated by Bellingham School District. In 1991, through State legislative action, the institution was designated a member of the Washington State Community and Techincal College system as Bellingham Technical College (BTC).

The College is located in a district of 2,210 square miles with a population of over 174,000. The majority of students are local, with a growing number moving to the area to enroll at BTC.

ABOUT OUT STUDENTS

In the 2006-2007 academic year, the College served over 7,500 students. In fall 2006, the student body was 52% female and 48% male, with 22% minority students, and the average student age was 28 years old. BTC served over 2,050 full-time equivalent students during the 2006-2007 academic year.

ACCREDITATION STATUS

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

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

ADVISORY COMMITTEES

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

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

DRUG FREE WORKPLACE

BTC intends to promote a drug free, healthful, safe and secure work environment. The unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in or on property owned or controlled by Bellingham Technical College. The use of any unlawful controlled substance while in or on property owned or controlled by BTC is prohibited. No employee will report to work while under the influence of any unlawful controlled substance. A controlled substance is defined by RCW 69.50.201 through RCW 69.50.214 or pursuant to Title 21 USC Section 821 (Schedules I-IV), as now enacted or subsequently amended. Violation of this policy by any employee may result in a referral for mandatory evaluation or treatment for a substance abuse disorder. Disciplinary action up to and including dismissal from employment may be imposed. BTC recognizes drug dependency to be an illness and major health problem. The institution also classifies drug useage and abuse as a potential safety and security problem. Employees needing assistance in dealing with such problems are strongly encouraged to utilize the Employee Assistance Program provided by health insurance plans, when appropriate.

EQUAL OPPORTUNITY STATEMENT

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

About Our College

STRATEGIC PLAN

VISION
To be a recognized leader in providing innovative and effective technical education, creating options for career success, and developing a competitive workforce.

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

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

Student Success
Promote Instruction, activities, and an environment to enable student success.

Inclusiveness
Create a welcoming respectful campus.

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

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

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

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

GOALS

Excellence & Innovation
BTC will support and promote excellence and innovation throughout the College.

Access
BTC will increase student access to seamless, educational pathways.

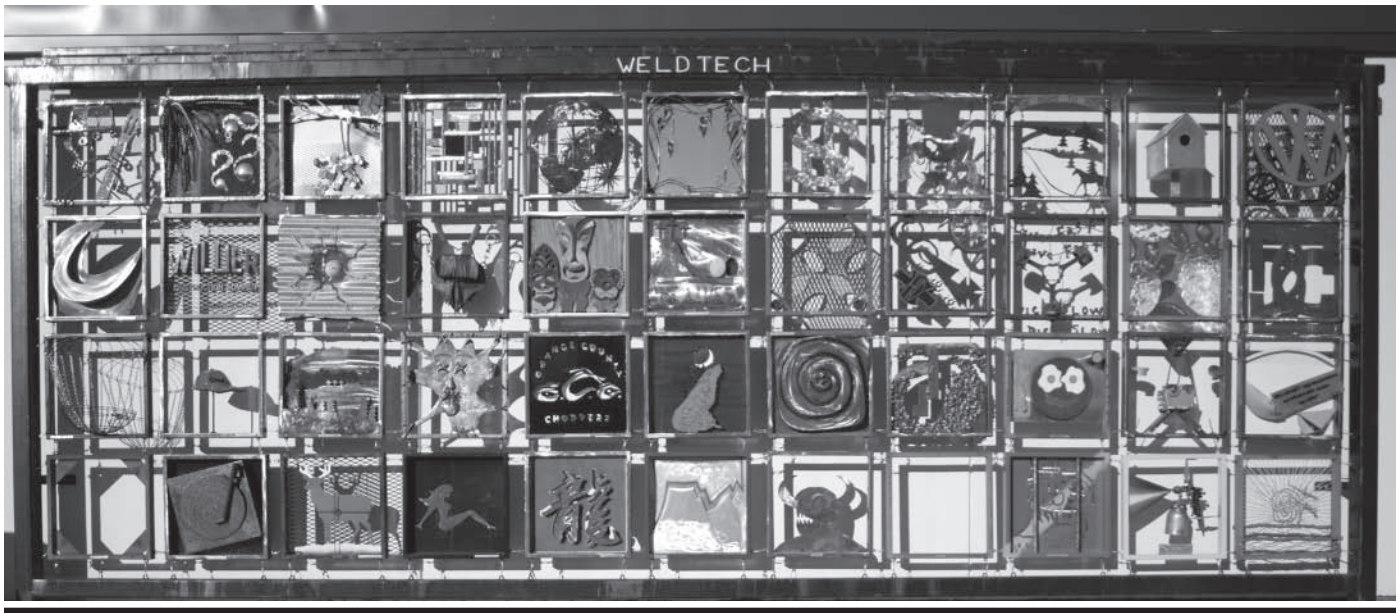
Student Success
BTC will increase students' goal achievement by providing activities and opportunities for learning, growth, and leadership.

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

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

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

Marketing & Resource Development
BTC will broaden resources and community support to ensure the college's growth and viability.



BTC FOUNDATION

BTC FOUNDATION

The mission of Bellingham Technical College Foundation is to enhance student success by securing resources that support student scholarship, faculty and staff development, and community awareness of Bellingham Technical College. If you would like to make a donation to the Foundation or become involved in Foundation activities, please contact the Foundation office as listed below. Your support is appreciated.

Bellingham Technical College Foundation
College Services Building, #204
3028 Lindbergh Avenue
Bellingham, WA 98225
Telephone 360.752.8378
Fax 360.752.7178

The Foundation is governed by a local, independent board of directors.

BTC Foundation Board of Directors

OFFICERS

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President, Toft Development

Mike Abendhoff,Vice President
Manager, Government and Public Affairs, BP Cherry Point Refinery

David Blair, Treasurer
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Mary Humphries
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Darla Smith
Development Associate

Bellingham Technical College Foundation is a non-profit corporation under section 501c3 of IRS code. All gifts to the BTC Foundation are tax deductible as provided by law.

CHAPTER 2
PROGRAMS OF STUDY

Accounting Technician

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Accounting Technician
Certificate - Accounting Assistant

PROGRAM DESCRIPTION

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

To be successful, accounting students should have an aptitude for working with numbers, be detail-oriented, and have the ability to concentrate and communicate. Jobs in the area of accounting afford many opportunities for challenging and rewarding work. Accounting students are eligible to join the International Association of Administrative Professionals (IAAP) or the North Cascades Chapter of American Society of Women Accountants (ASWA).

PROGRAM OUTCOMES

The Accounting Technician degree prepares students to seek employment in public, private, and/or governmental entities as accounting clerks, accounting technicians, bookkeepers, accounting support personnel, or payroll assistants. Graduates of Accounting will be able to demonstrate with 80% accuracy effective skills using computerized accounting software, computing payrolls, payroll taxes, tax forms, and the ability to apply Generally Accepted Accounting Principles in locating and correcting errors made to the financial records of a business. In a three minute timing, with a one error limit, graduates will demonstrate effective 10-key skills. With a three error limit, graduates will demonstrate basic keyboarding at 35 nwpm.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in Accounting at the start of each quarter. Admission is offered on a space available basis. Students may enroll full-time or part-time.

SEQUENCE & SCHEDULE

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

It is estimated that a full-time student can complete Accounting Assistant in three quarters and Accounting Technician in five quarters. Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

ACCOUNTING TECHNICIAN
Associate in Applied Science

Course #	Title	Credits
ACCT 141	Financial Accounting I	5
ACCT 242	Financial Accounting II	5
ACCT 243	Financial Accounting III	5
ACCT 245	Payroll Procedures	5
ACCT 246	Computerized Accounting I	5
ACCT 254	Managerial Accounting	5
ACCT 270	Internship	3
BUS 100	Electronic Math Applications	3
BUS 150	Mathematics for Business	5
BUS 171	Technical Communications	5
BUS 177	Business English I	3
BUS 280	Portfolio/Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 142	MS Excel	5
PSYC 111	Interpersonal & Organizational Psychology	5
Suggested Departmental Electives		*36*
ACCT 200	Personal Income Tax Preparation	5
BUS 123	Records Management	3
BUS 178	Business English II	3
BUS 200	Business Law	5
BUS 230	Medical Office Procedures	5
BUS 232	Office Procedures	5
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 109	Computerized Keyboard/Skillbuilding II	3
CAP 110	Data Entry	3
CAP 138	MS Word	5
CAP 146	MS Access	5
CAP 148	MS Powerpoint	3
CAP 200	Integrated Computer Applications	5
CIS 145	Website Development	5
MGMT 152	Small Business Management	3
MGMT 210	Supervision for the Office	5
TOTAL: (Approx. 5-6 quarters)		**107**

GENERAL EDUCATION
AAS

Course #	Title	Credits
BUS 171	Technical Communications	5
BUS 150	Mathematics for Business	5
PSYC 111	Interpersonal and Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5

Plus 5 credits in social science, humanities or science.

Accounting Technician degrees/certificates continued on next page

ACCOUNTING ASSISTANT
Certificate

Course #	Title	Credits
ACCT 141	Financial Accounting I	5
ACCT 242	Financial Accounting II	5
ACCT 245	Payroll Procedures	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 177	Business English I	3
BUS 280	Portfolio/Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 142	MS Excel	5
PSYC 111	Interpersonal & Organizational Psychology	5
Suggested Department Electives		*9*
ACCT 243	Financial Accounting III	5
BUS 123	Records Management	3
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 110	Data Entry	3
CAP 138	MS Word	5
CAP 146	MS Access	5
CAP 148	MS Powerpoint	3
TOTAL: (Approx. 3 quarters)		**67**

Administrative Assistant

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Administrative Assistant

PROGRAM DESCRIPTION

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

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

PROGRAM OUTCOMES

Administrative Assistant graduates will demonstrate competency in touch keyboarding at 50 wpm on a three minute timing; along with 80% competency in business document formatting, proofreading, word processing, spreadsheets, databases, presentation graphics, data entry, 10-key proficiency, alphabetic and numeric filing, and administrative assistant support to an employer.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in this program at the start of each quarter. Admission is offered on a space available basis. Students may enroll on a full-time or part-time basis.

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards. In order to earn an Administrative Assistant degree, students must maintain a 2.0 grade point averagewith no course grade below C (2.0). Students may successfullychallenge CAP 101, Introduction to Computers, by passing the three IC3 Certification tests.

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

ADMINISTRATIVE ASSISTANT
Associate in Applied Science

Course #	Title	Credits
ACCT 141	Financial 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 177	Business English I	3
BUS 178	Business English II	3
BUS 225	Internship	6
BUS 232	Office Procedures	5
BUS 280	Portfolio/Assessment	1
CAP 101	Introduction to Computers	5
CAP 105	Computerized Touch Keyboarding	2
CAP 106	Formatting with MS Word	4
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 109	Computerized Keyboard/Skillbuilding II	3
CAP 110	Data Entry	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
PSYC 111	Interpersonal and Organizational Psychology	5
Departmental Electives		20
TOTAL: (Approx. 5-6 quarters)		**107**

GENERAL EDUCATION
AAS

Course #	Title	Credits
BUS 171	Technical Communications	5
BUS 150	Mathematics for Business	5
PSYC 111	Interpersonal and Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Administrative Assistant degrees/certificates continued on next page

Appliance & Refrigeration Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Appliance & Refrigeration Technology
Certificate - Appliance Repair

PROGRAM DESCRIPTION

The Appliance & Refrigeration Technology program prepares students for an exciting and rewarding career in the Appliance & Refrigeration trade. Program graduates have become successful appliance technicians, service managers, and business owners and have also found careers in hotel/motel/apartment maintenance, vending machine servicing, parts specialists, and refrigerant recovery specialists. Quality technicians are in high demand both regionally and nationally. The program emphasizes the development of diagnostic skills and effective customer service techniques. Students are expected to develop positive work ethics, technical skills, as well as interpersonal and communication skills required by the industry. The program also offers a one year Appliance Repair certificate.

Upon successful completion of either the Appliance & Refrigeration Technology degree or certificate program, graduates applying to the Department of Labor & Industries to become an Appliance Repair (07D) Specialty Electrician can be credited with 1000 hours of supervised work experience per RCW 19.28.191 and WAC 296-46B-940. Under the auspices of the Professional Service Association (PSA), students completing the AAS Degree will have an opportunity to take the Certified Appliance Professional (CAP) exam prior to graduation.

PROGRAM OUTCOMES

Graduates will demonstrate a minimum of 70% or above competency in: safety (electrical); direct current (DC); meters/test equipment, electrical circuits, electrical controllers, timers, E.C. boards, lab diagnostics and a variety of types of control mechanisms. Graduates will demonstrate knowledge of application of EPA regulations regarding the use of refrigerants, and will successfully complete the AHAM/NARDA Certification for systems under five (5) lbs.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Appliance & Refrigeration Technology program at the start of each quarter on a space available basis. Part-time enrollment is available for the morning section only with instructor approval.

SEQUENCE & SCHEDULE

The Appliance & Refrigeration Technology student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

DEGREE & CERTIFICATE REQUIREMENTS

tudents may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

APPLIANCE & REFRIGERATION TECHNOLOGY
Associate in Applied Science

Course #		Title	Credits
APPL	100	Introduction to Trade & Occupational Safety	1
APPL	105	Electrical Theory I	8
APPL	106	Electrical - Practical I	5
APPL	109	Tool/Testing Equipment	1
APPL	112	Motor Circuits	2
APPL	114	Electrical Dryers	7
APPL	116	Washers I	7
APPL	117	Washers II	3
APPL	118	Washers III	7
APPL	122	Dishwashers	8
APPL	124	Compactors/Disposers	4
APPL	126	Microwave Ovens	6
APPL	191	Leadership	1
APPL	201	Water Heaters	1
APPL	202	Gas Fundamentals	2
APPL	203	Ranges/Ovens/Cooktops	10
APPL	204	Gas Labs	4
APPL	205	Refrigeration Theory	7
APPL	207	Refrigeration Lab 1	10
APPL	208	Refrigeration Lab II	6
APPL	209	Refrigeration Lab III	6
APPL	210	Ice Makers	4
APPL	212	Air Conditioners	4
APPL	216	Business Procedures/Practices	1
COM	170	Oral and Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal and Organizational Psychology	5
TOTAL: (Approx. 6 quarters)			**130**

GENERAL EDUCATION
AAS

Course #		Title	Credits
MATH	100	Occupational Math	5
COM	170	Oral and Written Communications	5
PSYC	111	Interpersonal and Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5

Plus 5 credits in social science, humanities or science.

APPLIANCE REPAIR
Certificate

Course #		Title	Credits
APPL	100	Introduction to Trade & Occupational Safety	1
APPL	105	Electrical Theory I	8
APPL	106	Electrical - Practical I	5
APPL	109	Tool/Testing Equipment	1
APPL	112	Motor Circuits	2
APPL	114	Electrical Dryers	7
APPL	116	Washers I	7
APPL	117	Washers II	3
APPL	118	Washers III	7
APPL	122	Dishwashers	8
APPL	124	Compactors/Disposers	4
APPL	126	Microwave Ovens	6
APPL	201	Water Heaters	1
APPL	202	Gas Fundamentals	2
APPL	203	Ranges/Ovens/Cooktops	10
COM	170	Oral and Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal and Organizational Psychology	5
TOTAL: (Approx. 3 quarters & 1 Summer)			**87**

Automotive Collision Repair Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Automotive Collision Repair Technology

Certificate - Automotive Refinishing

Auto Collision Repair Program is an I-CAR Industry Training Alliance Member

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Auto Collision Repair Technology program at the start of the fall, winter, or spring quarter. Part-time enrollment may be available with instructor permission.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
ACRT 101	Introduction to Auto Collision Repair	4
ACRT 105	Non-structural Welding	8
ACRT 110	Refinishing Safety	2
ACRT 115	Non-structural Repair	2
ACRT 123	Non-structural Metal Finishing	7
ACRT 125	Refinishing Surface Preparation	7
ACRT 128	Spray Gun Operation	3
ACRT 130	Damage Analysis	2
ACRT 133	Paint Matching and Blending	7
ACRT 135	Refinish Paint Defects	3
ACRT 138	Restoring Corrosion Protection	3
ACRT 140	Drive Train, Fuel, Brakes, HVAC	3
ACRT 141	Outer Body Panel Repair	4
ACRT 143	Shop Practicum I	6
ACRT 251	Structural Welding	5
ACRT 253	Moveable Glass and Hardware	2
ACRT 254	Structural Fixed Glass	2
ACRT 255	Suspension and Steering	6
ACRT 256	Unibody Inspection	4
ACRT 262	Frame Inspection and Repair	4
ACRT 263	Restraint Systems	3
ACRT 264	Plastics and Adhesives	4
ACRT 266	Electrical System Repair	5
ACRT 268	Refinishing Final Detail	3
ACRT 270	Shop Practicum II	10
ACRT 275	Internship	7
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 6 quarters & 1 Summer)		**131**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

AUTOMOTIVE REFINISHING
Certificate

Course #	Title	Credits
ACRT 101	Introduction to Auto Collision Repair	4
ACRT 110	Refinishing Safety	2
ACRT 115	Non-structural Repair	2
ACRT 123	Non-structural Metal Finishing	7
ACRT 125	Refinishing Surface Preparation	7
ACRT 128	Spray Gun Operation	3
ACRT 133	Paint Matching and Blending	7
ACRT 135	Refinish Paint Defects	3
ACRT 138	Restoring Corrosion Protection	3
ACRT 143	Shop Practicum I	6
ACRT 268	Refinishing Final Detail	3
ACRT 275	Internship	7
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 4 quarters)		**69**

Automotive Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Automotive Technology
Certificate - General Automotive Repair
Certificate - Vehicle Service Technician

The Automotive Technology Program is a Master NATEF/ASE Certified Program

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Automotive Technology program at the start of fall or winter quarter.

Students must have a valid driver's license and be insurable to participate in work-based learning sections of this program. It is highly recommended that students be at least 18 years old before beginning the work-based learning component.

SEQUENCE & SCHEDULE

Students may enter Automotive Technology fall or winter quarter. For the first quarter, students will enroll in Trans 101, 102, and 103 plus at least one additional general education class (MATH 100, COM 170 or PSYC 111). We recommend enrolling into a morning MWF or an evening related class (MATH 100, COM 170 or PSYC 111) during the first quarter. Full-time students will finish in seven quarters; summer is required.

DEGREE & CERTIFICATE REQUIREMENTS

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

AUTOMOTIVE TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
AUTO 103	Engines	10
AUTO 107	Brakes	8
AUTO 122	Basic Drive Train	3
AUTO 141	Engine Performance I	2
AUTO 208	Electrical/Electronics	15
AUTO 209	Steering/Suspension	7
AUTO 213	HVAC	5
AUTO 219	Applied Automotive Concepts I	9
AUTO 229	Applied Automotive Concepts II	5
AUTO 241	Engine Performance II	11
AUTO 250	Automatic Transmission/Transaxle	6
AUTO 259	Applied Automotive Concepts III	3
AUTO 260	Manual Transmission/Drivetrain	4
AUTO 279	Applied Automotive Concepts IV	3
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal and Organizational Psychology	5
TRANS 101	Basic Transportaion Service & Systems I	5
TRANS 102	Basic Transportaion Service & Systems II	5
TRANS 103	Basic Transportaion Service & Systems III	5
TOTAL: (Approx. 7 quarters)		**121**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

GENERAL AUTOMOTIVE REPAIR
Certificate

Course #	Title	Credits
AUTO 103	Engines	10
AUTO 107	Brakes	8
AUTO 141	Engine Performance I	2
AUTO 208	Electrical/Electronics	15
AUTO 259	Applied Automotive Concepts III	3
OR		
AUTO 279	Applied Automotive Concepts IV	3
COM 170	Oral & Written Communications	5
OR		
PSYC 111	Interpersonal & Organizational Psychology	5
TRANS 101	Basic Transportaion Service & Systems I	5
TRANS 102	Basic Transportaion Service & Systems II	5
TRANS 103	Basic Transportaion Service & Systems III	5
TOTAL: (Approx. 3 quarters)		**58 CRs**

VEHICLE SERVICE TECHNICIAN
Certificate

Course #	Title	Credits
TRANS 101	Basic Trans. Service & Systems I	5
TRANS 102	Basic Trans. Service & Systems II	5
TRANS 103	Basic Trans. Service & Systems III	5
TOTAL: (Approx. 1 quarter)		**15**

Bookkeeping Assistant

DEGREES/CERTIFICATES OFFERED:
Certificate - Bookkeeping Assistant

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Prerequisite: Basic keyboarding sklils.

Program application and admission are not required. Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are held in the evening, generally from 6:00pm to 9:00pm. Some courses may be offered in the afternoon. See Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verificationof all requirements and standards.

The Degree and Certificate application procedure is listed on page 74.

BOOKKEEPING ASSISTANT
Certificate

Course #		Title	Credits
ACCT	141	Financial Accounting I	5
BUS	184	Customer Service	3
CAP	101	Introduction to Computers	5
MGMT	100	Business and Professional Ethics	3
CAP	107	Computerized Keyboarding/Skillbuilding	3
CAP	154	Computerized Accounting Level A Using Quickbooks	3
CAP	155	Computerized Accounting Level B Using Quickbooks	3
Prerequisite: Basic keyboarding skills			
TOTAL: (Approx. 4 quarters)			**25**

Building Construction Technology

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Building Construction Technology
Certificate - Construction Technician

PROGRAM DESCRIPTION

The Building Construction Technology program prepares students for employment in a wide range of maintenance and construction industry positions. The Associate in Applied Science degree focuses on training students in the use of tools, materials, and techniques to be problem solvers and provides theory and practice through class and community projects in all aspects of the construction trade. The goal of the program is that graduates will have the necessary trade skills, academic competencies, and industry/work attitudes to become competent and efficient tradespersons employable in the industry or through self-employment. The program offers a Construction Technician certificate.

PROGRAM OUTCOMES

Graduates will demonstrate competency in their ability to use and work safely with hand tools of the trade, common power tools, i.e., circular saws, electric drills, power planers, etc.; demonstrate their ability to plan and execute projects to completion, read and interpret architectural drawings, plans, and light frame construction methods.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Building Construction Technology program at the start of each quarter on a space available basis. Part-time enrollment is available for the morning section only with instructor approval.

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

BUILDING CONSTRUCTION TECHNOLOGY
Associate in Applied Science

Course #		Title	Credits
BCT	111	Career Opportunities and Industrial Safety	1
BCT	112	Construction Materials and Application	2
BCT	113	Hand Tool Use and Operations	2
BCT	114	Portable Power Tools Use and Operations	4
BCT	115	Stationary Power Tool Use and Operations	4
BCT	116	Building Layout	3
BCT	117	Concrete and Concrete Forming	2
BCT	121	Blueprint Reading	4
BCT	122	Framing Methods - Floor Framing	4
BCT	123	Framing Methods - Wall Framing	4
BCT	124	Framing Methods - Ceiling Framing	4
BCT	125	Truss Roof Framing	4
BCT	130	Roof Framing	5

Building Construction degrees/certificates continued on next page

BCT	131	Roof Sheathing and Coverings	2
BCT	132	Stair Framing	2
BCT	133	Exterior Door Windows and Skylights	4
BCT	134	Exterior Walls and Roof Coverings	2
BCT	135	Interior Wall Covering Insulation and Trim	4
BCT	136	Intro to House Wiring and Plumbing	3
BCT	241	CAD Drafting Fundamentals	8
BCT	242	Building Plan Drafting	8
BCT	243	Estimating Materials and Labor	5
BCT	245	Project Tracking	2
BCT	251	Internship Building Construction	11
COM	170	Oral and Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal and Organizational Psychology	5
TOTAL: (Approx. 5 quarters)			**109**

GENERAL EDUCATION
AAS

Course #		Title	Credits
MATH	100	Occupational Math	5
COM	170	Oral & Written Communications	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5

Plus 5 credits in social science, humanities or science.

CONSTRUCTION TECHNICIAN
Certificate

Course #		Title	Credits
BCT	111	Career Opportunities and Industrial Safety	1
BCT	112	Construction Materials and Application	2
BCT	113	Hand Tool Use and Operations	2
BCT	114	Portable Power Tools Use and Operations	4
BCT	115	Stationary Power Tool Use and Operations	4
BCT	116	Building Layout	3
BCT	117	Concrete and Concrete Forming	2
BCT	121	Blueprint Reading	4
BCT	122	Framing Methods - Floor Framing	4
BCT	123	Framing Methods - Wall Framing	4
BCT	124	Framing Methods - Ceiling Framing	4
BCT	125	Truss Roof Framing	4
BCT	130	Roof Framing	5
BCT	131	Roof Sheathing and Coverings	2
BCT	132	Stair Framing	2
BCT	133	Exterior Door Windows and Skylights	4
BCT	134	Exterior Walls and Roof Coverings	2
BCT	135	Interior Wall Covering Insulation and Trim	4
BCT	136	Intro to House Wiring and Plumbing	3
COM	170	Oral and Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal and Organizational Psychology	5
TOTAL: (Approx. 3 quarters)			**75**

Business & Supervision Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Business & Supervision Management

PROGRAM DESCRIPTION

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

- Supervision
- Office Management
- Small Business Operation

This evening program can be completed in four to five quarters, and can benefit those who want to improve their managerial skills, seek career advancement, or gain professional recognition.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

The Degree and Certificate application procedure is listed on page 74.

SEQUENCE & SCHEDULE

Courses are generally held each quarter in the afternoon, evenings, and some are held on Saturdays. Courses are not sequential. See a Quarterly Schedule for specific information

DEGREE & CERTIFICATE REQUIREMENTS

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

BUSINESS & SUPERVISION MANAGEMENT
Certificate

Course #		Title	Credits
ACCT	141	Financial Accounting I	5
BUS	140	Supervision and Management	3
MGMT	152	Small Business Management	3
BUS	184	Customer Service	3
MGMT	101	Conflict Management	1
HRM	201	Management of Human Resources: An Overview	3
MGMT	100	Business & Professional Ethics	3
HRM	210	Employment Law & Labor Relations	3
BUS	141	Total Quality Management	2
MGMT	102	The Leadership Process	3
HRM	220	Training & Staff Development	3
TOTAL: (Approx. 4-5 quarters)			**32**

Career and Technical Education

DEGREES/CERTIFI CATES OFFERED:
Certificate - Career and Technical Education

PROGRAM DESCRIPTION

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

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

This program is designed specifically for post-secondary professional-technical educators. Approval of the Dean, Educator Training Center is required.

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

APPLICATION & REGISTRATION

Students may enroll in this program at the start of each quarter. Admissions is offered on a space available basis. Approval of the Dean, Educator Training Center is required. Students may enroll full-time or part-time.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

CAREER AND TECHNICAL EDUCATION
Certificate

Course #	Title	Credits
EDUC 175	Achieving Information Literacy	1
EDUC 207	Teach/Facilitate I	3
EDUC 209	Teach/Facilitate II	3
EDUC 211	Planning For Instruction	3
EDUC 216	Assessment For Learning	3
EDUC 221	Leadership Development	3
EDUC 275	Career & Technical Education Internship	3
HLTH 150	First Aid Industrial	1
EDUC 241	Learning & Adapting New Technologies	5
PSY 180	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 3 quarters)		**30**

Child Development

DEGREES/CERTIFICATES OFFERED:
Certificate - Child Development

PROGRAM DESCRIPTION

The Child Development Essentials Program prepares students for work in the early childhood care and education field. This coursework can lead to a certificate in Child Development from Bellingham Technical College, the national credential as a Child Development Associate, or as the core coursework for the Washington Child Care Associate 1 Apprenticeship. The three CDA Essentials courses are also transferable to most community and technical colleges for twelve credits towards a certificate or degree in Early Childhood Education. Core competencies covered in this program prepare early childhood educators to work effectively with young children and their families. Major topic areas include introduction to early childhood, ways children learn, healthy environments, social and emotional development, physical and intellectual competency, curriculum development, family relationships, and professionalism.

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 families;
- Facilitate strategies to manage an effective program operation;
- Maintain a commitment to professionalism;
- Observe and record children's behavior; and
- Apply principles of child growth and development.

APPLICATION & REGISTRATION

Prerequisite: Students must have completed ECED 112 STARS: Basics in Child Care prior to starting certificate coursework.

Program application and admission are not required. It is best for students to begin the program by registering for ECED 120—CDA Essentials: Intro to ECE/Health, Safety & Nutrition during fall quarter on a space available basis. However, students can begin the courses in winter or spring as well. It is recommended that students have good basic academic skills. A program brochure is available from the Counseling and Career Center.

SEQUENCE & SCHEDULE

This program consists of three required courses that are offered in the evenings and on some Saturdays. Each course includes field work as well as coursework and ten hours of mentored activities. See a Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards.The Degree and Certificate application procedure is listed on page 74.

CHILD DEVELOPMENT
Certificate

Course #	Title	Credits
ECED 120	CDA Essentials 1: Intro to ECE/Health, Safety and Nutrition	4
ECED 121	CDA Essentials 2: Child Development/Learning Environments	4
ECED 122	CDA Essentials 3: Working with Families/Professionalism	4
Optional Electives		
ECED 123	Prep for Child Development Associates (CDA) Assessment	1
BAS/ABE	Basic Academic Skills Courses	
TOTAL: (Approx. 3 quarters)		**12**

Civil Engineering Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Civil Engineering Technology

AAS - Civil Construction Management

Western Washington Student Chapter of the American Society of Certified Engineer Technicians (WWSC - ASCET)

PROGRAM DESCRIPTION

The Civil Engineering Technology program prepares students for opportunities in diverse professions, including Civil Drafting/Drawing, Junior Construction Management, Desktop Mapping (Geographic Information Systems - GIS), Construction Materials Testing, Construction Inspection, and Surveying. These jobs can be found at the Department of Transportation, County Public Works, City Public Works, various private civil engineering and surveying firms, and heavy civil construction firms.

Skills are learned in the classroom, the Computer Aided Drafting (CAD) lab, and field measurement with surveying instruments and the internship. The coursework utilizes hands-on projects to simulate the work environment. All students are expected to develop and demonstrate positive work ethics, technical skills, interpersonal and communication skills as required by the industry. The AAS degree in Civil Engineering Technology prepares the student in the theory and application of civil engineering principles in civil drawing, civil design, construction engineering, geographic information systems (GIS) production, and field engineering. In addition, the program includes Survey and Mapping Technology coursework to prepare the Civil Engineering Technology graduate for a profession that integrates with the surveying profession.

PROGRAM OUTCOMES

Graduates will demonstrate competency in Land Desktop, basic CAD, ArcView (GIS), preparing roadway and utilities plans and profile drawings for a Long Plat, plan and profile layout of civil improvements, and an accurate map integrating field-gathered GPS data into Arcview.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Civil Engineering Technology program at the start of the fall quarter and at other times during the year with instructor permission, but only as advanced placement. Program coursework is structured so that each course is offered once per year during a specific quarter in a sequential order. Admission is offered on a space available basis. Part-time enrollment is available with instructor approval.

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

SEQUENCE & SCHEDULE

The Civil Engineering Technology student will complete a specific course requirement sequence. Students will be advised by the program instructor regarding sequence and schedule of classes. Generally, a full-time student will be enrolled for six (6) hours per day, and a part-time student, three (3) hours.

DEGREE & CERTIFICATE REQUIREMENTS

tudents may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

CIVIL ENGINEERING TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
COM 170	Oral & Written Communications	5
ENGT 127	Civil/Survey CAD 1	7
ENGT 128	Civil/Survey CAD 2	7
ENGT 132	MS Office Applications	5
ENGT 152	Estimating and Scheduling	5
ENGT 153	Arcview	7
ENGT 156	Earthmoving Fundamentals	5
ENGT 251	Land Desktop - Survey Add-On	13
ENGT 252	Land Desktop - Civil Add-On	12
ENGT 256	Standards, Specifications, And Codes	3
ENGT 258	Construction Materials	7
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
PSYC 111	Interpersonal & Organizational Psychology	5
SURV 102	Fundamentals of Surveying I	7
SURV 104	Construction and Highway Surveys	6
SURV 116	Survey Data Systems	4
SURV 140	Fundamentals of GIS	4
SURV 152	Zoning, Permitting, and Platting	4
SURV 191	Professional Development and Safety	3
SURV 205	Advanced GIS Applications	7
TOTAL: (Approx. 6 quarters)		**126**

CIVIL CONSTRUCTION MANAGEMENT
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
CONST 110	Civil Construction Estimating	7
CONST 112	Construction Resource Accounting	5
CONST 114	Civil Construction Scheduling	3
CONST 201	Contracts and Construction Law	4
CONST 210	Civil Project Documentation	4
CONST 214	Civil Construction Project Controls	7
CONST 216	Construction Safety Management	5
ENGL 175	Technical Communications	5
ENGT 127	Civil/Survey CAD 1	7
ENGT 130	Technical Organization and Work Skills	2
ENGT 132	MS Office Applications	5
ENGT 156	Earthmoving Fundamentals	5
ENGT 215	Statics	11
ENGT 256	Standards, Specifications, and Codes	3
ENGT 258	Construction Materials	7
ENGT 259	Environmental Technology	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
PSYC 111	Interpersonal & Organizational Psychology	5
SURV 102	Fundamentals of Surveying I	7
SURV 104	Construction and Highway Surveys	6
SURV 152	Zoning, Permitting,S and Platting	4
TOTAL: (Approx. 6 quarters)		**122**

GENERAL EDUCATION
AAS

Course #	Title	Credits
MATH& 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5
COM 170	Oral & Written Communications	5

Civil EngineeringTechnology degrees/certificates continued on next page

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Clerical Assistant

DEGREES/CERTIFICATES OFFERED:
Certificate - Clerical Assistant

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required afternoon or evening courses on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are held in the evening, generally from 6:00pm to 9:00pm. Some courses may be offered in the afternoon. See a Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

CLERICAL ASSISTANT
Certificate

Course #	Title	Credits
ACCT 141	Financial Accounting I	5
BUS 177	Business English I	3
CAP 101	Introduction to Computers	5
BUS 184	Customer Service	3
CAP 107	Computerized Keyboarding/Skillbuilding	3
CAP 154	Computerized Accounting Level A Using Quickbooks	3
MGMT 100	Business and Professional Ethics	3
TOTAL: (Approx. 3 quarters)		**25**

Commercial Driving

DEGREES/CERTIFICATES OFFERED:
Certificate - Commercial Driving

PROGRAM DESCRIPTION

Bellingham Technical College and locally owned Pegasus Corporation have combined efforts to provide students with a high quality, fast-track training program to prepare for a career in commercial truck driving.

The program consists of two parts:

1) preparation for the written test: a 35 hour, full-time 1-week course

2) preparation for the driving test: a 200 hour, full-time 7-week course.

Students will learn to perform the essential skills of professional trucking safely and efficiently. Students who successfully pass the class will be allowed to use our vehicles for their on-the-road tests. Students may enroll in the program at the beginning of each month.

To be eligible for this program, students must:

• Possess a current valid Washington State driver's license and a driving record that is free of serious violations within the past three years.

• Pass a pre-admission drug screen.

• Obtain a DOT physical.

There is a non-refundable application fee of $150, which includes the cost of drug screening and current MVR from the Department of Licensing.

PROGRAM OUTCOMES

Graduates will be able to pass the commercial drivers licence (CDL) written and on-the-road test.

APPLICATION & REGISTRATION

The students may enroll in the Commercial Driving Program on a space available basis at the start of every month, excluding December. Please contact the Registration Department for the Application and Drug Screening procedure.

SEQUENCE & SCHEDULE

The student must complete CODR 940 prior to start of CODR 945 course, unless they have already passed the DOL written test for Commercial Driving.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

COMMERCIAL DRIVING
Certificate

Course #	Title	Credits
CODR 940	Commercial Driver's License Preparation	3
CODR 945	Commercial Driver's License Practicum	10
BUS Endorsement		
Students enrolled in CODR 945 who wish to pursue a Passenger Endorsement for their class A CDL will be invited to enroll in CODR 950 Commercial Driver Passenger Endorsement Preparation.		
TOTAL:		**13**

Computer Network Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Computer Network Technology

Certificate - Computer Network Support

Microsoft IT Academy Program

Bellingham Technical College is a Microsoft IT Academy member.

PROGRAM DESCRIPTION

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

Professional (MCP), A+, Network+, and Linux+.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Computer Network Technology program at the start of fall, winter, or spring quarter on a space available basis. Non-program students may enroll with instructor permission if space is available.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science or an Association in Applied Science - Transfer degree or a certificate upon completion and verification of all requirements and standards. Students may successfully challenge CAP 101 Introduction to Computers, by passing the three IC3 Certification tests.

The Degree and Certificate application procedure is listed on page 74.

COMPUTER NETWORK TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
CAP 101	Introduction to Computers	5
COM 170	Oral and Written Communications	5
IT 102	IT Ethics and Careers	5
IT 112	PC Hardware A+	8
IT 121	Introduction to Programming	5
IT 140	Command Line Operating Systems	5
IT 141	Operating Systems A+	8
IT 142	Client/Desktop Operating Systems II	11
IT 160	Networking Technologies	8
IT 210	Network Security Fundamentals	11
IT 220	Network Communication Infrastructure	5
IT 240	UNIX Administration and Configuration	11
IT 242	Windows Server Administration	5
IT 243	Windows Server Network Infrastructure	5
IT 261	Advanced Topics in Networking I	5
IT 262	Advanced Topics in Networking II	5
IT 270	Internship	6
IT 272	Capstone Project	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal and Organizational Psychology	5
TOTAL: (Approx. 6 quarters)		**128**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral and Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal and Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

COMPUTER NETWORK SUPPORT
Certificate

Course #	Title	Credits
CAP 101	Introduction to Computers	5
COM 170	Oral and Written Communications	5
IT 102	IT Ethics and Careers	5
IT 112	PC Hardware A+	8
IT 121	Introduction to Programming	5
IT 140	Command Line Operating Systems	5
IT 141	Operating Systems A+	8
IT 142	Client/Desktop Operating Systems II	11
IT 160	Networking Technologies	8
MATH 100	Occupational Math	5
PSYC 111	Interpersonal and Organizational Psychology	5
TOTAL: (Approx. 3 quarters)		**70**

Computer Software Support

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Computer Software Support

Certificate - Computer Applications Specialist

PROGRAM DESCRIPTION

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

Computer Software Support degrees/certificates continued on next page

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in Computer Software Support Technology at the start of each quarter. Admission is offered on a space available basis. Students may enroll full-time or part-time.

SEQUENCE & SCHEDULE

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

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

It is estimated that a full-time student can complete the certificate requirements in three or four quarters. The degree requirements

can be completed in five to six quarters. Because not all courses are offered every quarter, completion times may vary depending on when the student first enrolls.

DEGREE & CERTIFICATE REQUIREMENTS

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

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

The Degree and Certificate application procedure is listed on page 74.

COMPUTER SOFTWARE SUPPORT
Associate in Applied Science

Course #		Title	Credits
BUS	150	Mathematics for Business	5
BUS	171	Technical Communications	5
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting wth MS Word	4
CAP	138	MS Word	5
CAP	142	MS Excel	5
CAP	146	MS Access	5
CAP	148	MS Powerpoint	3
CIS	145	Website Development	5
CIS	160	Computer User Support I	5
CIS	251	Script Programming	5
CIS	276	Internship	6
IT 112		PC Hardware A+	8
IT 141		Operating Systems A+	8
IT 160		Networking Technologies	8
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			15
TOTAL: (Approx. 5-6 quarters)			**104**

GENERAL EDUCATION
AAS

Course #		Title	Credits
BUS	171	Technical Communications	5
BUS	150	Mathematics for Business	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

COMPUTER APPLICATIONS SPECIALIST
Certificate

Course #		Title	Credits
BUS	150	Mathematics for Business	5
BUS	171	Technical Communications	5
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting with MS Word	4
CAP	138	MS Word	5
CAP	142	MS Excel	5
CAP	146	MS Access	5
CAP	148	MS Powerpoint	3
CIS	160	Computer User Support I	5
IT 112		PC Hardware A+	8
OR			
IT 141		Operating Systems A+	8
OR			
IT 160		Networking Technologies	8
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			5
TOTAL: (Approx. 3-4 quarters)			**62**

Construction Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Construction Management

PROGRAM DESCRIPTION

This certificate is designed for students with experience in some phase of the construction industry who want to specialize in construction project management. This certificate is designed as an occupational supplementary program to upgrade existing job skills.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

Construction Management degrees/certificates continued on next page

SEQUENCE & SCHEDULE

Courses are held in the evening, generally from 6:00pm to 9:00pm. Some courses may be offered in the afternoon. See Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

CONSTRUCTION MANAGEMENT
Certificate

Course #	Title	Credits
CONST 100	Computers in Construction	3
CONST 141	Blueprint Reading I	4
CONST 200	Basic Estimating	4
CONST 201	Contracts and Construction Law	4
CONST 220	Project Planning and Scheduling	3
CONST 241	AutoCAD for Construction	3
CONST 250	Safety and Accident Prevention	3
CONST 251	Safety Plan Administration	3
CONST 260	Project Management	3
CONST 280	Building Codes I	3
TOTAL: (Approx. 3 quarters)		**33**

Culinary Arts

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Culinary Arts
Certificate - Culinary Arts
Certificate - Pastry

The Culinary Arts Program is accredited by the Accrediting Commission of the American Culinary Federation Foundation.

PROGRAM DESCRIPTION

The Culinary Arts program, which is taught by an award-winning faculty, is designed to provide graduates with the skills and knowledge to function professionally in the hospitality industry as a sous chef, line cook, prep cook, or in a variety of management positions. The food service industry is one of the largest and fastest growing industries in the United States. Course work consists of theory, lab skill development, and internships.

PROGRAM OUTCOMES

Culinary graduates will demonstrate knowledge and skills of standards in sanitation, safety, personal hygiene, and pass the National Restaurant Association Educational Foundation ServeSafe Managerial Certification. Graduates will prepare, cook, bake, and present a variety of foods in a flavorful and artistic manner; demonstrate effective customer service, human relations and communication skills with co-workers, customers, and supervisors.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Culinary Arts program at the start of fall or spring quarter on a space available basis. It is recommended that students register in MATH 100, PSYC 111, or COM 170 from 1:40pm to 3:00pm in addition to their culinary arts coursework.

SEQUENCE & SCHEDULE

Specific courses will be offered each quarter. The sequence and schedule are available from the program instructor. Most first year classes will be offered from 7:00am to 1:30pm; some courses will be offered in the late afternoon.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

CULINARY ARTS
Associate in Applied Science

Course #		Title	Credits
CAP	101	Introduction to Computers	5
CUL	110	Sanitation and Safety	3
COM	170	Oral & Written Communications	5
CUL	112	Introduction to the Hospitality Industry	3
CUL	114	Culinary Skill Development I	6
CUL	116	Meat Identification and Fabrication	3
CUL	120	International and American Regional Cuisine	6
CUL	122	Culinary Skill Development II	6
CUL	124	Buffet and Catering Management	3
CUL	140	Garde Manger	6
CUL	142	Nutrition	3
CUL	144	Introduction to a la Carte Cookery	5
CUL	150	Culinary Arts Internship or Team Competition	8
CUL	200	Quick Breads and Cookies	2
CUL	202	Bread and Laminated Dough	3
CUL	204	Pies, Tarts, and French Pastry	3
CUL	206	Cakes and Petits Fours	3
CUL	208	Introduction to Chocolates and Sugar Work	2
CUL	210	Individual Restaurant Desserts	3
CUL	220	Restaurant Management	7
CUL	222	Hospitality Supervision	4
CUL	224	Food and Beverage Service	3
CUL	230	A la Carte Restaurant	8
CUL	232	Food and Beverage Service Lab	5
CUL	234	Capstone Project and Practical Exam	3
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 7 quarters)			**118**

Culinary Arts degrees/certificates continued on next page

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

PASTRY
Certificate

Course #	Title	Credits
CUL 110	Sanitation and Safety	3
CUL 200	Quick Breads and Cookies	2
CUL 202	Bread and Laminated Dough	3
CUL 204	Pies, Tarts, and French Pastry	3
CUL 206	Cakes and Petits Fours	3
CUL 208	Introduction to Chocolates and Sugar Work	2
CUL 210	Individual Restaurant Desserts	3
TOTAL: (Approx. 1 quarter)		**19**

CULINARY ARTS
Certificate

Course #	Title	Credits
COM 170	Oral & Written Communications	5
CUL 110	Sanitation and Safety	3
CUL 112	Introduction to the Hospitality Industry	3
CUL 114	Culinary Skill Development I	6
CUL 116	Meat Identification and Fabrication	3
CUL 120	International and American Regional Cuisine	6
CUL 122	Culinary Skill Development II	6
CUL 124	Buffet and Catering Management	3
CUL 140	Garde Manger	6
CUL 142	Nutrition	3
CUL 144	Introduction to a la Carte Cookery	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 3 quarters)		**59**

Customer Service Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Customer Service Management

PROGRAM DESCRIPTION

Customer service, or lack of it, is one of the hottest topics in business today. Quality customer service is now expected, no matter what type of business/service you are involved in. Quality customer service is expected whether the business is transacted on the phone, in person, or via the Internet. Various resources are available in one-day seminars, which can give some direction towards improving customer service, but managing on a constant basis needs a more complete exploration. This short certificate is designed for the person who is currently in a lead, training, or supervisory role, or whose career path involves a heavy emphasis on quality customer service. Students will learn to define areas in which customer service can be increased and to pinpoint areas where they never realized customer service is expected.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are held in the evening, generally from 6:00pm to 9:00pm. Some courses may be offered in the afternoon. See a Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

CUSTOMER SERVICE MANAGEMENT
Certificate

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

Data Entry Specialist

DEGREES/CERTIFICATES OFFERED:
Certificate - Data Entry Specialist

PROGRAM DESCRIPTION

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

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Students may enroll in this program at the start of each quarter. Admission is offered on a space available basis. Students may enroll full-time or part-time.

Data Entry Specialist degrees/certificates continued on next page

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

DATA ENTRY SPECIALIST
Certificate

Course #		Title	Credits
BUS	100	Electronic Math Applications	3
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting with MS Word	4
CAP	110	Data Entry	3
CAP	142	MS Excel	5
CAP	146	MS Access	5
Departmental Electives			13
TOTAL: (Approx. 2 quarters)			**40**

Dental Assisting

DEGREES/CERTIFICATES OFFERED:
Certificate - Dental Assisting

PROGRAM DESCRIPTION

The Dental Assisting program prepares the student to assist the operator chair-side during diagnostic, preventive, and operative dental procedures, including expanded function. The college operates a dental clinic that is open to the public on Thursdays and Fridays and is staffed with a dentist, dental hygienist, clinic manager, clinical instructor, dental assistant, and dental assistant students. The clinic provides students with clinical experiences, including 4-handed expanded function chair-side practice and equipment maintenance using mixed delivery systems. The clinic fully incorporates the technology of infection control and dental software. Students are expected to complete the national certification exam (Dental Assistant National Board) or meet other comparable certification requirements by program completion.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students are admitted to the Dental Assisting program as full-time students in the winter and spring quarters only. In addition to the BTC Admission procedures found on page 66, students must submit evidence of high school graduation or its equivalent. Acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate.

After acceptance in the Dental Assisting program, and prior to the beginning of the second quarter, 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 within the first nine months of the program. (Students should note that the cost of this immunization is estimated to be approximately $150.00.)
- Possess and maintain a current CPR card. Minimum CPR required is Adult Heartsaver (3 hr).

SEQUENCE & SCHEDULE

The Dental Assisting program is a four quarter sequence with winter and spring entry. With the exception of the first quarter, students are generally in class from 8:00am-3:00pm. All students will have the summer quarter off.

Extramural clinical experience requires a minimum of 200 clinical hours by the end of the final quarter. The clinical schedule varies according to the dental office hours and students must be available to meet the arranged schedule.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. Students must receive a minimum of (B-) 2.7 in all clinical courses and a (C) 2.0 or above in all academic courses to receive a certificate.

ADVANCED PLACEMENT

Entry into the program with advanced standing is possible for students who have completed, at minimum, the required first quarter coursework. Students must meet all admissions criteria and apply for advanced standing in writing. The student must submit official transcripts as well as an Award of Transfer Credit Request form at the time of petition.

DENTAL ASSISTING
Certificate

Course #		Title	Credits
COM	170	Oral & Written Communications	5
OR			
ENGL&	101	English Composition I	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
OR			
PSYC&	100	General Psychology	5
BIO	105	Essentials Of Anatomy & Physiology	5
DEN	105	Head & Neck Anatomy	2
DEN	100	Introduction to Dental Assisting	1

DEN	110	Dental Foundations	5
DEN	112	Chairside Assisting	7
DEN	114	Dental Sciences	4
DEN	115	Dental Clinic Practicum I	6
HLTH	133	HIV/AIDS: Healthcare Professional	0.4
DEN	120	Patient Assessment	8
DEN	122	Chairside Assisting II	6
DEN	124	Radiography	3
DEN	125	Dental Clinical Practicum II	4
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	10
TOTAL: (Approx. 4 quarters)			**86.4**

Dental Hygiene

DEGREES/CERTIFICATES OFFERED:
AAS-T - Dental Hygiene

PROGRAM DESCRIPTION

The Dental Hygiene program will begin fall quarter 2008 with a limited number of students. The Dental Hygiene program will have a selective admissions process. Students who submit a complete application packet and meet the prerequisite requirements below with a 2.7 or above will be considered for admission to the program.

The program consists of classroom instruction and clinical experience including dental hygiene clinical experience in an on-campus patient care clinic. Upon successful completion, students will earn an Associate of Applied Science--Transfer from Bellingham Technical College and will be eligible to take the National Board Examination.

The Dental Hygiene program prepares students for employment as a dental hygienist with expanded duties allowed by Washington State law. This new program will be accredited by the Commission on Dental Accreditation; allowing graduated students to take the National Board Examination and the clinical licensing examination. Clinical experience is provided under the supervision of licensed dentists and licensed dental hygienists at the college's dental clinic and a variety of local dental offices.

Dental hygienists must be licensed by the State in which they practice. To qualify for licensure in nearly all states, a candidate must graduate from an accredited dental hygiene school and pass both a written and clinical examination. The American Dental Association's Joint Commission on National Dental Examinations administers the written examination, which is accepted by all sitates and the District of Columbia. State or regional testing agencies administer the clinical examination.

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;

• Patient/Client Care: Planning - Formulate a comprehensive dental hygiene care plan in collaboration with the client and other health professionals & evaluate the effectiveness of the implemented client/patient dental hygiene care plan, modify as needed;

• Patient/Client Care: Implementation - Provide preventive and therapeutic services that promote oral health according to the needs of the patient/client.

APPLICATION & REGISTRATION

Students will be admitted in Fall 2008. The Dental Hygiene Program will have a selective admissions process. Students, who submit a complete application packet and meet the prerequisite requirements with a 2.7 or above, will be considered for admission to the program. It is estimated that a full time student will complete the program in 7 quarters.

BTC Dental Hygiene Prerequisites

• English Composition I(ENGL& 101)*
• General Psychology (PSYC& 100)*
• Intro to Sociology (SOC 101)5
• Introduction to Speech Communication (SPCH 100) 5
• Pre-Calculus I (MATH& 141)* or Math in Society (MATH& 107)*
• Human Anatomy & Physiology I (BIOL& 241)*
• Human Anatomy & Physiology II (BIOL& 242)*
• Intro to Chemistry (CHEM& 121)*
• Intro to Organic Chemistry (CHEM& 122)
• General Microbiology (BIOL& 260)*
• Nutrition (NURT 101)*

*Courses offered at Bellingham Technical College. Courses not marked with an asterisk are Whatcom Community College (WCC) titles/numbers and may be taken at WCC or Skagit Valley College (SVC).

DEGREE & CERTIFICATE REQUIREMENTS

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

DENTAL HYGIENE AAS-T
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		
TOTAL: (Approx. 7 quarters)		**120**

Diesel Technology

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Diesel Technology
Certificate - Diesel Drive Train/Brakes/Suspension/ Steering/Electrical Electronic Systems
Certificate - Diesel Engine & Electrical Electronic Systems
Certificate - Vehicle Service Technician
Certificate - Diesel Hydraulics Preventative Maintenance

The Diesel Equipment Technology Program is an ASE Certified Program.

PROGRAM DESCRIPTION

Diesel Equipment Technology is certified by ASE (Automotive Service Excellence) as a Medium/Heavy Duty Truck Training Program. This assures that the curriculum follows the stringent standards identified by NATEF (National Automotive Technicians Education Foundation). BTC has one of only three ASE certified training programs in Washington State.

Diesel Technology degrees/certificates continued on next page

The AAS degree program combines current technology in the classroom and computer lab, with self-paced instruction and practicum/shop experience.The Caterpillar Basics Library is used in a modern 24 station computer lab as an important component in this program. This is just one of the enhancements as a result of a recent facility renovation of over one million dollars. Modules in Electrical/Electronics, Hydraulics, Failure Analysis, and Diesel Engines are included in a self-paced CD-ROM format. A Clayton 1000 HP dynamometer is utilized in engine testing with computer diagnostics for understanding of modern fuel and control systems. Notebook computers and engine simulators are used in conjunction with the dynamometer.

Program content follows the ASE areas of Electrical/Electronics, Preventive Maintenance, Brakes, Steering/Suspension, Drive Train, and Diesel Engines, plus modules in welding and hydraulics. Great emphasis is given to leading edge technologies in the diesel field.The program emphasizes the development of appropriate work habits and attitudes, leadership, interpersonal communications and teamwork skills, customer service competencies, as well as the technical skills necessary for employment.

Students will be required to participate in work-based learning where they will be working in an actual shop under the guidance of experienced technicians and the instructor. They may be employed in the transportation, construction, marine, agricultural, public transportation, and equipment rental industries.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students enroll in the program at the start of fall, winter, or spring quarter. Other enrollment times may be available by instructor

permission. Part-time enrollment may be available during the morning section with instructor permission. Students must have a valid driver's license and be insurable to participate in Applied Diesel Concepts courses. Safety glasses (required), tools, coveralls, and work boots are not supplied and are the students' responsibility. A tool list is available from the instructors. It is advisable that students be 18 years of age by the start of the second quarter for the work-based learning component.

SEQUENCE & SCHEDULE

You may enter Diesel Equipment Technology fall, winter or spring quarter. For your first quarter you will enroll in Trans 101, 102, and 103 plus at least one Gen Ed class (PSYC 111, COM 170 or MATH 100). The preferred sequence is to take PSYC 111 first, then COM 170, and lastly MATH 100. While taking the Transportation Core during your first quarter, we recommend that you register into a morning MWF or an evening Gen Ed class so we can schedule your afternoons for lab sessions. Lab sessions will be scheduled Tuesday and Thursday afternoon. Students who start winter quarter will need to take other Gen Ed class in spring quarter, outside of the normal Diesel courses. Students who wish to take one Diesel course per quarter must start in fall quarter in Trans 101, Basic Transportation Service & Systems I.

Full-time students will generally finish in seven quarters; summer is required.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

DIESEL TECHNOLOGY
Associate in Applied Science

Course #		Title	Credits
COM	170	Oral & Written Communications	5
DET	104	Hydraulic Brakes	2
DET	106	Electrical/Electronics I	4
DET	116	Electrical/Electronics II	4
DET	126	Electrical/Electronics III	4
DET	129	Applied Diesel Concepts I	12
DET	139	Applied Diesel Concepts II	12
DET	201	Hydraulics	8
DET	202	Diesel Engines	13
DET	203	Drive Train	3
DET	204	Air Brakes	5
DET	205	Suspension/Steering	5
DET	208	Preventive Maintenance	6
DET	239	Applied Diesel Concepts III	13
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
TRANS	101	Basic Transmission Service & Systems I	5
TRANS	102	Basic Transmission Service & Systems II	5
TRANS	103	Basic Transmission. Service & Systems III	5
TOTAL: (Approx. 7 quarters)			**121**

GENERAL EDUCATION
AAS

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

Diesel Technology degrees/certificates continued on next page

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

Course #		Title	Credits
DET	126	Electrical/Electronics III	4
DET	203	Drive Train	3
DET	204	Air Brakes	5
DET	205	Suspension/Steering	5
TRANS	101	Transmission Service & Systems I	5
TRANS	102	Transmission Service & Systems II	5
TRANS	103	Transmission Service & Systems III	5
TOTAL: (Approx. 2-3 quarters)			**32**

DIESEL ENGINE & ELECTRICAL ELECTRONIC SYSTEMS
Certificate

Course #		Title	Credits
DET	104	Hydraulic Brakes	2
DET	106	Electrical/Electronics I	4
DET	202	Diesel Engines	13
TRANS	101	Basic Transmission Service & Systems I	5
TRANS	102	Basic Transmission Service & Systems II	5
TRANS	103	Basic Transmission Service & Systems III	5
TOTAL: (Approx. 2-3 quarters)			**34**

VEHICLE SERVICE TECHNICIAN
Certificate

Course #		Title	Credits
TRANS	101	Basic Transmission Service & Systems I	5
TRANS	102	Basic Transmission Service & Systems II	5
TRANS	103	Basic Transmission Service & Systems III	5
TOTAL: (Approx. 1 quarter)			**15**

DIESEL HYDRAULICS PREVENTATIVE MAINTENANCE
Certificate

Course #		Title	Credits
DET	116	Electrical/Electronics II	4
DET	201	Hydraulics	8
DET	208	Preventive Maintenance	6
TRANS	101	Basic Transmission Service & Systems I	5
TRANS	102	Basic Transmission Service & Systems II	5
TRANS	103	Basic Transmission Service & Systems III	5
TOTAL: (Approx. 2-3 quarters)			**33**

Electrician

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Electrician

PROGRAM DESCRIPTION

The Electrician program prepares students for the electrical industry, including residential, industrial, and commercial jobs. The Associate in Applied Science degree includes the necessary technical, scientific, academic, work habit, communication, and interpersonal skills for employment. The curriculum starts with basic math and electrical theory and advances to complex systems building upon the knowledge and skills acquired throughout the program. Classroom instruction and practicum/ lab instruction provide opportunities for students to achieve the competencies to maintain existing electrical systems and be qualified for a variety of electrical jobs.

Graduates applying to the Department of Labor and Industries for a specialty electrical license can be credited with supervised work experience per RCW 19.28.191 and WAC 296-46B-940 as follows: Residential (02) - 1,752 hours of work experience; Nonresidential Maintenance (07) - 1,752 hours of work experience; and Equipment Repair (07E) - 1,000 hours of work experience. According to Department of Labor and Industries guidelines, this credit may be applied towards the necessary hours of work experience for only one of the licenses listed above.

PROGRAM OUTCOMES

Demonstrate competency in: the fundamentals of electrical safety, direct current (DC), alternating current (AC), measurement (math/meter) and wiring; the National Electrical Code and controllers including relay, ladder logic, motor control DC & AC, and programmable. Demonstrate competency in oral and written communication and interpersonal relations.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Electrician program at the start of each quarter on a space available basis. Part-time enrollment is available with instructor approval.

SEQUENCE & SCHEDULE

The Electrician student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

ELECTRICIAN
Associate in Applied Science

Course #		Title	Credits
COM	170	Oral & Written Communications	5
ELEC	100	Introduction to Electrician Trade	1
ELEC	101	Electricity I	14
ELEC	102	Electricity II	13
ELEC	103	Electricity III	12
ELEC	104	Electricity IV	14
ELEC	105	Occupational Safety	1
ELEC	119	Electric Zone Heating	1
ELEC	123	Soldering	1
ELEC	160	Environmental Awareness	1
ELEC	191	Leadership	1
ELEC	192	Job Preparation	1
ELEC	201A	Residential Wiring	13
ELEC	205	Motor Control Diagrams I	3
ELEC	207	Motor Control Diagrams II	7
ELEC	208	Programmable Controllers	7
ELEC	209	Conduit I	1
ELEC	210	Conduit II	1
ELEC	211	Solid State Devices	1
ELEC	213	Warehouse Work	1
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 5 quarters)			**109**

GENERAL EDUCATION
AAS

Course #		Title	Credits
MATH	100	Occupational Math	5
COM	170	Oral & Written Communications	5
PSYC	111	Interpersonal & Organizational Psychology	5

Electrician degrees/certificates continued on next page

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Electro Mechanical Technology

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Electro Mechanical Technology

PROGRAM DESCRIPTION

The Electro Mechanical Technology (EMTEC) program prepares students with the knowledge and skills required for success as an industrial maintenance technician (often referred to as industrial electricians, millwrights, or stationary engineers). The EMTEC graduate will have a broad range of knowledge and skills as they work with mechanical, electrical, and electronic systems. This program will appeal especially to students who want broad knowledge about a lot of industrial processes including electricity, hydraulics, pneumatics, engineering graphics, welding, heating venting and air conditioning, boilers, etc. The program uses a variety of instructional strategies including traditional methodologies plus on line and simulation. Graduates will have the opportunity to work in a variety of industrial settings, including advanced manufacturing operations, particularly petrochemical, refining, pharmaceuticals, chemical, value-added wood products, pulp and paper, power generation and utilities, wastewater treatment facilities, as well as in smaller facility maintainanc. The technical content of the program is offered in late afternoon and evening.

PROGRAM OUTCOMES

Graduates will demonstrate competency in the fundamentals of electrical safety, electrical and electronic repair, basic hydraulics and pneumatic circuits, programmable controls, mechanics and welding. Demonstrate competency in oral and written communication and interpersonal relations.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Electro Mechanical Technician program at the start of each quarter.

SEQUENCE & SCHEDULE

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

Many classes will have a combination on inclass and online or simulation. Generally, classroom instruction is offered in the afternoon & evening.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ELECTRO MECHANICAL TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
Core Classes		
CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
EMTEC 101	Basic Electricity	5
EMTEC 103	Electrical Circuits	5
EMTEC 105	Trade Safety / CPR / First Aid	3
EMTEC 121	Fundamentals of Hydraulic & Pneumatics	5
EMTEC 123	Hydraulics and Pneumatics Circuits	5
EMTEC 125	Applied Mechanics	3
EMTEC 126	Engineering Graphics	3
EMTEC 173	EMTEC Basic Welding	3
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5
Electrician Option		
EMTEC 201	AC Components and Measurements	5
EMTEC 203	Electricity IV	3
EMTEC 205	Programmable Logic Controllers	4
EMTEC 206	Making PLC's Work for You	3
EMTEC 211	Electrical Controls I	5
EMTEC 212	Electrical Controls II	5
EMTEC 214	Electronic Circuits I	5
EMTEC 215	Electronic Circuits II	5
EMTEC 217	Instrumentation	5
EMTEC 218	Introduction to National Electrical Code	3
EMTEC 250	Capstone Project	9
Electrician Option Electives		
EMTEC 133	Introduction to Machinery Skills	4
EMTEC 135	HVAC Basics	4
EMTEC 136	Introduction to Residential Wiring	4
EMTEC 137	Renewable Energy Source	4
Mechanical Options		
EMTEC 131	Rigging	3
EMTEC 175	EMTEC Advanced Welding	4
EMTEC 221	Hydraulics and Pneumatics Systems	5
EMTEC 223	Hydraulics and Pneumatics Analysis and Maintenance	5
EMTEC 231	Bearings and Drives	5
EMTEC 232	Drive Alignment-Conveyors and Machining Systems	5
EMTEC 234	Valves, Pumps and Traps	5
EMTEC 235	Boilers and Combustion Technology	5
EMTEC 237	Computerized Maintenance and Management Systems	5
EMTEC 250	Capstone Project	9
Mechanical Option Electives		
EMTEC 133	Introduction to Machinery Skills	4
EMTEC 135	HVAC Basics	4
EMTEC 136	Introduction to Residential Wiring	4
EMTEC 137	Renewable Energy Source	4

GENERAL EDUCATION
AAS

Course #	Title	Credits
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5
COM 170	Oral & Written Communications	5

Electronics-Mechanical Technology degrees/certificates continued on next page

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Electronics - Biomedical Equipment Technician

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Electronics - Biomedical Equipment Technician

PROGRAM DESCRIPTION

The Electronics-Biomedical Equipment Technician program prepares students for employment as technicians in the biomedical equipment industry. Biomed equipment technicians work in hospitals and clinics repairing, calibrating and performing preventative maintenance on a variety of medical equipment. Biomed techs may also be field service technicians, traveling to clinics and hospitals, or be involved in the manufacturing process. Training in the growing NANO/Micro Systems field is included

PROGRAM OUTCOMES

Graduates will demonstrate competency in electrical/electronic safety, direct current, alternating current, basic test equipment, semiconductors, op-amps, digital systems, and troubleshooting along with competency in biomedical equipment technology.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Electronics-Biomedical Equipment Technician program at the start of fall, winter or spring quarter or at other times with instructor permission.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree or an Associate in Applied Science - Transfer degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests.

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

ELECTRONICS - BIOMEDICAL EQUIPMENT
Associate in Applied Science

Course #	Title	Credits
CAP 101	Introduction To Computers	5
COM 170	Oral & Written Communications	5
CTE 290	Job Search	4
ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 152	Microprocessors	6
ETEC 201	Test Equip & Trouble-Shooting	5
ETEC 205	Troubleshooting	5
ETEC 210	Electronic Communications	10
ETEC 214	Nano Technology	5
ETEC 236	Photonics 1	5
ETEC 241	Photonics 2	5
ETEC 245	Sensors, Transducers, & Control Circuits	6
ETEC 270	Biomedical Equipment	6
ETEC 272	Biomedical Certification Test Prep	5
HT 126	Fundamentals of Medical Terminology	5
MATH 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5
Optional		
ETEC 294	Work Based Learning	3
ETEC 295	Work Based Learning	6
TOTAL: (Approx. 6 quarters)		**129**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Electronics - Computer Systems

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Electronics - Computer Systems Technician

PROGRAM DESCRIPTION

The Electronics-Computer Systems Technician program prepares students for employment as technicians in the computer industry. Computer systems are a vital part of nearly every business. This degree option offers A+, NET+, and Cisco Certified Network Administrator training. By gaining a solid foundation in electronics, including Electronic Communications and NANO Technology, graduates become well-rounded computer systems technicians.

PROGRAM OUTCOMES

Graduates will demonstrate competency in electrical/electronic safety,

Electronics-Computer Systems degrees/certificates continued on next page

direct current, alternating current, basic test equipment, semiconductors, op-amps, digital systems, and troubleshooting along with competency in computer systems technology.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Electronics-Biomedical Equipment Technician program at the start of fall, winter or spring quarter or at other times with instructor permission.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree or an Associate in Applied Science - Transfer degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests.

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

ELECTRONICS - COMPUTER SYSTEMS TECHNICIAN
Associate in Applied Science

Course #	Title	Credits
MATH 141 may be taken in place of MATH 111		
CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
CTE 290	Job Search	4
ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 152	Microprocessors	6
ETEC 201	Test Equip & Trouble-Shooting	5
ETEC 205	Troubleshooting	5
ETEC 210	Electronic Communications	10
ETEC 214	Nano Technology	5
ETEC 230	Intro to Routers and Switches	5
IT 112	PC Hardware A+	8
IT 141	Operating Systems A+	8
IT 160	Networking Technologies	8
MATH 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5
Optional		
ETEC 294	Work Based Learning	3
ETEC 295	Work Based Learning	6
TOTAL: (Approx. 6 quarters)		126 CRs

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Electronics - Manufacturing Technician

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Electronics - Manufacturing Technician

PROGRAM DESCRIPTION

The Electronics-Manufacturing Technician program prepares students for employment as technicians in the manufacturing industry. Manufacturing is a vital part of the U.S. economy and highly skilled, trained technicians are recruited by many companies. The Electronics-Manufacturing Technician program offers training in NANO/Micro Systems, Robotics, Lasers, Fiber Optics, and Electronic Communications.

PROGRAM OUTCOMES

Graduates will demonstrate competency in electrical/electronic safety, direct current, alternating current, basic test equipment, semiconductors, op-amps, digital systems, and troubleshooting along with competency in manufacturing technology.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Electronics-Biomedical Equipment Technician program at the start of fall, winter or spring quarter or at other times with instructor permission.

SEQUENCE & SCHEDULE

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

Electronics-Manufacturing Technician degrees/certificates continued on next page

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree or an Associate in Applied Science - Transfer degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests.

The Degree and Certificate application procedure is listed on page 74.

ELECTRONICS - MANUFACTURING TECHNICIAN
Associate in Applied Science

Course #	Title	Credits
CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
CTE 290	Job Search	4
ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 152	Microprocessors	6
ETEC 201	Test Equip & Trouble-Shooting	5
ETEC 205	Troubleshooting	5
ETEC 210	Electronic Communications	10
ETEC 214	Nano Technology	5
ETEC 236	Photonics 1	5
ETEC 241	Photonics 2	5
ETEC 245	Sensors, Transducers, & Control Circuits	6
ETEC 276	Intro to Electronic CAD	1
ENGT 911 may be taken in place of ETEC 276		
ETEC 281	Robot Technology	5
ETEC 282	Certified Electronics Technician Test Prep	3
MATH 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5
Optional		
ETEC 294	Work Based Learning	3
ETEC 295	Work Based Learning	6
TOTAL: (Approx. 6 quarters)		**125**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Electronics - Telecommunications Technician

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Electronics - Telecommunications

PROGRAM DESCRIPTION

The Electronics-Telecommunications Technician program prepares students for employment as technicians in the telecommunication industry. Communication systems (wired, wireless, data, text, VOIP, etc.) are critical in today's business world. Technicians who understand the many protocols and technologies are in demand. Graduates may work for a local telephone company or as a field service technician for a national company. Telecommunications technicians play an important role in the installation of fiber optics equipment and other high tech system components.

PROGRAM OUTCOMES

Graduates will demonstrate competency in electrical/electronic safety, direct current, alternating current, basic test equipment, semiconductors, op-amps, digital systems, and troubleshooting along with competency in telecommunications technology.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Electronics-Biomedical Equipment Technician program at the start of fall, winter or spring quarter or at other times with instructor permission.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree or an Associate in Applied Science - Transfer degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests.

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

ELECTRONICS - TELECOMMUNICATIONS
Associate in Applied Science

Course #	Title	Credits
CAP 101	Introduction to Computers	5
COM 170	Oral & Written Communications	5
CTE 290	Job Search	4
ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5

Electronics-Telecommunications Technician degrees/certificates continued on next page

ELTR	145	Digital 2	5
ETEC	152	Microprocessors	6
ETEC	201	Test Equip & Trouble-Shooting	5
ETEC	205	Troubleshooting	5
ETEC	210	Electronic Communications	10
ETEC	230	Intro to Routers And Switches	5
ETEC	236	Photonics 1	5
ETEC	241	Photonics 2	5
ETEC	250	Principles of Electronic Communications/Telephony	3
ETEC	256	Telephone Systems	4
ETEC	262	Federal Communications Commission Test Prep	3
IT 160		Networking Technologies	8
MATH	141	Precalculus I	5
PSYC	111	Interpersonal & Organizational Psychology	5
Optional			
ETEC	294	Work Based Learning	3
ETEC	295	Work Based Learning	6
TOTAL: (Approx. 6 quarters)			**125**

GENERAL EDUCATION
AAS

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH&	141	Precalculus I	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

EMT - Paramedic

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - EMT - Paramedic

PROGRAM DESCRIPTION

The EMT-Paramedic program is designed to meet the demand of emergency medical services with advanced life support skills, primarily in the area designated by the Department of Health as the North Region. This is an exciting career opportunity that will prepare men and women to function as an integral part of the emergency services team of health-care practitioners, providing immediate advanced life support care to the patient in a pre-hospital setting. The EMT-P is under the supervision of the designated Medical Program Director and specific county advanced life support protocols.

The program prepares students to develop expertise in the theory and application of advanced life support and combines knowledge of human anatomy, pharmacology, airway/respiratory management, cardiology, various medical emergencies, trauma, psychology, and sociology. Additionally, the program prepares competent entry-level EMT-Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Students learn how to implement various advanced life support techniques in a pre-hospital setting under the guidance of a physician. Students will spend a significant portion of the training program in clinical and field practice, coordinated by the instructor.

Clinical practice will take place mainly in regional hospitals in the OR, ED, and other various specialized areas. Field sites will be in areas as allowed by other ALS Provider agencies and as close to their home response area as possible. Students are responsible for providing their own transportation to clinical and field sites.

Students, before sitting for the National Registry Exam, must complete and pass all requirements during an intense and comprehensive Field Internship, which prepares them for success in the pre-hospital field.

PROGRAM OUTCOMES

Graduates will demonstrate field competency in emergency response in the pre-hospital setting with basic and advanced life support skills, communication skills, and personal/professional responsibility as a member of an emergency response team, EMT-Paramedic knowledge and critical thinking. Graduates will demonstrate entry level competence on the National Registry Exam for EMT-Paramedics (NREMTP).

APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College EMT-Paramedic program, applicants must meet collegeadmission requirements and complete a Criminal History Background Check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43.

As part of the application process or prior to registration for the first quarter of EMT-Paramedic, students must provide evidence of high school graduation or equivalent.

Along with an application to the EMT-Paramedic program, and prior to enrollment in the first quarter of study, the student is required to

- Demonstrate satisfactory health status by a physical examination within the preceding year, including current immunizations.
- Complete a urine test for prohibited substances. The test must screen for the following five drugs: amphetamines, cocaine, marijuana, opiates and PCP.
- Possess and maintain a current EMT-B card. Minimum State requirement is to be an EMT-Basic for a minimum of one year.
- Show proof of personal health insurance (student accident insurance is available)
- Be twenty-one (21) years of age prior to the start of the coursework. A photocopy of Washington State Driver's License is required as proof of age
- Show proof they are currently sponsored by a Washington State-approved ALS trauma verified agency or, in special circumstance, by request of the county MPD in which the student will be practicing.

In addition to the above requited documentation, students must also submit transcripts, with a minimum 2.0 GPA in the following pre-requisites:

General Education - AAS
- Oral and Written Communications (COM 170)
- Occupational Math (MATH 100)
- Interpersonal & Organizational Psychology (PSYC 111)

General Education - AAS-T
- English Composition (ENGL& 101)
- Pre-Calculus I (MATH& 141)* or Math in Society (MATH& 107)*
- General Psychology (PSYC& 100)

EMT degrees/certificates continued on next page

SEQUENCE & SCHEDULE

The EMT-Paramedic is five to six quarters long and the student will complete a specific course requirement sequence. Students will be advised by the program instructor regarding sequence and schedule of classes.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

Students must maintain a 2.0 grade point average with no course below C (2.0) to earn a degree or certificate.

EMT - PARAMEDIC
Associate in Applied Science

Course #	Title	Credits
Quarter 1		
BIO 105	Essentials of Anatomy & Physiology	5
EMTP 103	Intermediate Life Support And Airway	12
EMTP 115	Intermediate Life Support Clinical Practicum	4
Quarter2		
EMTP 111	Paramedic Applied Principles I	18
EMTP 117	Paramedic Clinical I	1
EMTP 239	Paramedic Field Experience I	3
EMS 261	Advanced Cardiac Life Support	2
Quarter 3		
EMTP 221	Paramedic Applied Principles II	11
EMTP 225	Paramedic Clinical II	3
EMTP 249	Paramedic Field Exp II	3
EMS 262	Pediatric Advanced Life Support	2
EMS 263	Pre-Hospital Trauma Life Support	2
EMS 264	Pediatric Education Paramedic	2
Quarter 4		
EMTP 231	Paramedic Applied Principles III	11
EMTP 237	Paramedic Clinical III	3
EMTP 259	Paramedic Field Exp III	4
EMTP 240	Paramedic Capstone Exam	1
Quarter 5		
EMS 245	Field Internship Evaluation	10
Completion of AAS or AAS-T General Education Courses are Prerequisites		
Note: State and NREMTP requirements specify that the National Registry Exam the National Registry Exam is not considered classroom hours and is not included in the program credits.		
TOTAL: (Approx. 5 quarters)		**112**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Fisheries Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Fisheries Technology
Certificate - Fisheries Resources

PROGRAM DESCRIPTION

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

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Fisheries Technology program at the start of the fall or winter quarter and at other times during the year with instructor permission. Admission is offered on a space available basis. Students may enroll full-time or part-time. Part-time enrollment requires instructor permission.

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

Fisheries Technology degrees/certificates continued on next page

ONLINE LEARNING

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

FISHERIES TECHNOLOGY
Associate in Applied Science

Course #		Title	Credits
CAP	101	Introduction to Computers	5
COM	170	Oral & Written Communications	5
CTE	290	Job Search	4
FISH	100	Introduction to Safety	2
FISH	105	Water Quality	1
FISH	111	Salmonid Biology	3
FISH	125	Sampling Techniques	3
FISH	133	Hatchery Operations I	5
FISH	135	Spawning Techniques	12
FISH	146	Fish and Shellfish Biology	3
FISH	155	Environmental Awareness	3
FISH	161	Aquaculture Techniques	6
FISH	170	Hatchery Operations II	4
FISH	186	Hatchery Operations III	10
FISH	195	Field Projects	6
FTEC	200	Applied Concepts I	10
FTEC	205	Field Projects I	4
FTEC	250	Applied Concepts II	10
FTEC	255	Field Projects II	4
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
Electives			14
Electives may include FISH 197 Current Topics, FISH 198 Current Topics or other instructor approved industry related courses			
TOTAL: (Approx. 5 quarters)			**124**

GENERAL EDUCATION
AAS

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

FISHERIES RESOURCES
Certificate

Course #		Title	Credits
CAP	101	Introduction to Computers	5
COM	170	Oral & Written Communications	5
CTE	290	Job Search	4
FISH	100	Introduction to Safety	2
FISH	105	Water Quality	1
FISH	111	Salmonid Biology	3
FISH	125	Sampling Techniques	3
FISH	133	Hatchery Operations I	5
FISH	135	Spawning Techniques	12
FISH	146	Fish and Shellfish Biology	3
FISH	155	Environmental Awareness	3
FISH	161	Aquaculture Techniques	6
FISH	170	Hatchery Operations II	4
FISH	186	Hatchery Operations III	10
FISH	195	Field Projects	6
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 3 quarters)			**82**

Human Resource Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Human Resource Management

PROGRAM DESCRIPTION

The management of Human Resources has continued to be a growing field. With the increasing legal issues involved in personnel and the need for companies to carefully select and maintain their employment force, this occupation field will continue to grow in jobs and importance. The Human Resource Management certificate program is an evening program for people who are currently working in an office that has human resources/personnel responsibilities, individuals who wish to refine existing skills and move up within the organization, individuals wanting to move into the field of Human Resources, employees or managers who are assigned human resource responsibilities as part of an existing job, and/or small business owners who need human resource information to operate their company effectively.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering in HRM 201 Human Resource Management or other Human Resource Management courses with previous experience and instructor approval on a space available basis. It is recommended that students have excellent basic academic skills. A program brochure is available at the Counseling and Career Center.

For those not seeking to obtain the Human Resource Management certificate, courses can be taken individually and the prequisite HRM 201 is suggested, but not required.

SEQUENCE & SCHEDULE

One to three courses are offered quarterly in the evening, generally from 6:00pm to 9:00pm. HRM 201 or previous experience with instructor permission is the prerequisite for all HRM courses beyond HRM 201. Students may complete the program in one to two instructional years. See a Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

HUMAN RESOURCE MANAGEMENT
Certificate

Course #		Title	Credits
HRM	201	Management of Human Resources: An Overview	3
HRM	235	Human Resource Info Systems	2
HRM	240	Risk Management & Safety	3

Human Resource Management degrees/certificates continued on next page

HRM	205	Recruitment & Staffing Policies & Practices	3
HRM	220	Training & Staff Development	3
MGMT	100	Business & Professional Ethics	3
HRM	245	Diversity in the Workplace	1
HRM	207	Fundamentals of Employee Benefits & Compensation	3
HRM	210	Employment Law & Labor Relations	3
HRM	260	Conducting Internal Investigations	1
HRM	255	Strategic Human Resources	3

TOTAL: (Approx. 4-5 quarters)

HVAC & Commercial Refrigeration Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Commercial/Industrial Refrigeration & HVAC Technology

Student chapter of the American Society of Heating, Refrigerating & Air conditioning Engineers (ASHRAE)

PROGRAM DESCRIPTION

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

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

The AAS degree emphasizes the development of technical skills, as well as diagnostic, problem solving, and customer service skills. Students from this program have received many scholarships and have been selected as one of the fifty-two statewide representatives in the Washington State contingent of the All-USA Academic Team for four years.

Graduates of the AAS Degree can apply to the Department of Labor and Industries to become an HVAC/Refrigeration (06A) specialty electrician and are credited with 1476 hours of supervised work experience per RCW 19.28.191 and WAC 296-46B-940.

PROGRAM OUTCOMES

Graduates will demonstrate knowledge and application of E.P.A. regulations and procedures applied to refrigeration and environmental awareness and will successfully complete and obtain E.P.A. Type 1 and 2 certification under section 608 for refrigerant usage. Graduates will demonstrate competency in Light Commercial Heating and Air Conditioning and successfully complete the A.R.I. competency in Light Commercial Heating and Air Conditioning.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Commercial/Industrial Refrigeration & HVAC Technology program on a space available basis at the start of fall and spring quarters. Part-time enrollment is available for the morning section only with instructor permission.

SEQUENCE & SCHEDULE

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

Generally, classroom instruction is held during morning classroom hours with most lab activities occurring in the afternoon. Students must complete MATH 100, PSY 180, and COM 170 prior to entering the second year.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

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

COMMERCIAL/INDUSTRIAL REFRIGERATION & HVAC TECHNOLOGY

Associate in Applied Science

Course #		Title	Credits
COM	170	Oral & Written Communications	5
CREF	122	Fundamentals of Refrigeration	5
CREF	123	Refrigeration Fundamentals Lab I	5
CREF	126	Basic Electricity for HVAC/R	4
CREF	127	Refrigeration Fundamentals Lab II	5
CREF	132	Commercial Self Contained Systems	4
CREF	133	Commercial Self Contained Systems Lab	5
CREF	135	Commercial Ice Systems Theory & Application	3
CREF	137	Commercial Ice Systems Lab	4
CREF	139	Commercial Ice Systems Interactive Learning	2
CREF	141	Air Properties and Psychometrics	3
CREF	143	HVAC System Design	3
CREF	145	Duct Layout and Fabrication	3
CREF	147	Applied Air Conditioning Systems	4
CREF	149	Applied Heat Pump Systems	4
CREF	221	Electric Heating Technology	3
CREF	223	Gas Heating Technology	7
CREF	225	Fuel Oil Heating Technology	4
CREF	227	Hydronic Heating Technology	4
CREF	231	Commercial/Industrial Refrigeration Applied Components	5
CREF	233	Comm/Industrial Refrig App Components Lab	5
CREF	236	Large Tonnage Chillers	5
CREF	237	Cooling Towers & Introduction to Industrial Water Treatment	1
CREF	238	Cascade/Transport Refrigeration Systems	3
CREF	239	Absorption Refrigeration Systems	1
CREF	242	Control Theory for HVAC Automation Systems	4
CREF	243	Pneumatic Controls	4
CREF	244	Distributed Digital Control Systems	6
CREF	245	Intro to Industrial Boilers & Water Treatment	2

HVAC & Commercial/Industrial Refrigeration Technology degrees/certificates continued on next page

CREF	246	Control System Design & Commissioning	2
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 6 quarters)			**125**

GENERAL EDUCATION
AAS

Course #		Title	Credits
MATH	100	Occupational Math	5
COM	170	Oral & Written Communications	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

Hypnotherapy

DEGREES/CERTIFICATES OFFERED:
Certificate - Hypnotherapy

PROGRAM DESCRIPTION

The Hypnotherapy program instructs students in the process of using hypnosis techniques in a professional setting for such purposes as pain management, behavior modification, and many other psychological and social concerns clients may have. The Hypnotherapy program also extensively covers the legal and ethical issues involved. Hypnotherapists work in a variety of healthcare settings, as doctors, dentists, nurses, psychologists and psychiatrists, just to name a few. This course is approved by the International Medical and Dental Hypnotherapy Associates and the National Society of Clinical Hypnotherapists.

PROGRAM OUTCOMES

Completers of this program will be able to apply legal and ethical issues of healthcare workers and use hypnosis techniques in a professional setting for such purposes as pain management, behavior modification, and many other psychological and social concerns clients may have.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering in the Basic Hypnosis course in order to begin the sequence on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are held in the evening, generally from 6:00pm to 9:00pm one evening per week. Courses must be taken in sequence: HYPN 101, HYPN 102, and HYPN 103. See a Quarterly Schedule for specific course offered.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

HYPNOTHERAPY
Certificate

Course #		Title	Credits
HLTH	103	CPR: Adult Heartsaver	0.3
HLTH	131	HIV/AIDS for Counselors	0.2
HYPN	101	Basic Hypnosis	5
HYPN	102	Intermediate Hypnotherapy	5
HYPN	103	Advanced Hypnotherapy	5
TOTAL: (Approx. 3 quarters)			**15**

Instrumentation & Control Technology

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Instrumentation & Control Technology

Student Section of the Instrumentation, systems & Automation Society (ISA)

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Students may enroll in the Instrumentation & Control Technology program at the start of fall quarter and at other times with instructor permission. Admission is offered on a space available basis. Part-time enrollment is available with instructor approval.

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

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

Instrumentation & Control Technology degrees/certificates continued on next page

INSTRUMENTATION & CONTROL TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
CAP 101	Introduction to Computers	5
Or INST 269		
COM 170	Oral & Written Communications	5
ELTR 100	DC 1	4
ELTR 105	DC 2	4
ELTR 110	AC 1	4
ELTR 115	AC 2	4
ELTR 120	Semiconductors 1	5
ELTR 125	Semiconductors 2	5
ELTR 130	OP-AMPS 1	3
ELTR 135	OP-AMPS 2	3
ELTR 140	Digital 1	5
ELTR 145	Digital 2	5
ETEC 152	Microprocessors	6
INST 200	Intro to Instrumentation Profession	2
INST 205	Job Preparation I	1
INST 206	Job Preparation II	1
INST 240	Pressure and Level Measurements	7
INST 241	Temperature and Flow Measurements	7
INST 242	Analytical Measurements	5
INST 250	Final Control Elements	6
INST 251	PID Controllers and Tuning	6
INST 252	Process Optimization and Control Strategies	5
INST 260	Data Acquisition Systems	4
INST 261	Programmable Logic Controllers	6
INST 262	DCS and Field Bus	6
INST 269	AutoCAD Applications	5
Or CAP 101		
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
PHYS& 121	General Physics I	5
PSYC 111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 6 quarters)		**134**

GENERAL EDUCATION
AAS

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MATH& 141	Precalculus I	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Leadership Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Leadership Management

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

Completers will have increased leadership skills and gain the following:

- Clear understanding of the difference between leadership and management.
- Clear understanding of the link between leadership behaviour and bottom-line results.
- Acceptance of personal accountability for results.
- Ability to effectively lead in a changing, turbulent environment.
- Confidence and courage to lead in ambiguous situations.
- Development of a personal plan for on-going leadership growth and development.
- Awareness of leadership theory and exposure to leading-edge leadership practices.
- Passion for leadership learning.
- Understanding of personal philosophy of leadership.
- Full commitment to the organization.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are held in the evening, generally from 6:00pm to 9:00pm. Some courses may be offered in the afternoon. See a Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

LEADERSHIP MANAGEMENT
Certificate

Course #	Title	Credits
BUS 140	Supervision & Management	3
MGMT 100	Business & Professional Ethics	3
MGMT 152	Small Business Management	3
HRM 201	Management Of Human Resources: An Overview	3
MGMT 102	The Leadership Process	3
MGMT 101	Conflict Management	1
BUS 141	Total Quality Management	2
TOTAL: (Approx. 3 quarters)		**18**

Legal Administrative Assistant

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Legal Administrative Assistant

Certificate - Legal Assistant

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

Graduates will demonstrate competency in touch keyboarding at 55 wpm on a 3 minute timing; along with 80% competency in business document formatting, proofreading, word processing, spreadsheets, presentation graphics, alphabetic and numeric filing, legal proofreading, legal terminology, legal keyboarding, and ten-key proficiency.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Legal Administrative Assistant program at the start of each quarter. Admission is offered on a space available basis. Students may enroll full-time or part-time.

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

In order to earn a legal administrative assistant degree or certificate, students must maintain a 2.0 grade point average with no course grade below C (2.0). Students may successfully challenge CAP 101, Introduction to Computers, by passing the three IC3 certification tests. .

ONLINE LEARNING

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

LEGAL ADMINISTRATIVE ASSISTANT
Associate in Applied Science

Course #		Title	Credits
ACCT	141	Financial 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	177	Business English I	3
BUS	178	Business English II	3
BUS	200	Business Law	5
BUS	280	Portfolio/Assessment	1
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting With MS Word	4
CAP	107	Computerized Keyboarding/ Skillbuilding	3
CAP	109	Computerized Keyboard Skillbuilding II	3
CAP	138	MS Word	5
CAP	142	MS Excel	5
CAP	148	MS Powerpoint	3
LGL	127	Legal Office Procedures	5
LGL	132	Legal Terminology/Transcription	5
LGL	211	Legal Document Processing	5
LGL	226	Internship	6
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			18
TOTAL: (Approx. 5 - 6 quarters)			**107**

LEGAL ASSISTANT
Certificate

Course #		Title	Credits
BUS	123	Records Management	3
BUS	150	Mathematics for Business	5
BUS	171	Technical Communications	5
BUS	177	Business English I	3
BUS	178	Business English II	3
BUS	200	Business Law	5
BUS	280	Portfolio/Assessment	1
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting with MS Word	4
CAP	107	Computerized Keyboard Skillbuilding	3
LGL	127	Legal Office Procedures	5
LGL	132	Legal Terminology/Transcription	5
LGL	211	Legal Document Processing	5
LGL	225	Internship	3
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			
5			
TOTAL: (Approx. 3 & 1/2 quarters)			**67**

GENERAL EDUCATION
AAS

Course #		Title	Credits
BUS	171	Technical Communications	5
BUS	150	Mathematics for Business	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

Mechanical Engineering Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Mechanical Engineering Technology

Certificate - Mechanical Engineering Drafting

PROGRAM DESCRIPTION

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

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Mechanical Engineering Technology program at the start of the fall quarter on a space available basis. Part-time enrollment is available with instructor approval

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

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

MECHANICAL ENGINEERING TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
COM 170	Oral & Written Communications	5
ENGT 121	Drafting I	6
ENGT 122	CAD I: Basics	7
ENGT 123	Descriptive Geometry	7
ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
ENGT 132	MS Office Applications	5
ENGT 210	CAD III: Advanced Applications	7
ENGT 211	Project Design 1	5
ENGT 212	Project Design 2	4
ENGT 213	Project Design 3	5
ENGT 215	Static's	11
ENGT 216	Strength of Materials	7
ENGT 220	Parametric Modeling	7
ENGT 223	Structural Detailing	7
ENGT 224	Process Pipe Drafting	10
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
PSYC 111	Interpersonal & Organizational Psychology	5
SURV 191	Professional Development and Safety	3
TOTAL: (Approx. 6 quarters)		**126**

MECHANICAL ENGINEERING DRAFTING
Certificate

Course #	Title	Credits
COM 170	Oral & Written Communications	5
ENGT 121	Drafting I	6
ENGT 122	CAD I: Basics	7
ENGT 123	Descriptive Geometry	7
ENGT 125	Drafting II: Advanced Concept & Standards	8
ENGT 126	CAD II: Intermediate Applications	7
ENGT 132	MS Office Applications	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
PSYC 111	Interpersonal & Organizational Psychology	5
SURV 191	Professional Development and Safety	3
TOTAL: (Approx. 3 quarters)		**63**

GENERAL EDUCATION
AAS

Course #	Title	Credits
MATH& 141	Precalculus I	5
COM 170	Oral & Written Communications	5
PSYC 111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5

Plus 5 credits in social science, humanities or science.

Medical Coding

DEGREES/CERTIFICATES OFFERED:
Certificate - Medical Coding

PROGRAM DESCRIPTION

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

This program will prepare students for job opportunities in hospitals, physicians' offices, insurance companies, extended care facilities, or other medical environments. Good opportunities exist for individuals who wish to combine their interest in health care with the other professional skills, including organizing, analyzing, and technically evaluating health records content for accuracy and completeness and assigning code numbers to diagnoses and procedures for indexing health data and processing claims. Students who successfully graduate from the program are eligible to take national medical coding exams for certification.

PROGRAM OUTCOMES

Graduates will complete with the requisite skills and knowledge of organizing, analyzing, and technically evaluating health records content for accuracy and completeness and assigning code numbers to diagnoses and procedures for indexing health data and processing claims.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for HT 126 Fundamentals of Medical Terminology and BIO 105 Essentials of Anatomy & Physiology. It is recommended that students have good typing skills (50 wpm), English skills, and word processing skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are in the evening and late afternoon. Students must take BIO 105, BIO 127, and HT 126 prior to taking remaining courses. Students should check the Quarterly Schedule for the course schedule.

DEGREE & CERTIFICATE REQUIREMENTS

Student may apply for a certificate upon completion and verification of all requirements and standards.

The Degree and Certificate application procedure is listed on page 74.

MEDICAL CODING
Certificate

Course #		Title	Credits
BIO	105	Essentials of Anatomy & Physiology	5
HT	126	Fundamentals of Medical Terminology	5
HT 129 may be taken in place of HT 126.			
HT	129	Comprehensive Medical Terminology I	5
BIO	127	Diseases of the Human Body	3
HT	240	Medical Coding CPT	3
HT	230	Medical Coding ICD-9	3
HT	135	Pharmacology for the Medical Office	2
HT	270	Excel for the Medical Office	3
HT	250	Advanced Medical Coding	5
HT	242	Medical Coding Applications	3
HT	262	Medical Coding Internship	2
TOTAL: (Approx. 5 quarters)			**34**

Medical Coding & Billing Generalist

DEGREES/CERTIFICATES OFFERED:
Certificate - Medical Coding & Billing Generalist

PROGRAM DESCRIPTION

The Medical Billing and Coding Generalist program will prepare students for careers in the medical office. Students may find jobs in a variety of medical offices, insurance companies, and some hospitals. Coursework is taught using various teaching methods. Students will learn in both a structured learning environment, but will also be required to work independently. Students will gain a broad base of knowledge in general office skills, along with the required background in medical insurance billing and coding procedures.

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

PROGRAM OUTCOMES

Graduates will complete with the requisite skills and knowledge of organizing, analyzing, and technically evaluating health records content for accuracy and completeness and assigning code numbers to diagnoses and procedures for indexing health data and processing claims and complex billing procedures, based on various requirements of health plans and insurance companies.

APPLICATION & REGISTRATION

Students may enroll in the Medical Billing and Coding Generalist program as full-time at the start of fall or winter quarters only. Those wanting part-time can enter at any quarter. Admission is offered on a space available basis. This is a two to three-quarter program.

SEQUENCE & SCHEDULE

Students meet with and are advised by their program advisor to obtain the scheduled classes. Many classes are sequential and have pre-requisites. Students must complete BIO 105, BIO 127, and HT 126 prior to taking any coding or billing courses. The Medical Billing and Coding Generalist program is designed to be completed in two to three quarters.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

Students must maintain a 2.0 grade point average with no grade below C (2.0) to earn a degree or certificate. Students may successfully challenge CAP 101, Introduction to Computers by passing the three IC3 Certification tests.

MEDICAL CODING & BILLING GENERALIST
Certificate

Course #		Title	Credits
HT 130 may be taken in place of BUS 230			
BIO	105	Essentials of Anatomy & Physiology	5
BIO	127	Diseases of The Human Body	3
BUS	184	Customer Service*	3
BUS	221	Internship	1
BUS	230	Medical Office Procedures*	5
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting With MS Word	4
CAP	110	Data Entry	3

Medical Coding & Billing Generalist degrees/certificates continued on next page

HT	120	Medical Insurance Billing	5
HT	126	Fundamentals of Medical Terminology	5
HT	135	Pharmacology for The Medical Office	2
HT	230	Medical Coding ICD-9	3
HT	240	Medical Coding CPT	3
HT	265	Medical Coding & Billing Practicum	5

*HT 130 may be taken in place of BUS 230

*BUS 123 Records Management may be taken in place of BUS 184

TOTAL: (Approx. 2 to 3 quarters) 54

Medical Insurance Billing

DEGREES/CERTIFICATES OFFERED:

Certificate - Medical Insurance Billing

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for HT 126 Fundamentals of

Medical Terminology and BIO 105 Essentials of Anatomy & Physiology. It is recommended that students have good typing skills (45 wpm), English skills, and word processing skills. (Students who need work in these areas, should take CAP 101 - Introduction to Computers). A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are offered in the afternoon or evening, depending on the quarterly schedule. Students must complete BIO 105 and HT 126 prior to taking the remaining courses. See a Quarterly Schedule for specific course information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

MEDICAL INSURANCE BILLING
Certificate

Course #		Title	Credits
BIO	105	Essentials of Anatomy & Physiology	5
HT	126	Fundamentals of Medical Terminology	5
HT 129 Comprehensive Medical Terminology (online) may be taken instead of HT 126			
HT	129	Comprehensive Medical Terminology I	5
BIO	127	Diseases of The Human Body	3
HT	240	Medical Coding CPT	3
HT	230	Medical Coding ICD-9	3
HT	135	Pharmacology for The Medical Office	2
HT	270	Excel for The Medical Office	3
HT	120	Medical Insurance Billing	5
TOTAL: (Approx. 4 quarters)			**29**

Medical Receptionist

DEGREES/CERTIFICATES OFFERED:

Certificate - Medical Receptionist

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Medical Receptionist program at the start of each quarter. Admission is offered on a space available basis. Students may enroll full-time or part-time.

SEQUENCE & SCHEDULE

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

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

MEDICAL RECEPTIONIST
Certificate

Course #		Title	Credits
BUS	123	Records Management	3
BUS	230	Medical Office Procedures	5
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting With MS Word	4
CAP	110	Data Entry	3
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			18
Recommended Elective HT 126 Fundamentals of Medical Terminology 5			
TOTAL: (Approx. 2 quarters)			**45**

Medical Records Clerk

DEGREES/CERTIFICATES OFFERED:
Certificate - Medical Records Clerk

PROGRAM DESCRIPTION

The Medical Records Clerk program will prepare the students for entry level employment in a medical office working with medical records.

PROGRAM OUTCOMES

Graduates will demonstrate the skills and knowledge to work with medical records, both hard files and electronic.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required afternoon/evening courses on a space available basis. It is recommended that students have good typing skills (45 wpm), English skills, and word processing skills. (Students who need work in these areas should take CAP 199 - Computer Fundamentals). A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are offered in the afternoon or evening, depending on the quarterly schedule. See a Quarterly Schedule for specific course information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

MEDICAL RECORDS CLERK
Certificate

Course #		Title	Credits
HT	130	Medical Office Procedures	5
HT	126	Fundamentals of Medical Terminology	5
Comprehensive Medical Terminology (online) may be taken instead of HT 126			
HT	129	Comprehensive Medical Terminology I	5
HT	145	Healthcare Records Systems	5
HT	270	Excel for the Medical Office	3
HT	260	Healthcare Records Internship	3
HT	135	Pharmacology for The Medical Office	2
Prerequisite: Students must be able to keyboard a minimum of 45 wpm.			
TOTAL: (Approx. 3 quarters)			**23**

Medical Transcription

DEGREES/CERTIFICATES OFFERED:
Certificate - Medical Transcription

PROGRAM DESCRIPTION

The Medical Transcription program will prepare students for entry level employment in physicians" offices and clinics.

PROGRAM OUTCOMES

Graduates will demonstrate the background medical knowledge and skills to transcribe medical information with accuracy.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for HT 126 Fundamentals of Medical Terminology and BIO 105 Essentials of Anatomy & Physiology. It is recommended that students have good typing skills (45 wpm), English skills, and word processing skills. (Students who need work in these areas, should take CAP 199 Computer Fundamentals). A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

Courses are offered in the afternoon or evening, depending on the quarterly schedule. Students must complete BIO 105 and HT 126 prior to taking the remaining courses. See a Quarterly Schedule for specific course information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

MEDICAL TRANSCRIPTION
Certificate

Course #		Title	Credits
Student must have basic keyboarding skills. Students can test out of CAP 107 with a typing speed of 45 wpm or better.			
BIO	105	Essentials of Anatomy & Physiology	5
HT	126	Fundamentals of Medical Terminology	5
CAP	107	Computerized Keyboarding/ Skillbuilding	3
HT	135	Pharmacology for the Medical Office	2
HT	108	Medical Transcription I	3
HT	109	Medical Transcription II	5
TOTAL: (Approx. 4 quarters)			**23**

Nursing Assistant

DEGREES/CERTIFICATES OFFERED:
Certificate - Nursing Assistant

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

Basic Technical Skills:

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

Personal Care Skills:

- Demonstrates basic personal care skills.

Mental Health and Social Service Needs:

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

Basic Restorative Services:

- Incorporates principles and skills of restorative nursing in providing nursing care.

Nursing Assistant degrees/certificates continued on next page

Client's Rights and Promotion of Client's Independence:

- Demonstrates behavior that maintains and respects client's rights and promotes client's independence, regardless of race, religion, life-style, sexual preference, disease process, or ability to pay.

Communication and Interpersonal Skills:

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

Infection Control:

- Uses procedures and techniques to prevent the spread of microorganisms.

Safety/Emergency Procedures:

- Demonstrates the ability to identify and implement safety/emergency procedures.

Rules and Regulations Knowledge:

- Demonstrates knowledge of and is responsive to the laws and regulations that affect his/her practice, including, but not limited to, client abuse and neglect, client complaint procedures, workers right to know, and the Uniform Disciplinary Act.

APPLICATION & REGISTRATION

Program application and admission are not required. Students register for Nursing Assistant on a space available basis through registration. It is a State requirement that students speak and understand English at the level necessary for performing duties of a nursing assistant. (WAC 308-173- 210 (1-9), 270 (2a))

Students must demonstrate satisfactory health status including current immunizations. Students must also complete a Criminal History Background Check verifying that the student does not have a criminal history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons defined in RCW 43.43 prior to clinical placement. The 2 step TB test PPD (tuberculin test) is required prior to the first day of class. PPD test must have been completed within the last 6 months. Bring documentation with you on the first day of class.

SEQUENCE & SCHEDULE

The Nursing Assistant certificate takes approximately three weeks to complete. (See Quarterly Schedule for specific information.) Classes are offered two to three times per quarter on a Monday through Thursday schedule. All class/laboratory sessions are conducted on the college campus from 12 pm to 6:30 pm. Clinical experiences are eight hours per day and conducted at local healthcare facilities during varied hours. Students must complete all theory and all nursing laboratory experiences prior to clinical experiences.

DEGREE & CERTIFICATE REQUIREMENTS

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

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

NURSING ASSISTANT
Certificate

Course #		Title	Credits
NA	101	Nursing Assistant Essentials	3
NA	102	Nursing Assistant Clinical	2
HLTH	103	CPR: Adult Heartsaver	0.3
HLTH	133	HIV/AIDS: Healthcare Professional	0.4
TOTAL:		**(Approx. 3-4 weeks)**	**5.7**

Office Assistant / Receptionist

DEGREES/CERTIFICATES OFFERED:
Certificate - Receptionist
Certificate - Office Assistant

PROGRAM DESCRIPTION

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

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

PROGRAM OUTCOMES

Graduates will demonstrate competency in touch keyboarding at 40 wpm on a 3 minute timing with a 3 error limit; along with 80% competency in word processing, written business communication, business math, effective oral communication skills, office skills and procedures, and MS Windows.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in this program at the start of each quarter. Admission is offered on a space available basis. Students may enroll full-time or part-time.

SEQUENCE & SCHEDULE

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

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

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

Office Assistant / Receptionist degrees/certificates continued on next page

RECEPTIONIST
Certificate

Course #		Title	Credits
BUS	100	Electronic Math Applications	3
BUS	123	Records Management	3
BUS	171	Technical Communications	5
BUS	177	Business English I	3
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting with MS Word	4
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			15
TOTAL: (Approx. 2-3 quarters)			**45**

OFFICE ASSISTANT
Certificate

Course #		Title	Credits
BUS	100	Electronic Math Applications	3
BUS	123	Records Management	3
BUS	150	Mathematics for Business	5
BUS	171	Technical Communications	5
BUS	177	Business English I	3
BUS	178	Business English II	3
BUS	280	Portfolio/Assessment	1
CAP	101	Introduction to Computers	5
CAP	105	Computerized Touch Keyboarding	2
CAP	106	Formatting with MS Word	4
CAP	138	MS Word	5
CAP	142	MS Excel	5
CAP	148	MS Powerpoint	3
PSYC	111	Interpersonal & Organizational Psychology	5
Departmental Electives			15
TOTAL: (Approx. 3 quarters)			**67**

Operations Management

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Operations Management
Certificate - Operations Management

PROGRAM DESCRIPTION

This competency-based Associate in Applied Science degree and certificate program is designed for individuals currently employed on the operations side of a company. Completion of the program will prepare students for employment in a supervisory role in operations management.

The program is designed so that it integrates the needs of the company into the class projects. Students who are employed will select a mentor from their company. Others will select a mentor from any appropriate company. Working with their mentors, students will select courses to develop a program tailored to meet the needs of the company. All projects and practicums must be approved by the instructor. The courses must be selected from the courses provided in the program.Throughout the program, projects will be assigned. Working with their mentors, the students will define the scope of the project based on the mentor's recommendations. The program has two practicums; each practicum is 360 hours long. These practicums are done within a company and are project-focused.

PROGRAM OUTCOMES

Graduates will demonstrate competency in job planning, customer satisfaction, communication, team leadership, statistical process, critical thinking, and control concepts of strategic and quality management.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Operations Management program at the start of each quarter and should then meet with the program Dean to discuss a customized learning plan to meet their goals and objectives. Students who are not seeking a degree or certificate may also enroll for individual courses listed each quarter in our Quarterly Schedule and do not need to meet with the program Dean.

SEQUENCE & SCHEDULE

The Operations Management program is customized to meet the students' goals in professional development. Students choose courses in an order that best fits their personal career goals.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

The Operations Management program is offered entirely online (with the exception of MATH 111, COM 170, PSY 180). Students needing to meet with the instructor may schedule a time by emailing the instructor. Interaction with other students in the class will be online. To take this program, a student will need access to the Internet.

OPERATIONS MANAGEMENT
Associate in Applied Science

Course #		Title	Credits
MATH	107	Math in Society	5
COM	170	Oral & Written Communications	5
PSYC	111	Interpersonal & Organizational Psychology	5
CAP	101	Introduction to Computers	5
OPMGT	250	Practicum I	12
OPMGT	255	Practicum II	12

Students need a minimum of 48 credits from the following groups (A, B, C, D). Students must take a minimum of two classes from each group

GROUP A: Production Planning and Control

OPMGT	105	Introduction to Operations Management	5
OPMGT	107	Fundamentals of Process Management	5
OPMGT	119	Statistical Process Control	5
OPMGT	207	Materials Management	5
OPMGT	215	Production Plant Planning	5
OPMGT	225	Operations Management Special Topics	5

GROUP B: The Human Side of Business

BUS	184	Customer Service	3
HRM	110	Human Resource Management	5
HRM	120	Supervision Fundamentals	5
HRM	130	Team Building	5

GROUP C: Business Skill Courses

GBUS	100	Business Fundamentals	5
GBUS	110	Business Communications	5
GBUS	120	Technical Writing	5

Operations Management degrees/certificates continued on next page

GROUP D: Quality Control			
TQM	109	Introduction to Total Quality Management	5
PMP	160	Project Management	5
TQM	200	Six Sigma - Statistical Analysis Tools	5
TQM	209	Case Studies In Quality Management	5
TOTAL: (Approx. 5 Quarters)			**92**

GENERAL EDUCATION
AAS

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

OPERATIONS MANAGEMENT
Certificate

Course #		Title	Credits
For the Operations Management certificate, student completes one course from each of the groups A through D, and completes OPMGT 250, for a minimum of credits.			
OPMGT	250	Practicum I	12
GROUP A: Production Planning and Control			
OPMGT	105	Introduction to Operations Management	5
OPMGT	107	Fundamentals of Process Management	5
OPMGT	119	Statistical Process Control	5
OPMGT	207	Materials Management	5
OPMGT	215	Production Plant Planning	5
OPMGT	225	Operations Management Special Topics	5
GROUP B: The Human Side of Business			
BUS	184	Customer Service	3
HRM	110	Human Resource Management	5
HRM	120	Supervision Fundamentals	5
HRM	130	Team Building	5
GROUP C: Business Skill Courses			
GBUS	100	Business Fundamentals	5
GBUS	110	Business Communications	5
GBUS	120	Technical Writing	5
GROUP D: Quality Control			
TQM	109	Introduction to Total Quality Management	5
PMP	160	Project Management	5
TQM	200	Six Sigma - Statistical Analysis Tools	5
TQM	209	Case Studies in Quality Management	5
TOTAL: (Approx. 2 Quarters)			**30**

Paraeducator

DEGREES/CERTIFICATES OFFERED:
Certificate - Paraeducator

PROGRAM DESCRIPTION

The Paraeducator program prepares students for the occupation of paraeducator or instructional assistant. Based on the Washington State Paraeducator standards and the federal No Child Left Behind guidelines, the program provides students with education and skill building needed to work as effective members of instructional teams and provide learning assistance to children and youth. Core competencies covered in this program prepare paraeducators to effectively support and extend instruction and services, thereby increasing student learning. These core competencies revolve around the areas of instructional strategies, behavior management, and human growth and development. The program uses a multimedia approach, drawing on the expertise of local professionals and schools.

PROGRAM OUTCOMES

- Apply skills and knowledge based on the Washington State Paraeducator standards and the federal No Child Left Behind guidelines.
- Work as effective members of instructional teams.
- Provide learning assistance to children and youth.

APPLICATION & REGISTRATION

Program application and admission are not required. It is best for students to begin the program by registering for EDUC 131 Paraeducator I: Foundation of Learning during fall quarter on a space available basis; however, students can begin winter or spring as well. It is recommended that students have good basic academic skills. A program brochure is available at the Counseling and Career Center.

SEQUENCE & SCHEDULE

This program consists of four required courses that are offered in the evenings. Three of the courses include a 10-hour field experience. See a Quarterly Schedule for specific information.

Students who do not have a two-year degree will be required to take the “Test of Adult Basic Education (TABE)” sometime during their first quarter in the program.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

PARAEDUCATOR
Certificate

Course #		Title	Credits
EDUC	131	Paraeducator I: Foundations of Learning	4
EDUC	133	Paraeducator II: Strategic Learning	4
EDUC	134	Paraeducator III: Effective Instruction	4
EDUC	137	Reading, Writing, & Math for the Paraeducator	1
CAP	XXX	(Any CAP course of .5 credits of more)	
Optional Electives			
CAP	101	Introduction to Computers	5
BAS/ABE		Basic Academic Skills Courses	
MATH	085	Basic Math	5
Completion of the Test of Adult Basic Education (TABE) for those with less than a two-year degree.			
TOTAL: (Approx. 3 quarters)			**13.5**

Parenting Education

PROGRAM DESCRIPTION

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

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

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

Classes include
- Childbirth Preparation courses
- Parent/Child courses where parents and young children attend class together
- Parenting Discussion courses

For more information contact BTC at 360-752-8350 or www.btc.ctc.edu. View the BTC Parenting Program video on the website at http://www.btc.ctc.edu/CourseDocs/Programs/pParenting.asp

Personal Fitness Trainer

DEGREES/CERTIFICATES OFFERED:
Certificate - Personal Fitness Trainer

PROGRAM DESCRIPTION

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.

BENEFITS:

Completion of the program will prepare you for jobs working in the fitness industry both in a fitness facility and as a private trainer. You will be introduced to the National Federation of Professional Trainers (NFPT). This certifying agency offers a career and employment placement program, with a nationwide network to assist successful candidates with job placement in the fitness industry.

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students may enroll in the program at the start of fall quarter. Instructor permission is required for program entry at other times.

SEQUENCE & SCHEDULE

The Personal Fitness Trainer classes meet on Tuesday and Thursday evenings and Saturday mornings. One course will be offered each quarter beginning with PFT 100 in fall quarter, followed by PFT 110 in winter, and PFT 120 in spring. With a fall quarter entry, students can complete the program in three quarters. Refer to the Quarterly Schedule for dates and registration information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

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

PERSONAL FITNESS TRAINER
Certificate

Course #		Title	Credits
PFT	100	Foundations of Health & Fitness	6
PFT	110	Program Development & Training Principles	6
PFT	120	Facility Management & Marketing for a Fitness Trainer	6
TOTAL:			**18**

Practical Nursing

DEGREES/CERTIFICATES OFFERED:
Certificate - Practical Nursing - FT
Certificate - Practical Nursing - PT

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

Nursing Process:
- Assist in implementing the nursing process

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

Practical Nursing degrees/certificates continued on next page

Personal and Professional Responsibilities:

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

In addition to the BTC Admission procedures listed above, students must submit additional materials, including a completed Criminal History Background Check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43 and evidence of high school graduation or its equivalent. Acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate.

Prior to enrollment into the practical nursing program, the student is to show proof that they have satisfactorily completed a state approved nursing assistant program.

After acceptance into the Practical Nursing program, and prior to clinical, the student is required to

- Demonstrate satisfactory health status by a physical examination within the preceding six months, including current immunizations
- Possess and maintain a current CPR card. Minimum CPR required is Adult Heartsaver (3hr)
- Be 18 years of age
- Complete a urine test for prohibited substances (prior to first clinical series).

SEQUENCE & SCHEDULE

Practical Nursing students begin by completing BIOL& 160 - General Biology with Lab, ENGL& 101 English Composition I, PSYC& 100 - General Psychology, and MATH 98 Elementary Algebra or MATH 99 Intermediate Algebra. Math must be completed before Anatomy & Physiology. They then move into the two-course Anatomy & Physiology sequence, BIOL&241/242, and NUR 105 Pharmacology. Upon completion of this coursework, students take the courses contained in Nursing Foundations I, II, and III. The Biology and Nursing Foundation courses are sequenced and must be taken in the order listed. Students must receive a minimum of 2.0 (C) to progress to the next sequential course. A grade of 3.0 (B) is required in NUR 132 to graduate. A full-time program of study is 5 quarters. A parttime program of study is 9 quarters. There are no summer quarter classes.

Full-time Practical Nursing program: Students may enter fall, winter, and spring quarters and should meet with an advisor to plan and schedule classes. Generally, classes are held between the hours of 8 am and 3 pm on campus. Nursing Practice NUR 102, 122, and 132 are the lab/clinical courses and are 8 hours a day; times vary depending on the clinical location and the shift.

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ADVANCED PLACEMENT

Entry into the program with advanced standing is possible for students with previous nursing education or students who have completed the required general education and science courses. Students must meet all admissions criteria and should apply for advanced standing in writing and submit official transcripts at the time of request. See the advanced placement procedure on page 79.

REGISTERED NURSING: LPN TO RN

Students planning to continue their nursing education should meet with an admission advisor at BTC. If a student chooses a RN program at a different college,please contact the admissions office of the other college to determine all program prerequisites. The student that continues on to the RN education must take Math 99 - Intermediate Algebra.

NAC CERTIFICATE

Practical Nursing students who have completed Nursing Foundations I (NUR 101 and NUR 102) are eligible to apply for the Washington State practical and written certification examination for Nursing Assistant Certified (N.A.C.).

PRACTICAL NURSING - FT

Certificate

Course #	Title	Credits
BIOL& 160	General Biology with Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
ENGL& 101	English Composition I	5
MATH 098	Elementary Algebra	5
OR		
MATH 099	Intermediate Algebra	5
NUR 105	Pharmacology	2
PSYC& 100	General Psychology	5
NUR 010: Nursing Foundations I:		
HLTH 133	HIV/AIDS: Healthcare Professional	0.4
NUR 101	Common Health Needs	15
NUR 102	Nursing Practice 1	7
NUR 020: Nursing Foundations II:		
NUR 121	Common Health Disturbances I	15
NUR 122	Nursing Practice II	7
NUR 030: Nursing Foundations III:		
NUR 131	Common Health Disturbances II	15
NUR 132	Nursing Practice III	7
TOTAL: (Approx. 5 quarters full-time)		**98.4**

PRACTICAL NURSING - PT

Practical Nursing degrees/certificates continued on next page

Certificate

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH 099	Intermediate Algebra	5
OR		
MATH 098	Elementary Algebra	5
PSYC& 100	General Psychology	5
BIOL& 160	General Biology with Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
NUR 105	Pharmacology	2
HLTH 133	HIV/AIDS: Healthcare Professional	0.4
NUR 101A	Common Health Needs 1a	7
NUR 102A	Nursing Practice 1a	4
NUR 101B	Common Health Needs 1b	7
NUR 102B	Nursing Practice 1b	4
NUR 121A	Health Disturbances 1a	7
NUR 122A	Nursing Practice 2a	4
NUR 121B	Health Disturbances 1b	7
NUR 122B	Nursing Practice 2b	4
NUR 131A	Health Disturbances 2a	12
NUR 131B	Health Disturbances 2b	3
NUR 132	Nursing Practice III	7
TOTAL: (Approx. 9 quarters part-time)		**98.4**

Precision Machining

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Precision Machining
Certificate - Machine Operator
Certificate - CNC Operator

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

Graduates will demonstrate competency in their ability to operate machine shop equipment: lathes, mills, grinders, drills; read and interpret blueprints per industry standards; process, plan and complete a piece part; in CNC machine tool operation and programming and in CAM design and manufacturing.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Precision Machining program at the start of fall and spring quarters on a space available basis. Part-time enrollment is available for the morning section only with instructor permission.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree or certificte upon completion and verification of all requirementsand standards..

The Degree and Certificate application procedure is listed on page 74.

PRECISION MACHINING

Associate in Applied Science

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MACH 100	Introduction to Trade/Occupational Safety	1
MACH 101	Machine Technology I	3
MACH 102	Machine Technology II	3
MACH 111	Benchwork/Handtools	2
MACH 113	Machinery's Handbook	1
MACH 121	Machine Fundamentals I	10
MACH 122	Machine Fundamentals II	11
MACH 123	Machine Fundamentals III	12
MACH 125	Quality Control	2
MACH 131	Blueprint Reading I	3
MACH 132	Blueprint Reading II	3
MACH 162	Mathematics I	5
MACH 192	Job Preparation	1
MACH 201	Machine Technology IV	4
MACH 202	Machine Technology V	1
MACH 212	Metallurgy and Heat Treatment	2
MACH 213	Applied Machinery's Handbook	1
MACH 214	Tool and Cutter Grinding	2
MACH 215	Hydraulics	1
MACH 221	Machine Fundamentals IV	12
MACH 241	Introduction to CNC Machining	8
MACH 242	CNC Programming/Operation	9
MACH 243	CNC-CAD/CAM Program and Operation	14
MACH 262	Mathematics II	4
MATH 100	Occupational Math	5
PSYC 111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 6 quarters)		**130**

GENERAL EDUCATION

AAS

Course #	Title	Credits
MATH 100	Occupational Math	5
COM 170	Oral & Written Communications	5
PSYC 111	Interpersonal & Organizational Psychology	5

General Education
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
OR		
MATH& 107	Math In Society	5
PSYC& 100	General Psychology	5

MACHINE OPERATOR

Certificate

Course #	Title	Credits
COM 170	Oral & Written Communications	5
MACH 100	Introduction to Trade/Occupational Safety	1
MACH 101	Machine Technology I	3
MACH 102	Machine Technology II	3
MACH 111	Benchwork/Handtools	2
MACH 113	Machinery's Handbook	1
MACH 121	Machine Fundamentals I	10
MACH 122	Machine Fundamentals II	11
MACH 123	Machine Fundamentals III	12

MACH	131	Blueprint Reading I	3
MACH	132	Blueprint Reading II	3
MACH	162	Mathematics I	5
MACH	201	Machine Technology IV	4
MACH	213	Applied Machinery's Handbook	1
MACH	214	Tool and Cutter Grinding	2
MACH	241	Introduction to CNC Machining	8
MACH	262	Mathematics II	4
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
TOTAL: (Approx. 4 quarters)			**88**

CNC OPERATOR
Certificate

Course #	Title	Credits
Prerequisite: Completion of Machine Operator or two or more years of trade experience.		
MACH 125	Quality Control	2
MACH 162	Mathematics I	5
MACH 241	Introduction to CNC Machining	8
MACH 242	CNC Programming/Operation	9
MACH 244	CNC-CAD/CAM Prog & Oper A	5
MACH 262	Mathematics II	4
MATH 100	Occupational Math	5
TOTAL: (Approx. 2 quarters)		**38**

Process Technology

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Process Technology
Certificate - Process Technology

CENTERS OF EXCELLENCE

Northwest Center of Excellence for Process & Control Technology

PROGRAM DESCRIPTION

The Associate of Applied Science degree in Process Technology prepares students for employment as plant operators in such industries as petroleum refining, pulp and paper, food processing, chemical manufacturing, power generation, and waste water treatment.

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

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

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

In addition to the BTC Admission procedures listed above, students must submit evidence of high school graduation or its equivalent. Acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate.

Students may enroll in the Process Technology program on a space available basis at the start of fall, winter, or spring quarters.

Part-time enrollment is available with instructor approval.

SEQUENCE & SCHEDULE

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

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree or certifcate upon completion and verification of all requirementsand standards..

The Degree and Certificate application procedure is listed on page 74.

PROCESS TECHNOLOGY
Associate in Applied Science

Course #	Title	Credits
CAP 101	Introduction to Computers	5
CHEM& 121	Intro to Chemistry	5
COM 170	Oral & Written Communications	5
ECON 103	Industrial Economics	5
ENGL 175	Technical Communications	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
PHYS& 121	General Physics I	5
PHYS& 122	General Physics Ii	5
PSYC 111	Interpersonal & Organizational Psychology	5
PTEC 101	Introduction to Process technology	5
PTEC 102	Process Technology I (Equipment)	6
PTEC 103	Safety, Health and Equipment I	5
PTEC 105	Process Technology II (Systems)	5
PTEC 110	Process Instrumentation I	6
PTEC 203	Safety, Health and Environment II	5
PTEC 205	Dynamic Process Control	5
PTEC 207	Quality Control	5
PTEC 210	Process Instrumentation II	6
PTEC 212	Industrial Processes and Equipment	5
PTEC 215	Process Technology III (Operations)	6
PTEC 217	Process Troubleshooting	5
Electives: Take 6 credits in Special Topics, and 10 credits in		

Process Technology degrees/certificates continued on next page

Project/Practicum			
PTEC	190	Special Topics Food Processing	3
PTEC	191	Special Topics Job Search Skill	3
PTEC	192	Special Topics Pulp & Paper Processing	3
PTEC	193	Special Topics Upstream Process	3
PTEC	194	Special Topics Wastewater Treatment	3
PTEC	270	Process Technology Project	5
PTEC	272	Process Technology Project II	5
PTEC	290	Process Technology Practicum/Internship	5
TOTAL: (Approx. 6 quarters)			**130 CRs**

GENERAL EDUCATION
AAS

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH&	141	Precalculus I	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

PROCESS TECHNOLOGY
Certificate

Course #		Title	Credits
CAP	101	Introduction To Computers	5
COM	170	Oral & Written Communications	5
MATH&	141	Precalculus I	5
PHYS&	121	General Physics I	5
PSYC	111	Interpersonal & Organizational Psychology	5
PTEC	101	Introduction to Process technology	5
PTEC	102	Process technology I (Equipment)	6
PTEC	103	Safety, Health and Equipment I	5
PTEC	105	Process Technology II (Systems)	5
PTEC	110	Process Instrumentation I	6
PTEC	205	Dynamic Process Control	5
PTEC	210	Process Instrumentation II	6
PTEC	215	Process Technology III (Operations)	6
TOTAL: (Approx. 3 quarters)			**69**

Professional Technical Education

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Professional Technical Education

PROGRAM DESCRIPTION

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

The curriculum for this program is entirely competency based, with skills and their associated tasks mirroring industry and Skill Standards requirements. The curriculum is designed as a series of discreet extended learning courses, thusly, is not offered as a full-time immersion program. Students are rated according to their mastery of these skills/tasks at predetermined industry standards of performance.

This program is designed specifically for post-secondary professional-technical educators who are employed on a 50 percent or greater basis. Approval of the Dean, Educator Training Center is required.

PROGRAM GOAL

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in this program at the start of each quarter. Admissions is offered on a space available basis. Approval of the Dean, Educator Training Center is required. Students may enroll full-time or part-time.

SEQUENCE & SCHEDULE

Students meet with and are advised by their program advisor to plan and schedule classes. Some classes are sequential and have pre-requisites. A schedule of course offerings can be obtained from program advisors.

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

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

PROFESSIONAL TECHNICAL EDUCATION
Associate in Applied Science

Course #		Title	Credits
Communications: (5 credits minimum)			
ENGL&	101	English Composition I	5
Quantitative Reasoning: (5 credits minimum)			
MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
Social Science, Humanities, or Science: (10 credits minimum)			
PSYC&	100	General Psychology	5
Other social science, humanities or science			5
Required:			20
Professional Technical CORE Education Coursework:			
EDUC	200	Introduction to Teaching Professional Technical Education	3

EDUC	207	Teach/Facilitate I	3
EDUC	209	Teach/Facilitate II	3
EDUC	211	Planning For Instruction	3
EDUC	216	Assessment for Learning	3
EDUC	231	Learning Environment Management	3
EDUC	175	Achieving Information Literacy	1
HLTH	150	First Aid Industrial	1
Required:			20
Professional Technical Applications Coursework: 17 Required			
EDUC	251	Teaching Practicum 1	12
EDUC	299	Professional Technical Education Capstone	5
Required:			17
Recommended Electives: (33 credits chosen from following:)			
EDUC	252	Teaching Practicum 2	12
CAP	101	Introduction to Computers	5
EDUC	199	Professional Technical Specialization	12
EDUC	261	Industry Based Professional Development	5
EDUC	262	Advanced Industry Based Professional Development	6
EDUC	221	Leadership Development	3
EDUC	226	Learning Styles	3
EDUC	236	Occupational Analysis	3
EDUC	241	Learning & Adapting New Technologies	5
EDUC	246	The Adult Learner	3
EDUC	256	Program Management, Promotion, and Recruitment	5
EDUC	257	Current Topics for Professional Technical Educators	6
EDUC	275	Career & Technical Education Internship	3

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

TOTAL: (Approx. 6 quarters) 90

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

Project Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Project Management

PROGRAM DESCRIPTION

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

PROGRAM OUTCOMES

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

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required evening courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE & SCHEDULE

It is recommended that students take PMP 100, Project Management Fundamentals prior to taking the other PMP courses. Both MS Project Level 1, CAP 150 and MS Project Level 2, CAP 151 may be taken concurrently with PMP courses. Classes are held in the evening, generally from 6:00pm to 9:00pm or on Fridays or Saturdays. See a Quarterly Schedule for specific information.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

PROJECT MANAGEMENT
Certificate

Course #		Title	Credits
CAP	150	Project Level 1	1
CAP	151	Project Level 2	1
PMP	100	Project Management Fundamentals	1
PMP	120	Project Management - PMP Prep	2
PMP	130	Project Management Integration Project	1
TOTAL:		**(Approx. 1-2 quarters)**	**6**

Radiologic Technology

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - Radiologic Technology
Certificate - Mammography

PROGRAM DESCRIPTION

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

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

Radiologic Technologists must remain mentally and physically alert to react to emergency situations, safety hazard warnings, and equipment problems. The technologist must have the ability to feel, see, hear, and smell. The technologist is required to communicate with patients and maneuver patients and heavy equipment. Thus, the technologist must

have adequate use of limbs and speech. Every reasonable attempt will be made to accommodate disabilities.

PROGRAM OUTCOMES

• Follow all safety guidelines and practice safe radiation procedures to fully protect staff, patients and self.

- Competently performs clinical and administrative components of each radiographic procedure. Produce optimal radiographic images, accurately assessing and applying corrections required when correcting suboptimal images.
- Interact in a compassionate, respectful manner assessing patient condition and concerns: provide for patient safety, comfort, confidentiality and modesty.
- Conducts herself/himself in a professional manner according to ARRT and ASRT standards. Assess situations, exercise care, discretion and judgment; assume responsibility for professional decisions; support colleagues and acts in the best interest of the patient.

APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College Radiologic Technology program by Fall of 2008, students must submit official transcripts documenting completion of the following prerequisite college courses with a GPA as indicated, and submit a completed Approval of Prerequisites Request form:

a. English Composition (ENGL& 101) 5 credits or equivalent. (Minimum 2.0 GPA)

b. Introduction to Computers (CAP 101)5 credits or equivalent. Equivalent courses must include windows, word processing, and spreadsheet. Challenge procedure information for CAP 101 is available from the Admissions Office. (Minimum 2.0 GPA)

c. Intermediate Algebra (MATH 099) 5 credits or equivalent within the last 3 years or departmental approval. (Minimum 2.7 GPA)

d. Medical Terminology (HT 126) 60 clock hours, or 3 credits. (Minimum 2.0 GPA)

e. Anatomy and Physiology I & II (BIOL& 241 & BIOL& 242), 5 credits each or equivalent. (Minimum 2.7 GPA)

f. General Psychology (PSYC& 100) 5 credits. (Minimum 2.0 GPA)

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

In addition to the BTC Admission procedures found on page 66, students must submit additional materials, including a completed Criminal History Background Check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43 and evidence of high school graduation or its equivalent. Acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate. Please contact Admissions & Advising for additional program admissions requirements.

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

• Within the preceding six months of going to clinical, demonstrate satisfactory health status by a physical examination, including current immunizations; provide documentation of negative 2-step PPD testing, negative chest x-ray, or appropriate treatment. First clinical course will take place in January of the first year of the program.

The first day of class, the student is required to complete a urine test for prohibited substances. The test will screen for the following five drugs: amphetamines, cocaine, marijuana, opiates, and PCP. This test will be arranged by a college representative and be administered on campus.

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

- Be at least 18 years of age;
- Possess and maintain a current CPR card. Minimum CPR requirement is Heartsaver Complete (6hr). Accepted no later than Oct. 31st.
- Show proof of personal health insurance (student accident insurance is available). Accepted no later than Oct. 31st.

SEQUENCE & SCHEDULE

The Radiologic Technology program begins fall quarter and is a total of seven (7) quarters. First year students attend fall, winter, spring, and summer. Second year students attend fall, winter, and spring. Courses will be scheduled at a variety of times during the day, late afternoon, and evening. Some courses will be provided online and some using video conference media at Everett, North Seattle, and Bellingham. Clinical shifts may be from 8 to 12 hours dependent on the quarter and may vary from days, evenings, or weekends at a variety of clinics and hospitals. Students must be able to accommodate the various clinical schedules. A cumulative GPA of 2.5 is required to progress in the program, but no course can be completed with less than a 2.0 GPA.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

RADIOLOGIC TECHNOLOGY
Associate in Applied Science

Course #		Title	Credits
HLTH	133	HIV/AIDS: Healthcare Professional	0.4
RT	101	Radiographic Positioning I	4
RT	102	Radiographic Positioning II	4
RT	103	Radiographic Positioning III	4
RT	110	Intro to Radiologic Technology	4
RT	112	Patient Care in Radiology	4
RT	114	Leadership Seminar	1
RT	120	Imaging And Processing	4
RT	121	Radiographic Physics I	4
RT	122	Quality Assurance	2
RT	123	Radiographic Physics II	3
RT	131	Radiographic Clinic I	8
RT	132	Radiographic Clinic II	8
RT	133	Radiographic Clinic III	12
RT	201	Adv Patient Procedures & Pathology I	5
RT	202	Adv Patient Procedures & Pathology II	5
RT	205	Radiology Pharmacology	2
RT	210	Radiation Biology	3
RT	220	Radiographic Physics III	3
RT	230	Registry Review & Employment Readiness	3
RT	231	Radiographic Clinic IV	12
RT	232	Radiographic Clinic V	12
RT	233	Radiographic Clinic VI	9
TOTAL: (7 quarters)			**116.4**

GENERAL EDUCATION

Radiologic Technology degrees/certificates continued on next page

AAS-T

Course #	Title	Credits
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		

MAMMOGRAPHY
Certificate

Course #	Title	Credits
RAD 250	Mammographic Theory I	3
RAD 251	Mammographic Theory II	3
RAD 252	Mammographical Clinical	2
TOTAL:	**8 CRs**	

Registered Nursing: LPN to RN option

DEGREES/CERTIFICATES OFFERED:
Associate in Applied Science - LPN To RN Option

PROGRAM DESCRIPTION

Bellingham Technical College offers a program for nurses who have graduated from a PN program, that prepares the student for licensure as a Registered Nurse and an AAS Degree. Applicants should be aware that the program requires independent study. The program is for nurses who have graduated from a practical nursing program approved by the Washington State Department of Health: Nursing Care Quality Assurance Commission. Students who complete the program will have met the educational requirements needed to apply for permission to take the National Council Licensure Examination for Registered Nursing (NCLEX-RN).

PROGRAM OUTCOMES

Provider of Care:

- Practices competently and safely in a variety of health care settings with clients of diverse socio-cultural identities across the life span.
- Demonstrates critical thinking and clinical judgment by integrating and building upon theoretical concepts from nursing and related fields.
- Implements the nursing process.

Manager of Care:

- Plans and coordinates care for an individual or group of clients with health care needs by using established priorities.
- Demonstrates an understanding of own role in the health care delivery.

Member Within the Discipline of Nursing:

- Actively participates within the nursing profession.
- Seeks opportunity for continued learning, self-development, leadership, and management skills.

APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College Registered Nursing: LPN to RN Option, applicants must complete an application packet. Incomplete application packets will not be considered. Application packets are available by calling the Admissions office at 360-752-8345. Any questions regarding admission should be directed to Chris Richter, Admissions at 360-752-8321, or crichter@btc.ctc.edu. To be eligible for admission, applicants must provide all of the following items:

- Evidence of completion of at least 1000 hours as a working LPN within the last five years
- Completed BTC admissions application and pay $45 fee
- Official transcripts containing evidence of successful completion of the prerequisite courses with a 2.0 or above
- BIOL&241 Human Anatomy & Physiology I (5 cr)
- BIOL&242 Human Anatomy & Physiology II (5 cr)
- ENGL&101 English Composition I (5 cr)
- CHEM&121 Intro to Chemistry (5cr)
- BIOL&260 Microbiology (5 cr)
- PSYC&100 General Psychology (5cr)
- PSYC&200 Lifespan Psychology (5 cr)
- MATH&107 Math in Society (5 cr) or MATH&141 Precalculus I (5cr)

Submit certificate application materials and transcripts to:\

Bellingham Technical CollegeAttention: Admissions, LPN to RN Option: A.A.S. Degree
3028 Lindbergh Avenue
Bellingham, WA 98225-1599

SEQUENCE & SCHEDULE

The LPN to RN Option begins fall and winter quarters with enrollment for three quarters. Students will not attend during summer. Students will average 140 hours per quarter in a combination of lecture, lab and clinical work, attending school for one to two days every week (6-8 hours per day). Hospital clinical experiences are scheduled to take place on the weekends.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

LPN TO RN OPTION
Associate in Applied Science

Course #	Title	Credits
NUR 211	Nursing Dimensions I	7
NUR 212	Client Care Management Practice I	4
NUR 221	Nursing Dimensions II	6
NUR 222	Client Care Management Practice II	4
NUR 231	Nursing Dimensions III	5
NUR 234	Capstone Clinical	4
TOTAL: (3 quarters)		30

GENERAL EDUCATION
AAS-T

Course #	Title	Credits
BIOL& 260	Microbiology	5
MATH& 141	Precalculus I	5
CHEM& 121	Intro to Chemistry	5
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	
OR		
MATH& 107	Math in Society	5
PSYC& 100	General Psychology	5
Plus 5 credits in social science, humanities or science.		
TOTAL:		**30**

Residential Home Inspection

DEGREES/CERTIFICATES OFFERED:
Certificate - Residential Home Inspection

PROGRAM DESCRIPTION

Bellingham Technical College provides a high quality, fast-track training program to prepare students to begin their own professional home inspection business or seek employment with a home inspection company.

The 10 credits (160 hours) program consists of an intensive 4-week full-time Home Inspection Training Program. Hands on study and a combination of technical labs and field inspections will supplement classroom instruction.

This program is offered on the BTC campus and at several other colleges in Washington State. See the Class Schedule below for details.

PROGRAM OUTCOMES

Graduates will receive a Bellingham Technical College Certificate and be prepared to take, and pass, the National Home Inspector Exam, the Washington State Structural Pest Inspector Exam or any exam required by the leading home inspection associations or societies.

SEQUENCE & SCHEDULE

- August 6 to 31, 2007 at Pasco
- Sept 9 to Oct 5, 2007 at Spokane
- October 29 to November 23, 2007 at Bellingham

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

RESIDENTIAL HOME INSPECTION
Certificate

Course #		Title	Credits
RHI	110	Residential Home Inspection	15
TOTAL:		**(Approx. 4 weeks)**	**15**

Retail Management

DEGREES/CERTIFICATES OFFERED:
Certificate - Retail Management

PROGRAM DESCRIPTION

The Retail Management certificate is designed to give individuals a clear sense of what is involved in managing a retail sales operation or line of merchandise. Individuals completing the Retail Management certificate program will develop a clear sense of the scope of a career in the field of retail management. Foundation courses in both written and oral communication, business math, human relations, and microcomputer applications are included. Students also complete specific business and management courses in accounting, management, marketing, retailing, and human resource management.

The retail industry is fast-paced and rapidly changing. Technological advances such as scanners and electronic data interchange, as well as various innovations in marketing and distribution, have created a need for personnel with strong fundamental management and computer skills. Candidates possessing these skills have excellent prospects for employment and/or advancement.

Developed with and endorsed by the Western Association of Food Chains (WAFC), this certificate provides broad-based training in ten content areas for future and current employees in a variety of retail operations, including grocery stores, department stores, and specialty retailers.

APPLICATION & REGISTRATION

Program application and admission are not required. Students begin the program by registering for the required courses on a space available basis. It is recommended that students have good basic academic skills.

SEQUENCE & SCHEDULE

Students choose courses in an order that best fits their personal career goals. See a Quarterly Schedule for specific course information.

DEGREE & CERTIFICATE REQUIREMENTS

Students who have started a Western Association of Food Chains (WAFC) endorsed Retail Management Certificate program with another college may receive a certificate from Bellingham Technical College by completing at least four of the courses listed for the Retail Management Certificate of Completion at Bellingham Technical College and transferring in equivalent courses to meet the remaining requirements.

Certificate of Completion – Retail Management option

Some colleges offering WAFC-endorsed Retail Management Certificates utilize courses with less credits than the comparable Bellingham Technical College course. For students who have started a Retail Management Certificate with these colleges, a Certificate of Completion may be obtained by transferring in courses in the content areas listed below, with the following provisions:

- A maximum of six of the ten content areas may be satisfied with transfer courses (i.e., four of the content areas must be completed at Bellingham Technical College, 18 credits minimum);
- Courses transferred in must equate to at least 3 quarter credits per content area;

CONTENT AREAS

Business Communication
Business Mathematics
Leadership and Human Relations
Microcomputer Applications
Oral Communications (Business or Speech)
Bookkeeping or General Accounting
Introduction to Management
Marketing Management
Human Resources Management
Retail Management & Merchandising

ONLINE LEARNING

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

RETAIL MANAGEMENT
Certificate

Course #		Title	Credits
ACCT	141	Financial Accounting I	5
BUS	150	Mathematics for Business or transfer level Math course	
BUS	171	Technical Communications	5
OR			
ENGL&	101	English Composition I	5
CAP	101	Introduction to Computers	5
COM	170	Oral & Written Communications	5
HRM	110	Human Resource Management	5
MGMT	152	Small Business Management	3
MGMT	210	Supervision for The Office	5
OR			
PSYC	111	Interpersonal & Organizational Psychology	5

Retail Management degrees/certificates continued on next page

MKT	100	Marketing Fundamentals	5
Retail Management and Merchandising (5 credits) online through Skagit Valley College			5
TOTAL: (Approx. 3-4 Quarters)			**48**

Surgery Technology

DEGREES/CERTIFICATES OFFERED:
Certificate - Surgery Technology
Certificate - Central Service Specialist

PROGRAM DESCRIPTION

The Surgery Technology program is an accredited program designed to meet the expanding demand of surgery and related healthcare departments. This is an exciting career opportunity that will prepare men and women to function as an integral part of the team of healthcare practitioners, providing surgical care to the patient. The surgery technologist is under the supervision of the physician and/or registered nurse at all times. The program prepares students to develop expertise in the theory and application of sterile and aseptic technique and combines knowledge of human anatomy and surgical procedures. Additionally, the program prepares competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Students learn how to implement surgical tools and technologies to facilitate a physician's performance of invasive, therapeutic and diagnostic procedures. Students will spend a major portion of the training program in clinical practice, coordinated by the instructor. Clinical practice will take place regionally in hospitals, surgery centers, and physicians' outpatient surgery. Students will need to providetheir own transportation to clinical sites.

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.
- Work collaboratively and interact positively and appropriately with surgical team members and supervisors. Take responsibility for own learning.
- Effectively write the P.A.E. (Program Assessment Exam)

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

In addition to the BTC Admission procedures listed above, students must submit additional materials, including a completed Criminal History Background Check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43 and evidence of high school graduation or its equivalent. Acceptable documents include a copy of your high school diploma, high school transcript, or GED certificate.

After acceptance into the Surgery Technology program, and prior to enrollment in SURG 120, the student is required to:

- Demonstrate satisfactory health status by a physical examination within the preceding six months, including current immunizations;
- Complete a urine test for prohibited substances. The test must screen for the following five drugs: amphetamines, cocaine, marijuana, opiates, and PCP;
- Possess and maintain a current CPR card. Minimum CPR required is Adult Heartsaver (3 hrs);
- Show proof of personal health insurance (student accident insurance is available); and
- Be eighteen (18) years of age prior to the start of the clinical coursework (SURG 120 and SURG 125)

SEQUENCE & SCHEDULE

The Surgery Technology program begins in winter quarter and ends the following spring quarter, totaling five consecutive quarters (not including summer). Students should meet with an advisor regarding their first quarter schedule. After the first quarter, the program instructor(s) will advise students on their schedule. The Surgery Technology courses are sequenced and require passage to progress to the next course.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

ADVANCED PLACEMENT

Entry into the program with advanced standing is possible for students who have completed the required sciences and other first and/or second quarter coursework. Students must meet all admission criteria and apply for advanced standing in writing. The student must submit official transcripts as well as an Award of Transfer Credit Request at the time of petition. See the advanced placement procedure on page 79.

SURGERY TECHNOLOGY
Certificate

Course #	Title	Credits
BIOL& 160	General Biology with Lab	5
COM 170	Oral & Written Communications	5
OR		
ENGL& 101	English Composition I	5
MATH 098	Elementary Algebra	5
OR		
MATH 099	Intermediate Algebra	5
PSYC& 100	General Psychology	5
OR		
PSYC 111	Interpersonal & Organizational Psychology	5
HLTH 133	HIV/AIDS: Healthcare Professional	0.4
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
HO 125	Intro to Medical Terminology	3
HO 105	Pharmacology	2
SURG 120	Surgery Technology I	10
SURG 125	Surgery Technology Lab	10
SURG 133	Surgery Technology II	10
SURG 136	Surgery Tech Clinical Practice I	12
SURG 143	Surgery Technology III	6
SURG 145	Surgery Tech Clinical Practice II	10
TOTAL: (Approx. 5 quarters)		**93.4**

CENTRAL SERVICE SPECIALIST
Certificate

Course #	Title	Credits
PSYC& 100	General Psychology	5
OR		
PSYC 111	Interpersonal & Organizational Psychology	5
ENGL& 101	English Composition I	5
OR		
COM 170	Oral & Written Communications	5
MATH 099	Intermediate Algebra	5
OR		
MATH 098	Elementary Algebra	5
BIOL& 160	General Biology with Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5

Surgery Technology degrees/certificates continued on next page

HLTH	133	HIV/AIDS: Healthcare Professional	0.4
HO	125	Intro to Medical Terminology	3
SURG	120	Surgery Technology I	10
CSC	136	Central Service Clinical	1
TOTAL: (Approx. 3 quarters)			**45.5**

Surveying & Mapping Technology

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Surveying & Mapping Technology

PROGRAM DESCRIPTION

The Surveying & Mapping Technology program prepares the student for employment as a surveyor and mapper in field and office applications. Instruction is individualized within a structured curriculum, and instructional time is divided between classroom theory and practical application. The degree program includes use of different types of equipment and types of drafting, including CAD, and the necessary technical, and academic skills to be productive and dependable workers as well as GPS Surveying. Students are encouraged to participate in the activities of the Land Surveyor's Association of Washington (LSAW) as student members.

PROGRAM OUTCOMES

Graduates will demonstrate competency in basic GIS and surveying and mapping skills; prepare for the Level I Survey Technical Exam given by the Career Development Committee of LSAW; possess the ability to prepare a topographic map to current Washington professional standards; prepare a topographic map of a parcel of property that is evaluated by WAC 332-130 standards; demonstrate entry level competency in using CAD skills; demonstrate a working knowledge of the Global Positioning System (GPS) and prepare BTC campus map data using current Trimble RTK GPS equipment.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Surveying & Mapping Technology program at the start of the fall quarter or at other times with instructor permission. Admission is offered on a space available basis. Part-time enrollment is available with instructor approval.

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

SEQUENCE & SCHEDULE

The Surveying & Mapping Technology student will complete a specific course requirement sequence based on date of enrollment. Students will be advised by the program instructor regarding sequence and schedule of classes.

Generally, classroom instruction is held Monday, Wednesday, and Friday with most practicum activities and related studies occurring on Tuesday and Thursday.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree an Associate in Applied Science - Transfer degree upon completion and verification of all requirementsand standards.

The Degree and Certificate application procedure is listed on page 74.

SURVEYING & MAPPING TECHNOLOGY
Associate in Applied Science

Course #		Title	Credits
COM	170	Oral & Written Communications	5
ENGT	127	Civil/Survey CAD 1	7
ENGT	128	Civil/Survey CAD 2	7
ENGT	132	MS Office Applications	5
ENGT	153	Arcview	7
ENGT	251	Land Desktop - Survey Add-On	13
MATH	111	Technical Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
SURV	102	Fundamentals of Surveying I	7
SURV	103	Fundamentals of Surveying II	5
SURV	104	Construction and Highway Surveys	6
SURV	112	Public Lands Survey System	5
SURV	113	Boundary/Legal Principals	7
SURV	116	Survey Data Systems	4
SURV	140	Fundamentals of GIS	4
SURV	152	Zoning, Permitting and Platting	4
SURV	191	Professional Development and Safety	3
SURV	201	Advanced Survey Seminar	7
SURV	202	GPS Systems	7
SURV	204	Environmental Mapping	4
SURV	205	Advanced GIS Applications	7
SURV	252	Land Development Desktop II - Survey	6
TOTAL: (Approx. 6 quarters)			**130**

GENERAL EDUCATION
AAS

Course #		Title	Credits
MATH	111	Technical Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
COM	170	Oral & Written Communications	5

General Education
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	5
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5

Technical Sales Specialist

DEGREES/CERTIFICATES OFFERED:

Associate in Applied Science - Technical Sales Specialist
Certificate - Sales Associate
Certificate - Sales Specialist

PROGRAM DESCRIPTION

The Technical Sales Specialist program prepares students for employment as a member of a sales or marketing team. The program will accommodate both those students who are currently employed and desiring advancement as well as students seeking initial employment. This program is designed to benefit students who have a strong interest and, possibly education, in a particular industry (i.e., medical, electronics, welding, and construction) and would like to work in sales that are related to that industry. The program combines both technical training and sales training so that the graduate has a working knowledge of the industry, as well as competence in sales and marketing. Two intern-

Technical Sales Specialist degrees/certificates continued on next page

ships where the student is working with a sales team in the industry are included. Typical jobs include sales representative, account executive, sales manager, sales executive, and sales director. Sales professionals are often paid a base salary and a commission based on sales.

PROGRAM OUTCOMES

Graduates will demonstrate skills in sales and marketing in a technical area, prospecting for new clients, selling services and/or products, researching suppliers for customer solutions, preparing proposals and budgets, giving sales presentations, preparing complete, accurate and timely paperwork to ensure efficient processing of customer transactions, customer service, and a plan to meet and exceed monthly quotas for revenues.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enter the program during any quarter. Students may take individual courses without being admitted into the program.

SEQUENCE & SCHEDULE

Students may enroll full-time or part-time. The sales and business courses are offered primarily in the afternoon, evening and on the weekend. The schedule of the industry specific courses will vary depending upon which industry training you select. Many students who enter the program will have already completed some or all of the industry specific training.

DEGREE & CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree or a certificate upon completion and verification of all requirements and standards.

The Degree and Certificate application procedure is listed on page 74.

ONLINE LEARNING

Students will use some online tools and resources throughout the program. Some of the General Education classes, Business Fundamentals, Marketing and Introduction to Computers may be taken entirely online.

TECHNICAL SALES SPECIALIST
Associate in Applied Science

Course #		Title	Credits
BUS	184	Customer Service	3
CAP	101	Introduction to Computers	5
CIS	140	Website Development	4
COM	170	Oral & Written Communications	5
COM 170 or ENGL 101 or BUS 177 AND BUS 178			
ENTR	150	Entrepreneurship Fundamentals	4
GBUS	100	Business Fundamentals	5
MATH	100	Occupational Math	5
MKT	100	Marketing Fundamentals	5
PSYC	111	Interpersonal & Organizational Psychology	5
SAL	100	Selling Fundamentals	5
SAL	110	Hi-Tech Tools for Selling	3
SAL	115	Sales Techniques & Procedures	5
SAL	120	E-Sales	5
SAL	140	Marketing Research & Territory Management	5
SAL	190	Work Based Learning I	6
SAL 190 or CIS 275 AND SAL 191			
SAL	200	Sales Management	5
SAL	290	Work Based Learning II	6
Prior Learning or Technology specific courses taken throughout the Program			30
TOTAL: (Approx. 5-6 quarters)			**111**

GENERAL EDUCATION
AAS

Course #		Title	Credits
BUS	171	Technical Communications	5
BUS	150	Mathematics For Business	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

SALES ASSOCIATE
Certificate

Course #		Title	Credits
BUS	184	Customer Service	3
CAP	101	Introduction to Computers	5
CIS	140	Website Development	4
GBUS	100	Business Fundamentals	5
MKT	100	Marketing Fundamentals	5
SAL	100	Selling Fundamentals	5
SAL	110	Hi-Tech Tools for Selling	3
SAL	115	Sales Techniques & Procedures	5
SAL	120	E-Sales	5
TOTAL: (Approx. 2 quarters)			**40**

SALES SPECIALIST
Certificate

Course #		Title	Credits
BUS	184	Customer Service	3
CAP	101	Introduction to Computers	5
CIS	140	Website Development	4
COM	170	Oral & Written Communications	5
COM 170 or ENGL 101 or BUS 177 AND BUS 178			
GBUS	100	Business Fundamentals	5
MATH	100	Occupational Math	5
MKT	100	Marketing Fundamentals	5
PSYC	111	Interpersonal & Organizational Psychology	5
SAL	100	Selling Fundamentals	5
SAL	110	Hi-Tech Tools for Selling	3
SAL	115	Sales Techniques & Procedures	5
SAL	120	E-Sales	5
SAL	190	Work Based Learning I	6
SAL 190 or CIS 275 AND SAL 191			
TOTAL: (Approx. 3 quarters)			**61**

Veterinary Assistant

DEGREES/CERTIFICATES OFFERED:
Certificate - Veterinary Assistant

PROGRAM DESCRIPTION

The Veterinary Assistant program prepares students to work as veterinary assistants in a variety of settings including animal hospitals and clinics, animal shelters, laboratories, zoos, and animal parks. The veterinarian assistant provides basic care, performs laboratory procedures and assists in the veterinary clinic with other functions. The program includes classroom theory, laboratory, and internship experience in local veterinary clinics. Students receive hands-on experience with animals. Program content requires the application of basic math, technical reading, and communication skills.

PROGRAM OUTCOMES

Graduates will be able to provide basic and nursing animal care, perform laboratory procedures used in a veterinarian clinic, assist the veterinarian in all aspects of animal care, including surgical procedures in clinics, as well as field settings.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the Veterinary Assistant program at the start of the fall quarter. Admission is offered on a space available basis. This is a part-time program.

In addition to the BTC Admission procedures found on page 66, students must submit additional materials, including a completed Criminal History Background Check verifying that there is not a history of child or adult abuse, financial exploitation of vulnerable adults, or other crimes against persons as defined in RCW 43.43.

SEQUENCE & SCHEDULE

The program is three quarters in length. VET 101-107 must be taken in sequence. Students attend class sessions twice per week for VET 101, 105, and 107. In the fall quarter, students will also need to be enrolled in VET 120 (Veterinary Math), as this will be the only time it will be offered during the program. Students must also complete both VET 115 (Practicum) and VET 117 (Internship). These are taken during the second and third quarters in addition to the Applied Principles series. PSY 180, Interpersonal & Organizational Psychology, is to be taken prior to the completion of the program. This should be done concurrently or prior to entering VET 117 (Internship).

VET 115 (Practicum) will be scheduled one additional evening per week for a portion of time, and the remainder of VET 115 will be arranged as field trips/experience with the instructor.

VET 117 (Internship) is a 54 hour time requirement in an approved clinic arranged by the instructor according to the availability and scheduling needs of the clinic placement.

Both VET 115 and 117 are taken by the student, but on alternate quarters per instructor assignment.

VET 120 is a short math course that will specifically deal with dosage calculations in the practice of veterinary medicine. It will be offered one afternoon and evening per week during the fall quarter only.

PSY 180 is offered at various times every quarter. Although most commonly offered during daytime hours, this schedule can vary.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

VETERINARY ASSISTANT
Certificate

Course #		Title	Credits
PSYC	111	Interpersonal & Organizational Psychology	5
VET	101	Veterinary Assisting Essentials	5
VET	105	Applied Principles II	5
VET	107	Applied Principles III	5
VET	115	Veterinary Assisting Practicum	5
VET	117	Veterinary Assisting Internship	5
VET	120	Veterinary Math	2
PSYC	180 may be taken during any quarter		
VET 115 and VET 117 are taken in either second or third quarter and placement is the discretion of the instructor.			
TOTAL: (Approx. 3 quarters)			**32**

Welding Technology - Structural Fabrication, Aluminum, Pipe

DEGREES/CERTIFICATES OFFERED:
Welding Technology - Structural Fabrication, Aluminum or Pipe
Associate in Applied Science Certificate - Industrial Welding
Certificate - Basic Welding Skills

Student chapter of the American Welding Society (AWS)

PROGRAM DESCRIPTION

Students can earn a certificte or degree in Welding with a specialization in Structural Steel Fabrication, Pipe, or Aluminum. The Welding Technology program prepares students for employment in the metal and construction trades; this is a field that continues to grow and is in very high demand.. Students will gain experiences and competencies in all major welding theory, processes and Washington Association of Building Officials (WABO) welding certification testing procedures. BTC's program offers instruction for students to develop expertise in structural steel fabrication, pipe, and aluminum welding.

The program includes classroom instruction and hands-on training in metal trades including safety, blueprint reading, metallurgy, power sources, tools and materials, and layout and fitting techniques. Students are taught in a state-of-the-art facility completed in 2007; the welding facility includes 30,000 plus square feet of lab facilities including a large fabrication and clean room for aluminum welding. Instruction includes self-paced and competency-based components with a core curriculum and electives for specialization and student customization. BTC is a certified WABO testing site for the benefit of our students. Occupational upgrade and retraining for the professional welder are also major components of the Welding Technology program.

In addition to the degree and certificate program, evening courses and self-guided upgrades are available for weld test preparation and brush-up on familiar processes, including SMAW, GMAW, FCAW, GTAW, PLATE, and PIPE.

PROGRAM OUTCOMES

Graduates will pass one WABO welding certification; analyze and solve welding and equipment problems, demonstrate appropriate oral and written communication with customers, co-workers, and supervisors;

Welding Technology degrees/certificates continued on next page

competency in blueprint reading, metallurgy, layout and fitting/cutting processes; ability to operate welding equipment safely; and organizational skills, knowledge of materials, set-up and trouble shooting of equipment, and leadership and personal skills.

APPLICATION & REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the program at the start of each quarter on a space available basis. Students may enroll full or part-time.

SEQUENCE & SCHEDULE

The Welding Technology student will complete a specific course requirement sequence. Students will be advised by the program instructor regarding sequence and schedule of classes. Program hours vary and can range from 7 am to 6:30 pm depending on the section in which students are enrolled.

DEGREE & CERTIFICATE REQUIREMENTS

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

The Degree and Certificate application procedure is listed on page 74.

WELDING TECHNOLOGY - STRUCTURAL FABRICATION, ALUMINUM OR PIPE
Associate in Applied Science

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
WLD	101	Welding Safety I	2
WLD	102	Welding Safety II	2
WLD	103	Hand and Power Tools	4
WLD	104	Career Opportunities for Welders	2
WLD	105	Thermal Cutting Processes	3
WLD	106	Print Reading I	2
WLD	107	Welding Leadership I	1
WLD	120	GMAW I	4
WLD	110	SMAW I	4
WLD	121	GMAW Aluminum I	4
WLD	130	FCAW I	4
WLD	140	GTAW I	4
WLD	141	GTAW Aluminum I	4
WLD	150	Steel Fabricating I	2
WLD	151	Aluminum Fabrication I	3
WLD	206	Print Reading II	3
WLD	207	Welding Leadership II	1
WLD	208	Metallurgy	3
WLD	209	Codes and Standards	2
WLD	295	Capstone	6
Electives			6
Students will chose 61 credits in structural fabrication, pipe or aluminum.			
STRUCTURAL FABRICATION			
WLD	230	FCAW II	4
WLD	210	SMAW II	4
WLD	254	Steel Fabricating II	5
WLD	261	Advanced Structural Steel Welding	6
WLD	255	Steel Fabricating III	5
WLD	271	WABO Testing I	6
PIPE			
WLD	211	SMAW Root	4
WLD	215	SMAW Pipe	4
WLD	256	Pipe Fitting I	5
WLD	257	Pipe Fitting II	5
WLD	262	GTAW Pipe Welding	6
WLD	272	WABO Certification - Pipe	6
ALUMINUM			
WLD	222	GMAW Aluminum II	4
WLD	242	GTAW Aluminum II	4
WLD	252	Aluminum Fabrication II	5
WLD	253	Advanced Aluminum Fabrication	5
WLD	260	Advanced Aluminum Welding	6
WLD	270	Aluminum Testing	6
TOTAL: (Approx. 6 quarters)			**122-127**

GENERAL EDUCATION
AAS

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5

GENERAL EDUCATION
AAS-T

Course #		Title	Credits
ENGL&	101	English Composition I	5
MATH&	141	Precalculus I	
OR			
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5
Plus 5 credits in social science, humanities or science.			

INDUSTRIAL WELDING
Certificate

Course #		Title	Credits
COM	170	Oral & Written Communications	5
MATH	100	Occupational Math	5
PSYC	111	Interpersonal & Organizational Psychology	5
WLD	101	Welding Safety I	2
WLD	102	Welding Safety II	2
WLD	103	Hand and Power Tools	4
WLD	104	Career Opportunities for Welders	2
WLD	105	Thermal Cutting Processes	3
WLD	106	Print Reading I	2
WLD	107	Welding Leadership I	1
WLD	110	SMAW I	4
WLD	120	GMAW I	4
WLD	121	GMAW Aluminum I	4
WLD	130	FCAW I	4
WLD	140	GTAW I	4
WLD	141	GTAW Aluminum I	4
WLD	150	Steel Fabricating I	2
WLD	151	Aluminum Fabrication I	3
WLD	206	Print Reading II	3
WLD	208	Metallurgy	3
WLD	209	Codes and Standards	2
Electives			4
Plus 28 credits from structural fabrication, pipe or aluminum courses.			
TOTAL: (Approx. 3 quarters)			**104**

Welding Technology degrees/certificates continued on next page

BASIC WELDING SKILLS
Certificate

Course #		Title	Credits
WLD	101	Welding Safety I	2
WLD	104	Career Opportunities for Welders	2
WLD	105	Thermal Cutting Processes	3
WLD	120	GMAW I	4
WLD	140	GTAW I	4
Students will select a minimum of 31 credits from the following			
WLD	102	Welding Safety II	2
WLD	103	Hand and Power Tools	4
WLD	106	Print Reading I	2
WLD	107	Welding Leadership I	1
WLD	110	SMAW I	4
WLD	121	GMAW Aluminum I	4
WLD	130	FCAW I	4
WLD	151	Aluminum Fabrication I	3
WLD	141	GTAW Aluminum I	4
WLD	150	Steel Fabricating I	2
TOTAL:		**(Approx. 2 quarters)**	**31**

CHAPTER 3 - GETTING STARTED

ENROLLMENT SERVICES

ADMISSION & ENROLLMENT

Program admission is required for degree/certificate-seeking students in all programs except Bookkeeping Assistant, Business Management, Child Development, Clerical Assistant, Commercial Driving, Customer Service, Human Resource Management, Hypnotherapy, Leadership Management, Medical Coding, Medical Insurance Billing, Medical Records Clerk, Medical Transcription, Nursing Assistant, Paraeducator, Personal Fitness Trainer, Project Management, and Residential Home Inspection. Students seeking enrollment in these programs at Bellingham Technical College should utilize the course registration procedure on page 63.

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

Students are registered in a program rather than in individual courses. Full-time students enroll in a minimum of 12 credits; part-time students enroll in a minimum of 6 credits. Full-time students generally attend class six hours per day, five days per week.

Specific program information is defined in the sequence & schedule section on the program pages of this catalog.

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. Applications for program admission are accepted at any time. Applicants seeking program admission are encouraged to meet with a counselor or advisor to discuss specific plans and receive program information prior to completing the application process. To schedule a counseling appointment, call the Counseling and Career Center at 360.752.8450. To meet with an advisor, contact the Admissions & Advising Office at 360.752.8345.

1. Complete the Degree/Certificate Program Admissions Application (page 128) and submit it to the Registration Department with the $35.00 ($45.00 for Practical Nursing, Radiologic Technology, and Surgery Technology) application fee. The application will be kept on file for a period of one year beyond the date of application. After that time, applicants must reapply and pay the application fee. Application materials can be obtained through Admissions & Advising at 360.752.8345.
2. Take the basic academic skills assessment (Accuplacer test), or equivalent assessment test, and achieve required scores for the specific program or college coursework as defined below. If the placement scores are below the level identified for the specific program, the student will meet with an advisor to identify an individual plan of study. Appointments for the Accuplacer tests can be made through Admissions & Advising at 360.752.8345.
    a) An applicant seeking program admission, who has completed a minimum of three (3) credits for a course in English or mathematics with a "C" (2.0) grade or above, which at that college is deemed a prerequisite for a course equivalent to the BTC course in which the student wishes to place, may have the Accuplacer assessment requirement waived upon evaluation of an official transcript from a regionally accredited college or university and completion of the Accuplacer Waiver Request form. Requests for evaluation of transcripts for Accuplacer waiver can be made to the Admissions & Advising Office.
    b) Applicants who have taken college basic skills assessments (i.e. ASSET, COMPASS, SAT, etc.) at other accredited colleges or universities may request evaluation of the official scores for equivalency to the Accuplacer. Requests for basic skills assessment equivalency may be made to Admissions & Advising.

Applicants seeking advanced placement admission should follow the procedures listed on page 79.

Admission & Enrollment Policy

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

1. Is competent to profit from the curricular offerings of the College (for degree/certificate programs, attainment of identified scores in reading comprehension and in arithmetic or algebra on the Accuplacer or equivalent test is required), and
2. Would not, by his or her presence or conduct, create a disruptive atmosphere within the College inconsistent with the purposes of the nstitution, and
3. Is eighteen (18) years or older OR is a high school graduate OR has applied for program admission under the provisions of a student enrollment options program such as Running Start or a successor program OR has applied for program admission under the Local Enrollment Option

Local Enrollment Option

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

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

(See Underage Admission or Enrollment Appeal listed below.)

Admission & Enrollment Policy Appeal Procedure

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

Underage Admission or Enrollment Appeal

The College does not desire to replace or duplicate the functions of the local public and private schools. Persons who do not meet the regular admission and enrollment standards and who are under sixteen (16) years of age may appeal for special admission to degree/certificate programs or shorterm courses. Requests for consideration of an underage admission or permission to register in a course must be submitted to the Vice President of Student Services, in writing, at least one week prior to the start date or registration date. Written request must include evidence that

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

(See also Local Enrollment Option page 62.)

Running Start Application Process

Students currently enrolled as juniors or seniors in high school and who demonstrate the ability to benefit from college course work, may take courses leading to a degree/certificate at BTC for high school as well as college credit. There is no application fee or tuition required, but students must pay any program supply fees and submit a signed Running Start Referral Form when registering each quarter. Running Start is not available during Summer Quarter.

Students needing program information, guidance, or counseling in completing this process should schedule an appointment with a BTC advisor by contacting Admissions & Advising at 360.752.8345.

To apply for enrollment in Running Start, the student must

1. Meet with a high school counselor to determine a plan for study;
2. Take the basic academic skills assessment (Accuplacer test) in the Assessment Center, College Services Building, or at student's high school if applicable. Running Start students may not enroll in remedial or pre-college courses at BTC. If the student's placement results indicate that he/she requires refresher in reading and math, this must be accomplished at the student's high school prior to enrollment.

Students whose scores are below the level identified for the program they have selected should meet with a BTC counselor or advisor for planning;

3. Complete the Degree/Certificate Program Admissions Application form on page 128 and submit it to the Registration & Enrollment Office, indicating Running Start student;
4. Receive a registration appointment. Submit signed Running Start Referral Form and BTC registration form at the assigned time for registration. Pay all fees by the due date indicated; and
5. Attend New Student Orientation.

Degree/Certificate Program Re-Admission Policy

Students seeking re-admission to degree/certificate programs will be considered a continuing student if they have officially withdrawn and return to the same program within one calendar year. Continuing students will be enrolled on a space available basis and will not be required to submit a Degree/Certificate Program Admissions Application or submit the application fee or meet any new program admission requirements.

Students seeking program re-admission who have not officially withdrawn or who have not been enrolled during the previous calendar year or who are seeking program admission in a different degree/certificate program must complete the BTC application process, including meeting all program admission requirements at the time of application for enrollment. This may include repeating the basic academic skills assessment (Accuplacer test) to meet current program level requirements.

ASSESSMENTS & TESTING

Placement Testing

Bellingham Technical College is interested in the success of each student seeking enrollment. We know that student success in individual degree/certificate programs and in subsequent employment is closely related to abilities to read and compute. For this reason, acceptance into specific degree/certificate programs is determined in part by students' demonstration that their reading and mathematics competencies are at the level identified for program success. All students seeking enrollment in specific programs must achieve required scores in reading and mathematics. The College uses the College Board's Accuplacer test for basic academic skills assessment. Requirement for Accuplacer testing may be waived upon evaluation of official transcripts from an accredited college or university. Request for evaluation for Accuplacer waiver should be made to Admissions & Advising.

The Accuplacer is available at scheduled times through the Assessment Center. Appointments are required and can be made through the Admissions & Advising Office at 360.752.8345. Students must present picture identification when they report for testing.

Getting Started

NEW STUDENT ORIENTATION

New Student Orientation is conducted at the beginning of each quarter. Students will receive information about programs and services intended to help students succeed at BTC. Information about College standards and policies is covered. New students will have an opportunity for a campus tour and to meet with current students. Contact Admissions & Advising at 360.752.8345 for dates and times.

INTERNATIONAL STUDENTS

International students must demonstrate competency in English and math and complete all other admissions processes before their program application will be activated and placed on the selected training program waitlist. Taking the TOEFL and attaining a score of 470 or greater may accomplish this. International students may be able to take this test through the U.S. consulate or embassy in their country. In addition to this, students must meet admission requirements for the selected college program and the college. Some programs have prerequisite requirements in math, English, computer skills and the sciences that must be met before the student's program application will be placed on an individual program wait list. Prerequisite requirements for each program are listed on the BTC web page, www.btc.ctc.edu, or contact Admissions & Advising for program information. An official transcript must accompany any request for acceptance of prerequisite credit or advanced placement to a program from the college or university attended. If the college or university is located outside the United States, the class and credits will need to be evaluated by an independent credit evaluation service and the individual program Dean at Bellingham Technical College. Several of these services are listed below. Do not send a program application with the application fee until you have met these requirements. Bellingham Technical College cannot issue an I-20 student visa for students to come to the college for placement testing.

INDEPENDENT CREDIT EVALUATION SERVICES:

American Association of Collegiate Registrars
www.aacrao.org

World Education Services
www.wes.org

Foundation for International Students
19015 N Creek Parkway, Suite 103
Bothel, WA 98011-8019

COURSE REGISTRATION PROCEDURE

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

REGISTRATION

A student is considered officially enrolled in a course or program by registering and paying all tuition and fees. The student has the responsibility for completion of the registration form and payment of tuition and fees each quarter. Quarterly course registration dates are identified on page 2. Registration dates for new and continuing degree/certificate program students are assigned and students are notified prior to each registration period. All degree/certificate program tuition and fees must be paid on the due dates specified in the fee notices. Students will be withdrawn from programs if tuition and fees are not paid when due

CHANGES IN PROGRAM SCHEDULE

Degree/certificate program students may request a change in schedule (add or drop hours), with instructor approval, by completing a Change of Program Credits Request form or an Add/Drop form and submitting the completed form to the Registration & Enrollment Office. A reduction in credits is subject to the refund policy. Refer to the college calendar (page 2) for specific program withdrawal and schedule change dates for each quarter. Students may change their schedule at quarterly registration on a space available basis and according to the program's part- or full-time schedule.

WITHDRAWAL PROCEDURE

1. Students should meet with their instructor to discuss plans for withdrawal and potential plans for return. If appropriate, the student may also meet with a counselor to develop a plan for future enrollment.

2. Students must submit and process their withdrawal through the Registration & Enrollment Office to be official and to receive a refund, if eligible. Students receiving financial aid should contact the Financial Aid Office to give notification of intent to withdraw.

3. Refunds for payments made by cash or check will be processed through the Business Office and mailed within three weeks. Refunds for payments made by credit cards will be processed in 2 business days.

TUITION & FEES

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

Running Start

Running Start students who have either high school junior or senior status and who are enrolling at BTC for credit toward a high school diploma are not charged application fees or tuition. They are responsible for purchasing any required textbooks, tools, supplies, uniforms, and to pay any program/course fees and laboratory/supply fees.

Other Fees

Application Fee $35.00
Application Fee for Practical Nursing, Surgery Technology,& Radiologic Technology $45.00
Student Body Card $7.00
Replacement Student Body Card $5.00
Official Transcript $4.00
(no cost for unofficial copy - available on website)

Replacement Degree/Certificate (per copy) $4.00

REFUND POLICY

DEGREE/CERTIFICATE CREDIT COURSE
(Admission Application required)

General Education Course Refund Policy
State Funded*
100% refund if official withdrawal is submitted through the 5th Instructional Day.
(Summer Qtr: 3rd Instructional Day)

40% refund if official withdrawal is submitted between the 6th Instructional Day and 20th Calendar Day.
(Summer Qtr: 4th Instructional Day and 10th Calendar Day)

There are NO refunds on or after the 21st Calendar Day.
(Summer Qtr: 11th Calendar Day)

Program refunds are based on Program quarterly start dates, not individual course start dates.

NON-DEGREE/NON-CERTIFICATE CREDIT COURSE

Short Certificate Course Refund Policy
(Admission Application NOT required)

Community Education, Child & Family Life Course Refund Policy
Self-support** ◈

100% refund if official withdrawal is submitted by midnight one day prior to the 1st Instructional Day.

There are NO refunds on or after the 1st Instructional Day.

REFUND INFORMATION

An Official Withdrawal is defined as when a student has submitted a completed Add/Drop form to the Registration Office before the withdrawal deadline. The refund will be calculated based on the date the form is submitted rather than the last day of attendance.

Students who 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 will receive a failing grade of F.

The college may extend the refund period for students with medical reasons or for those called into military service of the United States. Written documentation must be provided for consideration for an exception.

All requests for an exception to the Refund Policy must be submitted to the Director of Registration and Enrollment for determination.

Refunds for payments made by cash or check will be processed through the Business Office and mailed within 3 weeks.

Refunds for payments made by credit card will be processed in 2 business days.

Outstanding debts to the college will be deducted from refunds.

A 100% refund will be made when the college cancels a course.

No refund of tuition and fees will be made beyond the current quarter.

Refunds for Financial Aid students are determined on the type of aid received. Contact the Financial Aid Office at **360.752.8351** for any questions.

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.

*State Funded Courses - supported with State funds.

TAX CREDIT INFORMATION

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

Beginning January 1, 1998, the IRS introduced two new tax credits, the HOPE Credit and the Lifetime Learning Credit (education credits). The HOPE credit may be claimed for the qualified tuition and related expenses of each student in the taxpayer's family who is enrolled at least half-time in one of the first two years of postsecondary education and who is enrolled in a program leading to an undergraduate degree or other recognized educational credential. The maximum credit a taxpayer may claim for a taxable year for out-of-pocket expenses for each student's qualified tuition and related expenses is $1,650 multiplied by the number of students in the family who meet the enrollment criteria described above. Read Chapter 2 of Publication 960 Tax Benefits for Education (http://www.irs.gov/pub/irs-pdf/p970.pdf) for complete information on eligibility and application for HOPE credit.

The Lifetime Learning Credit may be claimed for out-of-pocket qualified tuition and related expenses of the students in the taxpayer's family (i.e., the taxpayer, the taxpayer's spouse, or an eligible dependent) who are enrolled in eligible educational institutions. The maximum credit a taxpayer may claim for a taxable year is $2,000. Read Chapter 3 of Publication 960 Tax Benefits for Education (http://www.irs.gov/pub/irs-pdf/p970.pdf) for complete information on eligibility and application for HOPE credit.

At the end of each tax year, students will receive a 1098T form from BTC that will list out-of-pocket tuition expenses. The 1098T is for information only. To claim the tax credit, students must obtain a copy of the IRS form 8863.

Estimated Quarterly Program Costs 2007- 2008

Tuition & Fee Estimates are based on Resident Status, 21 credits unless otherwise specified. Canadian Tuition is 35% higher. Online courses require an additional $40 per course. TUITION & FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

AAS or Certificate Program	Credits Estimate	Resident Tuition Estimates	Fees Estimate	Quarterly Cost Estimate
Accounting Technician	21	$1,035	$80	$1,115
Appliance & Refrigeration Technology	21	$1,035	$25	$1,060
Auto Collision Repair Technology	21	$1,035	$185	$1,220
Automotive Technology "Core"	15	$785	$175	$960
Automotive Technology	16	$825	$180	$1,005
Building Construction Technology	21	$1,035	$25	$1,060
Business & Supervision Mgmt	10	$580	$80	$660
Civil Engineering Technology	21	$1,035	$75	$1,110
Commercial Refrig & HVAC Technology	21	$1,035	$25	$1,060
Computer Software Support	21	$1,035	$80	$1,115
Computer Network Technology	21	$1,035	$80	$1,115
Construction Management	21	$1,035	$25	$1,060
Culinary Arts	21	$1,035	$265	$1,300
Culinary Arts - Pastry Qtr / Pastry Cert	18	$910	$265	$1,175
Diesel Equipment Technology "Core"	15	$785	$175	$960
Diesel Equipment Technology	17	$870	$185	$1,055
Dental Assistant - 1st Qtr - Cell Biology	5	$335	$5	$340
Dental Assistant	21	$1,035	$160	$1,195
Electrician	21	$1,035	$25	$1,060
Electronics	21	$1,035	$25	$1,060
EMT-Paramedic	12	$660	$4,565	$5,225
EMT-Paramedic	21	$1,035	$4,565	$5,600
Fisheries Technology	29	$1,365	$25	$1,390
Instrumentation & Control Technology	21	$1,035	$25	$1,060
Legal Administrative Assistant	21	$1,035	$80	$1,115
Mechanical Engineering Technology	21	$1,035	$75	$1,110
Medical Coding	21	$1,035	$80	$1,115
Medical Coding & Billing Generalist Cert	21	$1,035	$135	$1,170
Medical Insurance Billing	21	$1,035	$80	$1,115
Medical Records Clerk	21	$1,035	$80	$1,115
Medical Receptionist Cert	21	$1,035	$80	$1,115
Medical Transriptionist	21	$1,035	$80	$1,115
Nursing Assistant	5.7	$335	$115	$450
Office Assistant Cert	21	$1,035	$80	$1,115
Operations Management AAS/Cert	20	$990	$180	$1,170
Operations Management AAS/Cert	10	$580	$90	$670
Operations Management Internship	12	$660	$15	$675
Practical Nursing - 1st Qtr - Cell Biology	5	$335	$5	$340
Practical Nursing	22	$1,075	$155	$1,230
Precision Machining Technology	21	$1,035	$25	$1,060
Process Technology	21	$1,035	$185	$1,220
Receptionist Certificate	16	$1,035	$80	$1,115
Radiologic Technology - 1st & 4th Qtrs each	13	$705	$190	$895
Radiologic Technology - other Qtrs	21	$1,035	$100	$1,135
Registered Nurse LPN-RN Bridge	10	$580	$140	$720
Surgery Technician - 1st Qtr & 2nd Qtr each	10	$580	$35	$615
Surgery Technician - other Qtrs	21	$1,035	$35	$1,070
Surveying & Mapping Technology	21	$1,035	$75	$1,110
Technical Sales Specialist	21	$1,035	$80	$1,115
Transportation Core	15	$785	$175	$960
Veterinary Assistant Certificate	12	$660	$35	$695
Welding Technology	21	$1,035	$265	$1,300

Getting Started

General Education Classes	Credits Estimate	Resident Tuition Estimates	Fees Estimate	Quarterly Cost Estimate
3 Credit Gen Ed - English 092	3	$201	$5	$206
5 Credit Gen Ed - In Class - See List Below	5	$335	$5	$340
5 Credit Gen Ed Online - ONLINE - See List	5	$335	$45	$380

5 Credit General Education Courses: CAP199 /Computer Fundamentals, Chem&121 - Intro to Chemistry, COM170 - Oral & Written Communications, ENGL&101 - English Composition, MATH100 - Occupational Math, MATH&107 - Math in Society, MATH098 Elementary Algebra, MATH099 - Intermediate Algebra, MATH130 - Precalculus I, PSYC111 - Interpersonal & Organizational Psychology, PSYC&100 - General Psychology, PSYC&200 - Lifespan Psychology.

2007-2008 Tuition Rates			
Rates per Credit	Resident	Canadian	Non-Resident
1st 5 credits	$66.80	$90.30	$199.40
2nd 5 credits	$48.50	$64.80	$144.40
11+ credits	$41.30	$55.60	$122.90

Special Notices

TUITION & FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE

RUNNING START Students pay FEES only.

CANADIAN tuition is 35% higher than US Resident tuition.

NON-RESIDENT is defined as students who are residents of countries other than U.S. or Canada.

PROGRAM & COURSE FEES address distinct and specified costs such as lab assistants, supplies, materials, equipment, rentals, software licensing, replacement and upgrade, maintenance, and other operational costs.

FINANCIAL AID is available through BTC Student Financial Services. Tuition & Fees are the responsibility of the Student. Students eligible for Financial Aid must contact the BTC Financial Aid Office to be sure file is complete.

CLASS CANCELLATIONS may occur due to low enrollment. Full Refunds will be granted if BTC cancels a course.

REFUND POLICY: Students in Programs/Credit Courses needing to drop or withdraw from courses, PLEASE REFER to the BTC REFUND POLICY printed in the Bellingham Technical College Catalog and Quarterly Schedule.

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

AFFIRMATIVE ACTION: Bellingham Technical College provides equal opportunity in education, employment and access to all persons. Inquiries regarding compliance with access, equal opportunity and/or grievance procedures should be directed to Human Resources in A2, at (360) 752-8354 or 752-8515 (TTY).

FINANCIAL AID PROGRAMS

Purpose of Financial Aid

For many students and families, the cost of attending college is too great to manage alone. For this reason, the BTC Student Financial Resources Office is available to assist eligible students in obtaining financial aid so they may achieve their educational and career goals. There are many types of financial aid available, including grants, loans, scholarships, work study, and other agency funding.

Financial aid can be used to pay tuition, fees, books, supplies, and some living expenses.

To be sure that you receive the money you are eligible for, it is best to plan ahead. The financial aid process can take up to three months.

We encourage you to contact our office for assistance with the financial aid process. Please stop by the Student Financial Resources Office or call 360-752-8351.

Eligibility Requirements

To receive financial aid, students must:

- Submit the Free Application For Federal Student Aid (FAFSA) and other paperwork that may be requested by the Student Financial Resources Office
- Be a United States citizen or an eligible non-citizen
- Have a High School Diploma, GED, or pass the Ability to Benefit test offered through BTC's Assessment Center
- Not owe a repayment on any grant, be in default on any student loan, or have borrowed in excess of the loan limits under Title IV programs at any school
- Be registered with Selective Service, if required
- Be accepted for enrollment as a regular student in an eligible program of study and meet all admission requirements
- Students who have received a bachelor's degree are ineligible for Federal Pell Grants or FSEOG or State Need Grants, but may be eligible for other federal student aid programs
- Students attending two schools in the same enrollment period must inform both financial aid offices. Students cannot receive Federal Financial Aid at both schools
- Conviction of drug distribution or possession may render a student ineligible for financial aid.

Determining Financial Aid Awards

The awarding of Financial Aid takes into account three major el ements. First, there is the Student Budget, an estimate of what it will cost you to attend school. This budget includes direct educational costs, such as tuition, fees, and books, as well as an estimate of living expenses, such as room and board, personal expenses, and transportation. Next, there is the Estimated Family Contribution (EFC), which is a figure calculated by the Federal Processors when you submit your FASFA for processing. This EFC is what your family can contribute toward your education based on a formula established by Congress.

Financial Need is simply your Student Budget minus your EFC. Your financial need is what BTC will attempt to award you with a combination of financial aid funds.

Application for Financial Aid

To apply for financial aid, you will need to complete the following steps. Applying for financial aid is always free.

1. Apply for a PIN at www.pin.ed.gov. You will receive your PIN by e-mail in 2-3 days or by mail in 7-10 days. If you are a dependent student, your parent will also need to apply for a PIN. If you are unsure if you are a dependent student, contact the BTC Financial Aid Office or refer to Step Three on the FAFSA.
2. Complete the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.ed.gov. Include BTC's Federal School Code (016227).
3. Review your Student Aid Report, which will be mailed to you by the U S Department of Education after they process your FAFSA. Make corrections if needed.
4. Submit any additional paperwork including documentation that is requested by the BTC Student Financial Resources Office.

When these steps are complete, the BTC Student Financial Resources Office will determine which types of financial aid you are eligible for and notify you by mail.

The U.S. Department of Education has a toll-free number you can use to check the processing status of your student aid applications (1.800.433.3243).

Applicants can also use this automated system to request duplicate copies of the Student Aid Report.

Available Programs

The two basic types of Financial Aid are gift aid and self-help aid. Gift aid does not need to be repaid, as long as the student maintains Satisfactory Academic Progress. Self-help includes Work Study and Stafford Loans.

GIFT AID

Academic Competitiveness Grant (ACG)
BTC Grant
Federal Pell Grant
Scholarships
State Need Grant
Supplemental Educational Opportunity Grant (SEOG)

SELF-HELP AID

Work Study--Students who demonstrate financial need, as reported on the Student Aid Report, and who are enrolled for at least six (6) credits may apply. If eligible, students must complete a Work Study Application and paperwork necessary for employment in the State of Washington.

Stafford Loans--Students may borrow a Stafford Loan to help meet the costs of attending BTC. Stafford Loans must be repaid at a future date after the student is no longer attending school. To apply for a Stafford Loan, students must complete the FAFSA and any additional paperwork requested by the Financial Aid Office. There is no credit check required but any loan borrowed and payment history will appear on your credit report.

Other Available Financial Aid

Scholarships - Scholarships are available throughout the academic year. The Student Financial Resources Office has applications for BTC scholarships (available in Spring Quarter), and information on other scholarship sources.

Veterans Benefits - Veterans who wish to use their VA benefits for educational costs should contact the Veterans coordinator in the Student Financial Resources Office prior to enrollment to ensure benefits will be paid in a timely manner. Other Agency Assistance - BTC encourages applicants to check into eligibility for funding assistance from other agencies. Students may be eligible for additional funding to supplement their Federal financial aid package. Some of the funding that may be available is listed below. Information about agency funding is available in off-campus offices and at the Student Financial Resources office in the BTC Student Services Building.

On-Campus Funding

- Worker Retraining
- WorkFirst
- Opportunity Grant
- Food Stamp Employment and Training (FSET)

Off-Campus Funding

- Division of Vocational Rehabilitation (DVR)
- Employment Security
- Labor and Industries (L&I)
- Northwest Workforce Development Council (NWDC)
- Tribal Funding

Attendance

Financial aid awards are based upon the academic load for which a student is enrolled each quarter. Most financial aid awards will be based upon whether a student is enrolled full-time (12 or more credits), three-quarter time (9, 10, or 11 credits) or half-time (6, 7 or 8 credits).

Financial aid award distributions are made each quarter in advance of the student actually earning their awards. Thus awards are normally made assuming that the student will be enrolled for a full-time academic load. If a student either enrolls for less than 12 credits or drops one or more classes, which lowers their academic to less than full-time, their financial aid awards will be adjusted and the student will be required to return the portion of their aid.

Students are required to start attending their classes and have their instructor document this attendance before distribution of financial aid that can be used for living expenses will be disbursed by the BTC Cashier.

Loan Entrance Interview--If you are interested in participating in the student loan program, stop by the Student Financial Resources Office to pick up information on applying. You will receive information on how to complete your Loan Entrance Interview. You will learn of your rights and responsibilites as a student borrower. After completing the Entrance Interview you will apply for the loan itself from a lender who participates in the Stafford Loan program. Most lenders have an online loan application process. The BTC Student Financial Resources Office has a list of lenders who have agreed to waive front end loan application fees for BTC students. You are not required to use any of the lenders on this list, and BTC does not receive any financial remuneration from lenders on this list.

Ombudsman

The Office of the Ombudsman at the Department of Education responds to inquiries regarding financial aid.
Contact the Ombudsman:

1. Internet, http://fsahelp.ed.gov;
2. Telephone, toll free 877.557.2575;
3. Mail,

U.S. Department of Education
FSA Ombudsman
830 First Street, NE
Fourth Floor
Washington, DC 20202-5144

Return of Title IV Funds

Financial aid recipients who withdraw from school or stop attending classes may be required to repay all or part of the financial aid that was received for the current quarter. Recipients may also be required to repay all or a portion of tuition and fees to BTC.

Satisfactory Acaademic Progress

Students who receive financial aid at Bellingham Technical College are required to make satisfactory academic progress in order to maintain financial aid eligibility. Satisfactory progress is defined as maintaining a minimum 2.0 cumulative grade point average and completion of a minimum of 67% of the enrolled course work each quarter. Individual degree/certificate programs may require a higher level grades in a program or individual course requirements in defining satisfactory progress. These requirements will be published and made available to student upon enrollment.

A student who does not meet these minimum standards will be placed on Financial Aid Probation for the following quarter. During this quarter the student will still be eligible to receive financial aid. However, if the student once again fails to meet the Satisfactory Academic Standards the student will be place on Financial Aid Suspension and all aid for that quarter will be cancelled

Financial Aid Appeals

Students who are on Financial Aid Suspension may petition the Financial Aid Appeals Committee for reinstatement of financial aid eligibility. This process is accomplished by writing a letter of appeal addressed to the Financial Aid Appeals Committee and submitted to the Student Financial Resources Office.

ESTIMATED COST OF ATTENDANCE

The following budgets have been recommended by the Washington Financial Aid Association and approved by the Student Financial Resources Office of Bellingham Technical College for the 2007-2008 academic year. These are provided as a guide to estimate the cost to attend BTC for a nine month period (September through June).

Student Living With:	Parent	Independently
Allowance for Rent, Food and Utilities	$2,532	$7,842
Allowance for Miscellaneous Personal Expenses	$1,548	$1,890
Allowance for Transportation Costs	$1,362	$1,362
Estimated Loan Fees	$75	$105
Subtotal	$5,517	$11,199
Tuition and Fees	*	*
Books and Supplies	*	*
TOTAL	*	*

*Tuition and fees, books, supplies, and tools costs vary with each program. A Program Cost List for each program may be obtained at the Admissions and Advising Office.

The Appeals Committee will be convened and the student will have the opportunity to present his or her petition. The Appeals Committee will then discuss the merits of the student's petition and make a decision.

FOUNDATION SCHOLARSHIPS

Bellingham Technical College Foundation offers over 30 different scholarship programs to new and/or returning students each year in degree programs and continuing education courses. Students needing financial assistance for continuing education courses complete the specific scholarship application available at the Registration and Enrollment Office.

Who may apply for degree program scholarships?

2007 high school graduates planning to enroll at BTC plus new or returning students enrolled at BTC during the 2007/2008 academic year.

How do I apply for degree program scholarships?

Students must complete the BTC Foundation Scholarship Application to be considered for the scholarships. Unless otherwise noted, there is only one application period and students must submit a completed application by the application deadline to be eligible. Scholarship applications are available at:

- BTC Student Financial Resources Office,
- BTC Foundation Office, or
- Online at: www.btc.ctc.edu/Welcome/BTCFoundation/Scholarships.html

TECH PREP

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

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

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

VETERANS BENEFITS

Bellingham Technical College offers degree and certificate programs approved by the Washington State Approving Agency for the enrollment of those students eligible under Veteran Administration Education Benefit programs. Eligible veterans or dependents of veterans must apply for admission to the college and should contact the college veterans coordinator as early as possible before enrolling. The veterans coordinator is located within the Student Financial Resources office. Contact the coordinator at veteransaffairs@btc.ctc.edu

The veterans coordinator will certify students quarterly enrollment with VA. Eligible students can be certified only for courses that apply to the declared degree or certificate program. All veteran benefit recipients are required to report program changes, quarterly credit hour changes, and changes to marital and family status to BTC's VA benefit office.

Veteran benefit recipients are required to maintain academic progress according to the College's policy. Failure to comply with VA regulations may result in termination from the VA benefit program.

WORKER RETRAINING PROGRAM

The Worker Retraining program is designed to help unemployed workers in a variety of situations. The Worker Retraining program may provide assistance for you if you have been laid off or if you have received a layoff notice; you currently receive or are eligible to receive unemployment benefits; you have exhausted unemployment benefits within the last two years; you are a displaced homemaker; or you were self-employed but are now unemployed due to economic conditions in our community.

Bellingham Technical College can assist eligible students with an opportunity to upgrade skills with one-quarter classes, or with the first quarter of a full or part-time program. Financial assistance with living expenses may be available if a qualified student's unemployment benefits expire while the student is in training.

To find out more, please contact the Bellingham Technical College Worker Retraining Coordinator at 360.752.8442.

WORKFIRST

WorkFirst is part of the Washington State Welfare-to-Work program and provides free tuition, books, and fees for qualified men and women as funding permits.

You may qualify if you are a WorkFirst parent who is receiving a TANF cash grant and who is working 20 or more hours a week; or if you are a low-income parent whose household income is less than 175% of the federal poverty level and you are not receiving any other financial assistance sufficient to pay all of the tuition, books, and fees.

Receiving WorkFirst funding requires that the student have a career plan that includes development of basic skills, better employability skills, or a new career, in order to progress in wages.

Anyone inquiring about eligibility for this program should call the Bellingham Technical College WorkFirst advisors at 360.752.8366 (located in College Services Building, Room 101).

CHAPTER 4
STUDENT LIFE & SERVICES

ADVISING & COUNSELING

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

Services available to students include

- New student orientation
- Basic academic skills assessment
- Career & occupational counseling and advising
- Degree/Certificate program information & planning
- Personal counseling
- Coordination with community & funding agencies
- Single parent/displaced homemaker services
- Disability support services
- Career and job placement services
- Running Start
- Tutoring services
- Worker Retraining

Counselors are located in the Counseling and Career Center and the advisors are located in Admissions & Advising, College Services Building.

Career Planning Assessments

Interest, aptitude, and other similar tests are administered by the counseling staff in the Counseling and Career Center. Students should make an appointment to arrange testing at 360.752.8450.

GED Testing

GED testing is conducted in the Assessment Center at scheduled times. There is one fee for the entire test battery of $75 and a fee of $10 for each retest. Please contact Admissions & Advising at 360.752.8345 for more information or to schedule testing. Students must present legal picture ID each time they report for testing. Candidates must be at least 16 years of age. At the time of testing, those less than 19 years of age must bring a completed Request for Approval to Test form signed by the designated employee at their former high school. This form is available at each high school. Registration one day in advance is required for testing. 100% of the GED testing fee will be refunded, upon written request, prior to taking any tests within the GED battery. No refunds are offered for remaining tests once a student has taken any test in the battery. A retesting fee must be paid prior to retaking any individual tests. GED Transcript Fee is $3.00. Persons needing testing accommodations should meet with the BTC Disability Support Services Coordinator in advance, 360.752.8367. Persons interested in preparation for GED testing should contact the BTC Learning Center at 360.752.8341.

Disability Support Services

Bellingham Technical College is committed to ensuring facility, program, and activities access to students with either permanent or temporary physical, sensory, or psychological disabilities through a variety of services and equipment. The Disability Support Services (DSS) Office, located in the Counseling and Career Center, coordinates accommodations for enrolled students with documented disabilities. Accommodations are determined on a case-by-case basis. DSS also provides needs assessment, mediation, referrals, and advocacy as necessary and appropriate. Requests for accommodations or services must be arranged in advance and require documentation of the disability, verifying the need for such accommodation or service. To the maximum extent possible, disabled students receiving accommodations are integrated into the general student environment. Requests for accommodations cannot alter the essential abilities required to perform an activity or program occupation. Additional information is available by calling 360.752.8367 (Voice); 360.752.8515 (TTY).

Single Parent/Displaced Homemaker Services

Bellingham Technical College has support services for single parents and displaced homemakers. This includes counseling and community resource referral and may include limited funds for assistance with transportation, childcare, uniforms, and tools. Contact the Counseling and Career Center at 360.752.8450 to schedule an appointment.

Tutoring Services

Bellingham Technical College provides a daily Drop-In Tutoring Center during the Fall, Winter, and Spring Quarters. Tutors are recruited in all subjects where tutoring assistance is requested. Additional individual tutoring may be arranged if the drop-in tutoring is not sufficient. Individual tutoring, if appropriate, may also be arranged for students with disabilities. There is no charge for tutoring services. Contact the Counseling and Career Center at 360.752.8450 for Tutor Center hours, to request tutoring, and to request accommodation for a disability. Individual tutoring by appointment is also available through the Instructional Assistant located in the Learning Center.

Career and Job Placement Services

Career and job placement services are available to students and graduates of Bellingham Technical College through the Counseling and Career Center. The types of services included are resume and cover letter development, critique or mock interviews, and job searching---all of which are provided on an appointment basis. Contact the Counseling and Career Center at

360.752.8450 to make an appointment with the Coordinator of Career and Job Placement Services. Quarterly workshops are also offered to students.

The Counseling and Career Center coordinates targeted career and employment fairs that are held in the winter and spring quarters. Contact the Counseling and Career Center for those dates.

ASSOCIATED STUDENT GOVERNMENT

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

The goals of the ASBTC are to

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

Membership is open to all persons currently enrolled in degree/certificate programs at BTC. The Student Council consists of representatives and alternates elected from each degree/certificate program. The duties of the program representatives are to represent their programs in all matters coming before the Council, to report Council activities to their respective programs, to serve on Council committees, and to set an example of school spirit, leadership, and citizenship. The Student Council is governed by an Executive Committee. Students interested in participating in the Student Council should contact the ASBTC at 360.752.8357.

PHI THETA KAPPA

Bellingham Technical College is pleased to offer membership in Phi Theta Kappa to students who exhibit academic excellence in associate degree programs. Phi Theta Kappa is the international honor society of the two-year college, which purpose is 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 without advanced degrees who have completed at least twelve credits of course work leading to an associate degree in which they have a grade point average of 3.5. Students pay a membership fee and are given access to on-line 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.

BASIC ACADEMIC SKILLS

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. There are three focus areas in Basic Academic Skills: Learning Center, ESL Refugee, and Learning Assistance for technical/professional program students.

LEARNING CENTER

The Learning Center offers instruction in reading, writing, math, English as a Second Language, GED preparation, Accuplacer preparation, study skills, computer literacy, and career planning. In the Learning Center, students work at their own pace to achieve competency in basic academic skills with occupational and life skills applications. Methods of instruction include small and large group instruction, tutoring, cooperative learning, and computer and video-aided instruction. The Learning Center assists students to connect with support services for their personal and career needs.

Adults who wish to improve their basic skills for job advancement, professional technical training, or GED testing are welcome. Students must be 16 years or older, not enrolled in a K-12 school, and be able to work in an adult, self-paced environment where workplace behaviors are expected. Regular attendance is required. These courses have open enrollment throughout the academic year. Students may enroll for morning, afternoon, or evening classes. For specific information regarding orientation and enrollment, contact the Learning Center in Building E, Rooms 2 & 3, call 360.752.8341, or check the Quarterly Schedule.

REFUGEE ESL

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

LEARNING ASSISTANCE RESOURCES

Learning assistance services funded by Carl D. Perkins Vocational and Applied Technology Act grants are provided for students enrolled in professional technical degree and certificate programs. Students are referred by their program instructors. Examples of services include tutoring, referrals to community services, alternative learning resources for differing learning styles, and accommodations for learning disabilities as determined and referred by the College Disabilities Support Services Coordinator.

Student Life & Services

BOOKSTORE

The Bellingham Technical College Bookstore is located on the north side of campus overlooking the student parking lot. It provides for purchase of required textbooks and supplies for degree/certificate programs and courses. Additionally, the bookstore carries a variety of other goods, including office supplies, software, calculators, book bags, BTC apparel and other emblem items, as well as coffee, soda, pastries, candy, and chips. Services include a student-accessible photocopying machine, mail and phone orders and special orders. Students funded through an independent funding agency (DVR, Labor and Industries, etc.) must pick up vouchers from the Admissions and Advising Office prior to purchasing books and supplies. Workforce Investment Act (WIA)-funded students must get vouchers from NWDC counselors before making bookstore purchases. Students receiving financial aid checks from BTC must pay for books and supplies at the time of purchase. The bookstore does not cash financial aid or other two-party checks. VISA, MasterCard, and personal checks with identification are accepted.

DIVERSITY STUDENT SERVICES

The Diversity Student Services Coordinator assists students with diverse cultural, ethnic, abilities, gender, and language of origin to access, pursue, and attain success in achieving their educational goals. Consistent with the college mission, Diversity Student Services has the mission to provide and promote an environment for a diverse population that is safe, accessible, and conducive to learning and that freely allows students to pursue and achieve their academic and occupational endeavors. Students seeking assistance should contact the Diversity Student Services Coordinator at 360.752.8377.

FOOD SERVICE

Food service is available during morning and afternoon breaks and lunch time in the Cafeteria in Building G. The Culinary Arts program operates the Café Culinaire restaurant, open to the public at selected times throughout the year. Additionally, the Culinary Arts-Pastry program operates the Culinaire Bake Shoppe, serving espresso, coffee, cold beverages, fresh baked items, and limited lunch items.

Vending machines are located in the College Services Building, Bldgs. C and J, Haskell Center, Morse Center, and Northwest Center. Snack items can also be purchased in the campus bookstore.

INSURANCE

Voluntary student accident and health insurance is available for purchase by students enrolled at Bellingham Technical College. Students may also enroll in the Washington Basic Health plan, which has a sliding scale cost based on income. Students in degree/certificate programs that require work with machinery, and who do not have personal accident insurance, are encouraged to purchase the student insurance as BTC does not cover students with medical or accident insurance. Insurance forms are available in the Career Center.

Student Life & Services

LIBRARY

The Bellingham Technical College Library opened in 1995 with the stated mission of "the library supports the growing and changing information and distance education needs of the Bellingham Technical College Community in an environment which encourages life-long learning and student success. The library provides responsive, individualized service and an accessible gateway to diverse resources." The library's collection focuses on technical and professional information to support the degree/certificate programs and courses at the College. The collection includes books, journals, audiocassettes, technical manuals, CDs, DVDs, videos and software. The library functions as a technical information resource for the students, faculty, and the community. Users are encouraged to ask the staff for help using the wide range of resources.

A gateway to the library's information can be reached through the World Wide Web (http://www.btc.ctc.edu/Library). Resources include a web-based catalog, full-text online journal and book databases, computerized journal indexes (many offer full text access to the journals), and access to local area library collections. In the library, 32 computer terminals provide Internet access, word processing, and a variety of other computer software programs to support learning. If students need information that is not available in the library collection, the staff can borrow material from other libraries through interlibrary loan. Tours of the library and instruction in the use of its resources are given to classes on request, and staff members are always available to help you with your research, information, and technology questions.

A wireless network is available for students with their own computers or with the library's laptop computer that is available for checkout for use in the library. Other student resources available through the library include study rooms for quiet and group study, a copy machine, and audio and video cassette players.

With BTC's agreement, all Bellingham Technical College students can use and borrow materials from any Washington community or technical college, including Whatcom Community College, Skagit Valley College, Western Washington University, and Northwest Indian College libraries. Students are responsible for any fines they incur.

Students, faculty, staff, and the community are encouraged to use the many resources of the Bellingham Technical College Library for course-related projects, research, or independent learning. The library is located in A building, facing Lindbergh Avenue

PARKING

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

Student parking is provided in two student parking lots, located north of the campus buildings. The parking lots are accessible from the intersections of Nome Street and West Illinois and Nome Street and West Maryland. There is no cost to the student for this parking.

The entire upper level of the college campus is designated as restricted parking and is NOT available for student use. The upper level area is reserved for faculty, staff, program permits, visitor, carpool, and handicap parking.

Students who require use of handicap parking will need a handicap parking permit. Contact the Whatcom County Auditor (360.676.6740) for information on obtaining a permit. For information on handicap parking spaces at BTC, please contact 360.752.8468.

Information on carpool parking spaces can be obtained at 360.752.8468.

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

- Any vehicle that receives three "Warning! Parking Violation" tickets will be subject to towing ($150) when the third violation is issued.
- Any vehicle parked in a fire lane or in handicap parking without a handicap parking permit will be immediately subject to towing and a parking citation by the Bellingham Police Department.
- Violations may also be forwarded to the Vice President of Student Services for disciplinary action. Cars or other vehicles not displaying an appropriate and current permit will be subject to towing at the owner's expense. Vehicles left overnight or through the weekend on College property may be subject to towing. The College assumes no liability for

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

The BTC Dental Clinic is open to the public and welcomes new patients September through June. Dental care is provided by a licensed dentist from the community and dental assisting students under the direction of a certified faculty member. The clinic provides low cost dental care on a cash-only basis. Contact the clinic at 360.752.8349 for an appointment.

CHAPTER 5
POLICIES, REQUIREMENTS, & RECORDS

ACADEMIC REQUIREMENTS

DEGREE/CERTIFICATE PROGRAMS

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

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.

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.

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

GENERAL COMPLETION REQUIREMENTS

1. Complete, with a passing grade, all technical and general education courses as listed on the program pages defining requirements for individual degrees/certificates. Some degree/certificate programs may require minimum grades in required courses. See Program pages 8 through 60.
2. Complete the Application for Degree or Certificate for each degree or certificate requested and submit to the Registration and Enrollment Office.
3. Meet all financial obligations to the college.
4. Earn a cumulative grade point average of 2.0 or above in the required program courses. Individual programs may require a higher grade point average.
5. Complete the last 50% of the required course work at BTC.

GENERAL EDUCATION REQUIREMENTS

General education courses are included in the programs to prepare students with communication, computation, and interpersonal skills required for success. All candidates for degrees and certificate options of one year (900 clock hours) or longer in length must satisfy the requirements for general education in communications, psychology, and mathematics.

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

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

Challenge of most math courses is permitted. Students must be registered in the course to be eligible to challenge. Successful challenge of courses will be transcripted with a CR grade. Challenge procedure directions are available in the BTC Admissions or Registration offices or from the general education course instructor.

STUDENT GRADES

GRADING POLICY

BTC uses the letter grading symbols listed below:

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

Interpretation of Grade Symbols

A (4.0) Excellence in Achievement of Competency
In relation to the standards set for the course, the student has done an exceptionally high level of work and has achieved all competencies.

B (3.0) Above Average Achievement of Competency
In relation to the standards set for the course, the student has significantly exceeded the average and has achieved all competencies.

C (2.0) Average Achievement of Competency
In relation to the standards set for the course, the student accomplished an average level of work and, at a minimum, has achieved all competencies.

D (1.0) Below Average Achievement of Competency
In relation to the standards set for the course, the student did not do average work and did not meet the minimum level competencies.

F (0.0) Failure to Achieve Minimum Competency
Failed to progress toward minimum competencies and performed at exceptionally low level of skill. Student must repeat degree/certificate program course requirements in which an F grade has been earned.

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

NOTE: + and - symbols are used with traditional letter grades A through D to differentiate level of achievement within a grade range.
The + is not used with the letter grade A or F.

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

GRADE	
AU	Audit
CR	Credit for prior experiential learning
I	Incomplete
NP	No Pass
P	Pass
T	Transfer
V	Unofficial Withdrawal
W	Withdrawal

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

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

I - Incomplete
The student completed a significant portion of the course requirements but did not complete all requirements at the time of exit. A "contract" with the instructor for completing the competencies must be established and all work completed according to the contract for student to receive a letter grade.

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

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

T - Transfer credit
Credit granted for coursework completed from other accredited institutions as determined by the program instructor or Dean through evaluation of official transcripts.

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

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

ACADEMIC ACHIEVEMENT

Academic Awards

Dean's List - Students who carried a 12-credit load or more in graded courses numbered 100 or higher and who earned a quarterly grade point average of 3.75 or higher are placed on the Dean's List for the quarter.

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

Awarded only upon completion and noted on the student's transcript.

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

ACADEMIC STANDARDS & PROGRESS

Academic Progress

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

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

Academic Standards/Credit Completion Policy

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

In order to demonstrate satisfactory progress,

1. All students will maintain a minimum of 90% attendance for each enrollment period.

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

2. All students will demonstrate satisfactory progress toward meeting program objectives.

   This standard is defined as maintaining a quarterly grade point average minimum of 2.0* and completing a minimum of 67% of the enrolled quarterly course work competencies.

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

Academic Alert/Probation/Suspension/Readmission

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

Students who have been suspended as a result of unsatisfactory progress may petition for readmission. The suspended student must receive permission from the program instructor to re-enter the program, and have a developed plan for improvement, approved by the instructor. The Academic Probation Readmission Plan forms can be obtained from the Vice President of Student Services. Any requirements in the plan that must be accomplished before readmission must be documented by the instructor. A signed copy of that plan and a written petition for readmission must be submitted to the appropriate Dean. Final approval for all readmission lies with the appropriate Dean. Student appeals of any readmission decision must be made in writing to the Vice President of Student Services. All students readmitted following suspension will remain on academic probation for one quarter when readmitted.

STUDENT RECORDS

The Family Educational Rights and Privacy Act of 1974 details procedures ensuring confidentiality and access to student files. The release of a student's grades, transcripts, progress, or other data requires written authorization by the student.

With the exception of GED candidates or graduates, and subject to college staff approval, the following student data is considered directory information and may be given to an inquirer without written authorization from the student:

- Name
- Email address
- Period of enrollment
- Program of enrollment
- Degree/Certificate awarded
- Date of completion

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.

The college will also release student address, telephone number and birth date to designated agencies in accordance with the Solomon Amendment (National Defense Authorization Act for FY95, the National Defense Authorization Act for FY96, and the Omnibus Consolidated Appropriations Act, 1997).

In accordance with Title 40 RCW, Chapter 23, Laws of 1991, Address Confidentiality Program (ACP), BTC allows ACP participants to exercise their substitute address use privileges for permanent college records. Students requesting this program should contact the Director of Registration & Enrollment.

Any student wanting any or all of this information to remain confidential must inform the office of the Director of Registration & Enrollment, in writing, each quarter.

NOTIFICATION OF RIGHTS UNDER FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Those are:

1) The right to inspect and review the student's education records within 45 days of the day the College receives the request for access.

Students should submit to the Director of Registration and Enrollment a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access, and will notify the student of the time and place where the records may be inspected. If the College official to whom the request was submitted does not maintain the records, that official shall advise the student of the appropriate official to whom the request should be addressed.

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 that 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.

One exception that permits disclosure without consent is disclosure to College officials with legitimate educational interests. A College official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position; a person or company with whom the College has contracted (such as an attorney; third party servicer, such as Nation-

al Student Clearinghouse; auditor or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or who is assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4) The right to file a complaint with the U.S. Department of Education concerning alleged failures by Bellingham Technical College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA are:

Family Policy Compliance Office
U.E. Department of Education
400 Maryland Avenue SW
Washington DC 20202-4605

GRADES & TRANSCRIPTS

Quarterly grades for all graded programs and courses are available online within five working days following the end of the quarter through the College website Online Services. Students must have their Student ID number (see page 70 for more information about SIDs) and a personal identification number (PIN) to access their grades on their unofficial transcript. PINS are available by contacting the Registration & Enrollment Office at 360.752.8348. An unofficial transcript is an unsigned and unsealed copy of the student's record. There is no charge for Unofficial transcript copies.

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 must be made in writing with signature and accompanied by a $4.00 payment.

To request a transcript by mail, include name, social security number or student identification number, approximate dates of attendance, signature, and appropriate fee payment.

Transcript request forms are available at the BTC website, Online Services page. Submit the completed form with payment in person, by mail, or by FAX.

Transcripts are withheld if all obligations to the College, financial or otherwise, are not fully filled.

STUDENT RIGHTS & RESPONSIBILITIES

HARASSMENT

Bellingham Technical College, as a place of work and study for all members of its community, will be free of all forms of ethnic, religious, or sexual harassment, intimidation, or exploitation. Any student who is subjected to offensive behavior is encouraged to pursue the matter in accordance with the Sexual Harassment Policy by contacting the Aff irmative Action Officer in the College's Human Resources Office at 360.752.8354. Sexual harassment complaints are treated as sexual discrimination complaints under state and federal regulations. Complaints are confidential.

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

STUDENT CODE OF CONDUCT

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

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

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

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

See Appendix: Bellingham Technical College Student Code of Conduct, page 124.

STUDENT GRIEVANCE PROCEDURE

A student filing a grievance should follow the procedures outlined.

Preliminary Action For Any Type of Grievance
When a petitioner has an alleged grievance, he/she shall first attempt to resolve it by conferring with the person against whom he/she has the alleged grievance.

Grievance Process
1. If the issue remains unresolved and the student chooses to submit a formal grievance, the student must state in writing the description of the grievance as it applies to a violation of college policy, provide specific details regarding the events involved, and cite the rule, regulation, or law alleged to have been violated by the college. Full factual data (including names, dates, times, records, etc.) should be reported to support the allegations of the grievance and to make an impartial investigation and decision possible.

2. The student should submit his/her petition to the following:

a. For Basic Skills, ESL, Learning Center, Student Services: Vice President of Student Services

b. All other instruction offerings: appropriate Dean (See Internal Procedures for Addressing Student Grievances or Complaints)

A faculty or staff member of the student's choice may assist the student in preparing the grievance form, but will not necessarily act as an advocate for the student.

3. If circumstances prevent using steps 1 or 2, or if the Dean or Vice President of Student Services does not resolve the complaint within five (5) school/business days, the student may file a formal complaint with the Vice President of Instruction (VPI). The grievance must be filed within ten (10) school/business days of the receipt of the decision of the Dean or Vice President of Student Services or dates of the alleged grievable act, whichever applies.

4. A final decision shall be made by the Vice President of Instruction or designee within ten (10) college/business days. 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 grade(s) was awarded/missed.

Withdrawal
The student may withdraw the grievance at any time.

No reprisals
No reprisals shall be taken by the Board of Trustees, administration, faculty, or staff against any student or faculty because of participation in a grievance.

Grievance records
Grievance records will be maintained for at least one year by the Vice President of Student Services.

STUDENT IDENTIFICATION NUMBERS

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

Although the 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, Hope Scholarship and Lifelong Learning tax credits (page 64), 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 for a small fee at the Bookstore. The picture identification card includes the student identification (SID) number, which is needed for registration, library usage and other campus functions. It may also entitle the student to some community/retail discounts.

STUDENT RIGHTS

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

STUDENT RIGHT TO KNOW AND CAMPUS SECURITY ACT

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

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

Policies, Requirements, & Records

TRANSFERRING & EARNING CREDITS

CREDIT ACCEPTANCE POLICY

Transfer Credit

Transfer credit is credit that is granted for course work completed at other regionally accredited institutions. Recency of coursework will be considered in acceptance of transfer credit as defined in the Transfer Credit Advising Guide. A course will be considered for transfer credit if it matches in content a course that is required for a BTC program.

Transfer Credit Evaluation Procedures

The College will maintain Transfer Credit Advising Guides that list courses that have been identified as equivalent for general education and academic support courses.

Students seeking transfer credit must submit to the Admissions and Advising Office a completed Transfer Credit Request form and official college transcripts documenting equivalent credit.

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

Technical Course Requirements

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

General Education Courses

Students must submit a completed Transfer Credit Request form with official transcripts to the Admissions & Advising Office for evaluation and approval of credit granted for equivalent general education content. The form and the official transcript will be reviewed by the College-designated transcript evaluator. When evaluated, and when the student is scheduled to register, the completed Transfer Credit Request form and the official transcript will be returned to the Registration & Enrollment Office for posting of the transfer credit grade (T) and for filing.

Credit for Prior Experiential Learning

Bellingham Technical College recognizes credit for prior experiential learning. Credit for prior experiences that can be shown through various means of assessment to be the equivalent of learning gained through formal collegiate instruction may be granted toward the award of a degree or certificate. Credit for prior experiential learning applies only to degree/certificate programs and may not exceed twenty-five percent (25%) of the total hours required for the degree or certificate.

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

Prior experiential learning credit will not be awarded in lieu of general education courses, including MATH 100, MATH 111, MATH &107, PSYC &100, PSYC 111, ENGL &101, and COM 170. Professional technical faculty may consider professional/ industry certifications for credit for prior experiential learning.

ADVANCED PLACEMENT

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

Procedure

1. Advanced placement is initiated by the applicant/student, by meeting with an admissions advisor who will complete a Petition for Advanced Placement form on behalf of the applicant. The applicant must submit official transcripts showing prior college course work and/or copies of professional/industry certification(s).
2. The petition and documentation is logged and routed to the appropriate person for evaluation. The professional technical faculty member will conduct the evaluation of technical course equivalency. Professional technical faculty may consider professional/industry certifications forcredit for prior experiential learning. The assigned College evaluator(s) will conduct the evaluation of general education or academic support courses.
3. The evaluation of transcripts and/or certification(s) will determine advanced placement, outline which coursework the applicant/student has completed (students will receive transfer credit for college course work), and identify at what point in the program the applicant/student is eligible for advanced placement.
4. The evaluated petition and documentation is returned to the Admissions & Advising Office, and the student is notified of the results of the advanced placement evaluation.
5. When the student is scheduled to register, the completed form is routed to the Registration & Enrollment Office for processing and will be filed in the student's permanent record.

The applicant/student may be placed on an advanced placement list once the application process has been completed and the Petition for Advanced Placement form has been evaluated. Students are accepted to enroll as an advanced placed student based on the date of completion of all program admission requirements and space availability.

DEGREE & CERTIFICATE PROGRAM TRANSFER

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

Procedure

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

TRANSFERABILITY OF BTC CREDITS

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

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

ARTICULATION AGREEMENTS

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

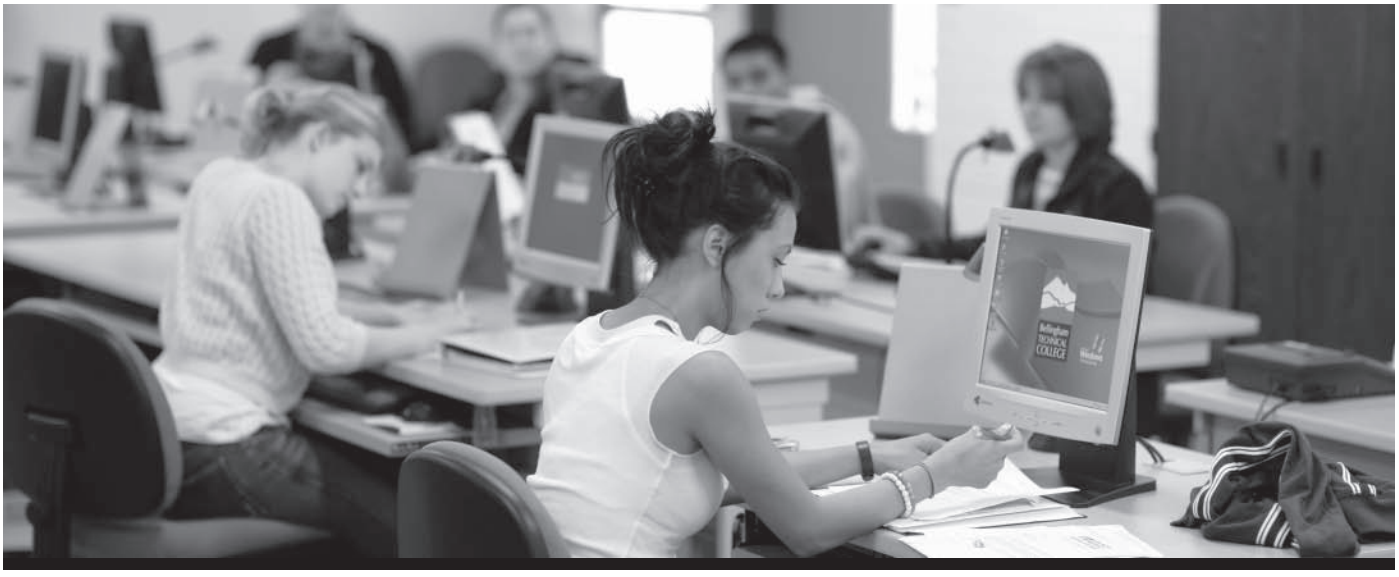
Agreements with public and private colleges and universities expand even more educational options available for students. BTC currently has agreements with City University, DeVry University, and Phoenix University to provide transfer options so BTC graduates can earn a four-year degree.

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

TRANSFER OF CREDITS

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

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



CHAPTER 6
COURSE DESCRIPTIONS

Most courses require program admission prior to registration.

Prefix Number Title Credits

ACCOUNTING

ACCT 141 FINANCIAL ACCOUNTING I 5 CR
Covers the accounting cycle through a study of a sole proprietorship and the use of accounts, the general journal, and the general ledger.

ACCT 200 PERSONAL INCOME TAX PREPARATION 5 CR
This course provides a solid foundation for understanding personal tax and business related topics. Students will learn about tax law changes, tax return preparation and filing, the preparation of a variety of tax forms and schedules, and the most often overlooked deductions. PREREQUISITE:Instructor Permission.

ACCT 242 FINANCIAL ACCOUNTING II 5 CR
Theory and practice of computing and recording transactions relating to merchandise inventory, notes payable and receivable, depreciation, accounting principles, and reporting standards. PREREQUISITE:A minimum grade of B- (2.7) in ACCT 141.

ACCT 243 FINANCIAL ACCOUNTING III 5 CR
Theory and practice relating to the formation and operations of partnerships and corporations, decision making, and statement analysis. Financial data is used to access the efficiency of current operations and determine profitability. PREREQUISITE:A minimum grade of B- (2.7) in ACCT 242.

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. PREREQUISITE:A minimum grade of B- (2.7) in ACCT 141.

ACCT 246 COMPUTERIZED ACCOUNTING I 5 CR
A study of computerized accounting systems in both service and merchandising environments. Uses the commercially popular QuickBooks software to demonstrate the use of fully integrated accounting systems. Prepares the student to use commercial accounting software products on-the-job. PREREQUISITE:A minimum grade of B- (2.7) in ACCT 141.

ACCT 254 MANAGERIAL ACCOUNTING 5 CR
Introduces students to information needed by managers to carry out three essential functions in an organization: (1) planning operations, (2) controlling activities, and (3) making decisions. Course will show what kind of information is needed, where this information can be obtained, and how this information can be used by managers as they carry out their planning, control, and decision-making responsibilities.

ACCT 270 INTERNSHIP 3 CR
Students will arrange to work in an office and apply accounting skills and knowledge. It may be a paid or an unpaid work experience.

APPLIANCE REPAIR

APPL 100 INTRODUCTION TO TRADE & OCCUPATIONAL SAFETY 1 CR
An overview of the program objectives, school and program policies, rules, regulations, student equipment needs, emergency and safety procedures, and job opportunities.

APPL 105 ELECTRICAL THEORY I 8 CR
the application of mathematical principles and procedures for electrical calculations used for the repair of various appliances.

Prefix Number Title Credits

APPL 106 ELECTRICAL - PRACTICAL I 5 CR
Work here will apply to hands-on approach to electricity. PREREQUISITES: APPL 100 and APPL 105.

APPL 109 TOOL/TESTING EQUIPMENT 1 CR
The technician will be familiarized with trade terminology and the function, correct use, and maintenance of test equipment and tools.

APPL 112 MOTOR CIRCUITS 2 CR
The process of motor application in the Appliance/Refrigeration Industry.

APPL 114 ELECTRICAL DRYERS 7 CR
Application of dryer theory, dryer mechanical systems, electrical systems, and proper diagnosing techniques used in the industry.

APPL 116 WASHERS I 7 CR
This seven credit section will concentrate on top load washers and will include: theory of operation, installation, service procedures, labs on teardowns and diagnosis of the machines.

APPL 117 WASHERS II 3 CR
This section will be will cover stack sets and combination washer/dryers and will include the theory of operation, installation, service procedures, labs on teardowns, and diagnosis of the machines.

APPL 118 WASHERS III 7 CR
This course will concentrate on all front load tumbler action machines, and also the energy star rated units. This section will include the theory of operation, installation, service procedures, labs on teardowns, and diagnosis of the machines.

APPL 122 DISHWASHERS 8 CR
Introduction to water and detergent problems and solutions, mechanical systems and design variations, electrical components, and diagnosis of servicing procedures.

APPL 124 COMPACTORS/DISPOSERS 4 CR
Focuses on mechanical construction and application, electrical components, operating characteristics, and service and diagnosis.

APPL 126 MICROWAVE OVENS 6 CR
Review of microwave theory, components, electrical systems, and diagnosis procedures on microwaves.

APPL 191 LEADERSHIP 1 CR
Study practical applications surrounding technicians and their relationships with customers.

APPL 201 WATER HEATERS 1 CR
The recognition of installation requirements, mechanical construction, electrical systems, and service and diagnosis procedures.

APPL 202 GAS FUNDAMENTALS 2 CR
The theory of gas systems, application of gas systems, mechanical systems, related to gas products, and electrical component testing.

APPL 203 RANGES/OVENS/COOKTOPS 10 CR
The fundamental installation, component familiarization, mechanical construction, schematic reading, and diagnosis of problems.

APPL 204 GAS LABS 4 CR
This course covers the theory into the application part of the course and provides the students with hands on training using a variety of machines and brands.

APPL 205 REFRIGERATION THEORY 7 CR
Examination of theory, matter and energy, refrigeration and refrigerants, refrigerant handling, and safety.

APPL 207 REFRIGERATION LAB 1 10 CR
Application of lab projects from tubing piping projects, refrigerant management, through servicing procedures required on all refrigerators and freezers.

Prefix Number Title Credits

APPL 208 REFRIGERATION LAB II 6 CR
Specific lab task assignments including diagnosing and repairing of refrigerators, compressor change-out task, defrost circuit electrical lab, and electrical component testing lab.

APPL 209 REFRIGERATION LAB III 6 CR
Refrigeration Lab III will allow the student opportunity to diagnose and service refrigeration electrical circuits and perform job specific labs on a variety of machines.

APPL 210 ICE MAKERS 4 CR
Ice maker installation, operation, and servicing procedures.

APPL 212 AIR CONDITIONERS 4 CR
Focuses on theory and application of comfort cooling, mechanical construction of window air conditioning, electrical components and sealed system requirements.

APPL 216 BUSINESS PROCEDURES/PRACTICES 1 CR
Evaluate the inventory for a service vehicle, looking up parts using microfiche cards, and mark up on parts.

AUTO COLLISION REPAIR

ACRT 101 INTRODUCTION TO AUTO COLLISION REPAIR 4 CR
This course covers personal, tool, and equipment safety, workplace ethics, and hazardous materials.

ACRT 105 NON-STRUCTURAL WELDING 8 CR
This course covers the differences between various metal joining processes, selection of the correct process for different types of jobs, and the advantages of MIG welding, plasma cutting, spot welding, and gas welding and cutting.

ACRT 110 REFINISHING SAFETY 2 CR
This course covers the basic knowledge and skills needed to follow personal and environmental safety procedures pertaining to a spray gun and related equipment operation, surface preparation, and various refinishing operations used on vehicles.

ACRT 115 NON-STRUCTURAL REPAIR 2 CR
This course addresses basic personal safety, vehicle safety, equipment, product knowledge, and basic knowledge required to perform non-structural analysis and damage repair.

ACRT 123 NON-STRUCTURAL METAL FINISHING 7 CR
This course covers the correct mixing and application of body fillers that will increase the quality of a repair. Instruction in safety, environmental awareness, basic fundamentals of metal straightening, and proper selection of metal straightening tools is also included.

ACRT 125 REFINISHING SURFACE PREPARATION 7 CR
This course covers how to determine the condition of a vehicle's finish and plan the steps to be used in refinishing the vehicle. Instruction in safety and environmental awareness is also included.

ACRT 128 SPRAY GUN OPERATION 3 CR
This course covers refinishing equipment and the spraying environment including paint booths, prep booths, drying areas, air supplied equipment, and set-up. Students learn how to use paint mixing formulas based on reference manuals. Students use various types of spray equipment, make all preliminary adjustments to the spray gun, test the spray gun, and make final adjustments in preparation for refinishing.

ACRT 130 DAMAGE ANALYSIS 2 CR
This course covers the procedure for analyzing vehicle damage and estimating repair costs using manual and computerized estimating systems.

ACRT 133 PAINT MATCHING AND BLENDING 7 CR
This course addresses mixing all types of refinishing materials, the theory of matching refinishing materials, painting and blending techniques, and paint application.

Courses: Auto Collision Repair - Automotive

Prefix Number Title Credits

ACRT 135 REFINISH PAINT DEFECTS 3 CR
This course covers how to identify paint film defects, the causes of paint film defects, and appropriate corrective methods. It also covers how to identify surface defects and corrective methods to repair them.

ACRT 138 RESTORING CORROSION PROTECTION 3 CR
This course covers corrosion and its effect on vehicles, how to restore corrosion protection to collision damaged areas, and how to work safely with chemicals. Student plan effective and correct corrosion protection treatment for welded areas and exposed seams, interior seams, exposed surfaces, trim and accessories during repairs.

ACRT 140 DRIVE TRAIN, FUEL, BRAKES, HVAC 3 CR
This course covers repair of a vehicle involved in a collision, including removal of mechanical parts, such as drive train and engine parts. This course also covers servicing heating and a/c systems of a vehicle involved in a collision.

ACRT 141 OUTER BODY PANEL REPAIR 4 CR
This course covers replacement and adjustment of outer body panels, selection of alignment tools, and understanding how to use panel replacement and alignment tools. Instruction in safety, environmental awareness, human relations and work ethics are taught as an integral part of this course.

ACRT 143 SHOP PRACTICUM I 6 CR
This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

ACRT 251 STRUCTURAL WELDING 5 CR
This course addresses welding safety, setup, and uses of a MIG welder for aluminum and steel. Students learn how to weld different types of metals. To complete this course students must pass all welding tests based on I-CAR standards.

ACRT 253 MOVEABLE GLASS AND HARDWARE 2 CR
This course covers removal, installation, and adjustment of moveable glass and its hardware. Students identify causes of door glass problems and learn how to correct air and water leaks.

ACRT 254 STRUCTURAL FIXED GLASS 2 CR
This course emphasizes the role glass plays in the structural integrity of the vehicle and includes information about automobile glass and methods for removal and installation.

ACRT 255 SUSPENSION AND STEERING 6 CR
This course covers identification and diagnosis of tire and wheel steering, rack and pinion steering, power steering suspension, strut type, and steering and suspension system problems.

ACRT 256 UNIBODY INSPECTION 4 CR
This course covers inspection, diagnosis, measurement, and repair of steel and aluminum unibody vehicles.

ACRT 262 FRAME INSPECTION AND REPAIR 4 CR
This course covers inspection, diagnosis, measurement, and repair of steel framed vehicles.

ACRT 263 RESTRAINT SYSTEMS 3 CR
This course covers diagnosis and inspection of restraint and SRS systems.

ACRT 264 PLASTICS AND ADHESIVES 4 CR
This course covers the different types of plastic used in today's automobiles, and how to identify and repair them.

ACRT 266 ELECTRICAL SYSTEM REPAIR 5 CR
This course covers diagnosis and repair of electrical system problems.

Prefix Number Title Credits

ACRT 268 REFINISHING FINAL DETAIL 3 CR
This course addresses basic theory and practical applications of color sanding, buffing, and polishing after refinishing. This course also covers vehicle cleanup before the vehicle is delivered to the customer.

ACRT 270 SHOP PRACTICUM II 10 CR
This course is self-paced allowing students to apply the fundamental principles and competencies learned in non-structural repair, structural damage repair, mechanical and electrical repair, plastics and adhesives, and painting and refinishing.

ACRT 275 INTERNSHIP 7 CR
The student will gain hands-on work experience with an auto collision repair employer.

AUTOMOTIVE

AUTO 103 ENGINES 10 CR
An introductory look at the 4 stroke gasoline engine followed by indepth study and practice of industry standard service procedures including diagnosis and repair of internal engine systems.

AUTO 107 BRAKES 8 CR
Extensive training on the operation, diagnosis and repair of typical disc and drum brake systems including ABS operation and repair.

AUTO 122 BASIC DRIVE TRAIN 3 CR
This course will focus on the basic fundamentals of drive train systems found in the modern automobile. This course will include axles and axle bearings.

AUTO 141 ENGINE PERFORMANCE I 2 CR
This course will focus on the basic fundamentals of fuel, ignition and computer-controlled engine management systems.

AUTO 208 ELECTRICAL/ELECTRONICS 15 CR
A comprehensive and thorough study of electrical and electronic theory as applied to the automobile. This course will focus on the operation, diagnosis and repair of starting and charging systems, lighting systems, and all common accessories and will introduce basic electronically controlled systems.

AUTO 209 STEERING/SUSPENSION 7 CR
Covers the operation, diagnosis and repair of suspension and steering systems including four-wheel laser alignment.

AUTO 213 HVAC 5 CR
Covers the operation, diagnosis and repair of climate control systems found on the modern automobile. There will be extensive training on proper handling of refrigerants.

AUTO 219 APPLIED AUTOMOTIVE CONCEPTS I 9 CR
The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

AUTO 229 APPLIED AUTOMOTIVE CONCEPTS II 5 CR
The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

Prefix Number Title Credits

AUTO 241 ENGINE PERFORMANCE II 11 CR
This course will offer instruction in the operation, diagnosis and repair of fuel systems, ignition systems, emission control systems and general engine failures as related to engine performance. There will also be extensive training in all aspects of current computerized engine management systems including OBD2 and exhaust gas analysis. This course also includes an introduction to alternative fuel vehicles.

AUTO 250 AUTOMATIC TRANSMISSION/TRANSAXLE 6 CR
This course will focus on theory, description and operation of automatic drive systems. This will include diagnosis and trouble shooting hydraulic, electrical/electronic controls and mechanical systems and practicing proper R&R techniques.

AUTO 259 APPLIED AUTOMOTIVE CONCEPTS III 3 CR
The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

AUTO 260 MANUAL TRANS./ DRIVETRAIN 4 CR
This course will focus on theory, description and operation of manual drive train systems. This course will include clutches, transfer cases and differentials.

AUTO 279 APPLIED AUTOMOTIVE CONCEPTS IV 3 CR
The student is required to intern in a business that performs vehicle repairs. The student will obtain and maintain their own employment. The student is normally working with or under the direct supervision of a journeyman-level technician. It is recommended that the student's experience focus on the subject areas completed the last quarter on campus. The repair facility then becomes a real world extension of the classroom. Student work will be monitored by an instructor from BTC who will visit the work site periodically.

BIOLOGY

BIOL& 160 GENERAL BIOLOGY WITH LAB 5 CR
This course provides introduction to basic concepts of biology, with an emphasis on the cells as the fundamental unit of life. Topics include cell structure, basic chemical and biochemical concepts, metabolism, cell division, principles of genetics, biological diversity, and methods of scientific inquiry and criticial thinking. Course establishes foundation necessary for continued biology study, especially in human anatomy and physiology. Lab included.

BIOL& 241 HUMAN A & P I 5 CR
This course emphasizes understanding of the normal human, which will serve as a foundation of general understanding as well as a foundationfor 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 itegumentary, skeletal, muscular, nervous, and endocrine systems. PREREQUISITE:BIOL& 160 General Biology with Lab with a C or above or equivalent.

BIOL& 242 HUMAN A & P II 5 CR
This course emphasizes understanding of the normal human, which will serve as a foundation of general understanding as well as a foundationfor future study in allied health fields. Lecture, group discussion, literature and internet research, and laboratory exercises are included. Acquisition of basic knowledge, application and integration of concepts is emphasized. Biol& 242 includes circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems. PREREQUISITE:Completion of BIOL& 241Human Anatomy & Physiology I with C or above or equivalent.

Prefix Number Title Credits

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 classificationof microbes, life cycle, metabolim, control, and common infectious diseases of the human body. Laboratory component will demonstrate procedures to identify and control microbes. PREREQUISITE:BIOL& 160 - General Biology with Lab with a C or above and CHEM& 121- Intro to Chemistry with a C or above or equivalent.

BUILDING CONSTRUCTION

BCT 111 CAREER OPPORTUNITIES AND INDUSTRIAL SAFETY 1 CR
This course focuses on the career opportunities available to individuals in the carpentry trade and industrial safety. Topics covered include, career specialties, primary employability skills, work site safety, and responsibilities of both employers and employees.

BCT 112 CONSTRUCTION MATERIALS AND APPLICATION 2 CR
This course focuses on the material used in building construction and application techniques. Topics covered include, wood as a building material, engineered lumber products, and engineered panel products.

BCT 113 HAND TOOL USE AND OPERATIONS 2 CR
This course focuses on the hand tools used by carpenters in building construction. Topics covered include, measuring and marking tools, cutting and shaping tools and tools for assembling and disassembling.

BCT 114 PORTABLE POWER TOOLS USE AND OPERATIONS 4 CR
This course focuses on the proper use of the common portable power tools used by carpenters in building construction. Topics covered include, portable circular saws, drills, routers, surfacing tools, and tool safety

BCT 115 STATIONARY POWER TOOL USE AND OPERATIONS4 CR
This course focuses on the proper use of stationary power tools used by carpenters in building construction. Topics covered include, table saws, miter saws, dado saws, jointers, planers, and tool safety.

BCT 116 BUILDING LAYOUT 3 CR
This course focuses on the knowledge, skills and techniques required to properly layout a building on a site. Topics covered include, basic site layout, types of surveying instruments, setting up batter boards, making square corners, establishing elevations, estimating soil excavations.

BCT 117 CONCRETE AND CONCRETE FORMING 2 CR
This course focuses on the knowledge, skills and techniques required to form concrete. Topics covered include, concrete as a building material, concrete ingredients, concrete mixing and reinforcing, and footing and foundation wall forming.

BCT 121 BLUEPRINT READING 4 CR
This course is designed to help the student gain proficiency at reading and interpreting blueprints. Topics covered include, building codes, drawing measurements, notations, and conventions.

BCT 122 FRAMING METHODS - FLOOR FRAMING 4 CR
This course is designed to help the student gain proficiency in the methods used to frame floor structures in light frame construction. Topics covered include, stresses on framing, live loads, dead loads, span tables, balloon-framing, platform-framing, framing for natural hazards, installing post and girders, laying out for and installing plates and joist, laying sub floors, special framing, and material estimation.

BCT 123 FRAMING METHODS - WALL FRAMING 4 CR
This course is designed to help the student gain proficiency in the methods used to frame wall structures in light frame construction. Topics covered include, blueprint reading, interior and exterior walls, layout, assemble, erection, special framing, and material estimation.

Courses: Building Construction

Prefix Number Title Credits

BCT 124 FRAMING METHODS - CEILING FRAMING 4 CR
This course focuses on the processes and skills necessary to construct the most common residential roof styles in use in Whatcom County today. Topics covered include roof styles, basic framing, laying out a basic roof frame, the ridge, common rafters, hip and valley rafters, jack rafters, and special framing.

BCT 125 TRUSS ROOF FRAMING 4 CR
This course is designed to help the student gain proficiency in the methods used to frame truss roof structures in light frame construction. Topics covered include roof truss basics, roof truss types and design, handling and installation.

BCT 130 ROOF FRAMING 5 CR
This course focuses on the processes and skills necessary to construct the most common residential roof styles in use in Whatcom County today. Topics covered include roof styles, basic framing, laying out a basic roof frame, the ridge, common rafters, hip and valley rafters, jack rafters, and special framing.

BCT 131 ROOF SHEATHING, AND COVERINGS 2 CR
This course focuses on the processes and skills necessary to sheath, cover, and finish out the most common residential roof styles in use in Whatcom County today. Topics covered include sheathing methods, roof coverings, flashing, and roof edge details. PREREQUISITE:BCT 128 and/or instructor permission.

BCT 132 STAIR FRAMING 2 CR
This course focuses on the processes and skills necessary to construct basic stairways. Topics covered include stairway basics, design requirements, layout and installation.

BCT 133 EXTERIOR DOOR WINDOWS AND SKYLIGHTS 4 CR
This course focuses on the processes and skills necessary to install exterior doors. Topics covered include; door types and construction, hardware, storage and handling, exterior and interior doors and installation. PREREQUISITE:BCT 131 and/or instructor permission.

BCT 134 EXTERIOR WALLS AND ROOF COVERINGS 2 CR
This course focuses on the processes and skills necessary to install exterior wall coverings. Topics covered include, siding types, preventing moisture problems, beveled wood siding installation, wood shingle installation and material estimation.

BCT 135 INTERIOR WALL COVERING INSULATION & TRIM 4 CR
This course focuses on the processes and skills necessary to install exterior wall coverings. Topics covered include, siding types, preventing moisture problems, beveled wood siding installation, wood shingle installation and material estimation.

BCT 136 INTRO TO HOUSE WIRING AND PLUMBING 3 CR
This course is intended to give the student a basic knowledge of the residential electrical system. Topics covered include, replacing an outlet, replacing a switch and replacing a light fixture. This also introduces the students to the basic layout and fixtures for residential dwellings.

BCT 241 CAD DRAFTING FUNDAMENTALS 8 CR
This course introduces the student to computer aided drafting. Topics covered include, CAD drafting, drafting fundamentals, scaling, symbology and conventions.

BCT 242 BUILDING PLAN DRAFTING 8 CR
This course introduces the student to drafting building plans. Topics covered include drawing site plans, floor plans, elevations, building sections and details.

BCT 243 ESTIMATING MATERIALS AND LABOR 5 CR
This course introduces the student to estimating labor requirements from construction documents. Topics covered include square foot costing and unit costing.

Prefix Number Title Credits

BCT 245 PROJECT TRACKING 2 CR
This course introduces the student to the process of project progress tracking. Topics covered include work progression, scheduling and Gant charting.

BCT 251 INTERNSHIP BUILDING CONSTRUCTION 11 CR
This course is designed to give the student an opportunity to gain experience working in the construction industry.

CONST 100 COMPUTERS IN CONSTRUCTION 3 CR
Practical introduction to computers and how they can be used in construction. Acquaints students with major components of computer hardware systems. Gives students opportunity to use computers for some common practices.

CONST 110 CIVIL CONSTRUCTION ESTIMATING 7 CR
This course provides an introduction to estimation methods specific to the heavy civil construction industry. The course focuses on the use of heavy civil construction plans to perform utility quantity take-offs, roadway linear earth work, and site earth work estimation.

CONST 112 CONSTRUCTION RESOURCE ACCOUNTING 5 CR
This course provides an introduction to resource accounting fundamentals specific to the heavy civil construction industry. The course focuses on the reading of real world example project budgets and the preparation of project budgets based on project estimates and heavy civil construction plans. In addition, the fundamentals of time value of money are covered to support the budget process.

CONST 114 CIVIL CONSTRUCTION SCHEDULING 3 CR
This course provides an introduction to precedence diagrams, activity networks, project float calculations, and critical path management specific to the heavy civil construction industry. The course focuses scheduling fundamentals and concludes with the use of MS Project to prepare and adjust a project schedule.

CONST 141 BLUEPRINT READING I 4 CR
An introduction to reading and interpreting architectural drawings, layout, terminology, graphic standards and drafting fundamentals. Emphasis on how to locate information and cross reference with details, schedules, and specifications for clarification.

CONST 200 BASIC ESTIMATING 4 CR
A detailed introduction to the world of construction estimating and bidding. Basic concepts, procedures, and terminology. Quantity take-off and pricing techniques. Scope of work issues and costs associated with the major components of a construction project. PREREQUISITE:CONST 141 or instructor's permission.

CONST 201 CONTRACTS AND CONSTRUCTION LAW 4 CR
This course provides an introduction to construction law specific to the heavy civil construction industry. The course focuses on contracts and subcontracts, business law basics, and construction law fundamentals. PREREQUISITE:CONST 200 or instructor's permission.

CONST 202 COMMERCIAL ESTIMATING 4 CR
This advanced estimating course further develops the methods and procedures of estimating for application in commercial construction. Emphasis is placed on pricing through the utilization of bid forms, which are completed in connection with the estimate. PREREQUISITE:CONST 200 or instructor's permission.

CONST 210 CIVIL PROJECT DOCUMENTATION 4 CR
This course provides an introduction to project documentation required for public projects. The course focuses on contracts, contract modification, project correspondence, permits, as-built drawings, and project billing documentation specific to the heavy civil construction industry.

CONST 214 CIVIL CONSTRUCTION PROJECT CONTROLS 7 CR
The course provides an introduction to the methods of controlling heavy civil construction projects. The course focuses on job estimate review, cost account codes, budget monitoring, performance forecasting, and project schedule review.

Prefix Number Title Credits

CONST 216 CONSTRUCTION SAFETY MANAGEMENT 5 CR
The course provides an introduction to the methods of safety management. The course focuses on traffic control plans, trench safety, labor and industry requirements, OSHA and WISHA requirements, safety management, risk management, and loss control.

CONST 220 PROJECT PLANNING AND SCHEDULING 3 CR
Planning and scheduling of a construction project utilizing the critical path method (CPM). Learn how to develop and manipulate a computerized schedule for a construction project using MS Project application software. PREREQUISITE:Concurrent enrollment in or completion of CONST 200 or instructor's permission.

CONST 241 AUTOCAD FOR CONSTRUCTION 3 CR
Introduction to the fundamentals of architectural graphics and geometric construction in multiple views using computer aided drafting software. Prepares students for creating, reading, and communicating graphic images in electronic formats. PREREQUISITE:CONST 141 or instructor's permission.

CONST 250 SAFETY AND ACCIDENT PREVENTION 3 CR
WISHA/OSHA regulations pertaining to the construction industry and how accidents can be prevented. Focus is on enhancing hazard recognition skills and knowledge of safe work practices. Learn how to develop work rules, communicate expectations, and make job-site safety inspections.

CONST 251 SAFETY PLAN ADMINISTRATION 3 CR
Emphasis on job site safety and potential liability for general contractors. Management systems, procedures, and documentation that address WISHA requirements and provide a safe working environment. Effective integration of safety into management systems is stressed. PREREQUISITE:CONST 250 or instructor's permission.

CONST 260 PROJECT MANAGEMENT 3 CR
Management concepts and techniques relevant to construction project organization, supervision, and inspection. Communication systems, contract documents, record keeping, dispute resolution, quality assurance, and schedule management are covered. PREREQUISITE: CONST 200 and 250 or instructor permission PREREQUISITE:CONST 200 and 250 or instructor's permission.

CONST 280 BUILDING CODES I 3 CR
Introduction to the International Building Code and applicable parts of the IRC. Covers content, format, and application of building code. Definitions, administration, general requirements, occupancy classification, types of construction, fire and safety requirements.

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.

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 nonelectronic and electronic records are surveyed from creation to retention and destruction.

BUS 140 SUPERVISION & MANAGEMENT 3 CR
An introduction to supervision. Course focuses on basic skills in communication, time management, planning, delegation, improving productivity, and the legal aspects of supervision. Practice sessions in communication, interviewing, merit reviews, and termination will be provided.

BUS 141 TOTAL QUALITY MANAGEMENT 2 CR
Total Quality Management, or TQM, is a strategic, integrated management system for achieving customer satisfaction. Course will examine the process, and students will be challenged in devising a plan strategy of how to implement the TQM approach in a variety of organizations.

Prefix Number Title Credits

BUS 150 MATHEMATICS FOR BUSINESS 5 CR
Apply math concepts to business applications such as commissions, banking, payroll, trade and cash discounts, markups, simple interest, taxes, insurance, stocks, bonds, compound interest, depreciation, present value, annuities, and graphs. PREREQUISITE:BUS 100 is recommended

BUS 171 TECHNICAL COMMUNICATIONS 5 CR
Course introduces students to effective written and oral business communication through application and study of text. Students will learn to compose effective business writings including letters, memos, research reports, resumes, technical manuals, email, and newsletters. They will also learn to evaluate formatting, grammar, graphics, and general appearance. Students will learn effective presentation and job interviewing skills. PREREQUISITE:CAP 106.

BUS 177 BUSINESS ENGLISH I 3 CR
Business English I focuses on the improvement of proofreading skills for effective written communication. Students use a self-study text in which they can check their answers for immediate reinforcement. Rules and proofreading exercises are presented in order of increasing difficulty, from simple keyboarding errors to errors in grammar, punctuation, word usage, and capitalization.

BUS 178 BUSINESS ENGLISH II 3 CR
Business English II allows students to review and master the basic communication skills learned in Business English I. It is designed to give students the opportunity to make decisions and apply these skills while editing business documents. PREREQUISITE:BUS 177.

BUS 184 CUSTOMER SERVICE 3 CR
Excellence in customer service can be the determining factor, no matter the type of service or product, to the success or failure of an organization. Course discusses the basics of customer service, bias in providing quality service, finding the right person the level of expected service, and defining "who is the customer" when dealing in business relations.

BUS 200 BUSINESS LAW 5 CR
Demonstrate knowledge of laws affecting businesses. Introduces students to principles underlying the legal environment of business through lectures, classroom activities, and study of text. Students will be exposed to basic information relating to contracts, sales, consumer protection, real property, personal property, and computer laws.

BUS 221 INTERNSHIP 1 CR
Students will work in an office-related job receiving pay or volunteering. PREREQUISITE:Instructor permission.

BUS 225 INTERNSHIP 6 CR
Students will work in an office-related job receiving pay or volunteering. PREREQUISITE:Instructor permission.

BUS 230 MEDICAL OFFICE PROCEDURES 5 CR
Educates the student for administrative duties in the medical office. 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, students learn about the major insurances with ICDA and CPT coding.

BUS 232 OFFICE PROCEDURES 5 CR
Prepares the student for the role of an office or administrative assistant and the broader role as a professional member of the management team. Class exposes the student to the growing influence of information technology, the expanding global marketplace, and the changes in the organizational structure of modern business. PREREQUISITE:At least a C (2.0) in CAP 106.

BUS 280 PORTFOLIO/ASSESSMENT 1 CR
Students will create a portfolio appropriate to their certificate or degree and complete an exit interview with their advisor. Assessments required for a completion certificate or degree will be assigned relative to their certificate or degree. PREREQUISITE:Instructor permission.

Courses: Business & Supervision - Commercial/Industrial Refrigeration

Prefix Number Title Credits

CAP 154 COMPUTERIZED ACCOUNTING LEVEL A USING QUICKBOOKS 3 CR
Learn how to use QuickBooks to manage the finances of a small business. Topics include general ledger, accounts receivable, accounts payable, and payroll. PREREQUISITE:Knowledge of Windows.

CAP 155 COMPUTERIZED ACCOUNTING LEVEL B USING QUICKBOOKS 3 CR
Learn how to use QuickBooks to manage the finances of a small business. Topics include general ledger, accounts receivable, accounts payable, and payroll. PREREQUISITE:Knowledge of Windows.

GBUS 100 BUSINESS FUNDAMENTALS 5 CR
An introduction to the fundamentals of business operations and management, the functional areas of business, their interrelationships, and the processes necessary for effective operation. Learn to identify and understand business trends, anticipate future business conditions, and prepare for successful careers. Apply the various business concepts to their actual working environments. Learn to develop and prepare a business plan; to prepare a marketing plan; to manage human resources; to manage financial resources; and how to think strategically.

GBUS 110 BUSINESS COMMUNICATIONS 5 CR
Course includes reading, writing, and listening skills, leading effective meetings, use of email as a communication tool, making presentations, and expressing yourself clearly when communicating.

GBUS 120 TECHNICAL WRITING 5 CR
Designed for both entry-level and experienced writers, this practical, hands on course gives you an introduction to technical writing. Review and practice the critical elements of audience, project design, language, use of graphics, editing, and problem solving. Take a look at the range of technical and professional communication in today's business world.

MGMT 100 BUSINESS & PROFESSIONAL ETHICS 3 CR
Current events have brought the concepts of ethics, both in the individual person as well as company practices, to the foreground. This course will discuss and examine, through critical analysis, the concept of interest, secrecy and confidentiality, honesty, interpretation of ethics policies and rules, as well as the differences.

CHEMISTRY

CHEM& 121 INTRO TO CHEMISTRY 5 CR
Introductory course for non-science majors, nursing, and environmental science students. Includes the nature of atoms and molecules, chemical notation, scientific reasoning, and problem-solving in the study ofthe theory and application of inorganic chemistry. Lab work is included. PREREQUISITE:Prerequisites: MATH 99 -Intermediate Algebra with a C or above or equivalent.

CHILD DEVELOPMENT

ECED 120 CDA ESSENTIALS 1: INTRO TO ECE/HEALTH, SAFETY & NUTRITION 4 CR
This course is one of three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course one include safety and healthy environments, ways children grow, and an introduction to early childhood. Fieldwork is required in addition to coursework and observation/mentoring by the instructor is included. Information gathered in the course can be utilized for creating a portfolio and/or CDA resource file. PREREQUISITE:ECED 112 Basics In Child Care.

Prefix Number Title Credits

ECED 121 CDA ESSENTIALS 2: CHILD DEVELOPMENT /LEARNING ENVIRONMENTS 4 CR
This course is one of three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course two include children's social and emotional development; physical and intellectual competence; and curriculum development. Fieldwork is required in addition to coursework and observation/mentoring by the instructor is included. Information gathered in the course can be utilized for creating a portfolio and /or CDA resource file.

ECED 122 CDA ESSENTIALS 3: WORKING WITH FAMILIES/PROFESSIONALISM 4 CR
This course is one of three courses that provide the essential coursework for the nationally recognized Child Development Associate (CDA). Topics to be covered in course 3 include family relationships; early childhood professionalism; and curriculum and portfolio development. Fieldwork is required in addition to coursework and observation/mentoring by the instructor is included. Information gathered in the course can be utilized for creating a portfolio and /or CDA resource file.

ECED 123 PREP FOR CHILD DEVELOPMENT ASSOCIATES (CDA) ASSESSMENT 1 CR
This course will provide detailed information about the assessment processes for center-based/family childcare, and home visitor personnel who meet the education and experience requirements for the Child Development Associate credential. Participants will finalize and organize their work in relation to the six CDA Competency Standards and the thirteen Functional Areas.

COMMERCIAL DRIVING

CODR 940 COMMERCIAL DRIVERS LICENSE PREPARATION3 CR
This course prepares the student to take the written Washington State Department of Licensing Examination. This examination is the prerequisite for obtaining a Commercial Drivers License required fordriving commercial vehicles on public roads. The course includes the step-by-step instructions about the statutory requirements of the transportation laws and basic knowledge needed to commence the hands-on driver training on a commercial vehicle. The course also includes the preparation for the written exam for several endorsements: Doubles, Triples, Hazardous Materials, Buses, and Air Brakes.

CODR 945 COMMERCIAL DRIVERS LICENSE PRACTICUM 10 CR
This course prepares the student to take the Driving Test administered by Washington State Department of Licensing for obtaining a Commercial Drivers License required for driving commercial vehicles on public roads. The course includes hands-on behind-the-wheel driving instruction and observation as a second driver/passenger in a commercial vehicle. The teaching includes classroom instruction about DOT regulations, range driving, log book entry, and other related topics.

COMMERCIAL/INDUSTRIAL REFRIGERATION & HVAC

CREF 122 FUNDAMENTALS OF REFRIGERATION 5 CR
This course presents 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. Emphasis is placed on proper diagnostic and troubleshooting procedures. Lectures are supplemented by student's individual work on projects in the concurrent course CREF 123.

CREF 123 REFRIGERATION FUNDAMENTALS LAB I 5 CR
In this course emphasis is placed on proper system assembly, diagnostic and troubleshooting procedures, refrigerant handling procedures and safety. The concurrent course, CREF 122 is supplemented by student's individual work on projects in this course.

Courses: Commercial/Industrial Refrigeration

Prefix Number Title Credits

CREF 126 BASIC ELECTRICITY FOR HVAC/R 4 CR
This course presents the fundamentals of controls, motors, electrical theory and applications. Emphasis is placed on proper diagnostic and troubleshooting procedures. Lectures are supplemented by student's individual work on projects in concurrent course CREF 127. PREREQUISITE:CREF 122 & CREF 123.

CREF 127 REFRIGERATION 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 proper diagnostic and troubleshooting procedures. Lectures in the concurrent course, CREF 126, are supplemented by student's individual work on projects in this course. PREREQUISITE:CREF 122 & CREF 123.

CREF 132 COMMERCIAL SELF CONTAINED SYSTEMS 4 CR
This course investigates medium and low temperature refrigeration systems and equipment used in commercial applications. Lectures are supplemented by student's individual work on projects in concurrent course CREF 133. PREREQUISITE:CREF 120 series with a minimum grade average of C.

CREF 133 COMMERCIAL SELF CONTAINED SYSTEMS LAB5 CR
This course presents medium and low temperature refrigeration systems and equipment used in commercial applications. Emphasis is placed on trouble-shooting techniques on live equipment as installed in industry. The concurrent course, CREF 132 is supplemented by student's individual work on projects in this course. PREREQUISITE:CREF 120 series with a minimum grade average of C.

CREF 135 COMMERCIAL ICE SYSTEMS THEORY & APPLICATION 3 CR
This course introduces the various types and modes of commercial ice production systems used in restaurants, institutions, and process applications. Wiring diagrams and sequence of operations are emphasized. Proper installation, maintenance and trouble shooting techniques are discussed.

CREF 137 COMMERCIAL ICE SYSTEMS LAB 4 CR
This course allows for practical application of concepts learned in CREF135 for commercial ice systems. The student will install, maintain, and diagnose problems on a variety of actual operating ice machines. Students will be exposed to not less than 5 different manufacturer's designs, as all are different. The student will verify proper production, learn how to read wiring schematic, and diagnose and repair faults inserted by instructor. Maintenance and proper cleaning and sanitation are also stressed in the coursework.

CREF 139 COMMERCIAL ICE SYSTEMS INTERACTIVE LEARNING 2 CR
This course utilizes the subject of commercial ice production for the student to research the operation, wiring and manufacture of a particular selected commercial ice machine. The student will gain insight into the various methods employed by different manufactures to produce ice. The student will prepare and deliver a presentation to the 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 for preparing the lesson, research, public speaking, audio visual aids, audience participation and self/peer-evaluation are addressed in this course.

CREF 141 AIR PROPERTIES AND PSYCHOMETRICS 3 CR
This course prepares the student with information about air and its properties, moisture levels, enthalpy, volume, relative humidity and density. Air measurement techniques are also explored. Classroom discussion is aided by hands-on lab activities on operating equipment.

Prefix Number Title Credits

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.

CREF 145 DUCT LAYOUT AND FABRICATION 3 CR
This entry level fabrication course is to prepare students for the HVAC sheet metal installation industry. Parallel line, radial line and triangulation layout techniques are utilized to develop sheet metal patterns of common fittings used in the installation of HVAC systems. Students will apply these techniques in the lab and fabricate assigned fittings.

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.

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.

CREF 221 ELECTRIC HEATING TECHNOLOGY 3 CR
This course introduces electricity as a heat source for stationary and forced air systems. Emphasis is placed on electrical safety, BTU calculations, 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.

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 trouble shooting techniques for service technicians.

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 trouble shooting techniques are emphasized.

CREF 227 HYDRONIC HEATING TECHNOLOGY 4 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.

CREF 231 COMMERCIAL/INDUSTRIAL REFIGERATION 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.

Courses: Commercial/Industrial Refrigeration - Computers

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CREF 233 COMM/INDUSTRIAL REFRIG APP COMPONENTS LAB 5 CR
Students apply the theory and application skills acquired in CREF231 to operating systems in the lab. A proper start-up technique, adjustments, wiring schematics and evaluation of the operation of the systems is emphasized. Students work in teams, and rotate shifts weekly, allowing each student the diversity to work with all team members. Safety is foremost as most of these systems are high voltage multi-phase systems. Students diagnose and solve instructor inserted problems into the systems, make repairs and invoice the instructor.

CREF 236 LARGE TONNAGE CHILLERS 5 CR
This course presents a study of large capacity chillers systems. Systems that are covered in depth include centrifugal chilled water-cooling systems. Lectures are supplemented by student's individual or group work on lab projects including the teardown and reassembly of a centrifugal compressor, connecting and operating a 460 Volt Star Delta starter. PREREQUISITE:CREF 231 & 233.

CREF 237 COOLING TOWERS & INTRODUCTION TO INDUSTRIAL WATER TREATMENT 1 CR
This course presents a study of cooling towers and the treatment of the water used. PREREQUISITE:CREF 236

CREF 238 CASCADE/TRANSPORT REFRIGERATION SYSTEMS 3 CR
This course presents a continuation of the course of study of refrigeration systems. Commercial systems that are covered in depth include ultra-low temp freezing systems and transport refrigeration systems. Lectures are supplemented by student's individual work on projects. PREREQUISITE:CREF 237

CREF 239 ABSORPTION REFRIGERATION SYSTEMS 1 CR
This course presents a continuation of the course of study of refrigeration systems. Commercial systems that are covered in depth are three types of absorption refrigeration systems. Lectures are supplemented by student's individual work on projects. PREREQUISITE:CREF 238

CREF 242 CONTROL THEORY FOR HVAC AUTOMATION SYSTEMS 4 CR
This course presents basic control theory for energy management and control systems. PREREQUISITE:CREF 120 series, 130 series, 140 series, 220 series, 230 series with minimum grade average of C each series

CREF 243 PNEUMATIC CONTROLS 4 CR
This course presents energy management and control systems as applied with pneumatic control systems. Lectures are supplemented by student's individual work on projects. PREREQUISITE:CREF 120 series, 130 series, 140 series, 220 series, 230 series with minimum grade average of C each series

CREF 244 DISTRIBUTED DIGITAL CONTROL SYSTEMS 6 CR
This course presents energy management and control systems, as applied in Distributed Digital control systems. Lectures are supplemented by student's individual work on projects. PREREQUISITE:CREF 242 & CREF 243

CREF 245 INTRO TO INDUSTRIAL BOILERS & WATER TREATMENT 2 CR
This course presents industrial boilers and combustion controls, advanced flame safeguards and chemical treatment of boiler water. Lectures are supplemented by student's individual work on projects. PREREQUISITE:CREF 244

CREF 246 CONTROL SYSTEM DESIGN & COMMISSIONING 2 CR
This course presents an opportunity to review the design and commissioning of various types of energy management and control systems, both pneumatic and distributed digital control systems. Lectures are supplemented by student's individual work on projects. PREREQUISITE:CREF 120 series, 130 series, 140 series, 220 series, 230 series with minimum grade average of C each series

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COMMUNICATIONS

COM 170 ORAL & WRITTEN COMMUNICATIONS 5 CR
This course focuses on those workplace communication skills that employees need to send, receive, and interpret oral and written information. Following a review of writing fundamentals, learners will use principles and concepts of communication in occupational and general applications. Reading, writing, and speaking skills are included in this course. PREREQUISITE:Accuplacer Reading Score of 71 or higher.

COMPUTERS

CAP 101 INTRODUCTION TO COMPUTERS 5 CR
Introduces use of the personal computer while working in a Microsoft Windows environment. Includes a basic introduction to Excel, Word, and PowerPoint. Students will become familiar with the basic computer hardware components, Internet use, and Windows use. This course will help prepare students for the IC3 certification exam. CAP 199 may be accepted in place of CAP 101.

CAP 105 COMPUTERIZED TOUCH KEYBOARDING 2 CR
A touch typing course for beginners as well as those needing to brush up on their keyboarding skills. Course covers learning to type alphabetical keys by touch using proper technique.

CAP 106 FORMATTING WITH MS WORD 4 CR
Provides skillbuilding, production typing, and Microsoft Word fundamentals at the beginning or review level. Students use MS Word to format letters, memos, reports, and tables. PREREQUISITE:CAP 105.

CAP 107 COMPUTERIZED KEYBOARDING/ SKILLBUILDING3 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. PREREQUISITE:CAP 106.

CAP 109 COMPUTERIZED KEYBOARD SKILLBUILDING II 3 CR
Designed to help students to further improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement. PREREQUISITE:CAP 107.

CAP 110 DATA ENTRY 3 CR
This course is designed to help students learn proper data entry skills and improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement. PREREQUISITE:CAP 106.

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. PREREQUISITE:CAP 101 or instructor permission.

CAP 142 MS EXCEL 5 CR
This course provides a practical hands-on approach to developing the skills to use the powerful spreadsheet application, MS Excel. Students will use Excel to organize and analyze data, perform numerical calculations, and illustrate relationships in numerical data by displaying charts. PREREQUISITE:CAP 101 or instructor permission.

CAP 146 MS ACCESS 5 CR
Table design, relationships, filters, queries, forms, and reports will be introduced. Students will apply skills to database projects. PREREQUISITE:CAP 101 or instructor permission.

CAP 148 MS POWERPOINT 3 CR
Presents an overview of a presentation graphics program. Students will create and present a slide show projected from their computer. PREREQUISITE:CAP 101 or instructor permission.

CAP 150 PROJECT LEVEL 1 1 CR
The first in a series of two courses designed for individuals who will use Microsoft Project 2002 as a tool to assist them in managing projects. Topics include critical skills to create and modify a project plan file containing

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tasks, resources, and assignments; create a project plan file to organize tasks in a work breakdown structure determined by relationships; assign resources and confirm strategy to implement the project plan.

CAP 151 PROJECT LEVEL 2 1 CR
You will exchange and update project plan data with other applications, create custom reports, reuse project plan information, and collaborate on project plans with other students.

CAP 199 COMPUTER FUNDAMENTALS 5 CR
Introduces use of the personal computer while working in a Microsoft Windows environment. Students become familiar with basic computer hardware components and learn to use word processing and spreadsheet software. Students also learn how to use the Internet and email and gain competence in keyboard familiarity. Microsoft Windows, Word, Excel and Outlook are used in this class. This course will help you prepare for the IC3 certification exam.

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. PREREQUISITE:CAP 138, CAP 142, CAP 146, & CAP 148 or instructor permission.

CIS 140 WEBSITE DEVELOPMENT 4 CR
An introduction to HTML, graphics, and other programming languages for use in web pages. Students will learn the use of programming editors, preparation of graphics, content development, and page layout.

CIS 145 WEBSITE DEVELOPMENT 5 CR
An introduction to HTML, graphics, and other programming languages for use in web pages. Students will learn the use of programming editors, preparation of graphics, content development, and page layout. PREREQUISITE:CAP 101, CAP 105 or instructor permission.

CIS 160 COMPUTER USER SUPPORT I 5 CR
Course provides an overview of topics relevant to working at a help desk. Students will learn computer user support skills and strategies, including problem solving, customer service, and call tracking. PREREQUISITE:CAP 101, CAP 138, CAP 142, and CAP 146 with minimum grade of C (2.0).

CIS 251 SCRIPT PROGRAMMING 5 CR
Course provides computer script design and development. Various introductory script programming concepts and techniques will be taught. PREREQUISITE:CAP 101

CIS 276 INTERNSHIP 6 CR
Students will arrange to work in an office, solving computer software, hardware or operating system problems for users. It may be paid or unpaid 180 hours of work experience. PREREQUISITE:Instructor permission.

IT 102 IT ETHICS AND CAREERS 5 CR
Ethics issues and career options for computer professionals will be explored through research and simulated IT enterprises. Topics include intellectual property rights, respecting privacy, avoiding harm to others, IT career paths, and IT workplace environments. PREREQUISITE:CAP 101 and IT 160 or IT 140 or IT 141

IT 112 PC HARDWARE A+ 8 CR
This course prepares the student to understand, install, configure, upgrade, troubleshoot, and repair PC hardware components. Course material parallels the CompTIA A+ Essentials certification objectives for hardware. PREREQUISITE:CO-REQUISITE: CAP 101

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. PREREQUISITE:CO-REQUISITE: CAP 101.

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IT 140 COMMAND LINE OPERATING SYSTEMS 5 CR
This course is designed to give students a solid understanding of the basic functions of operating systems by learning the Windows and Unix command line. Students will learn navigation, file manipulation, and redirection commands so that they can build useful batch scripts by the end of the course. PREREQUISITE:CO-REQUISITE: CAP 101.

IT 141 OPERATING SYSTEMS A+ 8 CR
This course prepares the student to install, maintain, and troubleshoot Windows operating systems. Course material parallels the CompTIA A+ IT Technician certification objectives for operating systems. PREREQUISITE:CO-REQUISITE: CAP 101.

IT 142 CLIENT/DESKTOP OPERATING SYSTEMS II 11 CR
Designed to facilitate in-depth study of a Client Computer Operating system found commonly in the business environment. Areas of study include installation, configuration, troubleshooting, deployment, and networking. PREREQUISITE:CAP 101 and IT 160 or IT 140 or IT141.

IT 160 NETWORKING TECHNOLOGIES 8 CR
The goal of this course is to provide students with a background in networking technologies and prepare students to pass CompTIA's broad-based, vendor–independent networking certification exam, Network +. This course covers a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. It not only introduces a variety of concepts, but also discusses in-depth the most significant aspects of networking, such as the TCP/IP protocol suite. PREREQUISITE:CO-REQUISITE: CAP 101.

IT 210 NETWORK SECURITY FUNDAMENTALS 11 CR
This course provides a comprehensive overview of network security through lecture, extensive hands-on, and research projects. Topics covered include general security concepts, communication security, infrastructure security, cryptography, access control, authentication, external attack, and operational and organizational security. PREREQUISITE:IT 160, 112, 140.

IT 220 NETWORK COMMUNICATION INFRASTRUCTURE 5 CR
In this hands-on practicum students learn the components of structured data communications cabling systems, OSI Layers 1, 2 and 3 hardware components, and how to install and configure them. PREREQUISITE:IT 160.

IT 240 UNIX ADMINISTRATION & CONFIGURATION 11 CR
This course introduces students to system administration fundamentals of the Unix operating system. Using Linux, students learn to install and configure the O/S using system text files, use the common GUIs, configure networking, administer user accounts and permissions, define the user environment, and monitor system resources, processes and usage. PREREQUISITE:IT 140 and IT 141 or IT 142.

IT 242 WINDOWS SERVER ADMINISTRATION 5 CR
Covers installation, configuration, and system administration of Windows Server. Topics include managing accounts, groups, folders, and files; object security; Active Directory; DFS; Disk quotas; server monitoring and optimization; and troubleshooting. PREREQUISITE:IT 160.

IT 243 WINDOWS SERVER NETWORK INFRASTRUCTURE 5 CR
This course covers managing and maintaining a Windows Server network infrastructure. Students will learn how to install, configure, and troubleshoot TCP/IP, DHCP, DNS, routing and remote access, and VPNs. Students will also learn to monitor traffic, troubleshoot connectivity, implement secure network administration procedures and resolve service issues on a Windows Server. PREREQUISITE:IT 242

IT 261 ADVANCED TOPICS IN NETWORKING I 5 CR
This course allows for specialized or in-depth study of an advanced computer networking topic. Example topics may include: Microsoft SQL Server, Apache Web Server, Internet Information Server, Microsoft Exchange Server, computer forensics. PREREQUISITE:IT 240 and IT 242.

Courses: Computer - Culinary Arts

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IT 262 ADVANCED TOPICS IN NETWORKING II 5 CR
This course allows for specialized or in-depth study of an advanced computer networking topic. Example topics may include: Microsoft SQL Server, Apache Web Server, Internet Information Server, Microsoft Exchange Server, computer forensics. PREREQUISITE:IT 240 and IT 242.

IT 270 INTERNSHIP 6 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. PREREQUISITE:CO-REQUISITE: IT 261 or 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. PREREQUISITE:CO-REQUISITE: IT 261 or IT 262.

CULINARY ARTS

CUL 110 SANITATION AND SAFETY 3 CR
This course provides students with an understanding of the principles and correct 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 THE HOSPITALITY INDUSTRY 3 CR
This course covers the history and background of the hospitality industry and introduces students to the broad spectrum of hospitality/food service organizations and career opportunities, along with the cooking equipment and hand tools utilized in the culinary arts industry. Students are introduced to weights and measures, their use in recipes, and recipe conversions. Laws and regulations related to safety and adherence to them in food service operations are also addressed.

CUL 114 CULINARY SKILL DEVELOPMENT I 6 CR
This course focuses on the foundational cooking techniques utilized in the culinary industry. Topics of study include vegetables, salads, salad dressings, nuts, herbs, spices, flavorings, fruits, potatoes, grains, dry legumes and pasta preparations, sandwiches, cheese and dairy products. 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 practice applying foundational cooking methods to these food products.

CUL 116 MEAT IDENTIFICATION AND FABRICATION 3 CR
This course introduces students to basic identification techniques, equipment, and hand tools that are used in meat and fish fabrication. Activities include composition, skeletal structures, muscle types and fabrication of meats, poultry, and seafood. Students apply basic yield analysis, portion cost calculations, purchasing/receiving, basic cooking methods, inspection and USDA regulations, sanitation, and hygiene.

CUL 120 INTERNATIONAL AND AMERICAN REGIONAL CUISINE 6 CR
This course provides students with practical experience in the preparation and service of foods from international countries and regions of America. Emphasis is placed on eating habits, ethnic influences, indigenous foods and customs, cooking methods used, traditional equipment, and each region's overall influence on today's restaurant market. Weekly participation in theme buffet production enhances students' technical skills. PREREQUISITE:CUL 110, CUL 112, CUL 114, CUL 116

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CUL 122 CULINARY SKILL DEVELOPMENT II 6 CR
A continuation of Culinary Skill Development I, this course provides study and practice focused on foundational cooking methods, related terminology, and additional foundational cooking preparations. Theory and lab topics include meat cookery, preparation of stocks, classical and contemporary mother sauces and derivative sauces, soups, eggs and breakfast cookery and vegetarian cookery. PREREQUISITE:CUL 110, CUL 112, CUL 114, CUL 116

CUL 124 BUFFET AND CATERING MANAGEMENT 3 CR
In this course students gain fundamentals skills and knowledge needed to set-up and run banquet, buffet, and catering functions. Theory subjects covered 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 participation in buffet production provides students with hands-on experience in setting up and managing a full service buffet event. PREREQUISITE:CUL 110, CUL 112, CUL 114, CUL 116

CUL 140 GARDE MANGER 6 CR
In the Garde Manger course students plan, prepare, execute, and present cold foods and culinary salon work, while applying fundamental cooking and garnishing methods. Production includes refined techniques such as canapés, hors d'oeuvres, amuse bouche, curing, smoking, pickling, cold foods, salt dough sculpture, ice sculpture, and tallow sculptures. PREREQUISITE:CUL 110, CUL 112, CUL 114, CUL 116, CUL 122, CUL 124

CUL 142 NUTRITION 3 CR
This course provides students with an introduction to nutrition, cultural food pyramids, including nutritive value of foods, factors influencing body food requirements, their importance in promoting health and preventing disease, and the body processes and their relation to total nutrition. We will examine nutritional requirements throughout the human life cycle with attention to retaining nutritive values through the cooking process. PREREQUISITE:CUL 112

CUL 144 INTRODUCTION TO A LA CARTE COOKERY 5 CR
This course provides a practical introduction to the à la carte kitchen. Theory and lab practice topics include station set-up and organization, food preparation planning sheets, portion control, timing, temperature control, teamwork, communication, productivity skills, and sanitary production skills. Weekly participation as a commis in an à la carte restaurant provides students with the opportunity to refine fundamental culinary skills and develop a la minute production skills. PREREQUISITE:CUL 110, CUL 112, CUL 114, CUL 116

CUL 150 CULINARY ARTS INTERNSHIP OR TEAM COMPETITION 8 CR
Students may elect to work in a pre-designated professional kitchen, where they will successfully apply cooking skills and knowledge or, students may compete for one of five positions to represent Bellingham Technical Colleges culinary arts program in the Washington State American Culinary Federation student team competition.PREREQUISITE: Successful completion of the first 3 quarters of the Culinary Arts curriculum.

CUL 200 QUICK BREADS AND COOKIES 2 CR
In this course students identify chemical leavened products and create a delicious array of quick breads, muffins, scones, and biscuits. They produce a variation of ice box, bar, rolled, cut, piped, stenciled and meringue cookies, and practice different methods in garniture cookies such as tuilles, Florentines and snap cookies.

CUL 202 BREAD AND LAMINATED DOUGH 3 CR
In this course students learn the theory of yeast- leavened products, breads, and roll-in dough, and use four primary methods to create both sweet and savory breads and pastries. They make a wide array of products including sweet croissants, Danish, brioche, crusty yeast breads, classic European breads, and specialty breads such as flat breads, crackers, ciabatta, and focaccia.

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CUL 204 PIES, TARTS, AND FRENCH PASTRY 3 CR
In this course students produce a variety of pies and tarts (fruit, cream, chiffon, custard pies, and sweet and savory tarts) and fruit strudels utilizing different doughs, fillings, and finishing techniques. In addition, the course covers French pastries including pate feuilletee (multi-layered puff pastry) and pate a choux, which is used for cream puffs. Students create a wide variety of delicate desserts using these unique doughs.

CUL 206 CAKES AND PETITS FOURS 3 CR
In this course students learn the theory of cake methodology and decoration. They focus on creaming, two stage, sponge, and meringue based methods, to create a wide variety of cakes, including multi layered European type tortes and Charlottes. Cakes are assembled, filled and decorated using different icings (classic, butter cream, meringue) and fillings (Bavarian creams, mousse, classic, and ganache). In addition students make the bite sized, beautiful treats known as petits fours.

CUL 208 INTRODUCTION TO CHOCOLATES AND SUGAR WORK 2 CR
In this course students learn about chocolate and its wonderful use in the pastry world. Upon completion they will be able to temper chocolate couverture, use tempered chocolate for dipping and molding, produce a variety of chocolate decorations and make chocolate truffles. In addition, students explore how to work with sugar correctly for basic decorative sugar work such as spun sugar, sugar cages, caramels, and brittles.

CUL 210 INDIVIDUAL RESTAURANT DESSERTS 3 CR
In this course students create a full array of desserts to order (à la minute), the standard for fine restaurant service. They create and decorate individual offerings, focusing on organization, assembly, component development, decoration, and wording for a complete dessert menu. Main dishes, garnish, and sauces include: mousses, hot desserts (soufflé, crepes, individual cakes baked to order), frozen desserts (sorbets, ice creams, parfaits, bombs), fitting sauces and garnishes.

CUL 220 RESTAURANT MANAGEMENT 7 CR
In this course students apply advanced issues related to business and operations management. They plan and develop menus, kitchen design, dining room lay-out, point-of -sale operations, and business projections, while utilizing a variety of computer programs. PREREQUISITE:CAP 101, COM 170, CUL 112, CUL 124, MATH 100

CUL 222 HOSPITALITY SUPERVISION 4 CR
In this course students gain an overview of specific concepts necessary to successfully utilize human resources in a food service environment. Lectures on selected topics, student projects, and assignments related to workplace activities form the majority of the material presented. PREREQUISITE:COM 170

CUL 224 FOOD AND BEVERAGE SERVICE 3 CR
This course is based on dining room operations and table settings to meet a wide variety of service styles. Students learn the principles of front-of-the-house operations, point-of-sale systems, and guest relations, along with foundational information about wine including the history of wine, production characteristics, laws, and purchasing and storage requirements. Types, styles, service and state laws regarding alcoholic and non-alcoholic beverages service will also be discussed. Upon completion, students will be able to determine which wines compliment various cuisines and particular tastes. PREREQUISITE:Successful completion of the first 5 quarters of the Culinary Arts curriculum

CUL 230 A LA CARTE RESTAURANT 8 CR
This course provides students with an opportunity to apply the vast majority of the culinary arts curriculum as they rotate through several stations in the à la carte restaurant kitchen. They become familiar with the theory and lab responsibilities involved in setting up and running an à la carte restaurant station including food preparation, planning sheets, organization, portion control, timing, temperature control, teamwork, communication, productivity and sanitary production skills. In addition students supervise first year student commis, practice expeditor skills including coordinating and controlling the flow of finished menu items from the station chefs, while working closely with student service staff and maitre d' positions. PREREQUISITE:Successful completion of first 5 quarters of the Culinary Arts curriculum

CUL 232 FOOD AND BEVERAGE SERVICE LAB 5 CR
In this course students apply service skills, knowledge, guest relations, table side cookery, point-of-sale operations, cash handling, reservations, seating, and greeting, in Café Culinaire. The students are responsible for excellent customer service under all conditions. Students work in various dining room positions at Bellingham Technical College's Café Culinaire such as; maitre d', front server, and back server. PREREQUISITE:Successful completion of first 5 quarters of the Culinary Arts curriculum

CUL 234 CAPSTONE PROJECT AND PRACTICAL EXAM 3 CR
This course, which includes a formal written examination, is designed to review the student's overall knowledge and skill level at the completion of all course requirements. There are two major elements--theory and practice. Students complete a five-course gastronomique for service tasting and formal menu presentation, while employing costing, planning and leadership throughout. PREREQUISITE:Successful completion of first 5 quarters of the Culinary Arts curriculum

DENTAL ASSISTING

DEN 100 INTRODUCTION TO DENTAL ASSISTING 1 CR
This course orients the student to college and program policies, procedures, standards, materials and resources. The student will be introduced to the role of dental assisting within the field of dentistry and to the historical, legal, and ethical issues relating to dental assisting.

DEN 105 HEAD & 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 students with the foundation necessary to enter into the Bellingham Technical College Dental Clinic. The student will gain knowledge and skills required to maintain a safe dental environment. Also included are federal and state regulations regarding chemical use and infection control in the dental office. This course introduces basic concepts of radiology. Students learn how to evaluate need for x-rays including: expose, process and mount intraoral radiographs utilizing the bitewing technique.

DEN 112 CHAIRSIDE ASSISTING 7 CR
This course provides the student with the knowledge and skills needed to operate and maintain typical equipment found in a dental operatory. The student will gain an understanding of the design, function, and maintenance of handpieces, dental instruments and the dental unit water/vacuum line. This course will also focus on the theory and delivery of basic dental assisting skills, such as dental ergonomics, principles of team positioning, instrument transfer and oral evacuation.

DEN 114 DENTAL SCIENCES 4 CR
This course focuses on related biomedical sciences that are the foundation of the dental assisting curriculum. Course content includes basic oral embryology and histology and tooth morphology. Concepts of oral pathology and oral inspection will be introduced. The course covers the disease process of HIV AIDS and how it relates 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, clinical coordination, darkroom techniques, bitewing x-ray exposure, patient management, and sterilization.

Courses: Dental Assisting - Diesel Equipment

Prefix Number Title Credits

DEN 120 PATIENT ASSESSMENT 8 CR
This course provides the student with the level of knowledge and skills required for the dental assistant to accurately collect and assess patient data. The student will have the opportunity to learn and practice the skills associated with collecting a health history, obtaining vital signs, assisting with medical emergencies, and assisting the dentist in the diagnostic stages of dental treatment. Pharmacology and anesthesia will be presented as it relates to dentistry and oral health. This course also includes introduction on dental office administration,concentrating on specific job duties in the Bellingham Technical College Dental Clinic.

DEN 122 CHAIRSIDE ASSISTING II 6 CR
Provides the student with appropriate skills to perform routine dental procedures. Instruction will include the use and manipulation of dental instrument setups, restorative materials, isolation techniques and how to effectively transfer instruments when assisting in a dental procedure.

DEN 124 RADIOGRAPHY 3 CR
This course is intended to introduce basic concepts of radiography and build on those skills and theoretical knowledge. Students will learn to correctly and safely evaluate need for x-rays, expose, process and mount intraoral and extraoral radiographs utilizing a variety of techniques and with a variety of patient situations including pedodontics, edentulous and extraoral situations.

DEN 125 DENTAL CLINICAL PRACTICUM II 4 CR
This clinical practicum course is intended to provide the student with actual patient care experience in the on-campus clinic for the purpose of implementation of the course clinical competencies. Students will be assigned to a variety of clinical responsibilities weekly. The course will identify the clinic competencies that must be successfully demonstrated in order for the student to advance to DEN 135. Actual hands-on experience in front office, clinical coordination, and assisting functions with the clinic dentist and dental hygienist will be facilitated by the instructional staff in the Bellingham Technical College Dental Clinic.

DEN 130 PREVENTATIVE DENTISTRY 3 CR
This course provides the student with a working knowledge of preventative dentistry, good oral hygiene, and nutrition. Students will learn how to promote preventative dentistry in the office and the procedures available to curb oral diseases, including dental caries and periodontal disease.

DEN 132 DENTAL SPECIALTIES 1 CR
This course provides the student with the knowledge and skills of the dental specialties, Prosthodontics, Oral Surgery, Orthodontics, and Pedodontics. This course will also instruct the student on the expanded duty of polishing restorations.

DEN 134 LABORATORY PROCEDURES 2 CR
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 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 advanced clinic competencies in order to be eligible to participate in the extramural experience.

DEN 137 EXTRAMURAL PRACTICUM 10 CR
Allows students to apply knowledge, skills, and attitudes gained in the Dental Assistant program. Expected behaviors regarding office policies, record keeping, and evaluation procedures, as an employee and team member, are explored. Ethical and legal concerns are also addressed. Students are then placed in a variety of local dental offices where they apply skills related to basic chairside, oral hygiene, and operative dentistry.

Prefix Number Title Credits

DIESEL EQUIPMENT

DET 104 HYDRAULIC BRAKES 2 CR
Hands-on and theory of operation of hydraulic braking systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 106 ELECTRICAL/ELECTRONICS I 4 CR
Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on diesel engine systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 116 ELECTRICAL/ELECTRONICS II 4 CR
Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on hydraulic systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 126 ELECTRICAL/ELECTRONICS III 4 CR
Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on brake, drive train and suspension/steering systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 129 APPLIED DIESEL CONCEPTS I 12 CR
Students will be required to gain employment or volunteer in an authorized repair/maintenance facility. The student will be under the guidance of the shop in addition to contact with the instructor. The repair facility then becomes a "real world" extension of the classroom. These quarters may be required to have the following assigned hours for NATEF certification: Diesel Engines 15, Electrical/Electronics 45, and PM 5. Students from TRANS 101, 102, 103 MUST meet with the instructor to discuss DET 129 requirements. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 139 APPLIED DIESEL CONCEPTS II 12 CR
Students will be required to gain employment or volunteer in an authorized repair/maintenance facility. The student will be under the guidance of the shop in addition to contact with the instructor. The repair facility then becomes a "real world" extension of the classroom. These quarters may be required to have the following assigned hours for NATEF certification: Diesel Engines 15, Electrical/Electronics 45, and PM 5. Students from TRANS 101, 102, 103 MUST meet with the instructor to discuss DET 129 requirements. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 201 HYDRAULICS 8 CR
Hands-on and theory of operation of hydraulic systems. This course will deal primarily with mobile hydraulic systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 202 DIESEL ENGINES 13 CR
Hands-on and theory of the operation, troubleshooting and repair of diesel engines, with an emphasis on electronic diesel engine controls and preventive maintenance. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 203 DRIVE TRAIN 3 CR
Hands-on and theory of operation of drive train systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 204 AIR BRAKES 5 CR
Hands-on and theory of operation of air brake systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 205 SUSPENSION/STEERING 5 CR
Hands-on and theory of operation of suspension/steering systems. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

DET 208 PREVENTIVE MAINTENANCE 6 CR
Hands-on experience in preventive maintenance for equipment. Fleet management practices are included in this class. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

Prefix Number Title Credits

DET 239 APPLIED DIESEL CONCEPTS III 13 CR
Students will be required to gain employment or volunteer in an authorized repair/maintenance facility. The student will be under the guidance of the shop in addition to contact with the instructor. The repair facility then becomes a "real world" extension of the classroom. These quarters may be required to have the following assigned hours for NATEF certification: Diesel Engines 15, Electrical/Electronics 45, and PM 5. Students from TRANS 101, 102, 103 MUST meet with the instructor to discuss DET 129 requirements. PREREQUISITE:TRANS 101, 102, 103 or instructor's permission.

ECONOMICS

ECON 103 INDUSTRIAL ECONOMICS 5 CR
Students will learn the basic concepts of microeconomics including the examination of the profitability factors of plant operations, personal and business strategies, objectives, and operating profitability. They will perform a cost benefit analysis of different maintenance operations strategies. Students will be able to summarize plant operations from a business perspective; explain the impact of operation of profitability; and interpret stock market factors and annual reports.

EDUCATION

EDUC 131 PARAEDUCATOR I: FOUNDATIONS OF LEARNING 4 CR
An overview of the job of the paraeducator or instructional assistant. Topics covered include introduction to core competencies, roles of paras and certified staff, child development and the implications for learning, positive discipline, the conditions of learning, the diverse student population, the roles and responsibilities of the paraeducator including playground and cafeteria management, and safety and health concerns in working with children. The course includes 10 hours observation and addresses the following Washington State Core Competencies for paraeducators: competencies 2, 3, 5, 8, and 13.

EDUC 133 PARAEDUCATOR II: STRATEGIC LEARNING 4 CR
Focuses on strategic learning strategies that paraeducators or instructional assistants are expected to implement. Topics include confidentiality, IDEA, special education, referrals, special needs children and special programs, learning styles, instructional support methods, effective communication, conflict mediation, remediation, special health care issues, math strategies/problem solving, and paraeducators in the special education workforce. This course includes 10 hours observation and addresses the following Washington State Core Competencies for paraeducators: competencies 1, 4, 6, 7, 10, and 11.

EDUC 134 PARAEDUCATOR III: EFFECTIVE INSTRUCTION 4 CR
This course focuses on assisting teachers in meeting the needs of all students by providing effective instruction. Topics include assessment and standards, the teaching/learning cycle, library/technology skills, the writing process, the reading process, math strategies/problem solving, job search skills, and teaming. This course includes 10 hours observation and addresses the following Washington State Core Competencies for paraeducator: competencies 9, 10, and 12 (a, b, c).

EDUC 137 READING, WRITING, & MATH FOR THE PARAEDUCATOR 1 CR
This course provides a review of the required paraeducator skills and knowledge in the areas of reading, writing, and mathematics and introduces how these content area skills and knowledge apply to assisting in classroom instruction. Course content aligns with the Washington State Essential Academic Learning Requirements in reading, writing, and mathematics and the Title 1 Paraprofessional Knowledge and Skill Requirements.

EDUC 175 ACHIEVING INFORMATION LITERACY 1 CR
This course is designed to improve the research skills of professional-technical instructors and to help these instructors integrate information literacy into their curricula. The classes are designed to be a combination of demonstration and practice, with emphasis on practice. Additionally, these professional-technical instructors will develop a plan for integrating information-literacy skills into classes that they teach.

Prefix Number Title Credits

EDUC 199 PROFESSIONAL TECHNICAL SPECIALIZATION 12 CR
This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document their professional skills and experiences which they acquired prior to or while serving in their position as an instructor. Completion of the course-work project will enhance the instructor's ability to accurately assess their present skills against the Washington State Skill Standards for Professional-Technical Educators and complete an initial Professional Development Plan

EDUC 200 INTRODUCTION TO TEACHING PROFESSIONAL TECHNICAL EDUCATION 3 CR
This course provides students with an introductory foundation to the Washington State Professional-Technical Teacher Skill Standards; thus facilitating entrance into specific Skill Standard training in subsequent courses. Subject areas include an introduction to performance-based education, including technical education philosophies and fundamentals of Competency-Based education models. Additionally, it provides the opportunity for students to observe fully-qualified professional-technical instructors.

EDUC 207 TEACH/FACILITATE I 3 CR
As an introduction to vocational teaching, college instructors begin or expand their training as a skilled educator.Instructor-learners learn about "successful beginnings," being a positive role model, and developing effective lessons based on identified student learning outcomes and competencies. New instructor-learners practice implementing a variety of instructional strategies and student assessments and learn ways to evaluate the progress or diverse learners to meet course objectives. Focus is on four primary modes of instruction: lecture, discussion, demonstration, small group work, and ways in which instructors actas facilitators of learning in their classrooms.

EDUC 209 TEACH/FACILITATE II 3 CR
This course guides instructors through the process of moving from a teacher-centered classroom to a student-centered learning environment and prepares instructor-learners to assist students to become a productive part of a learning community.Instructor-learners further examine and fine-tune multiple modes of instruction beyond those in Level I including class discussion, case studies, role-plays and student self-assessment. Using the universal cycle of learning with the four essential elements of preparation, presentation, practice, and performance, instructor-learners develop model lessons and instructional models as well as developing model facilitation practices for establishing learning communities within the classroom. This course is particulary helpful to experienced instructor-learners who wish to hone and apply their facilitation and instructional delivery skills.

EDUC 211 PLANNING FOR INSTRUCTION 3 CR
Instructor-learners plan for the delivery of adult instruction by creating instructional materials appropriate for students of diverse backgrounds and learning styles. Instructor-learners develop the skills required to create, evaluate or modify a course through the construction of lesson plans and course syllabi. This course assists instructor-learners in ways to plan lessons and units of instruction, and to identify textbooks, instructional media and resources. Emphasis is on lesson planning and syllabus development, particularly as they relate to higher order thinking skills such as Bloom's Taxonomy and domains of learning.

EDUC 216 ASSESSMENT FOR LEARNING 3 CR
Research in learning assessment has transformed the way educators approach the task of teaching. When developing and designing curriculum, instructors need to understand the paradigm shift between traditional, teacher-centered learning where the emphasis is placed on the one-way delivery of content, and active, studentcentered learning where the emphasis shifts to the collaborative, integrated learning process facilitated by the teacher. In this course, instructor-learners will demonstrate assessment literacy and will design and develop assessments to be integrated into the learning process, including performance-based and portfolio assessments. These assessments—prior assessment, for-

mative assessment, summative assessment—will be linked directly to clearly developed llearning outcomes and will inform the process of curriculum evaluation and revision. Effective testing and evaluation linked to course outcomes and grading policies will also be discussed.

EDUC 221 LEADERSHIP DEVELOPMENT 3 CR
This course focuses on methods that implement leadership development as an integral component of professional technical program. Instruction will stress skills in organizing groups to action, decision making, and human relations.

EDUC 226 LEARNING STYLES 3 CR
In this course, professional-technical instructors will be introduced to the theories of learning styles, multiple intelligences, learning types and environmental affects on learning. Instructor learners will identify their own learning attitudes, environment preferences, learning styles and intelligences and begin to identify the learning profiles of their students. This course will facilitate instructors to create learning environments that are most conducive to optimal learning and to implement teaching/learning strategies that engage a variety of learning styles for instructional success.

EDUC 231 LEARNING ENVIRONMENT MANAGEMENT 3 CR
To effectively instruct students, a professional-technical instructor must have all required equipment, systems, tools, supplies, and materials available and set up prior to beginning the class. This course is designed to help instructor-learners develop a management plan for determining, obtaining, and maintaining instructional equipment, tools, supplies, and materials. Faculty members will be equipped with the knowledge and direction needed to develop and implement safety plans for their learning environment so that equipment, systems, tools, supplies, and materials will be managed and maintained in an appropriate and safe manner. Emphasis is on shop, laboratory, and classroom safety practices.

EDUC 236 OCCUPATIONAL ANALYSIS 3 CR
This course will familiarize the professional technical instructor with the process of occupational analysis, the steps of DATA and DACUM process, and advisory committees and their role in professional technical curriculum development.

EDUC 241 LEARNING & ADAPTING NEW TECHNOLOGIES 5 CR
In this course the instructor-learner will identify, evaluate and implement new and emerging technologies according to industry needs and per their needs as instructors. Instructor-learners will develop new ways of communication and develop online materials and websites. Working with their program advisory committee, the instructor-learner will maintain current knowledge of technology in the field and focus on how to integrate this new technology into their curriculum, into their current methods of delivering student instruction, and into effective ways of assessing student learning by integrating new technology into student assignments. As needed, the instructor-leaner will develop the skills required to research, organize and maintain information about certification requirements for program-specific technology.

EDUC 246 THE ADULT LEARNER 3 CR
To effectively instruct adults, it is essential that the instructor has a basic understanding of the adult learner. By understanding the adult learner and how one learns, the instructor can teach more effectively and can motivate and improve retention rates with students. In this course, instructor-learners will identify learning principles and adult characteristics, learning styles, demographics and motivation. They will also learn to modify curriculum and instruction based on the needs of the adult learners in their classroom.

EDUC 251 TEACHING PRACTICUM 1 12 CR
This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the student instructor will implement core learning strategies and techniques on teaching and facilitating learning from coursework and research.

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EDUC 252 TEACHING PRACTICUM 2 12 CR
This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the studentinstructor will establish and implement learning outcomes focused on assessment, new technologies such as distance learning, hybrid courses, electronic instruction.

EDUC 256 PROGRAM MANAGEMENT, PROMOTION, AND RECRUITMENT 5 CR
In this course, instructor-learners develop a record keeping system that can be used in the tracking of student affairs, including program enrollment, student grades, student financial aid and scholarship eligibility. In addition, instructor-learners develop a budgeting system to determine program financial needs and the tracking of allocated funds. They take part in departmental and college committees to insure the interests of their program and to participate in collegewide conversations and decisions regarding enrollment, recruitment and community relations.

EDUC 257 CURRENT TOPICS FOR PROFESSIONAL TECHNICAL EDUCATORS 6 CR
This course is designed to provide opportunities for post-secondary faculty members teaching professional-technical coursework to document and receive credit for research/learning acquired at professional conferences.

EDUC 261 INDUSTRY BASED PROFESSIONAL DEVELOPMENT 5 CR
This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document and receive credit for skills-enhancement activities conducted during “Back-to-Industry” or “Return-to-Industry” endeavors.

EDUC 262 ADVANCED INDUSTRY BASED PROFESSIONAL DEVELOPMENT 6 CR
This course is a project-oriented course designed to provide opportunities for post-secondary professional-technical instructors to document and receive credit for skills-enhancement activities conducted during “Back-to-Industry” or “Return-to-Industry” endeavors.

EDUC 275 CAREER & TECHNICAL EDUCATION INTERNSHIP 3 CR
Research supports that faculty often rely on how they have been taught for their own teaching even when those instructional strategies were not viewed as effective. To develop good learning strategies participants will participate in an internship to change their previous parading. Through a variety of strategies including assignments, observation, reflection, serving as an instructional assistant, and/or practical application of instructional techniques students will complete an internship in a career and technical education program.

EDUC 299 PROFESSIONAL TECHNICAL EDUCATION CAPSTONE 5 CR
This course is a capstone project designed to provide opportunities for instructors to document their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor, in accordance with Washington State Skill Standards for Professional-Technical Educators. This course is the final required course for an AAS-T degree in Professional-Technical Education.

ELECTRICIAN

ELEC 100 INTRODUCTION TO ELECTRICIAN TRADE 1 CR
Gives information about the program’s organization: rules & regulations, the electrician trade, the job market, essential safety information & procedures.

ELEC 101 ELECTRICITY I 14 CR
Emphasis is placed on the basic understanding of electrical theory and its application to devices, circuits and materials. Also, the fundamental

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ideas of DC electricity, magnetism, and electromagnetism are studied. Students will apply their basic skills of algebra during this course. PREREQUISITE: MATH 100 (to be taken concurrently).

ELEC 102 ELECTRICITY II 13 CR
Studies the ideas of electron flow applied to direct current circuitsand broadens those ideas for alternating current use. A basic understanding of alternating current fundamentals is essential because it must be applied in everyday situations in the electrical workplace. PREREQUISITE:ELEC 101A.

ELEC 103 ELECTRICITY III 12 CR
Introduction to the basic principles of automatic motor control for various direct current motors. Detailed explanations and operating principles will be presented along with typical schematic and wiring diagrams of common installation practices. Thorough explanations prepare the student to develop troubleshooting and repair techniques so they can perform effectively on the job. Basic transformer principles, single and three phase circuits are also covered.

ELEC 104 ELECTRICITY IV 14 CR
Detailed explanations of operating principles of various types of alternating current motors will be presented. Typical schematic and wiring diagrams are explored to familiarize the students with common installations. Logical troubleshooting and repair techniques are developed that will help the student perform effectively on the job.

ELEC 105 OCCUPATIONAL SAFETY 1 CR
A review, giving the student information about the program's organization: rules & regulations, the electrician trade, the job market, essential safety information & procedures.

ELEC 119 ELECTRIC ZONE HEATING 1 CR
This course prepares students with a basic understanding of electrical theory and its application to devices, circuits, and materials. The students will learn fundamentals of DC and AC, magnetism, production of electricity, characteristics and analysis of series, parallel and mixed circuits.

ELEC 123 SOLDERING 1 CR
Covers the basic theory of soldering and gives the student hands-on experiences for practicing soldering skills.

ELEC 160 ENVIRONMENTAL AWARENESS 1 CR
Proper use and disposal of products used in the electrical workplace will be reviewed and discussed to ensure that the environment is not placed in jeopardy by their use.

ELEC 191 LEADERSHIP 1 CR
Explores the importance of leadership and how it effects the work life of the electrician.

ELEC 192 JOB PREPARATION 1 CR
Application of the knowledge used to expand the communication skills that are necessary for seeking and obtaining employment in the electrical field.

ELEC 201A RESIDENTIAL WIRING 13 CR
A study of the skills for the wiring of a home. It emphasizes the National Electrical Code and enables the electrician to problem-solve real life wiring situations. Learn how to interpret electrical information
from a building diagram using American National Standards Institute (ANSI) symbols.

ELEC 205 MOTOR CONTROL DIAGRAMS I 3 CR
Presents general ground rules for establishing good, safe working habits and proper use of electrical tools. Introduction to the student with language of an electrical control, using standard (ANSI) electrical symbols, and line diagraming.

ELEC 207 MOTOR CONTROL DIAGRAMS II 7 CR
An expansion on the teachings of ELEC 205A. More advanced motor control practices are explored & explained.

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ELEC 208 PROGRAMMABLE CONTROLLERS 7 CR
Focuses on the principles of how PLC's work and offers practical installation information. Using programming skills and installation methods introduced in this course, the student will "convert" a normal relay driven control system to PLC control.

ELEC 209 CONDUIT I 1 CR
Examines the skills and techniques required by the electrician to accurately and efficiently bend conduits.

ELEC 210 CONDUIT II 1 CR
Development of the bending skills acquired during ELEC 209A. Student will complete a project installing conduit which uses at least three of the bends listed.

ELEC 211 SOLID STATE DEVICES 1 CR
Introduction to the electronic semiconductor devices used in electrical circuits. Semiconductor theory, explaining how these devices operate, will be emphasized. Semiconductor rectification of alternating current systems will be explained.

ELEC 213 WAREHOUSE WORK 1 CR
Course familiarizes the electrician with the types of work and responsibilities involved with parts in an electrical warehouse.

CTE 290 JOB SEARCH 4 CR
Students will improve their skills in resume development, interview preparation, and job search techniques. These skills will be assessed through simulated job application processes such as mock interviews and resume reviews.

ELTR 100 DC 1 4 CR
A thorough introduction for the new student to the fundamental properties and applications of electricity. This course opens the doors to a wide array of career opportunities in computer servicing, biomedical equipment servicing, manufacturing technology, telecommunications, and home entertainment equipment servicing. In addition, safety procedures are emphasized. Students learn how to make good solder connections and recognize and repair bad solder connections. Students learn how to select and clean soldering tools. This course continues with the basics of current, voltage and resistance. The application of Ohm's Law, Joule's Law, Kirchoff's Current and Voltage Law, and the construction of circuits to verify electronic theory provide the knowledge necessary to build the foundation for a thorough understanding of electronics.

ELTR 105 DC 2 4 CR
The development of a working knowledge of the basic principles of DC electronics. The purpose and operation of such devices as resistors, capacitors, inductors and meters are covered in labs and theory. PREREQUISITE:ELTR 100.

ELTR 110AC 1 4 CR
An introduction and examination of the principles and applications of alternating current, including frequency, reactance, impedance, and resonance. PREREQUISITE:Admission and ELTR 105.

ELTR 115AC 2 4 CR
Students continue their exploration of AC with transformers and filter circuits (low-pass, high-pass, band-stop and band-pass), with theory, labwork, and projects. PREREQUISITE:ELTR 110.

ELTR 120 SEMICONDUCTORS 1 5 CR
Students learn how discrete semiconductor devices are constructed, how to handle them, how diodes, bipolar transistors, FETS, and thrystors operate and how to use them in practical circuits. ACDC power supply circuits introduced as well. PREREQUISITE:ELTR 115.

ELTR 125 SEMICONDUCTORS 2 5 CR
This course introduces the student to various "building block" circuits including amplifiers, oscillators, and power supply circuits, through theory,

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labwork, and projects. PREREQUISITE: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. PREREQUISITE:ELTR 125.

ELTR 135 OP-AMPS 2 3 CR
Oscillators, active filters and single power-supply circuits and other applications of op-amps are covered in theory, practical labs, and projects. PREREQUISITE:ELTR 130.

ELTR 140 DIGITAL 1 5 CR
A comprehensive focus on the concepts, terminology, components and circuits that combine to form basic digital systems with labwork and projects. PREREQUISITE: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. PREREQUISITE:ELTR 140.

ETEC 152 MICROPROCESSORS 6 CR
This course offers a combination of "hands on" and course material to give a basic understanding of microprocessor functions and operation. PREREQUISITE:ELTR 145.

ETEC 201 TEST EQUIP & TROUBLE-SHOOTING 5 CR
This course offers a variety of test equipment and troubleshooting techniques are analyzed. Safety, working in sensitive circuits and proper use of test equipment are emphasized. PREREQUISITE:ELTR 145.

ETEC 205 TROUBLESHOOTING 5 CR
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.

ETEC 210 ELECTRONIC COMMUNICATIONS 10 CR
A comprehensive introduction for the second-year student to the fundamentals and applications of modulation, transmitters, receivers, and antennas. RF, digital communication, multiplexing, cellular, and PCS are also introduced.

ETEC 214 NANO TECHNOLOGY 5 CR
NANO Technology is impacting our lives through biomedical uses, manufacturing technology, computer systems, communications devices and many other fields. This course is an introduction to this vast, "small" topic. A NANO particle is about 75,000 times smaller than the diameter of a human hair. How can something that small have an impact on my life or our economy? How can something that small be manufactured? What are the uses of NANO technology? Buckyballs, nanotubes, Micro-Electrical Mechanical Systems (MEMS) and many more topics are covered in the study of this cutting edge technology.

ETEC 230 INTRO TO ROUTERS AND SWITCHES 5 CR
This course covers router interface, port configuration, IP addressing, bridging, route maps and troubleshooting, routers and switches, and maps to CISCO Certified Network Administrator (CCNA) training. PREREQUISITE:ELTR 145.

ETEC 236 PHOTONICS 1 5 CR
This course offers an introduction to the fundamentals and applications of optical principles with fiber optics. PREREQUISITE:ELTR 145.

ETEC 241 PHOTONICS 2 5 CR
Concepts and physics are taught along with characteristics needed to understand and repair electronic devices that incorporate lasers. PREREQUISITE:ETEC 236.

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ETEC 245 SENSORS, TRANSDUCERS, & CONTROL CIRCUITS 6 CR
Students will gain a working knowledge of sensors, transducers, control circuits, electronic signals, measurement, interfaces, amplifiers, AD & DA converters is developed through theory and lab exercises. PREREQUISITE:ELTR 145.

ETEC 250 PRINCIPLES OF ELECTRONIC COMMUNICATIONS/TELEPHONY 3 CR
The effects of combining signals, multiple frequencies, harmonic distortion and electrical properties of transducers are among the topics covered by experiments and other material in this telecommunications course. PREREQUISITE:ELTR 145.

ETEC 256 TELEPHONE SYSTEMS 4 CR
Explores the basic function of each part of a telephone system. Examines the electrical properties of transmission lines used in phone systems. Cellular telephone systems are also introduced. PREREQUISITE:ELTR 145.

ETEC 262 FEDERAL COMMUNICATIONS COMMISSION TEST PREP 3 CR
This course prepares students for the nationally recognized FCC license tests.

ETEC 270 BIOMEDICAL EQUIPMENT 6 CR
Gives specific engineering and instrumentation principles applied to the task of obtaining physiological data. Each major body system is discussed by presenting physiological background information. Then, the variables to be measured are considered, followed by the principles of the instrumentation that could be used. This course maps to Biomedical Certification tests. PREREQUISITE:ELTR 145.

ETEC 272 BIOMEDICAL CERTIFICATION TEST PREP 5 CR
This course prepares students for the nationally recognized Biomedical Technician 1 test.

ETEC 276 INTRO TO ELECTRONIC CAD 1 CR
Focuses on the knowledge and skills used to run the design environment, design management tools, set up work conditions, capture and save an initial macro and save and print your work. PREREQUISITE:ELTR 145.

ETEC 281 ROBOT TECHNOLOGY 5 CR
Teaches students the basic concepts of robot technology, including major elements in a robotic system, understanding a robot's linkages and joint-spherical geometry and motion transfer from axis motors plus programming robot motion. PREREQUISITE:ELTR 145.

ETEC 282 CERTIFIED ELECTRONICS TECHNICIAN TEST PREP 3 CR
This course prepares students for the nationally recognized Certified Electronics Technician (CET) test.

ETEC 294 WORK BASED LEARNING 3 CR
Gives the student hands-on work experience with electronics' employer. To be assigned to this part of the course will depend upon employer availability and student willingness for this experience and near completion of the course.

ETEC 295 WORK BASED LEARNING 6 CR
Gives the student hands-on work experience with an electronics employer. To be assigned to this part of the course will depend upon employer availability and student willingness for this experience and near completion of the course.

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EMERGENCY MEDICAL SERVICES

EMS 245 FIELD INTERNSHIP EVALUATION 10 CR
Field Internship Evaluation

EMS 261 ADVANCED CARDIAC LIFE SUPPORT 2 CR
Developed by the American Heart Association, this course delivers to the student the ability to recognize and manage lethal/non-lethal dysrhythmias, acute myocardial infarction (MI), pulmonary edema, cardiogenic shock, stroke, and electrolyte imbalances along with other cardiac related conditions and management.

EMS 262 PEDIATRIC ADVANCED LIFE SUPPORT 2 CR
Also developed by the American Heart Association, this course delivers to the student the ability to recognize and manage advanced cardiac life support (ACLS) specifically targeted at the pediatric patient. Management of lethal and non-lethal dysrhythmias, electrolyte imbalances, pediatric specific drug dosages and with other cardiac related conditions and management.

EMS 263 PRE-HOSPITAL TRAUMA LIFE SUPPORT 2 CR
This course contains both basic and advanced pre-hospital trauma concepts and skills, emphasizing the need for rapid assessment of the critical trauma patient(s), treatment for shock and hypoxemia and rapid transport.

EMS 264 PEDIATRIC EDUCATION PARAMEDIC 2 CR
Designed especially for the pre-hospital provider, this course serves as the standard of care when handling acute medical illnesses and trauma sustained by children. Comprehensive study of trauma care, burns, chest/abdomen/extremity/head trauma. Other focuses include: developmental differences between children and adults and equipment/ procedure modifications needed for children.

EMTP 103 INTERMEDIATE LIFE SUPPORT AND AIRWAY 12 CR
A preliminary course for entry into the Paramedic Program, the ILS/AW Course will each the student the skills or airway management and the recognition and treatment of shock at the Intermediate Level. Course work includes basic and some advanced pharmacology, assessment/ management of the cardiac patient, basic EKG interpretation, drug and fluid therapies.

EMTP 111 PARAMEDIC APPLIED PRINCIPLES I 18 CR
Topics covered in the classroom portion of this course include: roles and responsibilities. Medical/legal issues , ethics, pharmacology, communications and documentation, review of airway management and advanced techniques, paramedic patient assessment overview, advanced cardiology and EKG interpretation.

EMTP 115 INTERMEDIATE LIFE SUPPORT CLINICAL PRACTICUM 4 CR
The focus of this clinical course is the development of advanced airway skills by intubation of patients in the OR, observations and participation in the care of patients in the Emergency Department, to include IV therapies. Students will also spend time observing and assisting with treatment of paramedic care in the field setting.

EMTP 117 PARAMEDIC CLINICAL I 1 CR
Students will gain practical clinical knowledge through observation of cardiac patients in CCU, assessment and treatment of patients in the Emergency Department, and communications through observation at dispatch.

EMTP 221 PARAMEDIC APPLIED PRINCIPLES II 11 CR
The foundation knowledge that students will be taught will address assessment and treatment of the trauma patient and various traumatic injuries, assessment and treatment of general medical patients. Lab sessions will focus on development of the psychomotor skills necessary for the student to be successful in the field setting.

Prefix Number Title Credits

EMTP 225 PARAMEDIC CLINICAL II 3 CR
Students will gain an understanding and skills through observation at the Emergency Dept., OR, Medical Examiner/Morgue, Children's Hospital, Harborview Medical Center, respiratory therapist and/or allergist office, and the Kidney Center.

EMTP 231 PARAMEDIC APPLIED PRINCIPLES III 11 CR
This course will focus on gaining knowledge of special patients and situations, such as behavioral/altered mental status disorders, OB/GYN, Geriatrics, Crime Scenes, Abuse and Assault, Multi-cultural issues, and mass-casualty incidents. Lab sessions will focus on development of the psychomotor skills necessary for the student to be successful in the field setting.

EMTP 237 PARAMEDIC CLINICAL III 3 CR
Students will gain skills through participation and observation in a variety of clinical settings. These include: labor and delivery, Geriatric Center, Western States Hospital and/or St. Joseph South Campus, and Bellingham Police Department.

EMTP 239 PARAMEDIC FIELD EXPERIENCE I 3 CR
Students will enroll in EMTP 239 each quarter in which they are enrolled. This course will give students an opportunity to observe and perform convergent analytical and psychomotor skills learned each quarter under the supervision of a skilled paramedic preceptor in the field setting.

EMTP 240 PARAMEDIC CAPSTONE EXAM 1 CR
All students who have all course work in foundation knowledge and skills must complete a culminating exam. This exam will emulate the National Registry Exam, and is used to assess the student's overall learning in the program. The examination will be in three parts: two written and a practicum skill component. This course is graded based on passing all skills requirements and written exam scores. The exam is in three parts:
- Examination preparation day – 8 hours
- Practical Examination – 8 hours
- Written Examinations – 8 hours (4 hours each)

EMTP 249 PARAMEDIC FIELD EXP II 3 CR
this course will give students an opportunity to observe and perform convergent analytical and psychomotor skills learned each quarter under the supervision of a skilled paramedic preceptor in the field setting.

EMTP 259 PARAMEDIC FIELD EXP III 4 CR
this course will give students an opportunity to observe and perform convergent analytical and psychomotor skills learned each quarter under the supervision of a skilled paramedic preceptor in the field setting.

ENGINEERING

ENGT 121 DRAFTING I 6 CR
An introduction to engineering drawing and graphics technology. Topics include sketching and drafting techniques, drafting concepts and terminology, methods for improving visualization skills, standards for object views and drawing sizes, and proper usage of drafting equipment to construct geometric shapes and mechanical drawings.

ENGT 122 CAD I: BASICS 7 CR
An introduction to CAD (Computer Aided Drafting), utilizing a step-by-step or "cookbook" approach to instruction. Students have immediate hands-on computer usage while applying basic command concepts and terminology. These include basic drawing and editing techniques, and are reinforced with exercises and practice tests designed to help students reach an in-depth understanding.

ENGT 123 DESCRIPTIVE GEOMETRY 7 CR
This course is a practical step-by-step approach to develop and enhance students' visualization skills. Coursework includes the application of such techniques toward various engineering disciplines including manufacturing, piping, civil, structural, HVAC, and architectural. PREREQUISITE: ENGT 121.

Courses: Engineering

Prefix Number Title Credits

ENGT 125 DRAFTING II: ADVANCED CONCEPT & STANDARDS 8 CR
A continuation of the mechanical engineering drawing and graphic technology foundation, utilizing advanced drawing techniques. Instruction includes the purpose and proper application of section and auxiliary views, various manufacturing processes and their relationship to dimensioning and design, and practical drawing applications using ANSI standards for dimensioning, tolerancing, and drawing formats. PREREQUISITE:ENGT 123. ENGT 126 CAD II: INTERMEDIATE.

ENGT 126 CAD II: INTERMEDIATE PPLICATIONS 7 CR
A continuation of CAD I, utilizing intermediate drawing and editing tools. Coursework includes engineering applications using intermediate CAD functions. Topics include prototype drawing setup, implementation of ANSI drawing standards, and plotting techniques. PREREQUISITE:ENGT 121 and ENGT 122.

ENGT 127 CIVIL/SURVEY CAD 1 7 CR
Courses in Civil Engineering and Survey industry-specific Computer Aided Drafting. The course focuses on the use of CAD software with Civil/Survey specific applications.

ENGT 128 CIVIL/SURVEY CAD 2 7 CR
Courses in Civil Engineering and Survey industry-specific Computer Aided Drafting. The course focuses on the use of CAD software with Civil/Survey specific applications.

ENGT 130 TECHNICAL ORGANIZATION AND WORK SKILLS 2 CR
This course exercises study and organization skill needed to succeed in the program and industry. In addition, the course instructs the students on successful attitudes, successful behaviors, and work place expectations.

ENGT 132 MS OFFICE APPLICATIONS 5 CR
Continues instruction in Windows-based computer applications, focusing primarily on word processing and spreadsheet skills development and techniques for using applications together. Also provides lab time for the completion of assignments from COM 170 or ENGL 101.

ENGT 152 ESTIMATING AND SCHEDULING 5 CR
An introduction to the construction process, project scheduling, and estimation of concrete, rebar, and earthwork quantities.

ENGT 153 ARCVIEW 7 CR
An introduction to desktop mapping, focusing on the use of ArcView software in Geographic Information Systems applications.

ENGT 156 EARTHMOVING FUNDAMENTALS 5 CR
An introduction to earthmoving production fundamentals of construction equipment. The production of heavy equipment, including excavators, scrapers, trucks, bulldozers, and front end loaders is examined from a production prospective. In addition, earthwork conversions to and from loose cubic yards, bank cubic yards, and compacted cubic yards is introduced.

ENGT 210 CAD III: ADVANCED APPLICATIONS 7 CR
A continuation in the series of CAD courses, coursework involves utilizing advanced drawing, editing, and customization techniques. Topics include LISP enhancements, macros, creating CAD layouts, creating user defined settings, and techniques for automating repetitive operations. PREREQUISITE:ENGT 125 and ENGT 126.

ENGT 211 PROJECT DESIGN 1 5 CR
A project-oriented design course in which students create working drawings of an existing assembly or of one of their own designs. Each student is required to prepare a portfolio including sketches, detail and assembly drawings in accordance with ANSI standards. PREREQUISITE:ENGT 125 and ENGT 126.

Prefix Number Title Credits

ENGT 212 PROJECT DESIGN 2 4 CR
A project-oriented design course in which students enhance their skills in 3D solid modeling and explore more complex features of the design software. Each student will create a solid model of a mechanical assembly and use it to prepare a set of working drawings. A portfolio consisting of solid model renderings, sketches, detail drawings, and assembly drawings, will be submitted by each student according to ANSI standards.

ENGT 213 PROJECT DESIGN 3 5 CR
A project-oriented design course in which students create a 3D model of an existing assembly and use it as a visual and design aid for developing engineering detail and assembly drawings. Students will enhance their 3D solid modeling skills and apply these skills as an aid for visualization, assembly, interference checking, and design verification of 2D engineering drawings.

ENGT 215 STATIC'S 11 CR
An introduction to physics concepts, including the determination and analysis of static (non-moving) loads and forces in engineering structures and machines. PREREQUISITE: MATH 130 & 131.

ENGT 216 STRENGTH OF MATERIALS 7 CR
Involves the application of static's analysis to determine minimum structural shape and size requirements. Topics will include the importance of physical characteristics (size, shape, length) and mechanical properties of various engineering materials (metals, wood, concrete). Lecture will focus on materials testing and composition, manufacturing processes and standards, and how each impacts materials selection. PREREQUISITE:ENGT 215.

ENGT 220 PARAMETRIC MODELING 7 CR
Instruction in the use of parametric modeling CAD applications and the introduction to 3-dimensional drawing and solid modeling. Topics include wireframe models, 3-D faces or work planes, rendering, and editing solid models.

ENGT 223 STRUCTURAL DETAILING 7 CR
Instruction in the areas of structural drafting and design. Includes drafting and design of bolted and welded connections, specifications for structural members, and standard design concepts. PREREQUISITE:ENGT 125 and ENGT 126.

ENGT 224 PROCESS PIPE DRAFTING 10 CR
An introduction to process pipe drafting and design. Piping concepts and terminology will focus on pipe and fitting specifications, valves and instrumentation, piping equipment, and symbols. In addition, students will utilize piping drafting standards and concepts to create plans and elevations, isometric and spool drawings. PREREQUISITE:ENGT 125 and ENGT 126.

ENGT 251 LAND DESKTOP - SURVEY ADD-ON 13 CR
Study and use of the Civil Engineering and Survey industry-specific CAD overlay software for computer aided drafting. Focuses on the use of Land Development Desktop with AutoCAD on Civil/Survey specific applications. PREREQUISITE:ENGT 128 and SURV 102.

ENGT 252 LAND DESKTOP - CIVIL ADD-ON 12 CR
Study and use of the Civil Engineering and Survey industry specific CAD overlay software for computer aided drafting. Focuses on the use of Land Development Desktop with AutoCAD on Civil/Survey specific applications. PREREQUISITE:ENGT 128 and SURV 102.

ENGT 256 STANDARDS, SPECIFICATIONS, AND CODES 3 CR
This course provides an introduction to the as-built process and current civil improvement inspection practice. The course focuses on field measurements and inspection during and after construction of sewer, water, storm, and roadway civil improvements.

ENGT 258 CONSTRUCTION MATERIALS 7 CR
An introduction to the engineering properties and testing requirements of construction materials. Focuses on aggregates, asphalt, and Portland cement concrete as construction materials.

Courses: Engineering - Health Occupations

Prefix Number Title Credits

ENGT 259 ENVIRONMENTAL TECHNOLOGY 5 CR
this course provides an introduction to current environmental issues and how they relate to civil applications. the course focuses on endangered species act, surface water management, wetlands, and environmental mapping issues.

ENGLISH

ENGL 175 TECHNICAL COMMUNICATIONS 5 CR
This course stresses accurate and effective writing in formal reports and other professional communications forms and includes presenting and interpreting technical data and reports.

ENGL& 101 ENGLISH COMPOSITION I 5 CR
a composition course in which students read, analyze, and write essays using a variety of rhetorical strategies, as well as develop and verbally express ideas clearly and effectively. The critical reading of essays will provide a basis for the student's own critical writing, which will reflect a command of college-level literacy standards. Attention to writing fundamentals and stylistic techniques will also be included. PREREQUISITE:Accuplacer test score of 86 or higher on Sentence Skills and 85 or higher on Reading.

FISHERIES

FISH 100 INTRODUCTION TO SAFETY 2 CR
Proper safety precautions in the workplace will be emphasized. Safety is taught in all courses as it applies to the task or work area.

FISH 105 WATER QUALITY 1 CR
This course looks at the importance of water quality and how it is monitored. Students will monitor water quality at the hatchery and net pens to gain experience in this course.

FISH 111 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 3 CR
Students will identify and use methods of sampling fish for numbers, age, and disease.

FISH 133 HATCHERY OPERATIONS I 5 CR
By working in hatcheries, students gain experience with brood stock, eggs, and hatchery equipment.

FISH 135 SPAWNING TECHNIQUES 12 CR
Proper fish spawning techniques used by the State, Federal, and private hatcheries will be used. Students will spawn fish at the school hatchery and other local hatcheries to become proficient in these skills.

FISH 146 FISH AND SHELLFISH BIOLOGY 3 CR
Fish and shellfish biology, basics of respiration, organs, life cycles, and basic requirements will be covered. Dissections will be performed.

FISH 155 ENVIRONMENTAL AWARENESS 3 CR
Awareness of the impact that people, industry, and development have on the environment related to the fisheries' industry will be covered. Included will be awareness of proper use and disposal of materials hazardous to the environment and how other industries can affect the fisheries industry and environment.

FISH 161 AQUACULTURE TECHNIQUES 6 CR
Students will be introduced to the skills required to culture shellfish, work at a salmon net pen farm, or culture other food or nonfood species.

FISH 170 HATCHERY OPERATIONS II 4 CR
Course will teach students the required skills to work in a hatchery. This course will emphasize hands-on skills. Students will work in hatcheries to gain experience with eggs, incubators, and hatchery equipment.

Prefix Number Title Credits

FISH 186 HATCHERY OPERATIONS III 10 CR
Students will work in hatcheries to gain experience by rearing fingerlings in ponds and net pens. Other hatchery equipment will be utilized.

FISH 195 FIELD PROJECTS 6 CR
Practical application of work experience for students in a field of their choice with employees in industry. This allows the student to show prospective employers what skills and work habits they have.

FTEC 200 APPLIED CONCEPTS I 10 CR
The student will focus on one of five specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 205 FIELD PROJECTS I 4 CR
The student will do an internship in one of the following specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

FTEC 250 APPLIED CONCEPTS II 10 CR
The student will focus on one of five specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will explore areas of employment and gain additional skills needed for each career choice.

FTEC 255 FIELD PROJECTS II 4 CR
The student will do an internship in one of the following specialty areas: Hatchery Technician, Fisheries Technician, Shellfish Technician, Net Pen Worker, or Habitat Enhancement Technician. The student will work with or under the direct supervision of an industry supervisor during all or part of the quarter.

HEALTH & SAFETY

HLTH 103 CPR: ADULT HEARTSAVER 0.30
This three hour course includes one person CPR, obstructed airway techniques, and risk factors of heart disease. Skills completion and written exam are required for card, which is good for two years. Pocket mask required.

HLTH 131 HIV/AIDS FOR COUNSELORS 0.20
This workshop is designed for counselors and other health professionals needing four hours of HIV/AIDS education for licensure or professional update. The program meets Washington State certification requirements.

HLTH 133 HIV/AIDS: HEALTHCARE PROFESSIONAL 0.40
This workshop is designed for the professional needing seven hours of HIV/AIDS education for licensure or professional update. The program utilizes a multi-media approach and meets Washington State certification requirements.

HLTH 150 FIRST AID INDUSTRIAL 1 CR
This 12-hour First Aid course is in compliance with WAC 296-800-15010 of the State of Washington and meets OSHA/WISHA requirements with emphasis on job-related accidents, injuries, and prevention of same. Course includes practical experience and Adult Heartsaver CPR. A written and skills verification of CPR is required by AHA. Both First Aid and CPR cards are good for two years.

HEALTH OCCUPATIONS

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.

Courses: Health Occupations

Prefix Number Title Credits

BIO 127 DISEASES OF THE HUMAN BODY 3 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.

HO 105 PHARMACOLOGY 2 CR
This course is designed to assist the surgical technologist to provide safe and effective care to surgical patients by participating in activities that help to identify, manage, and apply general terminology to medications and solutions used in the Operating Room settings. PREREQUISITE:MATH 98, MATH 99, or equivalent.

HO 125 INTRO TO MEDICAL TERMINOLOGY 3 CR
This course is an introduction to medical word building. Students study words that pertain to body systems, anatomical structures, medical processes and procedures and a variety of diseases. Students will continue their development of medical terminology throughout their Surgery Technology program.

HT 108 MEDICAL TRANSCRIPTION I 3 CR
This course is designed to assist the student in developing the basic medical language, grammar, and formatting necessary for medical typing and transcription. PREREQUISITE:HT 126 and BIO 105, and typing 50 wpm.

HT 109 MEDICAL TRANSCRIPTION II 5 CR
This course provides working knowledge of the transcription practices with realistic cases. PREREQUISITE:HT 108, typing speed of 50 wpm, and word processing knowledge.

HT 120 MEDICAL INSURANCE BILLING 5 CR
This course focuses on insurance billing procedures, billing requirements in relation to insurance companies, clinics, and physicians' offices; and insurance coding to include CPT and ICD-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. PREREQUISITE:HT 126 and BIO 105.

HT 126 FUNDAMENTALS OF MEDICAL TERMINOLOGY 5 CR
The student will gain a basic knowledge of medical word building. The course will address root words, prefixes and suffixes, and terms that are used in diagnostic, operative, and symptoms relating to the various systems of the body. Emphasis is on correct spelling and pronunciation of selected common eponyms.

HT 129 COMPREHENSIVE MEDICAL TERMINOLOGY I 5 CR
This course is a comprehensive systems approach to the study of selected roots, prefixes, and suffixes; principles of word building; study of diagnostic, operative, and symptomatic terms of the various systems of the body. There is an emphasis on accurate spelling and pronunciation of all selected eponyms, clinical laboratory procedures and radiology procedures with associated terminology for each system. This course can be taken in place of HT 126.

HT 130 MEDICAL OFFICE PROCEDURES 5 CR
This course will help prepare the student to work in a medical facility for the purpose of organizing and handling medical records, respond to requests for billing information, maintain filing practices, and handle appropriate filing processes required in medical offices. Topics to be covered will include basic office skills, basic computer functions using Medi-Soft, legal issues as they relate to patient confidentiality and release of information standards, medical ethics, and basic knowledge of healthcare delivery systems.

HT 135 PHARMACOLOGY FOR THE MEDICAL OFFICE 2 CR
This course will introduce students to the various forms of medications, drug classifications, administration routes and how they work. Students will also learn the terminology associated with each, for those medications commonly prescribed in the medical office setting. PREREQUISITE:HT 126 and BIO105.

Prefix Number Title Credits

HT 145 HEALTHCARE RECORDS SYSTEMS 5 CR
Functions of medical record departments and record systems will be addressed. Hands-on process of hospital records, uses, content, and evaluation.

HT 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. PREREQUISITE:HT 126 and BIO 105 or equivalent.

HT 240 MEDICAL CODING CPT 3 CR
Learn to assign physician's Current Procedural Terminology (CPT) codes in medical/health records to ensure accurate and complete reimbursement documentation. PREREQUISITE:HT 126 and BIO 105 or equivalent.

HT 242 MEDICAL CODING APPLICATIONS 3 CR
Builds on coding skills developed in HT 230 & 240 and includes practical experience coding medical records, as well as specific case study reviews. PREREQUISITE:Program Coordinator or Instructor Permission.

HT 250 ADVANCED MEDICAL CODING 5 CR
A continuation of the procedures and practices of HT 230 & 240, and helps prepare the student for certification testing. PREREQUISITE:HT 230 and HT 240.

HT 260 HEALTHCARE RECORDS INTERNSHIP 3 CR
With the help of their advisor, students will arrange work experience in a medical records office. May be a paid or an unpaid work experience. PREREQUISITE:HT 145 and instructor permission.

HT 262 MEDICAL CODING INTERNSHIP 2 CR
Students will complete a medical coding work experience. PREREQUISITE:Instructor permission.

HT 265 MEDICAL CODING & BILLING PRACTICUM 5 CR
This course uses the information learned in medical insurance billing and coding, and demonstrates proficiency in billing and coding procedures. Students, using simulated patient records and various insurance forms, will practice patient account statements and records. Medical ethics and laws as they pertain to patient information will also be addressed. PREREQUISITE:HT 230, HT 240.

HT 270 EXCEL FOR THE MEDICAL OFFICE 3 CR
This course will teach the basics of MS Excel as it relates to functions commonly used in the medical office. Students will learn efficient use of a spreadsheet in order to create records pertinent to the medical office, such as patient and insurance information, operational and capital budgets, tracking quality indicators and productivity by person, and tracking delinquent and incomplete records by type.

NA 101 NURSING ASSISTANT ESSENTIALS 3 CR
Provides the student an opportunity to study the essential theoretical content necessary to meet the OBRA nursing assistant objectives.Fundamental caregiving skills are taught with an emphasis on safety and activities of daily living. While studying the care necessary for an individual of any age, a primary focus is placed on the care of the elderly, including rehabilitation and death and dying.

NA 102 NURSING ASSISTANT CLINICAL 2 CR
During the clinical practicum, the student is given the opportunity to put into practice those skills learned in the classroom and lab settings. The clinical experiences include orientation to the extended care facility and a clinical final exam, which is conducted in the college lab. PREREQUISITE:NA 101, HLTH 103, and HLTH 133.

Prefix Number Title Credits

HUMAN RESOURCE MANAGEMENT

HRM 110 HUMAN RESOURCE MANAGEMENT 5 CR
Introduces the functional areas of human resource management and laws. Students discuss job analysis, recruitment, testing, interviewing, selection, placement, training, wage and salary administration, performance, evaluation and labor management.

HRM 120 SUPERVISION FUNDAMENTALS 5 CR
Supervisory effectiveness is critical for all organizations. This course emphasizes and gives practical exercises in needed supervisory skills and in how these skills are developed and used. The supervisor's role in getting the work done right, helping to control costs and accomplishing the goals of the organization are stressed. This course covers what a supervisor is expected to do and provides the skills necessary to do the job.

HRM 130 TEAM BUILDING 5 CR
How to create, maintain and participate in group decision making with a goal of strengthening the business.

HRM 201 MANAGEMENT OF HUMAN RESOURCES: AN OVERVIEW 3 CR
This course covers basic employment law, components of human resources management, the role of human resources personnel, affirmative action, equal employment opportunity, confidentiality and records management. Coursework involves the practical application of concepts to the workplace.

HRM 205 RECRUITMENT & STAFFING POLICIES & PRACTICES 3 CR
This course provides an exploration of the key issues in recruitment, selection, and staffing of employees at all levels. Human resources planning, job descriptions and specifications, recruitment, the selection process, testing, employment interviews, and the evaluation of the selection process are discussed. Compliance with issues such as EEO, affirmative action, and the Americans with Disabilities Act (ADA) are addressed. Emphasis is on establishing procedures that ensure high quality candidates and employees. PREREQUISITE:HRM 201,experience as a Human Resource Manager or Recruiter, or department permission.

HRM 207 FUNDAMENTALS OF EMPLOYEE BENEFITS & COMPENSATION 3 CR
An overview of base pay compensation and benefits. Topics include principles of pay systems, the relationship of pay systems on an organization's needs, cost of benefits, statutory coverages, retirement plans, defined benefit approaches and contribution plans, profit sharing, life, dental, disability, and health plans. Health and safety issues are also addressed. PREREQUISITE:HRM 201, previous HR experience or department permission.

HRM 210 EMPLOYMENT LAW & LABOR RELATIONS 3 CR
This course provides a legal and practical overview of employee relations and labor relations in both union and nonunion environments. Communication styles, facilitation, grievances and discipline handling, crisis interventions, conflict resolution, labor relations, and the role of government in human resources management are addressed. It also emphasizes compliance issues, including OSHA, employee assistance harassment, and substance abuse. PREREQUISITE:HRM 201 or previous HR experience or department permission.

HRM 220 TRAINING & STAFF DEVELOPMENT 3 CR
Training and staff development from a human resource perspective will be addressed. Employee orientation, career planning and development, cross training, management development, and succession planning are covered. This course also addresses learning styles, technical needs assessment, choosing instructors and programs, and program evaluation and modification. PREREQUISITE:HRM 201 or previous HR experience or department permission.

Prefix Number Title Credits

HRM 235 HUMAN RESOURCE INFO SYSTEMS 2 CR
This course explores how technologies are transforming the workplace, the workforce, and the work of the HR practitioner. Considerations in evaluating appropriate software will be shared, as well as researching the pros and cons of several software applications. PREREQUISITE:HRM 201 or previous HR experience or department permission.

HRM 240 RISK MANAGEMENT & SAFETY 3 CR
Risk management is the decision-making process involving considerations of political, social, economic, and engineering factors with relevant risk assessments relating to a potential hazard so as to develop, analyze and compare regulatory options and to select the optimal regulatory response for safety from that hazard. Essentially risk management is the combination of three steps: risk evaluation, emission and exposure control, and risk monitoring. PREREQUISITE:HRM 201 or previous HR experience or department permission.

HRM 245 DIVERSITY IN THE WORKPLACE 1 CR
This course is designed to examine the various elements that create differences within society and the workplace. Also to be examined will be the current legalities regarding diversity in the workplace, and how to interface with employers that will enable them to work effectively in a diverse world. Also offered online. PREREQUISITE:HRM 201 or previous HR experience or department permission.

HRM 255 STRATEGIC HUMAN RESOURCES 3 CR
This course covers how the human resource professional assists in the managerial process of forming a strategic vision, setting objectives, crafting a strategy, implementing and executing the strategy. PREREQUISITE:HRM 201 or previous HR experience or department permission.

HRM 260 CONDUCTING INTERNAL INVESTIGATIONS 1 CR
Overview of the methodology and investigatory skills necessary for internal investigation in the workplace. Through readings, discussion and presentations, participants will learn the basic methodology of internal investigation, as well as the necessary interviewing skills to conduct an effective investigation. Topics include interviewing, what to look for during an investigation, how to conduct an investigation, and the various situations that require a formal and informal investigation. PREREQUISITE:HRM 201 or previous HR experience or department permission.

HYPNOTHERAPY

HYPN 101 BASIC HYPNOSIS 5 CR
A beginners class which teaches basic hypnosis/self-hypnosis, and is the first of a 3-part series. Can 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 5 CR
This course is the second in a 3-part series that is designed to teach the serious student of hypnosis how to apply hypnotherapy techniques for motivation and goal achievement. PREREQUISITE:HYPN 101.

HYPN 103 ADVANCED HYPNOTHERAPY 5 CR
This course, the third in a series, is for the serious student wishing to use hypnotherapy as a career, or to supplement an existing healthcare field and practice. Upon completion, the student is eligible to apply for State Registration through the Department of Health. PREREQUISITE:HYPN 102.

Courses: Industrial Maintenance

Prefix Number Title Credits

INDUSTRIAL MAINTENANCE

EMTEC 101 BASIC ELECTRICITY 5 CR
This is the first in a series of courses designed to prepare the industrial electrician, millwright, or maintenance technician with the knowledge and skills to diagnose and repair electrical circuits. Instruction emphasizes DC electrical theory, structure of matter,electron theory, electricity, ohms law, series and parallel circuits. Utilizing state-of-the-art computer interactive software, dynamiclecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 103 ELECTRICAL CIRCUITS 5 CR
The student will continue DC Electrical theory and Analysis including Kirchhoff's laws. Wiring diagrams and other circuits will be examined in detail. AC Theory, Vectors, capacitance, inductance and Vector analysis is examined. Generators, motors and common motors will be discussed. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE: EMTEC 101 Basic Electricity.

EMTEC 105 TRADE SAFETY / CPR / FIRST AID 3 CR
Gives information about the program's organization: rules & regulations, the Electro Mechanical trade, the job market, essential safety information & procedures. The first aid and CPR portion of this course is in compliance with WAC 296-800-15010 of the state of Washington and meets OSHA/WISHA requirements with emphasis on job related accidents, injuries, and prevention of the same. Course includes practical experience and Adult Heartsaver CPR. A written and skills verification of CPR is required by AHA. Both First Aid and CPR cards are good for two years. Attendance at all sessions is required for successful completion.

EMTEC 121 FUNDAMENTALS OF HYDRAULIC & PNEUMATICS 5 CR
This is the first course in a series designed to prepare the industrial millwright, electrician and maintenance technician with the knowledge and skills necessary to maintain, diagnose, and repair hydraulic and pneumatic systems. Instructional material is computer "on-line" with selected modules emphasizing Hydraulic Pumps, Safety, Compressed air basics and types of gauges.

EMTEC 123 HYDRAULICS AND PNEUMATICS CIRCUITS 5 CR
This course covers principles and operating characteristics of hydraulic and pneumatic systems, and components. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for the fluid power industry. Text and basic tools required. PREREQUISITE:EMTEC 121.

EMTEC 125 APPLIED MECHANICS 3 CR
Studies introduce material strengths relating to forces such as tension, sheer and torque. Students develop knowledge and skills through application of pulley ratios and levers. Instruction also covers properties of materials such as solids, liquids and gasses. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 126 ENGINEERING GRAPHICS 3 CR
The student will discover print reading format and dimension with types and symbols. A study of Thread specifications and building drawings will be presented. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 131 RIGGING 3 CR
The student will study and apply industry standard principals to safely plan and facilitate controlled lifting of equipment. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

Prefix Number Title Credits

EMTEC 133 INTRODUCTION TO MACHINERY SKILLS 4 CR
Studies introduce shop safety and guidelines, the use of measuring tools, Basic shop equipment and a study of vertical milling machines and lathes. Supervised hands on project will be produced by the student. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 126 Engineering Graphics.

EMTEC 135 HVAC BASICS 4 CR
The student will study the basics of Refrigeration theory and systems with an emphasis on Air Handlers, Chillers, Cooling Towers and Condensers. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE: EMTEC 103 Electrical Circuits.

EMTEC 136 INTRODUCTION TO RESIDENTIAL WIRING 4 CR
The student will study the basics of Residential single dwelling wiring with emphasis on the National Electrical and State of Washington codes. Utilizing dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 103 Electrical Circuits

EMTEC 137 RENEWABLE ENERGY SOURCE 4 CR
This course introduces the student to installing, operating and maintaining alternative power sources including stand alone and grid connecting systems. Instruction provides an overview of wind, photovoltaic, hydrogenerators, inverters, charge control mechanisms and energy storage/retrieval systems including batteries and fuel cells. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 211 Electrical Controls I.

EMTEC 173 EMTEC BASIC WELDING 3 CR
This course covers basic Industrial Welding techniques and safety. From beginning competencies in SMAW and Oxy/Fuel cutting, through GMAW and Plasma cutting processes. Basic fabricating principles will cover lap, fillet, and butt weld joint set-up.

EMTEC 175 EMTEC ADVANCED WELDING 4 CR
This course builds upon EMTEC Basic Welding, including SMAW, GMAW, GTAW, FCAW, and Oxy/Fuel and Plasma Cutting, and basic fabricating principles. This course offers preparation for WABO Certification.

EMTEC 201 AC COMPONENTS AND MEASUREMENTS 5 CR
In this course the student will continue to study AC Power Factors. A more in depth study of motors and their connections will be discussed. Basic motor controls and Programmable Logic Controllers will be introduced, electronic measurement. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 103 Electrical Circuits.

EMTEC 203 ELECTRICITY IV 3 CR
This course completes the study of motors and examines the use of transformers, power panels and the distribution of power in the facility. It includes an introduction to control valves and actuators. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 107.

EMTEC 205 PROGRAMMABLE LOGIC CONTROLLERS 4 CR
This course is an in depth study of Programmable Logic Controllers including configuring Hardware and Software, General construction and operation as well as Programming. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 203 Tuned Circuits and Intro to PLC's.

Courses: Industrial Maintenence - Instrumentation

Prefix Number Title Credits

EMTEC 206 MAKING PLC'S WORK FOR YOU 3 CR
This course is an in depth study of Programmable Logic Controllers including configuring Hardware and Software for controlling devices that drive industrial machinery. 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 211 ELECTRICAL CONTROLS I 5 CR
This course introduces the student to the components used in today's Control Systems. Control schematics are introduced with hands-on use of various multi meters in troubleshooting relay logic circuits. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 201.

EMTEC 212 ELECTRICAL CONTROLLS II 5 CR
The student advances into more difficult control schemes involving Wye Delta Motors. More basic control situations are explained and the student will trouble shoot and facilitate repair of circuitry. Installing control systems and wire numbering will be demonstrated. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE: EMTEC 111.

EMTEC 214 ELECTRONIC CIRCUITS I 5 CR
The students will be introduced to Solid state Devices including Diodes, Transistors, Integrated Circuits, Operational Amplifiers and Sensors. Testing and Measurement of Small Wave forms and associated equipment will be used. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE: EMTEC 105 Electricity II.

EMTEC 215 ELECTRONIC CIRCUITS II 5 CR
The student continues with an in depth study of Electronic Circuits, Sensors, Transducers and Electronic Devices. Schematics and Troubleshooting are key Components of this course. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE: EMTEC 127 Electronic Circuits I.

EMTEC 217 INSTRUMENTATION 5 CR
This course introduces the student to sensor indicators and transmitters. Measurement, gages, flow sensors and other industrial sensing devices will be studied in this class. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 127.

EMTEC 218 INTRODUCTION TO NATIONAL ELECTRICAL CODE 3 CR
The student is introduced to some of the common Industrial applications of the National electrical codes such as Grounding, Bonding, Wire sizing, conduit selection, junction box selection, Motor over load protection and current protection selection. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required. PREREQUISITE:EMTEC 201 AC Components and Measurements.

EMTEC 221 HYDRAULICS AND PNEUMATICS SYSTEMS 5 CR
This course continues an in-depth study of hydraulic and pneumatic systems, and components and maintenance practices for Hydraulic and Compressor Systems. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for the fluid power industry. Text and basic tools required. PREREQUISITE: EMTEC 121 Pumps and Flow Systems.

Prefix Number Title Credits

EMTEC 223 HYDRAULICS AND PNEUMATICS ANALYSIS AND MAINTENANCE 5 CR
This is the final course in hydraulic and pneumatic systems that prepare the student to install, evaluate, troubleshoot and maintain Hydraulic and Pneumatic Systems for the Industry. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for the fluid power industry. Text and basic tools required. PREREQUISITE:EMTEC 221 Hydraulics & Pneumatics Systems.

EMTEC 231 BEARINGS AND DRIVES 5 CR
The student will learn the application and theory of Bearing Technology with emphasis on storing, installing, and maintenance. The course will include an examination of different drive types with emphasis on theory, maintenance and repair. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 232 DRIVE ALIGNMENT-CONVEYORS AND MACHINING SYSTEMS 5 CR
Principals and Devices used for joining and aligning shafts are presented in this course. Conveying equipment and other automatic transfer machinery will be discussed. Troubleshooting and repair of drives and conveyors will be covered. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 234 VALVES, PUMPS AND TRAPS 5 CR
The student will examine the Principals of Pumps, Valves, and Steam Traps. Students will apply mechanical skills in the rebuilding of basic pump types along with diagnosing problems. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.PRE-REQUISITE: EM-TEC 153 Hydraulics and Pneumatics I

EMTEC 235 BOILERS AND COMBUSTION TECHNOLOGY 5 CR
This course prepares the student with the knowledge to repair, operate and maintain boilers. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 237 COMPUTERIZED MAINTENANCE AND MANAGEMENT SYSTEMS 5 CR
In this course the student will examine the tools of Predictive Maintenance. Vibration Analysis, Oil Analysis, Thermography and Ultrasonics will be covered. Utilizing state-of-the-art computer interactive software, dynamic lecture and discussion, and hands-on practice, students develop knowledge and skills for careers in industry. Text and basic tools required.

EMTEC 250 CAPSTONE PROJECT 9 CR
This course is designed as a practicum in the Industrial Maintenance field to allow the student to get hands on experience in the maintenance profession. This practical experience can be in various trades such as electrical, millwright, power plant, general plant maintenance or specific industrial/commercial maintenance in the students workplace.

INSTRUMENTATION

INST 200 INTRO TO INSTRUMENTATION PROFESSION 2 CR
This course introduces you to the trade, terminology, and basic principles of instrumentation. It is a preparatory course for any one of three sections within the second year of Instrumentation: measurement, control, and systems, enabling you to begin your second year of Instrumentation at the start of Fall, Winter, or Spring quarter.

Courses: Instrumentation - Machining

Prefix Number Title Credits

INST 205 JOB PREPARATION I 1 CR
Preparation for employment including resume preparation, cover letter writing, job search engine use, and interviewing skills.

INST 206 JOB PREPARATION II 1 CR
This course teaches you how to get the jobs that are not listed in classified ads or job search engines. You will learn how to professionally network, research employers for job potential, conduct informational interviews, and otherwise take an active approach in securing employment within your professional field.

INST 240 PRESSURE AND LEVEL MEASUREMENTS 7 CR
In this course you will learn how to precisely measure both fluid pressure and fluid/solids level in a variety of applications, as well as accurately calibrate and efficiently troubleshoot pressure and level measurement systems.

INST 241 TEMPERATURE AND FLOW MEASUREMENTS 7 CR
In this course you will learn how to precisely measure both temperature and fluid flow in a variety of applications, as well as accurately calibrate and efficiently troubleshoot temperature and flow measurement systems.

INST 242 ANALYTICAL MEASUREMENTS 5 CR
This course teaches the basic principles of process analysis including pH, electrical conductivity, turbidity, and chemical constituency. A review of INST240 (pressure and level measurement) and INST 241(temperature and flow measurement) is also included in this course.

INST 250 FINAL CONTROL ELEMENTS 6 CR
In this course you will learn how to precisely control energy in process systems using fluid valves, motors, and other actuating devices. You will also learn how fluid power systems work and how to efficiently troubleshoot final control elements.

INST 251 PID CONTROLLERS AND TUNING 6 CR
This course teaches you how the most basic and widely-used control algorithm works: proportional-integral-derivative (PID). In this course you will see how the PID algorithm is implemented in pneumatic as well as electronic controllers, and also how to tune a PID controller for stability.

INST 252 PROCESS OPTIMIZATION AND CONTROL STRATEGIES 5 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 INST250 (final control elements) and INST251 (PID controllers and tuning) is included in this course.

INST 260 DATA ACQUISITION SYSTEMS 4 CR
This course reviews digital communication and analog/digital conversion theory learned in the first year (Core Electronics)
courses, building upon that foundation to explore industrial data busses (including Ethernet) and indicating, data logging, and SCADA systems.

INST 261 PROGRAMMABLE LOGIC CONTROLLERS 6 CR
In this course you will learn how to wire, configure, and program programmable logic controllers (PLCs) to control real processes.

INST 262 DCS AND FIELD BUS 6 CR
This course teaches the basic principles of distributed instrumentation, including both distributed control systems (DCS) and Field/ bus" instruments. Safety instrumented system (SIS) concepts and components are also covered here. A review of INST260 (data acquisition systems) and INST261 (programmable logic controllers) is included in this course.

INST 269 AUTOCAD APPLICATIONS 5 CR
this course concentrates on autocad applications for the instrumentation field.

Prefix Number Title Credits

LEGAL

LGL 127 LEGAL OFFICE PROCEDURES 5 CR
Designed to introduce students who have little or no background in the legal field with the terminology, background, and knowledge of the legal procedures required to work in a law office. It presents basic legal concepts and the various fields of law and outlines the preparation of documents commonly used in those fields. Student projects give the students practice in various areas of law. PREREQUISITE:CAP 106.

LGL 132 LEGAL TERMINOLOGY/TRANSCRIPTION 5 CR
Designed to help students learn the legal terminology, English skills, legal formatting skills, and transcription guidelines needed to transcribe accurate legal documents in a law office. PREREQUISITE:LGL 127.

LGL 211 LEGAL DOCUMENT PROCESSING 5 CR
Course makes use of a self-contained comprehensive job simulation designed to give the student practice on the types of activities most often performed in legal office settings. Gain a hands-on exposure to the various types of law while formatting documents. Word processing functions are incorporated into the course. PREREQUISITE:LGL 132

LGL 225 INTERNSHIP 3 CR
Students will work in a legal related job receiving pay or volunteering. PREREQUISITE:Instructor permission.

LGL 226 INTERNSHIP 6 CR
Students will work in a legal office-related job receiving pay or volunteering. PREREQUISITE:Instructor permission.

MACHINING

MACH 100 INTRODUCTION TO TRADE/OCCUPTIONAL SAFETY 1 CR
Overview of the program, college, and program policies and procedures, student equipment requirements, machine occupations, and material safety data.

MACH 101 MACHINE TECHNOLOGY I 3 CR
Basic machine tool operation and safety on grinders, lathes, mills, and drills.

MACH 102 MACHINE TECHNOLOGY II 3 CR
Covers saws and sawing, machine speeds, feeds, setup, and secondary drilling operations. PREREQUISITES: MACH 100, MACH 101, and MACH 121. PREREQUISITE:MACH 100, MACH 101, and MACH 121.

MACH 111 BENCHWORK/HANDTOOLS 2 CR
The safe uses and selection of hand tools for holding, striking, assembly, and cutting.

MACH 113 MACHINERY'S HANDBOOK 1 CR
Introduction to the use of Machinery's Handbook, how to research, identify, and find basic information.

MACH 121 MACHINE FUNDAMENTALS I 10 CR
This is the first in a three part series that provides for basic experience using pedestal grinders, lathes, hand tools, mills and material identification. This course is taken in conjunction with MACH 101 and provides students an opportunity to practice entry level machining skills.

MACH 122 MACHINE FUNDAMENTALS II 11 CR
A continuation of MACH 121, lathes, mills, drilling, setup, and secondary operations. PREREQUISITE: MACH 121. PREREQUISITE:MACH 121.

MACH 123 MACHINE FUNDAMENTALS III 12 CR
Includes advanced machine operation on a lathe and mills, machine accessories, job planning, and production methods. PREREQUISITE: MACH 122. PREREQUISITE:MACH 122.

MACH 125 QUALITY CONTROL 2 CR
The use of visual and precision instrument techniques for quality control. Surface finish and quality problem solving.

Prefix Number Title Credits

MACH 131 BLUEPRINT READING I 3 CR
Provides instruction for development in print reading using basic sketching techniques, lettering, dimensioning, lines, and makeup of a print as a form of communication.

MACH 132 BLUEPRINT READING II 3 CR
Covers the use of sectional views, thread specifications, dimensioning auxiliary views, geometric tolerancing gearing, welding symbols, processes and skill development in reading prints by using sketching techniques. PREREQUISITE: MACH 131. PREREQUISITE:MACH 131.

MACH 162 MATHEMATICS I 5 CR
Study of basic algebra, ratio and proportion, and plane geometry, and applying the principles learned to practical shop problems. PREREQUISITE: MACH 100. PREREQUISITE:MACH 100.

MACH 192 JOB PREPARATION 1 CR
Focuses on skills to seek and keep a job. PREREQUISITE: COM 170. PREREQUISITE:COM 170.

MACH 201 MACHINE TECHNOLOGY IV 4 CR
Covers precision measuring tools, metal cutting technology, carbide cutting tools, and advanced grinding operations. PREREQUISITE: MACH 103 PREREQUISITE:MACH 103.

MACH 202 MACHINE TECHNOLOGY V 1 CR
Advanced milling machine setups and operations, speeds, feeds, and gear cutting. Includes indexing head calculations and the theory for using the rotary table.

MACH 212 METALLURGY AND HEAT TREATMENT 2 CR
Basic information about the manufacture of steels, the composition of selected metals, and the heat treating and hardness testing of steels. PREREQUISITES: completion of third quarter requirements and MACH 201. PREREQUISITE:Completion of third quarter requirements and MACH 201.

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

MACH 214 TOOL AND CUTTER GRINDING 2 CR
Provides cutting tool nomenclature and the reconditioning of worn or dull cutting tools.

MACH 215 HYDRAULICS 1 CR
Designed to promote hydraulic principles, fundamental system components, and hydraulic oils. PREREQUISITES: Completion of three quarters in program.

MACH 221 MACHINE FUNDAMENTALS IV 12 CR
This course includes advanced machining techniques using computer aided machining practices. In addition, machining methods used for CNC programming and operation are emphasized.

MACH 241 INTRODUCTION TO CNC MACHINING 8 CR
Introduction to the machine controls of the CNC milling machine and lathe. Also taught is the basic rapid and linear G codes needed for machine operation.

MACH 242 CNC PROGRAMMING/OPERATION 9 CR
Teaches manual programming and operation of the CNC milling and lathe machines and basic G&M commands. PREREQUISITES: completion of all theory, blueprint reading, and mathematics related to the program.

MACH 243 CNC-CAD/CAM PROGRAM AND OPERATION 14 CR
Course focuses on advanced programming related to CNC, including macros and subroutines and computer-aided programming using the Master CAM programming system.

Prefix Number Title Credits

MACH 244 CNC-CAD/CAM PROG & OPER A 5 CR
This is the first course in a two part series which focuses on advanced programming related to CNC, including macros, subroutines and computer-aided programming using the Master CAM programming system.

MACH 262 MATHEMATICS II 4 CR
Covers trigonometry and its function, working with right triangles and how they apply to the machining of parts. Also covers oblique triangles and the use of the law of sines and cosines. PREREQUISITE: MACH 162. PREREQUISITE:MACH 162.

MANAGEMENT

MGMT 101 CONFLICT MANAGEMENT 1 CR
Conflict is described as a disagreement among two or more individuals. Managing the periodic incidence can prove to be challenging as well as stressful. This course will give the student the tools to understand the reasons that conflict exists, how to stimulate conflict in a healthy and competitive way in order to increase performance, control conflict, and resolve and eliminate conflict.

MGMT 102 THE LEADERSHIP PROCESS 3 CR
What makes a good "leader"? Leadership in individuals, whether they seem to have been born with certain "traits," or have developed various leadership behaviors, is an area that has been studied for a long time. This course will examine the attributes of leadership, how it develops, the behaviors that need to be encouraged, those that need to be modified, as well as how to manage the leadership process.

MGMT 104 DEFINING & MANAGING QUALITY CUSTOMER SERVICE 3 CR
As a general rule customers go where they are wanted and stay where they are appreciated. Organizations, private or public, are judged on the level of service they deliver to the customer. This course will identify the barriers that employees have in delivering quality service, strategies for development, team building techniques, customer service management, and feedback.

MGMT 152 SMALL BUSINESS MANAGEMENT 3 CR
Covers business structures, planning and organizing a business, purchasing an existing business or franchise, legal structure, cash flow, marketing, and changes businesses will encounter in the next five to ten years.

MGMT 210 SUPERVISION FOR THE OFFICE 5 CR
Demonstrates knowledge of appropriate office supervisory skills. Introduces students to the fundamentals of supervisory management. Through lectures, text, case studies, projects, and simulations students will develop an understanding of principles to be used as guides for supervision in an office.

MARKETING

MKT 100 MARKETING FUNDAMENTALS 5 CR
This course will provide a comprehensive survey of fundamental marketing principles and skills. Students will learn how marketing professionals develop strategy, research consumer needs, and identify target markets. In addition to covering the importance of global marketing and e-commerce, students will learn how to satisfy market opportunities with the "4 Ps," product, pricing, promotion, and placement.

MATHEMATICS

MATH 085 BASIC MATH 5 CR
This course covers basic math concepts of addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions. Students who successfully complete Math 85 will have met the Accuplacer arithmetic test requirement for selected program admission.

Courses: Mathematics - Nursing

Prefix Number Title Credits

MATH 098 ELEMENTARY ALGEBRA 5 CR
This course will cover solving different forms of equations; manipulation of exponents and radicals as needed on the job; as well as factoring and graphing. It is equivalent to 1 year of high school algebra. This course is targeted for those students whose programs involve more algebra than is included in BTC's Occupational and Technical Math courses. It will be particularly helpful to students in the Electrician Apprentice program. This course will also serve a s a prerequisite to Intermediate Algebra or as a refresher for those student who have had algebra in the past. PREREQUISITE:Accuplacer Arithmetic score of 75 or higher.

MATH 099 INTERMEDIATE ALGEBRA 5 CR
This course prepares students for entry into college level math courses. Topics include second degree equations and inequalities, relations and their graphs, exponential and logarithmic functions, and relational expressions. A graphing calculator may be required. PREREQUISITE:MATH 098 with a grade of C or higher, or appropriate math placement score.

MATH 100 OCCUPATIONAL MATH 5 CR
This course covers fractions, decimals, percents, ratios & proportions, English & metric measurement systems, geometry, and algebra. The contents will include relevant technical applications and the use of a calculator. Text required. PREREQUISITE:Accuplacer Arithmetic score of 38 or higher.

MATH 107 MATH IN SOCIETY 5 CR
College level coverage of practical applications in many fields of study. Topics will include probability, statistics, finance, geometry, graphing, growth & decay, and right triangle trigonometry. PREREQUISITE:Math 99, Intermediate Algebra with a C or above or Accuplacer College Level Math score of 44 or higher.

MATH 111 TECHNICAL MATH 5 CR
Course on basic algebraic notation and operations as well as equation solving. It will also cover topics in geometry, trigonometry, applications and calculator use as needed for technical programs. This course meets the math requirement for selected one-year technical certificates and AAS degrees at BTC. PREREQUISITE:Accuplacer Algebra score of 44 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, matrics and determinants, and their applications. prerequisites: math 99, intermediate algebra with a c or above or accuplacer college level math score of 44 or higher.

MATH 98 ELEMENTARY ALGEBRA 5 CR
This course will cover solving different forms of equations; manipulation of exponents and radicals as needed on the job; as well as factoring and graphing. It is equivalent to 1 year of high school algebra. This course is targeted for those students whose programs involve more algebra than is included in BTC's Occupational and Technical Math courses. It will be particularly helpful to students in the Electrician Apprentice program. This course will also serve a s a prerequisite to Intermediate Algebra or as a refresher for those student who have had algebra in the past. PREREQUISITE:Accuplacer Arithmetic score of 75 or higher.

MATH 99 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 relational expressions. A graphing calculator may be required. PREREQUISITE:MATH 098 with a grade of C or higher, or appropriate math placement score.

MATH& 107 MATH IN SOCIETY 5 CR
college level coverage of practical applications in many fields of study. topics will include probability, statistics, finance, geometry, graphing, growth & decay, and right triangle trigonometry. prerequisites: math 99 - intermediate algebra with a c or above or accuplacer college level math score of 44 or higher.

Prefix Number Title Credits

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, matrics and determinants, and their applications. prerequisites: math 99 - intermediate algebra with a c or above or accuplacer college level math score of 44 or higher.

MATH& 142 PRECALCULUS II 5 CR
the majority of this course will cover trigonometry. students will explore trigonometry functions, right and oblique triangle trigonometry,graphing, trigonometry identifes, 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: precalculus i - math 141.

NURSING

NUR 101 COMMON HEALTH NEEDS 15 CR
This first course introduces the student to the concepts of health and wellness. A foundation for practice is established through the study of the history, legal parameters and ethics of nursing. Common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. An emphasis is placed on safety as it relates to nursing practice. Further emphasis is placed on the needs of the elderly, including the process of death and dying. PREREQUISITE:BIOL& 242 and NUR 105 or equivalent.

NUR 101A COMMON HEALTH NEEDS 1A 7 CR
the first course introduces the student to the concepts of health andwellness. a foundation for practice is established through the study of the history, legal parameters, and ethics of nursing. common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. an emphasis is placed on safety as it relates to nursing practice and includes 7 hoursof hiv/aids for healthcare workers. further emphasis is placed on theneeds of the elderly, including the process of death and dying. prerequisites: admission, biol& 242, NUR 105.

NUR 101B COMMON HEALTH NEEDS 1B 7 CR
this course is a continuation of NUR 101a whereby the student will integrate the concepts of health and wellness into the foundation of practice. common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. an emphasis is placed on safety as it relates to nursing practice.further emphasis is placed on the needs of the elderly, including theprocess of death and dying. prerequisites: admission, NUR 101a, NUR 102a.

NUR 102 NURSING PRACTICE 1 7 CR
Concurrent with NUR 101, NUR 102 provides the student with an opportunity to learn and practice basic nursing skills, including assessment techniques, non-parenteral medication administration, and the fundamental techniques of physical care, such as bathing, positioning, and the use of proper body mechanics. An emphasis is placed on the care of the elderly and rehabilitation. Includes both college lab time, and clinical experiences in a long-term care facility. PREREQUISITE:BIOL& 242, HLTH 103, HLTH 133, and NUR 105 or equivalent.

NUR 102A NURSING PRACTICE 1A 4 CR
concurrent with NUR 101a, NUR 102a provies the student with an opportunity to learn and practice basic nursing skills which includes fundamental techniques of physical care such as bathing, positioning and theuse of proper body mechanics. an emphasis will be placed on care of the elderly and rehabilitation. this course includes both college lab time and clinical experiences in long term facilites. prerequisites: admission, biol& 242, NUR 105.

COURSES: NURSING

Prefix Number Title Credits

NUR 102B NURSING PRACTICE 1B 4 CR
concurrent with NUR 101b, NUR 102b provides the student with an opportunity to learn and practice basic nursing skills including assessmenttechniques and non-parenteral medication administration. an emphasis is placed on the care of the elderly and rehabilitation. this course includes both lab time and clinical experiences in long term facilities. prerequisites: admission, NUR 101a, NUR 102a.

NUR 105 PHARMACOLOGY 2 CR
An introduction to the basic concepts required by nurses to provide safe and effective pharmacotherapeutics. The metabolism and actions of drugs, with an emphasis on absorption, duration of action, distribution in the body, and methods of excretion will be studied. Also introduces the nursing implications, including the principles of safe drug administration, documentation, and client teaching. Students are expected to demonstrate competency in arithmetic computations, and to apply knowledge of related vocabulary and medical symbols. PREREQUISITE:BIOL& 160, MATH 98 or MATH 99, or equivalent.

NUR 121 COMMON HEALTH DISTURBANCES I 15 CR
Prepares the student to assist people with common health disturbances in single or multiple systems. The systems studied include the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems. In addition, fluid and electrolyte disturbances, surgical asepsis, and perioperative care are addressed. All care is approached utilizing the nursing process. An emphasis is placed on young, middle, and elderly adults. PREREQUISITE:All courses within NUR 010 or their equivalent.

NUR 121A HEALTH DISTURBANCES 1A 7 CR
this course prepares the student to assist people with common health disturbances in single or multiple systems within the body. the systems studied include the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems. in addition, fluid and electrolyte disturbances, surgical asepsis, and preoperative care are addressed. all care is approached utlizing the nursing process.an emphasis is placed on young, middle, and elderly adults. prerequisites: admission, NUR 101b, NUR 102b.

NUR 121B HEALTH DISTURBANCES 1B 7 CR
this course is a continuation of NUR 121a which includes the study ofrespiratory, cardiovascular, gastrointestinal, genitourinary, endocrine and musculoskeletal systems, fluid and electrolyte disturbances, surgical asepsis and preoperative care. all care is approached utilizingthe nursing process. an emphasis is placed on young, middle, and elderly adults. prerequisites: admission, NUR 121a, NUR 122a.

NUR 122 NURSING PRACTICE II 7 CR
Concurrent with NUR 121, NUR 122 provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and muscoluskeletal systems, or a fluid and electrolyte disturbance. Sterile technique is covered, as well as subcutaneous and intramuscular injection techniques. An opportunity to care for a client throughout the perioperative process is also provided. Includes college lab time, and clinical experiences in both acute and long-term care facilities. PREREQUISITE:All courses within NUR 010 or their equivalent.

NUR 122A NURSING PRACTICE 2A 4 CR
concurrent with NUR 121a, NUR 122a provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine and musculoskeletal systems, or a fluid and electrolyte disturbance. sterile techniquesare covered as well as subcutaneous and intramuscular injection techniques. an opportunity to care for a client throughout the peri-operative process is also provided. included is college lab time and clinicalexperiences in an acute care facility. prerequisites: admission, NUR 101b, NUR 102b.

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NUR 122B NURSING PRACTICE 2B 4 CR
concurrent with NUR 121b, NUR 122b provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine and musculoskeletal systems, or a fluid and electrolyte disturbance. sterile technique is covered as well as subcutaneous and intramuscular injection techniques. an opportunity to care for a client throughout the peri-operativeprocess is also provided. included is lab time and clinical experiences in an acute care facility. prerequisites: admission, NUR 121a, NUR 122a.

NUR 131 COMMON HEALTH DISTURBANCES II 15 CR
Prepares the student to assist people with common health disturbances in single or multiple systems. The systems studied include the neurological, immune, and integumentary systems. Additionally, students will study clients with mental health disturbances, common pediatric disturbances, and normal mother/infant care. Nursing in both the clinical and office setting will be introduced, as well as basic intravenous therapy. In preparation for entry into nursing practice, students will explore the various leadership skills required of a Licensed Practical Nurse (LPN). PREREQUISITE:All courses within NUR 020.

NUR 131A HEALTH DISTURBANCES 2A 12 CR
this course prepares the student to assist people with common health disturbances in single or multiple systems within the body. the systems studied include neurological, immune and integumentary systems. in addition, students will study clients with mental health disturbances, common pediatric disturbances and normal mother/infant care. nursing in both the clinical and office setting will be introduced, as well as basic intravenous therapy. in preparation for entry into nursing practice, students will explore the various leadership skills required of a licensed practical nurse (LPN). prerequisites: admission, NUR 121b, NUR 122b.

NUR 131B HEALTH DISTURBANCES 2B 3 CR
NUR 131b is a continuation of NUR 131a. the systems studied include the neurological, immune and integumentary systems. in addition, students will study clients with mental health disturbances and normal mother/infant care. nursing in both the clinical and office setting will beintroduced, as well as intraveneous therapy. in preparation for entryinto nursing practice, students will explore the various leadership skills required of a license practical nurse (LPN). prerequisites: admission, NUR 131a, NUR 132b.

NUR 132 NURSING PRACTICE III 7 CR
Concurrent with NUR 131, NUR 132 provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the neurological, immune, and integumentary systems. Additionally, students will experience working with clients with mental health disturbances. Common pediatric disturbances and normal mother/infant care experience will be provided. Skills, such as basic intravenous therapy, will be practiced in the college lab, and clinical experiences will be provided in a variety of health care settings, culminating in a series of clinical days closely approximating employment in a health care facility as a practical nurse. PREREQUISITE:All courses within NUR 020.

NUR 211 NURSING DIMENSIONS I 7 CR
This course focuses on the role transition and role differentiation between LPN and RN. The student is introduced to critical thinking and leadership skills required for professional nursing. Content focuses on understanding human health patterns while supporting the physiological changes of the client in the role of the registered nurse. Primary topics include priority setting, delegation, NCLEX plan, conflict management, physical assessment, and alteration in mental health, fluid, electrolyte and acid base balance, cardiac, respiratory and renal systems across the life span (adult, aging, pediatric and pregnant mother). Integrated concepts are advocacy, cultural perspectives, communication, nutrition, pharmacology, and health education.

Courses: Nursing - Physics

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NUR 212 CLIENT CARE MANAGEMENT PRACTICE I 4 CR
This course provides the student with an opportunity to examine and evaluate current experience, determine clinical proficiencies, and through the process of portfolio development, expand clinical nursing expertise within the acute care setting (medical or surgical areas, pediatrics and mental health).

NUR 221 NURSING DIMENSIONS II 6 CR
This course is a continuation of NUR 211 and focuses on health and developmental assessment through the life span (children, adult, pregnancy, and aging). Primary topics include ethical and legal issues, antepartum, intrapartum, and postnatal periods including the newborn, alteration in immune response, reproductive, and endocrine system, multi- system failure and care of the client in intensive care. Integrated concepts are nursing process, advocacy, cultural perspectives, communication, nutrition, pharmacology, and health education.

NUR 222 CLIENT CARE MANAGEMENT PRACTICE II 4 CR
This course is a continuation of NUR 212. The student has the opportunity to examine and evaluate current experience, determine clinical proficiencies, and through the process of portfolio development, expand clinical nursing expertise within the acute care setting (intensive care, pediatrics and maternal/child).

NUR 231 NURSING DIMENSIONS III 5 CR
This course continues to focus on concepts of leadership such as quality and cost-effectiveness of care, interdisciplinary collaboration, and emerging care delivery models. Primary topics include alteration in integumentary, gastro-intestinal, musculo-skeletal and sensory neuro across the life span (adult, aging, pediatric and pregnant mother). Integrated concepts are nursing process, advocacy, cultural perspectives, communication, nutrition, pharmacology, and health education.

NUR 234 CAPSTONE CLINICAL 4 CR
This clinical is an individual assignment intended to strengthen the student's clinical skills and assist them to make the final transition from LPN-RN. The clinical objectives will be determined by self assessment of clinical experience, further education within this program, and the Nurse Practice Act. Completion of portfolio will be presented as culmination of the student's experience.

OPERATIONS MANAGEMENT

OPMGT 105 INTRODUCTION TO OPERATIONS MANAGEMENT 5 CR
Introduces students to the fundamentals of business operations management and the administrative process relationships.

OPMGT 107 FUNDAMENTALS OF PROCESS MANAGEMENT 5 CR
Planning, leading, motivating, group dynamics and exploring the role of the facilitator are studied in this course.

OPMGT 119 STATISTICAL PROCESS CONTROL 5 CR
Understanding the current state of processes and the methodology of continuous improvement.

OPMGT 207 MATERIALS MANAGEMENT 5 CR
Overview of production materials planning, control, and capacity estimation.

OPMGT 215 PRODUCTION PLANT PLANNING 5 CR
Performance metrics development, the seven wastes, improving work flow, and the SMART test.

OPMGT 225 OPERATIONS MANAGEMENT SPECIAL TOPICS 5 CR
This course provides an opportunity for students to explore leading edge management innovations as they emerge into the industrial workplace.

OPMGT 250 PRACTICUM I 12 CR
The student evaluates, devises and implements a plan for a specific department. Upon completion the student presents documented findings in a report to faculty.

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OPMGT 255 PRACTICUM II 12 CR
Students will develop and implement a detailed plan for a specific department. Upon course completion students will present a report examining the project.

PERSONAL FITNESS TRAINER

PFT 100 FOUNDATIONS OF HEALTH & FITNESS 6 CR
You will study the science and structure of the human organism and how it relates to exercise science. You will learn about food requirements, values and how food is broken down into usable fuel. You will develop and learn techniques to regulate and prescribe appropriate eating systems. You will learn operation and set up of digital and programmable exercise machinery, equipment repair and maintenance, facility safety, sports injury management and prevention and how gym etiquette is practiced. Program development helps you understand the many needs and requirements of your future client. You will learn the tools, skills and methods to determine how each client fits into the program schedule. Assessment of health risks, potential problem areas and special needs will be covered.

PFT 110 PROGRAM DEVELOPMENT & TRAINING PRINCIPLES 6 CR
Focusing on smooth, cardiac and skeletal muscle physiology, we will investigate structure, function and cellular adaptations with exercise. You will create exercise programs using scientific principles beginning with the fundamental beginner programs and working through advanced training development and implementation. Evaluation and assessment of programs will be heavily emphasized. This class will cover the mechanics of muscle development, as well as behavior and performance guidelines to achieve prescribed results with specialized instruction. The class is an introduction to the specialty field of the supplementation of nutrients, vital elements and their effects on aging and longevity. The principles to aid in prevention of degenerative health risks will be covered. PREREQUISITE:PFT 100

PFT 120 FACILITY MANAGEMENT & MARKETING FOR A FITNESS TRAINER 6 CR
You will learn the day to day operations as a professional trainer in a fitness facility. This will include equipment maintenance, purchasing and budget management. You will learn multi-client training principles and guidelines for supervisor and management positions. The class covers the basics for designing an effective plan to run a successful training facility, as well as the evaluation of new and existing programs for implementation and development. This course is designed to assist the student in marketing their own personal trainer services as well as developing a successful marketing program for a progressive fitness facility. You will learn proven methods for marketing and research develop networking techniques, and employment leads. The course will assist you in recognizing and developing personal talents to be better able to determine career direction. PREREQUISITE:BIOL 160

PHYSICS

PHYS& 121 GENERAL PHYSICS I 5 CR
introduction to mechanics and physical reasoning strategies and investigation methods for students majoring in technically oriented fields not requiring a calculus based physics course. newton's laws, work andenergy, kinematics conservation principles. computer interfaced laboratory investigations, technical writing, problem solving, mathematicalreasoning and scientific method of inquiry skills will be emphasized.prerequisite: math& 142.

PHYS& 122 GENERAL PHYSICS II 5 CR
second in a three-course survey of physics for allied health, building construction, biology, forestry, architecture, and other programs. topics include fluids, heat, thermodynamics, electricity, and magnetism. laboratory work is integral to the course. prerequisite: phys& 121.

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PROCESS TECHNOLOGY

PTEC 101 INTRODUCTION TO PROCESS TECHNOLOGY 5 CR
In this course students will study various aspects of the Process Industry, including its history; roles, responsibilities, and expectations of the Process Technician; team dynamics; basic physics and chemistry; safety, and quality management. In addition, the course will cover basic components of the Process Industry environment, such as piping and valves; tanks, drums, and vessels; pumps and compressors; steam turbines; electricity and motors; heat exchangers; cooling towers and fans; furnaces and boilers; distillation columns; process control instrumentation; process utilities and auxiliary systems; and process print reading.

PTEC 102 PROCESS TECHNOLOGY I (EQUIPMENT) 6 CR
The purpose of this course is to provide an overview of the equipment and tools used in the process industry, including piping, tubing, hoses and fittings; valves; pumps; compressors; turbines; motors and engines; power transmission and lubrication; heat exchangers; cooling towers; furnaces and boilers; filters and dryers; vessels; and process diagrams. Students will be introduced to many process related equipment concepts, such as purpose, components, operation, and the Process Technician's role for operating and troubleshooting the equipment.

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.

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.

PTEC 110 PROCESS INSTRUMENTATION I 6 CR
In this course, students will study process variables and the various instruments used to sense, measure, transmit, and control these variables. The course also introduces students to control loops and the elements that are found in different types of loops, such as controllers, regulators, and final control elements. The course concludes with a study of instrumentation drawings and diagrams along with a unit on troubleshooting instrumentation.

PTEC 190 SPECIAL TOPICS FOOD PROCESSING 3 CR
In this course a student would do an in depth study of a process or technique in the process industry. The student would mainly do self learning based upon available PTEC program software and other information. Students enrolled in this course may do the work individually or as part of a group. The student would meet regularly with the PTEC instructor or designated representative. The culmination of the course would be a written project paper and presentation to the other PTEC students, interested faculty and industrial representatives.

PTEC 191 SPECIAL TOPICS JOB SEARCH SKILL 3 CR
In this course a student would do an in depth study of a process or technique in the process industry. The student would mainly do self learning based upon available PTEC program software and other information. Students enrolled in this course may do the work individually or as part of a group. The student would meet regularly with the PTEC instructor or designated representative. The culmination of the course would be a written project paper and presentation to the other PTEC students, interested faculty and industrial representatives.

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PTEC 192 SPECIAL TOPICS PULP & PAPER PROCESSING 3 CR
In this course a student would do an in depth study of a process or technique in the process industry. The student would mainly do self learning based upon available PTEC program software and other information. Students enrolled in this course may do the work individually or as part of a group. The student would meet regularly with the PTEC instructor or designated representative. The culmination of the course would be a written project paper and presentation to the other PTEC students, interested faculty and industrial representatives.

PTEC 193 SPECIAL TOPICS UPSTREAM PROCESS 3 CR
In this course a student would do an in depth study of a process or technique in the process industry. The student would mainly do self learning based upon available PTEC program software and other information. Students enrolled in this course may do the work individually or as part of a group. The student would meet regularly with the PTEC instructor or designated representative. The culmination of the course would be a written project paper and presentation to the other PTEC students, interested faculty and industrial representatives.

PTEC 194 SPECIAL TOPICS WASTEWATER TREATMENT 3 CR
In this course a student would do an in depth study of a process or technique in the process industry. The student would mainly do self learning based upon available PTEC program software and other information. Students enrolled in this course may do the work individually or as part of a group. The student would meet regularly with the PTEC instructor or designated representative. The culmination of the course would be a written project paper and presentation to the other PTEC students, interested faculty and industrial representatives.

PTEC 203 SAFETY, HEALTH AND ENVIRONMENT II 5 CR
Continued instruction in the application of concepts presented in Safety, Health, & Environment I with an emphasis on emergency response concepts. The student will demonstrate appropriate response to emergency situation; recognize hazardous situations for personnel, environment, and the community; and apply team skills in response to emergency situations.

PTEC 205 DYNAMIC PROCESS CONTROL 5 CR
Course will provide the student with a basic understanding of electronic process control systems typically utilized in the petroleum, petrochemical, power generation, and pulp & paper industries. Course will further provide the student with specific knowledge regarding the operation of typical hydrocarbon distillation systems and fired furnaces. Multiple dynamic process simulators operating in a PC Lab environment will be utilized as the foundational elements of the course learning activities. Computer simulations of fired heaters and distillation systems will be operated in normal, off-normal, emergency, start-up and shutdown modes. The course will be conducted as a "hands on" operating experience using both small-group and individual simulation activities, assignments and scenarios.

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).

PTEC 210 PROCESS INSTRUMENTATION II 6 CR
In this course, students will be introduced to switches, relays, and enunciators systems; then will move on to discuss signal conversion and transmission. Controllers, control schemes, and advanced control schemes will be covered at a level appropriate for the process technician. The student will learn about digital control, programmable logic control, and distributed control systems. The course will conclude with a discussion of instrumentation power supplies, emergency shutdown systems, and instrumentation malfunctions.

PTEC 212 INDUSTRIAL PROCESSES AND EQUIPMENT 5 CR
Study of the industrial equipment utilized in petroleum refining, power generation, environmental management and chemical plant operations. The student will understand the construction, theory of operation, and typical uses of process industry equipment.

PTEC 215 PROCESS TECHNOLOGY III (OPERATIONS) 6 CR
Provides an overview of the field of operations within the process industry. Students will use existing knowledge of equipment, system, and instrumentation to understand the operation of an entire unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations as well as the Process Technician's role in performing the tasks associated with these concepts within an operating unit.

PTEC 217 PROCESS TROUBLESHOOTING 5 CR
Course involves instruction in the different types of Process Technology troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collections and analysis, cause-effect relationships, and reasoning.

PTEC 270 PROCESS TECHNOLOGY PROJECT 5 CR
This is a culminating project assignment for an individual or a group of students. The instructor may assign a specific topic for the project or work with a local industry/plant to define a particular project topic from a real-life situation. The student or the group of students will define the problem, resources needed, postulate the hypothesis/solution, research the problem and possible solutions, visit the plant, interview/consult with instructor/engineers technicians and other resources, internet and develop a solution. The student or the group will then write the technical report defining the complete process from defining the problem, methodology applied, and their conclusion. This may also require building a piece of equipment, writing a software program, or writing safety or operational procedures.

PTEC 272 PROCESS TECHNOLOGY PROJECT II 5 CR
This may be a continuation or a separate project assignment as in the course PTEC 270. For the AAS degree, this is a culminating project assignment for an individual or a group of students. The instructor may assign a specific topic for the project or work with a local industry/plant to define a particular project topic from a real-life situation. The student or the group of students will define the problem, resources needed, postulate the hypothesis/solution, research the problem and possible solutions, visit the plant, interview/consult with instructor/engineers/technicians and other resources, internet and develop a solution. The student or the group will then write the technical report defining the complete process from defining the problem, methodology applied, and their conclusion. This may also require building a piece of equipment, writing a software program, or writing safety or operational procedures.

PTEC 290 PROCESS TECHNOLOGY PRACTICUM/INTERNSHIP 5 CR
This elective course provides work experience in a Process Technology related environment so that students may expand their technical knowledge and skills. Specific performance skills and customized objectives will be developed for each student. Clock hours are available and may be repeated for clock hour credit.

PROJECT MANAGEMENT

PMP 100 PROJECT MANAGEMENT FUNDAMENTALS 1 CR
As this course progresses you will learn effective methods for planning and sequencing project activities that include Work Breakdown Structure, Network Logic Diagram, and the Critical Path for completing a project on schedule; listing the cost elements included in a project budget and discussing ethical strategies for controlling both budget and schedule deviations; identifying communication methods and reporting tools that impact project objectives.

PMP 120 PROJECT MANAGEMENT - PMP PREP 2 CR
This course offers you a standards-based approach to successful project management across application areas and industries. PMP PREP focuses on the generally accepted standards of Project Management recognized by the Project Management Institute. This class will help prepare you for the Project Management Professional Certification exam. During this class you will discuss the phases of the Project Management Life Cycle to better understand the manager's role in each phase of development; examine criteria for successful Project Management and the most common reasons for project failure; develop and discuss components of a Risk Management Plan; and explore techniques to develop a strong project team.

PMP 130 PROJECT MANAGEMENT INTEGRATION PROJECT 1 CR
Integrated Project Management is a capstone course in the Project Management Certificate program. You will complete a project plan of your choice that will utilize the knowledge, skills and methodologies that you learn in the certificate program. You will also team with other project managers to work through project simulations and case studies.

PMP 160 PROJECT MANAGEMENT 5 CR
Examines the theory and practice of project management from a managerial perspective. Students define projects, determine resource requirements, write requests for proposals, outline contract requirements, define and sequence tasks, and create project schedules.

PSYCHOLOGY

PSY 180 INTERPERSONAL & ORGANIZATIONAL PSYCHOLOGY 5 CR
Topics include assertiveness, customer relations, teamwork, problem-solving/conflict resolution, business and work ethics, organizational development/skills, employment rights and responsibilities, equity and cultural issues, decision making, motivation, and self esteem. PREREQUISITE:Accuplacer score of 86 or higher on Sentence Skills and 85 or higher on Reading.

PSYC 111 INTERPERSONAL & ORGANIZATIONAL PSYCHOLOGY 5 CR
topics include assertiveness, customer relations, teamwork, problem-solving/conflict resolution, business and work ethics, organizational development/skils, employment right and responsibilities, equity and cultural issues, decision making, motivation, and self-esteem. prerequisites: accuplace reading score of 71 or higher.

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: word processing knowledge required. accuplacer score of 86 or higher on sentence skills and 85 or higher on reading.

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 topicsof physical development, cognitive development, and personality/social development. prerequisites: psyc 100 - general psychology.

RADIOLOGY

RAD 250 MAMMOGRAPHIC THEORY I 3 CR
This course is includes course work in specialized mammographic equipment, computers used in digital imaging, film screen considerations, processing quality assurance, quality control testing, computer-aided diagnosis. This course also includes applications of patient care while in the Breast Imaging Center. Patient care includes psychological influences as well as physical environment. Students will study normal breast anat-

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omy and physiology along with an in-depth study of breast pathology. Patient education in the form of breast self examination, nutritional considerations, radiation protection, pharmacology and current management techniques are included.

RAD 251 MAMMOGRAPHIC THEORY II 3 CR
This course includes course work in normal breast anatomy and physiology, breast pathology, sectional anatomy of the breast, routine positioning in screening and diagnostic imaging, special views in positioning and procedures, and interventional procedures. Also included in this course is work in specialized mammographic equipment, computers used in digital imaging, film screen considerations, processing quality assurance, quality control testing, computer-aided diagnosis.

RAD 252 MAMMOGRAPHICAL CLINICAL 2 CR
Students are responsible for securing an ACR accredited mammographic facility for their clinical experience. One Registered Mammographer must be identified and agree to coordinate student experiences. This program does not provide clinical affiliates, however we reserve the right to approve or disapprove clinical sites. The clinical experience will occur during the same quarter in which didactic instruction occurs.
This course requires students to use the attached ARRT Mammography Clinical Experience Documentation Form to record clinical competencies and repetition of these procedures. Forms must be filled out accurately to gain acknowledgement of any procedure. Procedures must be verified by the initials of the supervising Mammographer or Mammography Radiologists. The student must provide the names and addresses of each individual initialing this form. Program approval of these professionals must be obtained before acquiring signatures.

RT 101 RADIOGRAPHIC POSITIONING I 4 CR
This course introduces the basic positioning techniques used in the radiography of the respiratory system, abdomen, upper and lower extremities. Lab sections include peer positioning, film critique, anatomicaL identification, pathologies and an energized section using phantoms.

RT 102 RADIOGRAPHIC POSITIONING II 4 CR
This course introduces the basic positioning techniques used in the radiography of the bony thorax, spinal column, pelvic girdle and continuation of the upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification, pathologies and an energized section using phantoms.

RT 103 RADIOGRAPHIC POSITIONING III 4 CR
This course introduces the basic positioning techniques used in the radiography of the digestive system, urinary system, and cranium. Lab sections include peer positioning, film critique, anatomical identification, pathologies and an energized section using phantoms.

RT 110 INTRO TO RADIOLOGIC TECHNOLOGY 4 CR
This course provides the student with an overview of the foundations in radiography, skills to increase student success in the program, clinical orientation and the technologist's role and professional responsibilities in the health care delivery system. Principles, practices, and policies of the health care organization will be discussed. Elements of ethical behavior will be addressed and students will examine a variety of clinical ethical issues and dilemmas. Legal terminology, conduct and principles will also be addressed in this course. Skills emphasized will include study techniques, note taking, study groups, and test taking skills. Personal wellness will be included. Students will be orientated to student services areas on campus and clinical sites. Program mission and outcomes will be discussed to include professional equirements and commitment necessary for program success.

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.

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RT 114 LEADERSHIP SEMINAR 1 CR
This course is designed to encourage leadership principles in students including participation and project development for professional organizations.

RT 120 IMAGING AND PROCESSING 4 CR
This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiologic images. Emphasis will be on filming and electronic imaging with related accessories. Topics to be included are basic radiographic production, imaging standards, radiographic density and contrast, recorded detail, distortion, exposure latitude, beam-limiting devices, beam filtration, technique formulation, exposure calculations, image receptors and processing. Lab exercises will provide application of theories using energized equipment and test tools.

RT 121 RADIOGRAPHIC PHYSICS I 4 CR
This course is designed to establish a knowledge base in atomic structure and terminology. Included are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. An introduction to the principles of radiation protection is included. Lab activities will provide application for the course theories.

RT 122 QUALITY ASSURANCE 2 CR
This course is designed to examine principles of radiology quality assurance. Principles related to quality assurance will include differentiation between quality improvement/management, quality assurance and quality control with elements of a department quality assurance program. Lab activities will provide application of theories presented in class.

RT 123 RADIOGRAPHIC PHYSICS II 3 CR
This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile, tomographic equipment requirements and design. Content includes manual versus automatic exposure control, equipment calibration, beam restriction, and recognition of malfunctions.

RT 131 RADIOGRAPHIC CLINIC I 8 CR
This course consists of two clinical assignments of eight-hour work shifts per week. Students are assigned clinical experience in a radiology department to complete clinical competencies correlating with academic coursework.

RT 132 RADIOGRAPHIC CLINIC II 8 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 12 CR
This course consists of four clinical assignments of eight-hour shifts per week. Students are assigned clinical experience in a radiology department to complete fourth quarter clinical competencies correlating with academic coursework.

RT 201 ADV PATIENT PROCEDURES & PATHOLOGY I 5 CR
This course includes applications of patient care, procedures and pathology related to trauma, surgical, pediatric, digestive, respiratory, urinary and skeletal/muscular systems. Students will present case studies incorporating patient history, care considerations, procedures and pathology.

RT 202 ADV PATIENT PROCEDURES & PATHOLOGY II 5 CR
This course includes applications of patient care, procedures and pathology related to reproductive, circulatory, lymphatic, endocrine, nervous and sensory organs. Students will present case studies incorporating patient history, care considerations, procedures and pathology.

RT 205 RADIOLOGY PHARMACOLOGY 2 CR
This course will provide basic concepts of pharmacology. Concepts included are pharmocokinetic and pharmodynamic 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.

Courses: Radiology - Surgery Technology

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RT 210 RADIATION BIOLOGY 3 CR
This course provides an overview of the principles of the interaction of radiation with living systems. The factors that affect biological response, to include acute and chronic effects of radiation. Includes examination of standards, measurements and requirements required by government guidelines.

RT 220 RADIOGRAPHIC PHYSICS III 3 CR
This course is to provide advanced study of the topics included in RT 123, Physics II, selection and equipment purchase, equipment requirements and design for advanced imaging modalities of mammography, cardiovascular and interventional, digital imaging, MRI and CT. Computer applications will be covered to include digital imaging, radiographic information systems, hospital information systems, and picture archiving communication systems.

RT 230 REGISTRY REVIEW & EMPLOYMENT READINESS 3 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 12 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 fifth quarter clinical competencies correlating with academic coursework.

RT 232 RADIOGRAPHIC CLINIC V 12 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 9 CR
This course consists of five clinical assignments of six hour shifts per week. Students are assigned clinical experience in a radiology department to complete sixth quarter clinical competencies and select specialized rotations.

RESIDENTIAL HOME INSPECTION

RHI 110 RESIDENTIAL HOME INSPECTION 15 CR
This comprehensive training program for professional home inspection combines classroom instruction with field training to provide the student with the necessary knowledge to start his or her own professional home inspection business or seek employment with a residential home inspection firm.
Upon completion of the program, the student will receive a Bellingham Technical College Certificate and be prepared to take, and pass, the National Home Inspector Exam, the Washington State Structural Pest Inspector Exam or any exam required by the leading home inspection associations or societies. Text books included with tuition.

SALES

ENTR 150 ENTREPRENEURSHIP FUNDAMENTAL 4 CR
This course deals with organizing and operating a small business. Topics include development of a business plan, failure factors in small business, source of capital, record keeping, financial statements, taxation, marketing, and legal and regulatory issues and management principles.

SAL 100 SELLING FUNDAMENTALS 5 CR
Course examines the principles and techniques of professional selling; the social, ethical and legal issues in selling; the entire sales process from prospecting to follow-up; the proper use of one's time and sales territory; and the financial side of selling. State-of-the-art selling strategies, practices, and techniques are presented in a "how-to" fashion.

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SAL 110 HI-TECH TOOLS FOR SELLING 3 CR
Students will become comfortable with the hi-tech tools that are most commonly used by a sales specialist. Students will use customer relations management tools, telecommunications tools, and internet based presentation tools.

SAL 115 SALES TECHNIQUES & PROCEDURES 5 CR
This class will focus on sales techniques and procedures that have proven successful. Students will be given many opportunities in class to practice these techniques and procedures. Students will also learn how to create and present sales presentations and proposals.

SAL 120 E-SALES 5 CR
Introduces the business processes in the new economy with specific emphasis on use of commerce sites for sales and customer service.

SAL 140 MARKETING RESEARCH & TERRITORY MANAGEMENT 5 CR
Presents the structure and use of market research in sales territiory management decision making. Students learn data analysis and interpretation skills that lead to sound decisions in personal territory managemen.t

SAL 190 WORK BASED LEARNING I 6 CR
Students will intern in a sales position for 180 hours. The position must be approved by the instructor. Working with an instructor, a defined list of objectives will be identified for the internship. The internship may be paid or unpaid. This internship should be taken midway through the program. PREREQUISITE:Instructor permission.

SAL 200 SALES MANAGEMENT 5 CR
This class is designed to provide an understanding of the tasks and problems facing today's sales manager and to familiarize one with current sales force management practices. Specifically, this class provides an exposure to the concepts, techniques and procedures in organization of a sales force, personnel management, hiring, sales training, motivation, compensation, evaluation and supervision, budgets, quotas, territories and sales control.

SAL 290 WORK BASED LEARNING II 6 CR
Students will intern in a sales position for 180 hours. The position must be approved by the instructor. Working with an instructor, a defined list of objectives will be identified for the internship. The internship may be paid or unpaid. This internship should be taken at the end of the program.

SURGERY TECHNOLOGY

CSC 136 CENTRAL SERVICE CLINICAL 1 CR
At the completion of this course, the student may exit the Surgery Technology Program with a Central Service Specialist Certificate. This course is to provide the student with practical experience through internship at hospitals and surgery centers in the area of Central Services and Sterile Processing. The students will focus on the methods of sterilization, cleaning, processing, packaging, distribution, storing, and inventory control of surgical instruments, trays, and equipment. To qualify for the Central Service Specialist Certificate, the student will be exiting the Surgery Technology Program and will have satisfactorily completed Surg 120 and CSC 136. PREREQUISITE:Surg 120 with a C or above.

SURG 120 SURGERY TECHNOLOGY I 10 CR
An introduction to surgical technology where the student will gain theoretical and practical knowledge of general equipment, instrumentation, surgical team member roles, and health care facilities and their management. Includes physical, psychological, and ethical aspects of patient care; principles of aseptic technique, sterilization, and safety in the Operating Room. PREREQUISITE:BIOL& 241/242, HO 125, COM 170 or ENGL& 101, PSYC& 100 or PSYC 111, and MATH 98 or MATH 99.

SURG 125 SURGERY TECHNOLOGY LAB 10 CR
Principles and techniques of operating room procedures. Includes surgical scrub techniques, gowning and gloving, aseptic and sterile technique, creating and maintaining a sterile field, basic instrumentation usage. Hands on practice of scrub role functions.

Prefix Number Title Credits

SURG 133 SURGERY TECHNOLOGY II 10 CR
Surgical supplies, wound healing, anesthesia concepts and suture selection relating to the surgical patient. Includes additional intra-operative care techniques and the technologists' role in case preparation and surgical procedures. PREREQUISITE:SURG 120, SURG 125, and HO 105.

SURG 136 SURGERY TECH CLINICAL PRACTICE I 12 CR
Lab and clinical practice with focus on development of entry level skills.

SURG 143 SURGERY TECHNOLOGY III 6 CR
Focus on legal, personal and professional responsibilities of a Surgical Technologist and related accrediting agencies, and job seeking skills. Includes patient care emergencies, and sciences for the Operating Room. PREREQUISITE:SURG 133, and SURG 136.

SURG 145 SURGERY TECH CLINICAL PRACTICE II 10 CR
Continuation of clinical and lab practice with focus on developing advanced entry level skills.

SURVEYING

SURV 102 FUNDAMENTALS OF SURVEYING I 7 CR
Emphasis is placed on familiarization with the different types of surveys and their purpose and teaches the student to be able to differentiate between "accuracy" and "precision." It teaches the student to measure distances in a vertical direction and relate these measurements to a datum plane or elevation from sea level. Course also teaches the student how to measure directions from known points to find or establish other points and will enable the student to gain necessary skills in operating surveying instruments. PREREQUISITES: MATH 111 and instructor's permission. PREREQUISITE:MATH 111 and instructor's permission.

SURV 103 FUNDAMENTALS OF SURVEYING II 5 CR
Emphasis on field work with the Total Station and Digital Level. A traverse will be run and adjusted and a topo made of the enclosed ground. PREREQUISITE: SURV 102. PREREQUISITE:SURV 102.

SURV 104 CONSTRUCTION AND HIGHWAY SURVEYS 6 CR
Students will learn stakeout procedures for a variety of construction projects. In addition, the students will develop techniques to help the student 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.

SURV 112 PUBLIC LANDS SURVEY SYSTEM 5 CR
Course will familiarize the student with the public land system of the U.S. and the subdivision of sections.

SURV 113 BOUNDRY/LEGAL PRINCIPALS 7 CR
Explores the importance of various laws dealing with the survey of land boundaries, and the State and Federal laws about ownership and title.

SURV 116 SURVEY DATA SYSTEMS 4 CR
A comprehensive study of transferring data between the data collector and the computer.

SURV 140 FUNDAMENTALS OF GIS 4 CR
Students develop knowledge and designing skills in topology, features, attributes, relational operators, data capture, coverage editing, coordinate systems, and map projections.

SURV 152 ZONING, PERMITTING AND PLATTING 4 CR
Introduction to Whatcom County and City of Bellingham zoning ordinances and an introduction to the various state, county, and city permits associated with construction and land use in Whatcom County.

SURV 191 PROFESSIONAL DEVELOPMENT AND SAFETY 3 CR
Provides an introduction to the licensing and certification procedures for land surveyors and engineers in the State of Washington as well as the RCWs and WACs that apply. The course also provides an examination of safety hazards and accident awareness that is related to both professions.

Prefix Number Title Credits

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.

SURV 202 GPS SYSTEMS 7 CR
Global Positioning System software will be used to adjust raw field data collected with Trimble 4000 SST receivers.

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.

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 128, and ENGT 153. PREREQUISITE:ENGT 128, and ENGT 153.

SURV 252 LAND DEVELOPMENT DESKTOP II - SURVEY 6 CR
Study and use of the Civil Engineering and Survey industry specific CAD overlay software for computer aided drafting. Focuses on the use of Land Development Desktop overlay products for the AutoCAD 14 software with Civil/Survey specific applications. PREREQUISITES: ENGT 128 and SURV 102. PREREQUISITE:ENGT 128 and SURV 102.

TOTAL QUALITY MANAGEMENT

TQM 109 INTRODUCTION TO TOTAL QUALITY MANAGEMENT 5 CR
Provides an overview of quality planning, quality assurance, and quality control. Students will learn the key factors that are critical for customer satisfaction in your business; be introduced to the processes and the methodology of continuous process improvement; discover the immediate and long-term effects of different quality levels; and understand the multi-dimensions of quality.

TQM 200 SIX SIGMA - STATISTICAL ANALYSIS TOOLS 5 CR
You will learn when to use many of the proven Six Sigma problemsolving methods and statistical tools to contribute to the success of your organization. This Six Sigma Green Belt course follows the DMAIC (Define, Measure, Analyze, Improve, Control) model and teaches the soft skills required to participate in projects effectively.

TQM 209 CASE STUDIES IN QUALITY MANAGEMENT 5 CR
Students use advanced Total Quality Management techniques and apply them to their business. PREREQUISITE:educ 131

TRANSPORTATION

TRANS 101 BASIC TRANS. SERVICE & SYSTEMS I 5 CR
This course provides an introduction to the transportation industry covering various aspects such as Occupational Health and Safety, Measuring, Fasteners, Tools and Equipment, and Service Information. Students acquire the skills needed for basic vehicle servicing while gaining an overview of all of the transportation systems. PREREQUISITE:Program admission or instructor permission.

TRANS 102 BASIC TRANS. SERVICE & SYSTEMS II 5 CR
This course provides an introduction to the transportation industry covering various aspects such as Shop Equipment Use, Brakes, Basic Vehicle Services, and Steering and Suspension Theory. Students acquire the skills needed for basic vehicle servicing while gaining an overview of all of the transportation systems. PREREQUISITE:TRANS 101 or instructor permission.

TRANS 103 BASIC TRANS. SERVICE & SYSTEMS III 5 CR
This course provides an introduction to the transportation industry covering various aspects such as Engine Fundamentals, Engine Performance, Transmissions, HVAC, and Electrical. Students acquire the skills needed for basic vehicle servicing while gaining an overview of all of the transportation systems. PREREQUISITE:TRANS 102 or instructor permission.

Courses: Veterinary Assistant - Welding

Prefix Number Title Credits

VETERINARY ASSISTANT

VET 101 VETERINARY ASSISTING ESSENTIALS 5 CR
Students will be introduced to the role and responsibilities of the Veterinary Assistant in addition to basic anatomy, physiology and related science concepts.

VET 105 APPLIED PRINCIPLES II 5 CR
Coursework includes a 54-hour internship and 60 hours of classroom lecture on pharmacology, terminology, aseptic technique, and general laboratory diagnostic testing.

VET 107 APPLIED PRINCIPLES III 5 CR
Coursework includes anesthesiology, pre-op, surgical patient management, resuscitation, physical examination, radiology, and clinical computer usage.

VET 115 VETERINARY ASSISTING PRACTICUM 5 CR
This course must be taken in conjunction with Veterinary Assisting II or III, Applied Principles, depending on your section assignment by instructors. Thirty hours of this course will be in a classroom setting while an additional 24 hours will be held at various locations and times as scheduled by instructor. Students will be able to observe several animal care formats, and practice some hands-on skills.

VET 117 VETERINARY ASSISTING INTERNSHIP 5 CR
This course provides students, who have successfully completed Vet 101 with an opportunity to gain hands-on experience and apply knowledge in an animal hospital or clinic. PREREQUISITE:Student must also be enrolled in Applied Principles 105 or 107, depending on quarter of instruction and instructor assignment.

VET 120 VETERINARY MATH 2 CR
Content of this course will cover the necessary concepts involved in mathematics used in Veterinary Medicine. This will include: dosage calculations, English and metric conversions, percents, ratios, and other technical applications. PREREQUISITE:Current enrollment in VET 101.

WELDING

WLD 101 WELDING SAFETY I 2 CR
Introduction to the general welding industry, shop safety and orientation to the metal shop environment. Also electrical and compressed gas cylinder safety, and safe applications with grinders, band saws, and ironworkers. Includes First Aid/CPR Certification training.

WLD 102 WELDING SAFETY II 2 CR
In depth welding & fabricating industry safety topics, including: general fabrication shop hazards; outside construction hazards; confined spaces, fire watch, fall protection hazard training and respirator/fresh air breathing apparatus training.

WLD 103 HAND AND POWER TOOLS 4 CR
This course introduces students to the safe and proper use of hand and power tools used in the aluminum welding and fabrication trade. The uses, set-up, trouble shooting, maintenance, and proper care will be covered.

WLD 104 CAREER OPPORTUNITIES FOR WELDERS 2 CR
Survey course introduces students to careers in the welding & fabricating industry. Lecture topics will include code and non-code welding, fabricating, structural steel welding, aluminum welding, pipe welding & fitting, artistic, creative, and architectural welding, and local opportunities in the shop, refinery, and marine based industries. Guest speakers and tours of local industry will enhance the course to give students a broad-based view of the industry.

WLD 105 THERMAL CUTTING PROCESSES 3 CR
This course will introduce the student to the basics of plasma arc cutting, 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.

Prefix Number Title Credits

WLD 106 PRINT READING I 2 CR
Course will cover basics of Welding Symbols and Print Reading for Welders. Classroom Discussion will include understanding & comprehending prints and drawings, and their application in the workplace. Lab includes reading and drawing exercises.

WLD 107 WELDING LEADERSHIP I 1 CR
Team and organizational skills are highlighted in this creative activity. Students will practice these skills by participating in the planning, organization, and execution of a multifaceted public performance event, the BTC Welding Rodeo, a two day welding skills competition. Students will combine their accumulated knowledge and skills in proper welding, cutting, and fabricating techniques, safety, Metallurgy, equipment set-up and troubleshooting, and material handling techniques. Students will also apply softskills such as interpersonal relations in the workplace, event staging, advertising and promotion, creative thinking, team cooperation and leadership skills. Attendance during the 2-day event (usually Friday & Saturday) is required.

WLD 110 SMAW I 4 CR
Students will learn applications of power sources, electrode identification, and basic steel Metallurgy, while practicing lab techniques in E6010 Shield Metal Arc Welding Process in the 1F, 2F, and 3F positions, and E7018 in the 2F and 3F positions in the Weld Booth. Introduction to air carbon arc cutting and safety.

WLD 120 GMAW I 4 CR
introduction to the gas metal arc welding and metal core welding process for mild steel. Power sources, techniques, shielding gases, metallurgy, and electrode identification will be covered. The student will learn the application of this process through lab practice in the weld booth.

WLD 121 GMAW ALUMINUM I 4 CR
This introduction to the gas metal arc welding process covers safety, power sources, metallurgy, gases, filler metals, and lab practice on aluminum.

WLD 130 FCAW I 4 CR
Course covers the flux core arc welding, including dual shield and self-shielding processes. Lectures include process safety and applications, power sources, shielding gases, FCAW electrodes and metallurgy. Lab practice will be on mild steel in the weld booth.

WLD 140 GTAW I 4 CR
This Introduction to Gas Tungsten Arc Welding process covers safety, power sources, metallurgy, gases, filler metals and welding lab practice on mild steel in the weld booth.

WLD 141 GTAW ALUMINUM I 4 CR
This introduction to gas tungsten arc Welding process covers safety, power sources, metallurgy, gases, filler metals, and lab practice on aluminum.

WLD 150 STEEL FABRICATING I 2 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. SMAW, GMAW, GTAW, and FCAW welding processes may be used, as well as Plasma and Oxy/Fuel Thermal Cutting processes, and introduction to bevelers and CNC cutting equipment. The importance of accurate measuring; precision squares, angles, drilling and leveling; attention to detail, neatness, and the finished product will be demonstrated in an approved Small Fabrication Project. PREREQUISITE:WLD 101,102,103,105,106

COURSES: WELDING

Prefix Number	Title	Credits

WLD 151 ALUMINUM FABRICATION I 3 CR
Weld joint theory & prep, fabricating aluminum and shapes, application of welding symbols and print reading basics. Storage and handing techniques, metal preparation for fitting and welding, fixture and jigging tools and contamination and distortion control will be demonstrated and practiced. The importance of accurate measuring; precision squares, angles, drilling and leveling; attention to detail, neatness, and the finished product will be demonstrated in an approved Small Fabrication Project. PREREQUISITE:WLD 101,102,103,105,106

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 exercises. Students will create their own working drawing of existing object or a new project that is approved by the instructor. PREREQUISITE:WLD 106

WLD 207 WELDING LEADERSHIP II 1 CR
Team and organizational skills are highlighted in this creative activity. Students will practice these skills by participating in the planning, organization, and execution of a multifaceted public performance event such as the BTC Welding Rodeo, a two day welding skills competition. Students will combine their accumulated knowledge and skills in proper welding, cutting, and fabricating techniques, safety, Metallurgy, equipment set-up and troubleshooting, and material handling techniques. Students will also apply soft skills such as interpersonal relations in the workplace, event staging, advertising and promotion, creative thinking, team cooperation and leadership skills. Attendance during the 2-day event (usually Friday & Saturday) is required.

WLD 208 METALLURGY 3 CR
Lecture examines theory and application of metallurgical principles as they are applied to design, formation, selection, heat treating and distortion, heat effects on crystalline structure, and welding of non-ferrous and ferrous metals and their alloys, and includes a comprehensive study of welding filler metals and ANSI/AAS designations.

WLD 209 CODES AND STANDARDS 2 CR
Lecture will cover discussion of commonly used destructive and non-destructive weld testing processes and techniques, visual weld Inspection parameters and techniques, and industry accepted codes and welding standards, publications, and standardizing organizations; including AWS/ASME, ANSI, AAS, ABS and WABO.

WLD 210 SMAW II 4 CR
Shield metal arc welding on steel in all positions using fillet and groove plates and structural shapes in the welding booth. PREREQUISITE:WLD 110

WLD 211 SMAW ROOT 4 CR
Shield Metal Arc Welding of open root plate steel in the 3G and 4G positions utilizing E6010 and E7018 Electrodes to ASME VII, IX and ANSI B31.3, and WABO Standards.

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CHAPTER 7 - WE ARE HERE FOR YOU

Board of Trustees


Sonia Arevalo-Hayes


Yvonne Bianchi


Jim Cunningham


Steven W. Koch


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Administrators & Faculty

Don Anderson
Welding
B.F.A., Painting/Printmaking, University of Kansas
A.A., Painting, Johnson County Community College
ASME/ANSICertified Journeyman Alloy Pipewelder
AWS Certified Welder Inspector (CWI)
Washington Association of Building Officials (WABO) Certified Welder
Navy Certified Journeyman Alloy Pipewelder
WA Professional Technical Certification

Tracy Bailey
Radiologic Technology
A.H.S., Radiologic Technology, Trident Technical College
Certificate, Diagnostic Medical Sonography, Trident Technical College
ARRT
ARDMS
WA Professional Technical Certification

Michael Baldwin
Culinary Arts
WA Professional Technical Certification

Daniel Beeson
Automotive
ASE Master Technician
ASE L-1 Certified
Certified Journeyman Automotive Technician
WA Professional Technical Certification

Anne Bowen
Marketing
B.A., Business Administration, Western Washington University

Ruby Butterworth
BAS/ESL
M.Ed., Western Washington University
B.A., Ed., Western Washington University
Certificate of Instructional Design, Western Washington University

Thomas Carleson
Process Technology
Ph.D., Chemical Engineering, University of Washington
M.S., Chemical Engineering, University of Idaho
M.A., English as a Second Language, University of Idaho
B.S., Chemistry, Oregon State University
WA Professional Technical Certification

Sharon Carpenter
Business & CIS Tech
M.Ed., Curriculum and Instruction, University of New Orleans
B.S., Education, University of Oklahoma

Sam Cheung
Electronics
M.S., Electrical Engineering, University of Vermont
B.S., Electrical / Engineering, California State University
E.I.T., State of California
WA Professional Technical Certification

Robert Costello
Electrician
B.A., Telecommunication, Michigan State University
Washington State Master Electrician
WA Professional Technical Certification

Greg Cowan
Human Resources
Ed.D., Educational Leadership, Seattle University
M.Ed., Educational Administration, Western Washington University
B.S., Education - Math/Economics, Western Washington University

Linda Crawford
Child & Family Studies
M.A., Education/School Administration, Central Washington University
B.S., Home Economic Education, Washington State University
WA Professional Technical Certification

Liz Cunningham
Academic Support
M.Ed., Adult Education Administration, Western Washington University
B.A., Education/Math, State University College at New Paltz

Mary Curran
Nursing
B.S., Nursing, University of Washington
A.T.A., Nursing, Skagit Valley College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Jeff Curtis
Diesel
ASE Master M/H Truck Technician
ASE L-2 Certified
Journey Level Mechanic
WA Professional Technical Certification

Sharon Dahl
Business & CIS Tech
B.A., Business Education, Western Washington University
Standard Secondary Teaching Certificate
WA Professional Technical Certification

Connie Daugherty
BAS/ESL
M.A., Art History, San Diego State University
B.A., English, Pacific Lutheran University

Stan DeVries
Computer Machining
A.A.S., Industrial Technology, Seattle Central Community College
Certified Journeyman Machinist
Certified Mastercam Instructor
WA Professional Technical Certification

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Jere Donnelly
Welding
Washington Association of Building Officials (WABO) Certified Welder
WA Professional Technical Certification

Alan Dunn
Academic Support
M.A., English, Arizona State University
B.A., English, California State University

Thomas Eckert
President
Ed.D., Educational Leadership, Seattle University
M.S., Counseling Psychology, Central Washington University
B.S., Psychology, Washington State University

Darlene Edwards
Business & CIS Tech
M.Ed., Business, Western Washington University
M.B.A., Western Washington University
B.A., Accounting, Western Washington University
A.A., Liberal Arts, Peninsula Community College
Technical Communications Certificate, Western Washington University
WA Professional Technical Certification

Bruce Evenstad
Auto Collision
Auto Body Certificate, Bellingham Technical College
PPG Certified Technician Master Level
I-CAR Certified Instructor
Certified Refinish Technician for PPG Level Three
Certified Journeyman
WA Professional Technical Certification

Lee Falta
Computer Network Technology (CNET)
M.S., Computer Science, University of Alabama in Huntsville
B.S., Computer Engineering, Auburn University
Microsoft Certified Systems Administrator
Windows 2000 CompTIA Security+ Certification
Microsoft Certified Systems Engineer
Network+ Certified Professional
Certified Novell Administrator
WA Professional Technical Certification

Kathy Follman
Nursing
B.S., Nursing, University of Washington
A.A.S., Nursing, Everett Community College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Carol Gavareski
Sciences
M.S., Forest Resources, University of Washington
B.A., Biology, Whitman College
WA Professional Technical Certification

Paula Girouard
BAS/ESL
B.A., Mathematics, Birmingham-Southern College
Mathematics Secondary Teaching Certificate

Sharon Glenovich
Business & CIS Tech
B.A., Business Education, Western Washington University
WA Professional Technical Certification

Rhonda Gray
Nursing
B.S., Nursing, Seattle Pacific University
A.T.A., Nursing, Skagit Valley College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Peter Hodges
Surveying & Mapping
B.A., English, Plymouth State College
Professional Land Surveyor (PLS), WA
Licensed Land Surveyor (LLS), NH
WA Professional Technical Certification

Cindy Hollinsworth
Nursing
B.S., Nursing, University of Washington
A.T.A., Nursing, Skagit Valley College
Practical Nursing Certificate, Bellingham Vocational Technical Institute
Registered Nurse License, State of Washington
Certified Gerontological Nurse
WA Professional Technical Certification

Mary Humphries
Foundation
B.A., University of Toronto

Debra Jones
Administrative Services
B.A., Accounting, Western Washington University
Certified Public Accountant

Russell Jones
Welding
Washington Association of Building Officials (WABO) Special Inspector License

Christine Kahlbaum
Nursing
M.S., Nursing, University of Colorado Health Sciences Center
B.S., Nursing, Linfield College
Registered Nurse License, State of Washington
WA Professional Technical Certification

Susan Kerrick-Degnan
Career Center
M.S., Education: Guidance and Personnel, Eastern Montana College
B.A., Communication Arts, Eastern Montana College
A.A., Special Education, Eastern Montana College
Registered Counselor, State of Washington

David Klaffke
Student Services
M.A., Social Science/Student Development, Azusa Pacific University
B.A., Religion, Point Loma College

Tony Kuphaldt
Instrumentation
A.A.S.T., Electronic Engineering Technology, Skagit Valley College
Instrumentation & Industrial Electronics Certificate, J.M. Perry Technical Institute
Journey Level Status Instrument Technician-Primary Metals Industry
WA Professional Technical Certification

Carol Lager
Allied Health
M.Ed., Business Education, Western Washington University
B.A. Business Education, Western Washington University
Microsoft Office User Specialist Certification in Word, Access, and PowerPoint 2000
WA Professional Technical Certification

James Lee
Electrician
B.S., Electrical Engineering, Texas A&M University
Certified Journeyman Electrician, State of Washington

Marcia Leister
BAS/ESL
M.Ed., Western Washington University
B.A., Psychology, Western Washington University
Endorsements: Psychology & Social Studies Secondary Teaching Certificate

Jane Lowe-Webster
Career Center
Ed.S., Counselor Education, University of Florida
M.Ed., Counselor Education, University of Florida
B.A., Psychology, University of West Florida
Qualified Chemical Dependency Counselor (QCDC)
Registered Counselor, State of Washington

Niki Mantas
BAS/ESL
M.Ed., Secondary Education, Western Washington University
B.A., French, University of Wisconsin
Resident Teaching Certificate, State of Washington
T.E.S.L Certification, Seattle University

Dave Maricle
HVAC/Refrigeration
Certified HVAC/R Electrician
WA Professional Technical Certification

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Janell Massey
Business & CIS Tech
M.Ed., Business Education, Western Washington University
B.A., Business Education, Western Washington University
Microsoft Office User Specialist--Expert in Word, Access, and Excel 1997
Microsoft Office User Specialist Instructor--Word and Access 1997
WA Professional Technical Certification

Mike Massey
Computer Network Technology (CNET)
B.A., Business Administration/Computer Science, Western Washington University
Microsoft Certified Systems Engineer
CompTIA A+ Certified
CompTIA Network+ Certified
WA Professional Technical Certification

Brian McDonald
Culinary Arts
A.O.S., Culinary Institute of America
Certified Culinary Educator, American Culinary Assoc.
Certified Executive Chef, American Culinary Assoc.
Secusafe Certification, National Restaurant Assoc.
WA Professional Technical Certification

Karen McGuinn
Allied Dental Health
Dental Assisting Certificate, Bellingham Vocational Technical Institute
Certified Dental Assistant
WA Professional Technical Certification

Patricia McKeown
Instruction
Ed.D., Educational Leadership and Policy Studies in Higher Ed, University of Washington
M.Ed., Curriculum & Supervision, Central Washington University
B.A., Vocational Home Economics, Central Washington University

Vicky Moyle
Academic Support
M.A., Counseling Psychology, University of Colorado
M.A.T., Mathematics, Indiana University
B.S., Mathematics and Statistics, Mesa State College
B.A., Fairhaven Interdisciplinary Concentration, Western Washington University
Licensed Professional Counselor, State of Colorado
Licensed Mental Health Counselor, State of Washington

Steve Mudd
Academic Support
M.A., Counseling Psychology, National University
B.S., Applied Science in Industrial Technology, Western Illinois University
Registered Counselor, State of Washington

Carl Oekerman
Academic Support
M.S., Counseling and Mental Health, California State University, Hayward
B.A., Liberal Studies, University of California, Santa Barbara

Ken Olsen
HVAC/Refrigeration
06A Specialty Electrician
07 Specialty Electrician
06A Specialty Administrator
07 Specialty Administrator
EPA Section 608 Universal
WA Professional Technical Certification

Brian Osgoodby
Appliance Repair
Major Appliance & Refrigeration Technology Certificate, Bellingham Vocational Technical Institute
M-CAP Master Technician Certification 07D Electrician
Refrigerant Certification - Refrigeration Service Engineers Society
Technical Certification, Whirlpool, G.E., Maytag, Amana
WA Professional Technical Certification

Gregory Rehm
Computer Network Technology (CNET)
B.S., Community Health Ed, Western Washington University
Certified Netware Administrator
Microsoft Certified Professional
A+ Certified Professional
Network+ Certified Professional
Linux+ Certified
WA Professional Technical Certification

Scott Reiss
Engineering
M.S., Mechanical Engineering, Rensselaer Polytechnic Institute
B.S., Mechanical Engineering, University of Vermont
E.I.T., State of Vermont
WA Professional Technical Certification

Holly Sharf
Nursing
B.S., Nursing, University of Victoria
B.S., Industrial Technology, Central Connecticut State University
Registered Nurse License, State of Washington
WA Professional Technical Certification

Jenny Shuler
Allied Dental Health
B.S., Community Health, Western Washington University
A.A.S., Liberal Arts, Whatcom Community College
Dental Assisting Certificate - Bellingham Vocational Technical Institute
Certified Dental Assistant
WA Professional Technical Certification

Satpal Sidhu
Technology & Apprenticeship
Licenses Professional Engineer, Alberta, Canada
M.B.A., Panjab Ag University, India
B.S., Electrical Engineering, Punjab University, India
B.S., Math & Physics, Punjab University, India

Rosalind Spitzer
BAS/ESL
M.A., English, University of Washington
B.A., Education, Pacific Lutheran University

Dave Starkovich
Instrumentation
M.S., Technical Education, Western Washington University
B.S., Electronics Technology, Western Washington University
A.S., Electronics Technology, Everett Community College
Instrumentation Certificate, Perry Technical Institute

Earl Steele
Fisheries
B.S., Fisheries, University of Washington
WA Professional Technical Certification

Timothy Stettler
Engineering
B.S., Civil Engineering, Washington State University
A.A.S., Civil Engineering, Spokane Community College

Jim Swartos
Electronics
A.A.S., General Studies, Whatcom Community College
A.A., Business Administration, Whatcom Community College
General Class FCC License
WA Professional Technical Certification

Roxanne Telling
Nursing
B.N., Nursing, University of Dundee
A.T.A, Nursing, Skagit Valley College
Practical Nursing Certificate, Bellingham Vocational Techical Institute
Registered Nurse License, State of Washington
WA Professional Technical Certification

Rita Van Horn
Nursing
Ph.D., Philosophy, Leadership, Andrews University
M.S., Nursing, Loma Linda University
B.S., Nursing, Union College
Registered Nurse License, WA State

Paul Wallace
Automotive
B.A., Industrial Arts, California State University Fresno
ASE Master M/H Truck Technician
A.A., Liberal Arts, Fresno City College
ASE Master Automotive Technician
WA Professional Technical Certification

Michelle Warner
Radiologic Technology
B.S., Education and Career & Technical Education, Central Washington University
A.A., Radiologic Technology, Bellevue Community College
AART
AART Special Certification, Mammography
CA Professional Radiology Technology & Mammography Certification
WA Professional Technical Certification

Paul Washington
Building Construction
B.S., Agriculture, Ohio State University
General Contractor
WA Professional Technical Certification

Lowell Wester
Sciences
B.A., Chemistry/Secondary Education, Trinity College
D.C., Palmer College of Chiropractic
WA Professional Technical Certification

Therese Williams
Business Health
B.A., Communications, Western Washington University
Washington State EMT
Senior EMS Instructor
AHA CPR BLS Regional Faculty
Fire Safety Training Instructor
WA Professional Technical Certification

Sonja Wingard (LOA 2007-08)
Nursing
B.S., Nursing, Washington State University
Registered Nurse License, State of Washington
WA Professional Technical Certification

Judi Wise
BAS/ESL
M.A., Linguistics, California State University, Fullerton
B.A., French, University of Central Oklahoma

Jack Wollens
Business & CIS Tech
M.B.A., Technology Management, University of Phoenix
B.S.B.A., Walla Walla College
Microsoft Certified Systems Engineer
Microsoft Certified Professional
Microsoft Office Specialist
Certified Novell Administrator
WA Professional Technical Certification

Sandra Woodfield
Radiologic Technology
M.P.A., Public Administration, University of North Carolina at Wilmington
B.A., Biology, University of North Carolina at Wilmington
Radiologic Technology Certificate, University of North Carolina at Chapel Hill
ARRT
ARRT Special Certification, Mammography
WA Professional Technical Certification

Lorrie Zwiers
Surgery Technology
A.A., Nursing, Everett Community College
LPN Nursing, Bellingham Vocational Technical Institute
Registered Nurse License, State of Washington
C.N.O.R. Certified
WA Professional Technical Certification

MANAGERIAL/EXEMPT

Jane Blume
Director
Library

Moira Bross
Administrative Assistant to the Vice President
Instruction

Michael Bukis
Purchasing Manager
Purchasing/Warehouse

Kate Clark
Director, Center of Excellence for Process and Control Technology
Technology & Apprenticeship

Linda Cowan
Director, Tech Prep Consortium
Tech Prep

Sherri Daymon
Financial & Research Specialist
Administrative Services

Fran Dodson
WorkFirst Coordinator
WorkFirst

Christine Eder
Outreach Events Supervisor
Student Services

Marc Eilberg
Food Services Manager/Chef
Food Service

Sarah Fowler
Opportunity Grant Coordinator
Admissions & Advising

Liz Hale
Bookstore Manager
Bookstore

Traci Harpine
Exempt Librarian
Library

Anita Johnson
Accounting Specialist
Business Services

Robin Johnson
Human Resource Assistant Senior
Human Resources

Mary Jothen
Controller
Business Services

Dave Jungkuntz
Facilities Manager
Facilities

Joan Kammerzell
Director, Registration and Enrollment
Registration

David Knapp
FSET and Worker Rertraining Case Manager
Student Services

Ronda Laughlin
Executive Assistant to the President
Office of the President

Jennifer Lewis
Pathways Academic Coordinator
Student Services

Eve Magyar
Capital Project Coordinator
Administrative Services

Malcolm Oliver
Director,Multicultural & Student Support Services
Diversity

Charles Onion
Admissions Advisor
Admissions & Advising

Curtis Perera
Director
Computer and Information Support Services

Peg Rees-Putnam
Human Resources Assistant
Human Resources

Chris Richter
Allied Health Advisor
Admissions & Advising

Erin Runestrand
Director, Admissions & Advising
Admissions & Advising

Meagan Shea
Coordinator, Career & Job Placement Services
Career Center

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Darla Smith
Foundation Development Associate
Foundation

Brad Tuininga
Coordinator of Outreach Services
Admissions & Advising

Tami Willett
Associate Director
Human Resources

Jack E. Wollens, Sr.
Director
Financial Aid

Support Staff

Roger Adams
Utility and Grounds Lead
Facilities

Bill Anderson
Network Support Technician
Computer and Information Support Services

Sherrie Anderson
Program Office Coordinator
Technology & Apprenticeship

Susan Bargewell
Registration Clerk
Registration

Susan Beamish
Instructional Assistant
BAS/ESL

Elena Belaya
FSET/ESL Clerical Assistant
BAS/ESL

Heidi Belt
Program Office Coordinator
Allied Health

Michael Boer
Computer Maintenance Technician
Computer and Information Support Services

Barry Bowen
Warehouse Worker
Purchasing/Warehouse

Rebecca Buttone
Fiscal Technician
Business Services

Brenda Campbell
Fiscal Technician
Business Services

Vicki Cheney
Clerical Assistant, Front Office
Registration

Mary Clemons
Registration Clerk
Registration

Dmytro Danch
Grounds/Utility Worker
Facilities

Garry Davis
Custodian
Facilities

Kristi Duppenthaler
Dental Clinic Office Coordinator
Allied Dental Health

Kathy Eaton
Clerical Assistant
Business Health

Sherry Ellis
Food Service Worker
Food Service

Kevin Engels
Custodian
Facilities

Laura Fornalski
Bookstore Clerk
Bookstore

Ron Frazier
Maintenance Mechanic
Facilities

Tim Hawkins
Head Custodian
Facilities

Dawn Hawley
Library Assistant
Library

Linda Hedwall
Enrollment Clerk
Admissions & Advising

Jesse Herring
Media/Copy Services Technician
Library

Kathleen Hunter
Cashier
Business Services

Jerry Hurst
Utility and Grounds Specialist
Facilities

Traci Irvine
Payroll Coordinator
Business Services

Annie Johnston
Hospitality Services Associate
Food Service

Diane Kanda
Help Desk Coordinator
Computer and Information Support Services

Mark Karb
Custodian
Facilities

Sue Kenney
Clerical Assistant/Research & Budget
Administrative Services

Stanislav Kobets
Custodian
Facilities

Kurt Kraft
Building Maintenance Specialist
Facilities

Karri Kuhaulua
Financial Aid Assistant
Financial Aid

Leslie Langdon
Secretary to the Vice President
Administrative Services

Cozette Livesey
Registration Clerk
Registration

Patricia McConnell
Secretary to Vice President
Student Services

Dan McCort
Assistant Head Custodian
Facilities

Joan Ofteness
Program Office Coordinator
Business & CIS Tech

Phillip Onagan
Custodian
Facilities

Gary Plummer
Custodian
Facilities

Diane Pollard
Registration Clerk
Registration

Mick Reynolds
Custodian
Facilities

Cheryl Ricard
Fiscal Technician
Bookstore

Lynn Robinson
Library Specialist
Library

Bernard Salvatierra
Computer Maintenance Technician
Computer and Information Support Services

Barbara Satushek
Library Specialist
Library

Jean Schouten
Program Office Assistant
BAS/ESL

Toby Sebastian
Clerical Assistant
Career Center

We are Here for You

Carol Simonson
Financial Aid Assistant
Financial Aid

Jesse Sinderson
Instructional Technician
Assessment Center

Michelle Smith
Registration Clerk
Registration

Paul St. Julien
Building Maintenance Lead
Facilities

Dianna Stilts
Bookstore Clerk
Bookstore

Barb Sween
Clerical Assistant
Admissions & Advising

Liz Van Gordon (LOA 2007-08)
Financial Aid Coordinator
Financial Aid

Christine Vowles
Program Office Coordinator
Marketing

Melissa Wall
Program Coordinator
WorkFirst

APPENDIX

STUDENT CODE OF CONDUCT

Students are encouraged to become familiar with this document. Copies may be requested from the office of the Vice President of Student Services, College Services Building.

CHAPTER 495B-120

NEW SECTION

WAC 495B-120-010 Definitions - The definitions set forth in this section apply throughout this chapter.

1. "Board" means the board of trustees of Bellingham Technical College.
2. "College" means Bellingham Technical College.
3. "Liquor" means the definition of liquor as contained within RCW 66.04.010.
4. "Drugs" means a narcotic drug as defined in RCW 69.50.101, a controlled substance as defined in RCW 69.50.201 through 69.50.212, or a legend drug as defined in RCW 69.41.010.
5. "College facilities" means the real property controlled or operated by the college and includes all buildings and appurtenances affixed thereon or attached thereto.
6. "President" means the chief executive officer of the college appointed by the board of trustees.
7. "Disciplinary officials" means the hearing committee as denominated in WAC 495B-120-170, the dean of student services, the vice-president for instruction, and the president.
8. "Student" means a person who is enrolled at the college.
9. "Disciplinary action" means the warning, probation, expulsion, suspension, or reprimand of a student under WAC 495B-120-120 for the violation of a rule adopted in this chapter.

NEW SECTION

WAC 495B-120-020 Statement of Purpose

1. Bellingham Technical College is maintained by the state of Washington for the provision of programs of instruction in higher education and related community services. Like any other institution having its own special purposes, the college must maintain conditions conducive to the effective performance of its functions. Consequently, it has special expectations regarding the conduct of the various participants in the college community.
2. Admission to the college carries with it the prescription that the student will conduct himself or herself as a responsible member of the college community. This includes an expectation that the student will obey appropriate laws, will comply with the rules of the college and its departments, and will maintain a high standard of integrity and honesty.
3. Sanctions for violations of college rules or conduct that interferes with the operation of college affairs will be dealt with by the college, and the college may impose sanctions independently of any action taken by civil or criminal authorities. In the case of minors, misconduct may be referred to parents or legal guardians.

NEW SECTION

WAC 495B-120-030 Jurisdiction - All rules in this chapter concerning student conduct and discipline apply to every student enrolled at the college whenever the student is engaged in or present at a college-related activity whether occurring on or off college facilities.

NEW SECTION

WAC 495B-120-035 Hazing

1. Bellingham Technical College prohibits college-sponsored organizations, associations or living groups and their members from engaging individually or collectively in hazing activities.
2. Hazing is defined as any method of initiation into a student organization, association or living groups, or any pastime or amusement engaged in with respect to such an organization or living group 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, association or student living group that knowingly permits hazing shall:
      1) Be liable for harm caused to persons or property resulting from hazing; and
      2) Be denied recognition by Bellingham Technical College as an official organization, association or student living group on the Bellingham Technical College campus. If the organization, association or student living group is a corporation, whether for profit or nonprofit, the individual directors of the corporation may be held individually liable for damages.
   b. The student conduct code, WAC 495-120-040 through 495-120-150, may be applicable to hazing violations.
   c. Members of student organizations, associations or living groups who participate in or conspire to participate in hazing activities will be subject to appropriate college disciplinary actions in accordance with the student conduct code.
   d. Other disciplinary actions for individuals of student organizations, associations or living groups participating in hazing activities may include forfeiture of any entitlement to state-funded grants, scholarships or awards for a period of time determined by the college.
   e. Hazing violations are also misdemeanors punishable under state criminal law according to RCW 9A.20.021.
      1) Impermissible conduct associated with initiation into a student organization, association or living group or any pastime or amusement engaged in, with respect to the organization, association or living group, will not be tolerated.
      2) Impermissible conduct which does not amount to hazing may include conduct which causes embarrassment, sleep deprivation or personal humiliation, or may include ridicule or unprotected speech amounting to verbal abuse.
      3) Impermissible conduct not amounting to hazing is subject to any sanctions available under the student conduct code, WAC 495-120-040 through 495-120-150, depending upon the seriousness of the violation.

NEW SECTION

WAC 495B-120-040 Student Misconduct - Disciplinary action may be taken for a violation of any provision of this student code, for a violation of other college rules which may from time to time be properly adopted, or for any of the following types of misconduct:

1. Smoking is prohibited in all buildings and other areas so posted by college officials;
2. The possession, use, sale, or distribution of any alcoholic beverage or illegal drug on the college campus is prohibited. The use of illegal drugs by any student attending a college-sponsored event is also prohibited, even though the event does not take place at the college. The use of alcohol by any student attending such events on noncollege property shall conform to state law;
3. Engaging in lewd, indecent, or obscene behavior;
4. Where the student presents an imminent danger to college property or to himself or herself or other students or persons in college facilities on or off campus, or to the education process of the college;
5. Academic dishonesty, including cheating, plagiarism, or knowingly furnishing false information to the college;

6. Willful failure or demonstrated inability to comply with school standards regarding academic progress and attendance as set forth in the application for enrollment;
7. The intentional making of false statements or filing of false charges against the college and members of the college community;
8. Forgery, alteration, or misuse of college documents, records, funds, or instruments of identification with the intent to defraud;
9. Theft from or damage to college premises or property, or theft of or damage to property of a member of the college community or college premises;
10. Failure to comply with the direction of college officials acting in the legitimate performance of their duties;
11. Weapons, explosives, and dangerous chemicals. Illegal or unauthorized use or possession of any device or substance which can be used to inflict bodily harm or to damage real or personal property;
12. Sexual harassment. Engaging in unwelcome sexual advances, requests for sexual favors, and 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.

NEW SECTION

WAC 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.

NEW SECTION

WAC 495B-120-050 Civil Disturbances - In accordance with provisions contained in RCW 28B.10.571 and 28B.10.572:

1. It shall be unlawful for any person, singly or in concert with others, to interfere by force or violence with any administrator, faculty member or student of the college who is in the peaceful discharge or conduct of his duties or studies.
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 referred to the authorities for prosecution.

NEW SECTION

WAC 495B-120-060 Free Movement On Campus - The president is authorized in the instance of any event that he or she deems impedes the movement of persons or vehicles or which he or she deems to disrupt the ingress or egress of persons from the college facilities, to prohibit the entry of, or withdraw the license of, or privileges of a person or persons or any group of persons to enter onto or remain upon any portion of the college facility. The president may act through the dean of student services or any other person he may designate.

NEW SECTION

WAC 495B-120-070 Right To Demand Identification - For the purpose of determining whether probable cause exists for the application of any section of this code to any behavior by any person on a college facility, any college personnel or other authorized personnel may demand that any person on college facilities produce evidence of student enrollment at the college.

NEW SECTION

WAC 495B-120-080 Academic Dishonesty/Classroom Conduct

1. Academic dishonesty: Honest assessment of student performance is of crucial importance to all members of the academic community. Acts of dishonesty are serious breaches of honor and shall be dealt with in the following manner:
    a. It is the responsibility of the college administration and teaching faculty to provide reasonable and prudent security measures designed to minimize opportunities for acts of academic dishonesty which occur at the college.
    b 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.
    c. Any student who aids or abets the accomplishment of an act of academic dishonesty, as described in subparagraph (b) above, shall be subject to disciplinary action.
    d. This section shall not be construed as preventing an instructor from taking immediate disciplinary action when the instructor is required to act upon such breach of academic dishonesty in order to preserve order and prevent disruptive conduct in the classroom. This section shall also not be construed as preventing an instructor from adjusting the student's grade on a particular project, paper, test, or class grade for academic dishonesty.
2. Classroom conduct: Instructors have the authority to take whatever summary actions may be necessary to maintain order and proper conduct in the classroom and to maintain the effective cooperation of the class in fulfilling the objectives of the course.
    a. Any student who, by any act of misconduct, substantially disrupts any college class by engaging in conduct that renders it difficult or impossible to maintain the decorum of the faculty member's class shall be subject to disciplinary action.
    b. The instructor of each course offered by the college is authorized to take such steps as may be necessary to preserve order and to maintain the effective cooperation of the class in fulfilling the objectives of the course; provided that a student shall have the right to appeal such disciplinary action to the dean of student services.

NEW SECTION

WAC 495B-120-090 Campus Speakers

1. Student organizations officially recognized by the college may invite speakers to the campus to address their own membership and other interested students and faculty if suitable space is available and there is no interference with the regularly scheduled program of the college. Although properly allowed by the college, the appearance of such speakers on the campus implies neither approval nor disapproval of them or their viewpoints. In case of speakers who are candidates for political office, equal opportunities shall be available to opposing candidates if desired by them. Speakers are subject to the normal considerations for law and order and to the specific limitations imposed by the state constitution which prohibits religious worship, exercise or instruction on state property.
2. In order to insure an atmosphere of open exchange and to insure 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, such as requiring a designated member of the faculty as chairman, or requiring permission for comments and questions from the floor. Likewise, the president may encourage the appearance of one or more additional speakers at any meeting or at a subsequent meeting so that other points of view may be expressed. The president may designate representatives to recommend conditions such as time, manner, and place for the conduct of particular meetings.

NEW SECTION

WAC 495B-120-100 Distribution Of Information

1. Handbills, leaflets, newspapers and similar materials may be distributed free of charge by any student or students, or by members of recognized student organizations at locations specifically designated by the vice-president of instruction; 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 instruction 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.

NEW SECTION

WAC 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.

NEW SECTION

WAC 495B-120-120 Disciplinary Process

1. Any infractions of college rules may be referred by any college faculty or staff member to the dean of student services or in his or her absence the vice-president for instruction. That official shall then follow the appropriate procedures for any disciplinary action which he or she deems necessary relative to the alleged misconduct. In addition, a student may appeal disciplinary action taken by an instructor or faculty member pursuant to the provisions in WAC 495B-120-180.
2. The disciplinary official may take whatever action deemed appropriate within the framework of these rules. If the student concludes that any sanctions imposed are inappropriate, the student may appeal to the student disciplinary committee.
3. If a referral or an appeal is made to the student disciplinary committee, the committee shall hold a hearing, reach conclusions and may impose sanctions. If the student concludes that the action of the disciplinary committee is inappropriate, the student may appeal the matter to the president of the college.
4. The president of the college, after reviewing the case, may reverse, sustain or modify any sanctions which may have been imposed by the student disciplinary committee. The decision of the president is final.

NEW SECTION

WAC 495B-120-130 Disciplinary Terms - The definitions set forth in this section apply throughout WAC 495B-120-135 through 495B-120-200.

1. Disciplinary warning means oral notice of violation of college rules.
2. Reprimand means formal action after censuring a student for violation of college rules or 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 which 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 which 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 other students or persons in college facilities on or off campus, or to the educational process of the college.
5. Suspension means temporary dismissal from the college and temporary termination of student status for violation of college rules or for failure to meet college standards of conduct.
6. Expulsion means dismissal from the college and termination of student status for violation of college rules or for failure to meet the college standards of conduct for an indefinite period of time or permanently.

NEW SECTION

WAC 495B-120-135 Refunds and Access

1. Refund of fees for the quarter in which disciplinary action is taken shall be in accordance with the college's refund policy.
2. A student suspended on the basis of conduct which disrupted the orderly operation of the campus or any facility of the district may be denied access to all or any part of the campus or other district facility.

NEW SECTION

WAC 495B-120-140 Readmission After Suspension or Expulsion - Any student suspended from the college for disciplinary reasons will normally be readmitted upon expiration of the time period for which the suspension was issued. If the student has been expelled or feels that circumstances warrant reconsideration of a temporary suspension prior to its expiration, or if the student was suspended with conditions imposed for readmission, the student may be readmitted following approval of a written petition submitted to the dean of student services. Such petition must state reasons which support a reconsideration of the matter. Before readmission may be granted, such petition must be reviewed and approved by the college president or designee.

NEW SECTION

WAC 495B-120-150 Re-establishment 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 is found to have been unwarranted shall be provided the opportunity to re-establish their academic and student standing to the extent possible within the abilities of the college, including an opportunity to retake examinations or otherwise complete course offerings missed by reason of such action.

NEW SECTION

WAC 495B-120-160 Disciplinary Authority of the Dean of Student Services and Vice-President for Instruction

1. The dean of student services or, in his or her absence, the vice-president for instruction of the college, is responsible for initiating disciplinary proceedings for infractions of rules. The dean of student services or, in his or her absence, the vice-president for instruction, may delegate this responsibility to members of their staff and they may also 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 conference or hearing of the several sanctions that may be involved for the misconduct.
3. After considering the evidence in a case and interviewing the student or students involved, the dean of student services or, in his or her absence, the vice-president for instruction, 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. Impose disciplinary sanctions directly, subject to the student's right of appeal as described in this chapter. The student shall be notified in writing of the action taken except that disciplinary warnings may be given verbally;
    d. Refer the matter to the student disciplinary committee for appropriate action. 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 will also be given an opportunity to invoke the formal hearing process set forth in this chapter.

NEW SECTION

WAC 495B-120-170 Student Disciplinary Committee

1. The student disciplinary committee, convened for that purpose, will hear, de

novo, and make recommendations on all disciplinary cases referred to it by the appropriate authority or appealed to it by students. The committee will be composed of the following persons:

a. An administrator appointed by the president of the college or a designee;

b. Two members of the faculty, appointed by the college president or a designee;

c. Two representatives from the student council, appointed by the college president or a designee;

d. A counselor appointed by the college president or a designee.

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.

a. Be given a disciplinary warning;

b. Be given a reprimand;

c. Be placed on disciplinary probation;

d. Be given a suspension;

e. Be expelled;

f. Be exonerated with all proceedings terminated and with no sanctions imposed;

g. Be disqualified from participation in any school-sponsored activities.

NEW SECTION

WAC 495B-120-180 Procedural Guidelines

1. The student, if he or she wishes to appeal, has a right to a fair and impartial hearing before the committee on any charge of misconduct. The failure of a student to cooperate with the hearing procedures, however, shall not preclude the committee from making its findings of fact, reaching conclusions and imposing sanctions. Failure of the student to cooperate may be taken into consideration by the committee in recommending penalties.
2. The student shall be given notice of the date, time and place of the hearing, the charges, a list of witnesses who will appear, and a description of any documentary or other physical evidence that will be presented at the hearing. This notice shall be given to the student in writing and shall be provided in sufficient time to permit him to prepare a defense. The notice may be amended at any time prior to the hearing, but if such amendment is prejudicial to the student's case, the hearing shall be rescheduled to a later date if so requested in writing by the student.
3. The student or his or her representative shall be entitled to hear and examine the evidence against him or her and be informed of the identity of its sources; and shall be entitled to present evidence in his or her own behalf and question witnesses as to factual matters. The rules of evidence need not be applied at this hearing. The student shall have all authority which is possessed by the college to obtain information or to request the presence of witnesses or the production of other evidence relevant to the issues at the hearing.
4. Only those matters presented at the hearing, in the presence of the student involved, will be considered in determining whether the student is guilty of the misconduct charged but the student's past record of conduct may be taken into account in formulating the committee's recommendation for disciplinary action
5. The student may be represented by counsel and/or accompanied by an advisor of his choice.
6. Hearings conducted by the committee may be held in closed session at the discretion of the committee, the only exception being when the student involved invites particular persons or requests an open hearing. If at any time during the conduct of the hearing invited persons are disruptive of the proceedings, the chairperson of the committee may exclude such persons from the hearing room.
7. A majority of the committee shall set the time, place and available seating capacity for a hearing.
8. All proceedings of the committee will be conducted with reasonable dispatch and terminated as soon as fairness to all parties involved permits.
9. An adequate summary of the proceedings will be kept. As a minimum, such summary would include a tape recording of testimony. Such record will be available for inspection and copying in the office of student services during regular business hours.
10. The student will be provided with a copy of the findings of fact and the conclusions of the committee. The student will also be advised of his or her right to present, within ten calendar days, a written statement of appeal to the president of the college before action is taken on the decision of the committee. In the case of an unmarried student under eighteen years of age, written notice of any action involving dismissal or disciplinary probation is sent to the parents or guardian of the student.
11. The committee chairman shall establish general rules of procedures for conducting hearings consistent with these procedural guidelines.
12. The president of the college or a designated representative, after reviewing the case, including the report of the committee and any statement filed by the student, shall either indicate his approval of the conclusions of the committee by sustaining its decision, shall give directions as to what other disciplinary action shall be taken by modifying its decision, or shall nullify previous sanctions imposed by reversing its decision. He or she shall then notify the official who initiated the proceedings, the student and the committee chairperson.

NEW SECTION

WAC 495B-120-190 Appeals - Any disciplinary action may be appealed as described below. Notice of an appeal by a student shall be made in writing and addressed to the dean of student services within ten calendar days of the college's giving of the notice of the disciplinary action. Notice to the student of the disciplinary action shall be deemed complete when the final, written decision is either personally served, or is posted by either certified or registered mail to the address of record as maintained in the enrollment office.

1. Disciplinary action by a faculty member or other college staff member may be appealed to and, if appealed, shall be reviewed by, the dean of student services, or in his or her absence, the vice-president for instruction.
2. Disciplinary action by the appropriate disciplinary official may be appealed to and, if appealed, shall be reviewed by the student disciplinary committee.
3. Disciplinary action by the student disciplinary committee may be appealed to and, if appealed, shall be reviewed by the college president or a designee.
4. Disciplinary action by the president or designee shall either indicate approval of the conclusions by sustaining the decision or shall give directions as to what other disciplinary action shall be taken by modifying the decision, or shall nullify previous sanctions imposed by reversing its decision. The decision of the president or his or her designee shall be final.

NEW SECTION

WAC 495B-120-200 Reporting, Recording and Maintaining Records - Records of all disciplinary cases shall be kept by the disciplinary official taking or initiating the action. Except in proceedings where the student is exonerated, all documentary or other physical evidence produced or considered in disciplinary proceedings and all recorded testimony shall be preserved, insofar as is reasonably possible, for five years. No other records of proceedings wherein the student is exonerated, other than the fact of exoneration, shall be maintained in the student's file or other college repository after the date of the student's graduation or not more than five years.

DEGREE/CERTIFICATE PROGRAM ADMISSIONS APPLICATION

Mail to: Bellingham Technical College, 3028 Lindbergh Avenue, Bellingham WA 98225
Attn: Accounting Services 360.752.8356 Website: **www.btc.ctc.edu**

$35.00 Non-Refundable Application Fee (Running Start Students Exempt). $45.00 Application Fee for Practical Nursing, Surgery Technology, and Radiologic Technology.

PLEASE PRINT ***COMPLETE ALL BLANKS*** ***DO NOT WRITE IN SHADED AREAS***

Your social security number is confidential and, under a federal law called the Family Educational Rights & Privacy Act, the college will protect it from unauthorized use and/or disclosure. In compliance with state/federal requirements, disclosure may be authorized for the purpose of state and federal financial aid, Hope/Lifetime Learning tax credits, academic transcripts, assessment or accountability research.

Student ID Number 8 9 ☐☐☐☐☐☐☐ Social Security Number ☐☐☐-☐☐-☐☐☐☐

Last Name: First Name: M.I. Previous Name:

Title of Program For Which You Are Applying: _____ ☐ Full-Time ☐ Part-Time EPC

Mailing Address: Number & Street Apt # City State Zip

Birthdate: ____ /____ /____

Day Phone: ( ) _____ Area Code

Evening Phone: ( ) _____ Area Code

Male ☐ Female ☐

When do you want to enter? YEAR: _____

YRQ Plan Strt: QUARTER: fall ☐ winter ☐ spring ☐ summer ☐

Are you a U.S. Citizen? Yes - ☐ No - ☐ Canadian Citizen? Yes - ☐

If not a U.S. Citizen, what is your visa status (circle one)?

F1 = Visa Status "F" International Student
M1 = Visa Status "M" International Student
T = Temporary Resident
RF = Refugee/Parolee or Conditional Entrant
IM = Immigrant/Permanent Resident

Have you completed high school? Yes - ☐ No - ☐

Which did you receive? Diploma - ☐ GED Certificate - ☐

Are you a Running Start Student? Yes - ☐ (Grade Level _____) No - ☐

Name of last or present high school : _____

City & State: _____ Last year attended: _____

High School Code ☐

Stu Typ for R.S. ☐

Have you previously attended this college? Yes - ☐ No - ☐

If yes, last year attended: _____ Name, if different _____

Name(s) of other colleges or vocational schools attended:

_____Last year:_____Level Completed____

_____Last year:_____Level Completed____

College Codes ☐ ☐

E-Mail Address

_____

Disability Support Services are available.

By signing here, I agree to abide by the College's policy on fees, standard of progress, conduct, and parking.

I have read the College Standards Policy on the reverse side of this application.

I have received a college catalog or program brochure. :

Student Signature: _____

Admission's USE ONLY:

Adm Stat: _____

_____

COMPLETION DATE:_____

REGISTRATION APPOINTMENT: _____
BANWCH# DATE TIME

Assessment Scores:

READING: _____

MATH: _____

ALGEBRA: _____

SENTENCE SKILLS:_____

Other Requirements:

Disclosure _____

Transcript _____

Student Requested New Registration Date:

NEW START DATE: _____

CASHIER USE ONLY:

Application Fee Paid:_____

Date Received: _____

Initial: _____

Admission Information

College Standards:

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

Progress:

Each student will demonstrate satisfactory progress toward meeting program objectives as documented by the program instructor on the student's grading record. Satisfactory progress is defined as maintaining a minimum 2.0 cumulative grade point average and completion of a minimum of 67% of the enrolled course work each quarter . Individual degree/certificate 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. Degree/Certificate program students must attain a minimum cumulative grade point average of 2.0 for the total program in order to be eligible for a program completion degree/certificate.

Attendance:

A minimum of 90% monthly attendance is required to maintain satisfactory progress.

Student Code Of Conduct:

All students are subject to the Bellingham Technical College Student Code of Conduct published in Chapter 495B-120 of the Washington Administrative Code of Conduct and as defined in the Student Handbook. Disciplinary action may be taken for a violation of any provision of the student code, for violation of other college rules, or for other types of misconduct defined in the BNWC Student Code of Conduct. 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 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.

Degree & Certificate Program Refund Schedule:

Program & Credit Course Refund Policy:

100% refund if official withdrawal is submitted through the 5th Instructional Day.

40% refund if official withdrawal is submitted between the 6th Instructional Day and 20th Calendar Day.

There are NO refunds on or after the 21st Calendar Day.

Refund Information:

An Official Withdrawal is defined as when a student has submitted a completed Add/Drop form to the Registration Office before the withdrawal deadline. The refund will be calculated based on the date the form is submitted rather than the last day of attendance.

Students who 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 will receive a failing grade of F.

The college may extend the refund period for students with medical reasons or for those called into military service of the United States. Written documentation must be provided for consideration for an exception.

All requests for an exception to the Refund Policy must be submitted to the Director of Registration and Enrollment for determination.

Refunds for payments made by cash or check will be processed through the Business Office and mailed within 3 weeks.

Refunds for payments made by credit card will be processed in 2 business days.

Outstanding debts to the college will be deducted from refunds.

A 100% refund will be made when the college cancels a course.

No refund of tuition and fees will be made beyond the current quarter.

Refunds for Financial Aid students are determined on the type of aid received. Contact the Financial Aid Office at 360.752.8351 for any questions.

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.

PROGRAMS & COSTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Bellingham Technical College does not discriminate on the basis of race, color, national origin, sex, disability, or age in its program and activities or employment. The following office has been designated to handle inquiries regarding the non-discrimination policies: Human Resources Office in Rm. A2, at 360.752.8354 or 752.8515/TTY.

Appendix

Maps & Directions to Campus

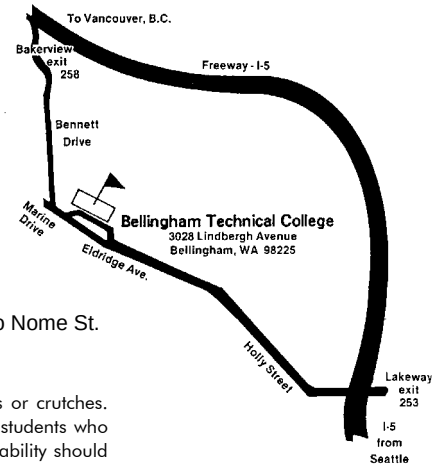
HOW TO FIND OUR CAMPUS:

(College Services Bldg. is located on Nome St.)

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 end of Guide Meridian, turn right on Broadway. Right onto Eldridge Ave. After the stone bridge **(watch for the sign)**, turn right onto Nequalicum Ave. For College Services Bldg., go straight onto Nome St.



Bellingham Technical College
3028 Lindbergh Avenue
Bellingham, WA 98225
Phone: 360.752.7000
Fax: 360.676.2798
www.btc.ctc.edu

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

Buildings & Programs

A	Library
B	Building Construction, Appliance & Refrigeration, Precision Machining & Electrician
C	Dental Assisting
CSB	Student Services, Administration (College Services Bldg)
D	Computer Networking
E, F	Business Courses, Learning Center
G	Restaurant, Cafeteria, Culinary Arts
H	Health Occupations, Practical Nursing
HAS	Nursing, Radiologic Technology, Surgery Technology (Haskell Center)
I	Auto Collision
J	Engineering, Surveying & Mapping
M	Automotive Technology
MC	Welding, Auto Collision (Morse Center)
R	Bookstore
T	Diesel Equipment
NWC	Instrumentation, Process Technology, Electronics (Northwest Center for Process Tech)
U	HVAC
Y	Family Learning Center

Appendix

Appendix

Appendix