

# BELLINGHAM TECHNICAL COLLEGE 2006-2007 CATALOG



3028 LINDBERGH AVENUE, BELLINGHAM, WA 98225-1599

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[www.btc.ctc.edu](http://www.btc.ctc.edu)

Effective Fall 2006

## COLLEGE CALENDAR - 2006-2007

**FALL QUARTER 2006**

Classes Begin	September 19
Faculty Inservice (no daytime program classes)	October 27
Veteran's Day Holiday	November 10
Continuing Program Student Registration for Winter	November 14-16
Winter Quarterly Schedule Available	November 16
Course Registration for Winter begins	November 20
Thanksgiving Holiday	November 23-24
Last day to officially withdraw or change schedule in a program	November 27
New Program Student Registration for Winter	November 27-30
Tuition/fees due for Winter	December 14
Quarter Ends	December 15

**WINTER QUARTER 2007**

Winter Break	December 16 - January 1
Classes Begin	January 2
Martin Luther King Jr. Day Holiday	January 15
President's Day Holiday	February 19
Continuing Program Student Registration for Spring	February 20-22
Spring Quarterly Schedule Available	February 22
Course Registration for Spring begins	February 26
New Program Student Registration for Spring	February 27 - March 2
Last day to withdraw or change schedule in a program	March 12
Tuition/fees due for Spring	March 22
Quarter Ends	March 30

**SPRING QUARTER 2007**

Spring Break	March 31-April 8
Classes Begin	April 9
Continuing Program Student Registration for Summer & Fall	May 14-June 13
New Program Student Registration for Summer & Fall	May 21-24
Summer Quarterly Schedule Available	May 24
Course Registration for Summer begins	May 29
Last day to withdraw or change schedule in a program	June 18
Tuition/fees due for Summer	June 14
Quarter Ends	June 29

**SUMMER QUARTER 2007**

Classes Begin	July 2
Independence Day Holiday	July 4
Last day to withdraw or change schedule in a program	August 2
Fall Quarterly Schedule Available	August 2
Course Registration for Fall begins	August 6
Quarter Ends	August 13
Tuition/fees due for Fall	August 30

**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
<i>e-mail</i>	<i>admissions@btc.ctc.edu</i>
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
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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	
<i>http://bellingham.library.ctc.edu</i>	360.752.8383
Registration	360.752.8350
<i>e-mail</i>	<i>registration@btc.ctc.edu</i>
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.

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### BTC HISTORY

Bellingham Technical College began in 1957, serving Whatcom County adults as Bellingham Vocational Technical Institute and was operated by Bellingham School District. In 1991, through State legislative action, the institution was designated a member of the Washington State Community and Technical College system as Bellingham Technical College (BTC). The College is located in a district of 2,210 square miles with a population of over 174,000. The majority of students are local, with a growing number moving to the area to enroll at BTC.

In the 2005-2006 academic year, the College served over 8,000 students. In fall 2005, 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 1,900 full-time equivalent students during the 2005-2006 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 Assistant, Culinary Arts, EMT-Paramedic and Automotive, Diesel, 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.

## 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:

## ABOUT OUR COLLEGE

### 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

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 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

**Bob Morse, President**  
President, Morse Steel Service

**Gary Nelson, Vice President**  
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**John "Jack" Haupt III, AIA, AICP  
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**Jim McCallum, DDS**

**Curt Smith, DDS**  
Washington Dental Service

**Sharon Isenhardt**  
Tiger Construction

#### STAFF

**Desmond P. McArdle**  
BTC Interim President, ex-officio

**Carol Thomas**  
Executive Director, BTC Foundation  
cthomas@btc.ctc.edu

**Darla Smith**  
Development Associate, BTC Foundation

*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.*

# Welcome to Bellingham Technical College!



Thank you for considering Bellingham Technical College and for spending some time getting to know us.

The education we provide is about more than technology and the skills to use it. We are a community of students, faculty, and staff engaged in a purposeful pursuit of learning. One of the things that make us successful is that we help each other. Our students are diverse in age, experience, and culture. Most of them graduate with the same classmates with whom they began and, along with their instructors, become a close-knit team that supports each other as they learn in their own individual ways. We have a solid group of professionals in our Student Services

division who ensure that our students receive a variety of supporting services that help them to succeed.

We engage in many partnerships with the employers in our region to keep our programs and courses technologically current, and to anticipate emerging economic trends in our surrounding businesses and industries. We do our best to provide opportunities for our faculty to stay abreast of changes in their disciplines, and we make every effort to keep the technology on our campus up to date.

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?" For the past three years 95% of our students have answered "Yes." We also survey the employers of our graduates. We ask them, "Would you hire another BTC graduate?" For 96.5% of them, the answer was "Yes." These are outstanding results, and we achieve them on a consistent basis.

If I were to single out one reason that our students enjoy outstanding success at Bellingham Technical College, it is that we do our best to treat them as individuals. Although we are growing, our faculty and staff have been able to maintain the personal relationships with students that are one of the strongest advantages of a smaller campus. We invite you to experience the success that our students have found here.

A handwritten signature in cursive script that reads "Desmond McArdle".

Desmond McArdle

Interim President

# PROGRAMS OF STUDY

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# PROGRAMS OF STUDY

## Accounting

### ACCOUNTING TECHNICIAN

#### PROGRAM DESCRIPTION

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

To be successful, accounting students should have an aptitude for working with numbers, be detail oriented, and have the ability to concentrate and communicate. Jobs in the area of accounting afford many opportunities for challenging and rewarding work. Accounting students are eligible to join the 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 wpm.

#### 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 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 & Certificate application procedure is listed on page 73.

#### ASSOCIATE IN APPLIED SCIENCE ACCOUNTING TECHNICIAN REQUIREMENTS

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting I	90	5
ACCT 242	Financial Accounting II	90	5
ACCT 243	Financial Accounting III	90	5
ACCT 245	Payroll Procedures	90	5
ACCT 246	Computerized Accounting I	90	5
ACCT 254	Managerial Accounting	90	5
ACCT 270	Internship	90	3
BUS 100	Electronic Math Applications	45	3
BUS 123	Records Management	45	3
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 178	Business English II	45	3
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 110	Data Entry	45	3
CAP 138	MS Word	90	5
CAP 142	MS Excel	90	5
CAP 146	MS Access	90	5
CIS 145	Website Development	90	5
MGMT 152	Small Business Management	45	3
MGMT210	Supervision for the Office	90	5
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		21	2
<b>TOTAL (approx. 5-6 quarters)</b>		<b>1800</b>	<b>107</b>

#### CERTIFICATE ACCOUNTING ASSISTANT REQUIREMENTS

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting I	90	5
ACCT 242	Financial Accounting II	90	5
ACCT 245	Payroll Procedures	90	5
ACCT 246	Computerized Accounting I	90	5
BUS 100	Electronic Math Applications	45	3
BUS 123	Records Management	45	3
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 110	Data Entry	45	3
CAP 142	MS Excel	90	5
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		21	2
<b>TOTAL (approx. 3 quarters)</b>		<b>1080</b>	<b>66</b>



## PROGRAMS OF STUDY

## Administrative Assistant

## PROGRAM DESCRIPTION

This program prepares students for careers in a variety of business and office settings. Students may achieve an Associate in 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, Windows, alphabetic and numeric filing, and administrative assistant support to an employer.

## APPLICATION &amp; 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 &amp; SCHEDULE

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

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

## DEGREE REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of all requirements and standards. In order to earn an Administrative Assistant degree, students must maintain a 2.0 grade point average with no course grade below C (2.0). Students may successfully challenge CAP 101, Introduction to Computers, by passing the three IC3 Certification tests. The Degree & Certificate application procedure is listed on page 73.

ASSOCIATE IN APPLIED SCIENCE  
ADMINISTRATIVE ASSISTANT  
REQUIREMENTS

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting I	90	5
BUS 100	Electronic Math Applications	45	3
BUS 123	Records Management	45	3
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 178	Business English II	45	3
BUS 184	Customer Service	36	3
BUS 225	Internship	180	6
BUS 232	Office Procedures	90	5
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 107	Computerized Keyboard Skillbuilding I	45	3
CAP 109	Computerized Keyboard Skillbuilding II	45	3
CAP 110	Data Entry	45	3
CAP 138	MS Word	90	5
CAP 142	MS Excel	90	5
CAP 146	MS Access	90	5
CAP 148	MS PowerPoint	45	3
CAP 200	Integrated Computer Apps	90	5
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		270	15
<b>TOTAL (approx. 5-6 quarters)</b>		<b>1815</b>	<b>105</b>



## PROGRAMS OF STUDY

## Appliance &amp; Refrigeration Technology

## 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 with 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 &amp; 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 &amp; 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. A majority of the classroom instruction is done between 8:00am and 9:45am, with lab activities performed during the rest of the day.

## DEGREE &amp; 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 application procedure is listed on page 73.

ASSOCIATE IN APPLIED SCIENCE  
APPLIANCE & REFRIGERATION TECHNOLOGY  
REQUIREMENTS

COURSE#	TITLE	HR	CR
APPL 100	Intro to Trade & Occup Safety	18	1
APPL 105A	Electrical Theory I	126	8
APPL 106	Electrical - Practical I	90	5
APPL 109	Tools/Testing Equipment	18	1
APPL 112	Motor Circuits	36	2
APPL 114A	Electric Dryers	126	7
APPL 116A	Auto Washers	288	15
APPL 122A	Dishwashers	144	8
APPL 124	Compactors/Disposers	72	4
APPL 126A	Microwave Ovens	108	6
APPL 191A	Leadership	18	1
APPL 201	Water Heaters	18	1
APPL 202	Gas Systems	108	6
APPL 203A	Ranges/Ovens/Cooktops	162	10
APPL 205A	Refrigeration Theory	126	7
APPL 207	Refrigeration Lab I	270	14
APPL 208A	Refrigeration Lab II	108	6
APPL 210A	Ice Makers	72	4
APPL 212A	Air Conditioners	72	4
APPL 216	Business Procedures/Practices	18	1
COM 170	Oral & Written Communications	54	5
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>126</b>

CERTIFICATE  
APPLIANCE REPAIR  
REQUIREMENTS

COURSE#	TITLE	HR	CR
APPL 100	Intro To Trade & Occup Safety	18	1
APPL 105A	Electrical Theory I	126	8
APPL 106	Electrical - Practical I	90	5
APPL 109	Tools/Testing Equipment	18	1
APPL 112	Motor Circuits	36	2
APPL 114A	Electrical Dryers	126	7
APPL 116A	Auto Washers	288	15
APPL 122A	Dishwashers	144	8
APPL 124	Compactors/Disposers	72	4
APPL 126A	Microwave Ovens	108	6
APPL 203A	Range, Ovens, Cooktops	162	10
COM 170	Oral & Written Communications	54	5
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 3 quarters &amp; 1 Summer)</b>		<b>1350</b>	<b>82</b>

PROGRAMS OF STUDY

# Auto Collision Repair Technology



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, the student will learn how to repair and refinish a damaged vehicle (including automobile and truck bodies, unibody, frames, and glass) to its original condition per industry standards. The student will have the opportunity to earn I-Car Gold Class points during the two-year course. The program also offers an *Automotive Refinishing* certificate.

**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 demonstrate their knowledge and skills to I-Car standards on soft to semi-rigid plastic and vehicle parts in simulated plastic and MIG welding, oxy-acetylene and plasma cutting, oxy-acetylene welding, spot welding 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, and spring quarters. Part-time enrollment is available in the morning section only.

### CERTIFICATE AUTOMOTIVE REFINISHING REQUIREMENTS

COURSE#	TITLE	HR	CR
ABDY 101	Intro to Collision Repair	22	2
ABDY 103	Basic Body Repair I	22	2
ABDY 105	Basic Paint	86	5
ABDY 107	Finish Product Mixing	43	2
ABDY 108	Vehicle Pre-Refinishing	80	4
ABDY 118	Vehicle Refinishing I	64	4
ABDY 119	Refinishing Foundations I	43	3
ABDY 122	Refinishing Foundations II	76	4
ABDY 126	Anticorrosion	32	2
ABDY 131	Vehicle Refinishing Procedures I	73	3
ABDY 132	Top Coat Systems I	52	3
ABDY 133	Top Coat Systems II	52	2
ABDY 136	Refinish Detailing	53	3
ABDY 137	Color Analysis, Tinting, & Blending	43	2
ABDY 141	Vehicle Refinishing Procedures II	60	3
ABDY 145	Basic Body Repair II	42	2
ABDY 236	Intro to Advanced Refinishing	74	5
ABDY 247	Autobody Practices IV: Vehicle Refinishing	63	3
ABDY 249	Advance Refinishing	42	3
ABDY 260	Work-Based Learning	74	2
COM 170	Oral & Written Communications	54	5
PSY 180	Interpersonal & Organizational Psych	54	5
MATH 100	Occupational Mathematics	54	5
<b>TOTAL (approx. 3 quarters &amp; 1 Summer)</b>		<b>1258</b>	<b>74</b>

## 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 classroom hours with most lab activities occurring in the afternoon.

## 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 application procedure is listed on page 73.

### ASSOCIATE IN APPLIED SCIENCE AUTO COLLISION REPAIR TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
ABDY 101	Intro to Collision Repair	22	2
ABDY 109	Intro to Weld. for Collision Rpr.	22	2
ABDY 110	Welding for Collision Repair	95	4
ABDY 112	Oxyacetylene Plasma Cutting	32	2
ABDY 114	Oxyacetylene Welding	32	2
ABDY 115	Intro to Non-Structural Repair	64	4
ABDY 117	Intro to Refinishing for Collision Repair	40	3
ABDY 121	Vehicle Pre-Refinishing	43	3
ABDY 123	Finish Foundations I	32	2
ABDY 124	Finish Foundations II	52	3
ABDY 125	Adv Refinishing Foundations	32	2
ABDY 127	Refinish Product Mixing	43	2
ABDY 128	Collision Damage Reporting Sys	43	3
ABDY 129	Non-Structural Repair I	62	4
ABDY 130	Vehicle Refinishing	73	4
ABDY 131	Vehicle Refinishing Procedures I	73	3
ABDY 135	Non-Structural Repair II	63	3
ABDY 136	Refinish Detailing	53	3
ABDY 137	Color Analysis, Tinting, & Blending	43	2
ABDY 140	Non-Structure Repair III	80	4
ABDY 141	Vehicle Refinishing Procedures II	60	3
ABDY 143	Non-Structural Parts Alignment & Repair	40	2
ABDY 201	MIG Welding for Collision Repair	42	3
ABDY 203	Intro to Structural Repair	43	3
ABDY 205	Plastic Repair (Bumpers & SMC)	53	3
ABDY 206	Structural Damage Analysis & Measuring	53	3
ABDY 207	Autobody Practices I: Non-Structural Repair	63	3
ABDY 208	Structural Panel Replacement I	64	3
ABDY 209	Vehicle Refinishing Practices	42	2
ABDY 230	Structural Panel Replacement II	73	3
ABDY 232	Vehicle Safety Systems	86	5
ABDY 233	Structural Glass	64	3
ABDY 235	Non-Structural Repair IV	63	3
ABDY 236	Intro to Advanced Refinishing	74	5
ABDY 240	Intro to Vehicle Systems	54	3
ABDY 243	Autobody Practices II: Structural Repair	63	3
ABDY 245	Autobody Practices III: Non-Structural Repair	63	3
ABDY 247	Autobody Practices IV: Vehicle Refinishing	63	3
ABDY 249	Advance Refinishing	42	3
ABDY 260	Work-Based Learning	74	2
COM 170	Oral & Written Communications	54	5
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psych	54	5
<b>TOTAL (approx. 6 quarters &amp; 1 Summer)</b>		<b>2340</b>	<b>133</b>

## PROGRAMS OF STUDY

## Automotive Technology



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 relation skills, as well as the technical ability necessary for employment.

**Program Outcomes:** All graduates will possess an in-depth knowledge of the skills necessary for employment in the automotive industry through internship evaluations, and by demonstrating entry-level knowledge and skills in repairs of problems in the required ASE areas and the minimum required competencies as written by NATEF (National Automotive Technicians Educational Foundation). Graduates will be successful when attempting industry standard certification exams and will pass the NATEF end-of-program exams.

## APPLICATION &amp; REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the *Automotive Technology* program at the start of fall or winter quarter. If students wish to take one Automotive course per quarter, they must start fall quarter in Trans 101, Basic Transportation Service & Systems I.

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 &amp; SCHEDULE

Students may enter *Automotive Technology* Fall or Winter quarter. For the first quarter, students will enroll into Transportation 101, 102, and 103 plus at least one additional general education class (MATH 100, COM 170 or PSY 180). We recommend enrolling into a morning MWF or an evening related class (MATH 100, COM 170 or PSY 180) during the first quarter.

Full-time enrollment qualifies for full-time financial aid. Full-time students will finish in seven quarters; summer is required.

**Fall:** Start Date: 09/19/06 End Date: 12/18/06

**Winter:** Start Date: 01/02/07 End Date: 03/14/07

**Spring:** Start Date: 04/09/07 End Date: 06/18/07

## DEGREE REQUIREMENTS

Students may apply for an Associate in Applied Science degree 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). The application procedure is listed on page 73.

ASSOCIATE IN APPLIED SCIENCE  
AUTOMOTIVE TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
AUTO 103	Engines	150	10
AUTO 107	Brakes	120	8
AUTO 122	Basic Drive Train	40	3
AUTO 141	Engine Performance I	30	2
AUTO 208	Electrical/Electronic	220	15
AUTO 209	Steering Suspension	110	7
AUTO 213	HVAC	80	5
AUTO 219	Applied Automotive Concepts I	300	9
AUTO 229	Applied Automotive Concepts II	150	5
AUTO 241	Engine Performance II	150	11
AUTO 250	Automatic Transmission/ Transaxle	90	6
AUTO 259	Applied Automotive Concepts III	96	3
AUTO 260	Manual Transmission/Drive Train	60	4
AUTO 279	Applied Automotive Concepts IV	96	3
COM 170	Oral & Written Communications	54	5
MATH 100	Occupational Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL (approx. 7 quarters)</b>		<b>2100</b>	<b>121</b>

CERTIFICATE  
BASIC TRANSPORTATION REQUIREMENTS

COURSE#	TITLE	HR	CR
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL</b>		<b>246</b>	<b>15</b>

CERTIFICATE  
GENERAL AUTOMOTIVE REPAIR REQUIREMENTS

COURSE#	TITLE	HR	CR
AUTO 103	Engines	150	8
AUTO 107	Brakes	120	8
AUTO 141	Engine Performance I	30	2
AUTO 208	Electrical Electronic Systems	220	5
AUTO 259	Applied Automotive Concepts III or	96	3
AUTO 279	Applied Automotive Concepts IV	96	3
COM 170	Oral & Written Communication or	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL</b>		<b>916</b>	<b>46</b>

## PROGRAMS OF STUDY

# 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.

## 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 Quarterly Schedule for specific information.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE

#### BOOKKEEPING ASSISTANT REQUIREMENTS

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting Part A	45	3
ACCT 141	Financial Accounting Part B	45	3
BUS 184	Customer Service	36	4
CAP 107	Computerized Keyboarding/ Skillbuilding	45	3
CAP 154	Computerized Accounting Level A Using Quickbooks	30	3
CAP 155	Computerized Accounting Level B Using Quickbooks	30	3
CAP 199	Computer Fundamentals	60	5
MGMT100	Business & Professional Ethics	30	3
<b>TOTAL (approx. 4 quarters)</b>		<b>321</b>	<b>27</b>

\*Prerequisite: Basic keyboarding skills

# Building Construction Technology

## 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 planners, 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 or a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### ASSOCIATE IN APPLIED SCIENCE BUILDING CONSTRUCTION TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
BCT 102	Intro to Building Construction	306	22
BCT 126	Building Construction I	306	22
BCT 128	Building Construction II	306	22
BCT 131	Building Construction III	342	24
BCT 133	Building Construction Specialty	360	12
BCT 192	Job Search	18	1
COM 170	Oral & Written Communications	54	5
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 5 quarters)</b>		<b>1800</b>	<b>120</b>

### CERTIFICATE CONSTRUCTION TECHNICIAN REQUIREMENTS

COURSE#	TITLE	HR	CR
BCT 102	Intro to Building Construction	306	22
BCT 126	Building Construction I	306	22
BCT 128	Building Construction II	306	22
COM 170	Oral & Written Communications	54	5
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 3 quarters)</b>		<b>1080</b>	<b>81</b>

## PROGRAMS OF STUDY

# 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.

### 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 generally held each quarter in the evening from 6:00pm to 9:00pm; some are held on Saturdays. Courses are not sequential. See a Quarterly Schedule for specific information.

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 7737.

#### CERTIFICATE BUSINESS & SUPERVISION MANAGEMENT REQUIREMENTS

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting Part A	45	3
BUS 140	Supervision & Management	30	3
BUS 141	Total Quality Management	20	2
BUS 184	Customer Service	36	4
HRM 201	Human Resource Management	33	3
HRM 210	Employment Law/Labor Relations	30	3
HRM 220	Training & Staff Development	30	3
MGMT 100	Business and Professional Ethics	30	3
MGMT101	Conflict Management	15	1
MGMT102	The Leadership Process	30	3
MGMT152	Small Business Management	45	3
<b>TOTAL (approx. 4-5 quarters)</b>		<b>344</b>	<b>31</b>

# 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.

### 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.

### CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

#### CERTIFICATE CHILD DEVELOPMENT REQUIREMENTS

COURSE#	TITLE	HR	CR
ECED 120	CDA Essentials 1: Intro to ECE/Health, Safety & Nutrition	50	4
ECED 121	CDA Essentials 2: Child Development/Learning Environments	50	4
ECED 122	CDA Essentials 3: Working with Families/Professionalism	50	4
Optional Electives:			
ECED 123	Preparation for the Child Development Associates (CDA) Assessment	10	1
BAS/ABE	Basic Academic Skills Courses		
<b>TOTAL</b>		<b>160</b>	<b>13</b>

## PROGRAMS OF STUDY

# Clerical Assistant

### PROGRAM DESCRIPTION

The *Clerical Assistant* program has two options or “tracks” in which the student can decide on: 1) a general office focus or 2) a medical office focus. Either track will prepare the student for an entry level position in almost any office environment.

### 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.

### CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

#### CERTIFICATE CLERICAL ASSISTANT - GENERAL REQUIREMENTS

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting Part A	45	3
BUS 177	Business English	45	3
BUS 184	Customer Service	36	4
CAP 107	Computerized Keyboarding/ Skillbuilding	45	3
CAP 154	Computerized Accounting Level A Using Quickbooks	30	3
CAP 199	Computer Fundamentals	60	5
MGMT100	Business & Professional Ethics	30	3
<b>TOTAL (approx. 3 quarters)</b>		<b>291</b>	<b>24</b>

# Commercial Driving

### PROGRAM DESCRIPTION

Bellingham Technical College and locally owned Pegasus Corp. 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 and 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 nonrefundable 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.

### CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

#### CERTIFICATE COMMERCIAL DRIVING REQUIREMENTS

COURSE#	TITLE	HR	CR
CODR 940	Commercial Driver License Written Test Preparation	35	3
CODR 945	Commercial Driver License Driving Test Preparation	200	11
<b>TOTAL</b>		<b>235</b>	<b>14</b>

### 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.

# 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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

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.

### ASSOCIATE IN APPLIED SCIENCE COMMERCIAL/INDUSTRIAL REFRIGERATION & HVAC TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
CREF 120	Fundamentals of Refrigeration	306	16
CREF 130	Commercial Refrigeration Sys I	306	16
CREF 140	Air Conditioning Systems	306	16
CREF 220	Heating Systems	306	16
CREF 230	Commercial Refrigeration Sys II	306	16
CREF 240	Advanced Commercial & Industrial Systems	360	19
CREF 250	Advanced Projects I	54	3
CREF 255	Advanced Projects II	54	3
CREF 260	Sec. 608 EPA Certification Type I & II		
CREF 261	ARI Light Commercial AC & Heating ICE Exam		
CREF 262	ARI Commercial Refrigeration ICE Exam		
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>120</b>
Elective courses - not required for program completion:			
CREF 256	Advanced Projects III	54	3
CREF 257	Advanced Projects IV	54	3
CREF 258	Advanced Projects V	54	3
<b>TOTAL</b>		<b>162</b>	<b>9</b>



## PROGRAMS OF STUDY

## Computer Network Technology

Bellingham Technical College is a Microsoft IT Academy member.

**PROGRAM DESCRIPTION**

An Associate in Applied Science degree in *Computer Network Technology* and a certificate in *Computer Network Support* are offered. The program prepares students to manage computer network systems through a combination of classroom theory and practical application. Students develop the knowledge and skills to troubleshoot and repair computer systems and design, install, and maintain Local Area Networks (LANs). This program prepares students for obtaining industry standard certifications such as Microsoft Certified Professional (MCP), Certified NetWare Administrator (CNA), A+, Network +, and Linux.

**Program Outcomes** Graduates earn the industry standard Microsoft Certified Professional (MCP), Certified NetWare Administrator (CNA), A+, Network +, and Linux CompTIA Network+ 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**

Students may enroll in the *Computer Network Technology* program at the start of fall, winter, or spring quarters on a space available basis. Non-program students may enroll with instructor permission if space is available. Admissions information is listed on page 61.

**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 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 IC<sup>3</sup> Certification tests. The Degree & Certificate application procedure is listed on page 73.

**ASSOCIATE IN APPLIED SCIENCE  
COMPUTER NETWORK TECHNOLOGY  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
CAP 101	Introduction to Computers	90	5
COM 170	Oral & Written Communications	54	5
IT 102	IT Ethics and Careers	90	5
IT 112	PC Hardware A+	126	8
IT 121	Introduction to Programming	90	5
IT 140	Command-Line Operating Systems	90	5
IT 141	Operating Systems	126	8
IT 142	Client/Desktop Operating Systems II	180	11
IT 160	Network Technologies	126	8
IT 210	Network Security Fundamentals	180	11
IT 220	Network Communication Infrastructure	90	5
IT 240	Unix Administration & Configuration	180	11
IT 242	Windows Server Administration	90	5
IT 243	Windows Server Network Infrastructure	90	5
IT 261	Advanced Topics in Networking I	90	5
IT 262	Advanced Topics in Networking II	90	5
IT 270	Internship	180	6
IT 272	Capstone Project	90	5
MATH 111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>128</b>

**CERTIFICATE  
COMPUTER NETWORK SUPPORT  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
CAP 101	Introduction to Computers	90	5
COM 170	Oral & Written Communications	54	5
IT 102	IT Ethics and Careers	90	5
IT 112	PC Hardware A+	126	8
IT 121	Introduction to Programming	90	5
IT 140	Command-Line Operating Systems	90	5
IT 141	Operating Systems	126	8
IT 142	Client/Desktop Operating Systems	180	11
IT 160	Networking Technologies	126	8
MATH 111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 3 quarters)</b>		<b>1080</b>	<b>70</b>

# Computer Software Support

## PROGRAM DESCRIPTION

The *Computer Software Support Technology* program will prepare students for employment in the computer technology field in jobs such as Computer Support Specialist, Technical Support, Computer Software Specialist, or Help Desk Technician. 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. The degree program will provide additional training in supervision, accounting, website development, and programming. Successful students will complete an internship.

**Program Outcomes:** Demonstrate competency in word processing, 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 will need to attend at least three quarters from 3:15pm-6:15pm. Certificate students will 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 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 IC<sup>3</sup> Certification tests. The Degree and Certificate Application Procedure is listed on page 73.

## ASSOCIATE IN APPLIED SCIENCE COMPUTER SOFTWARE SUPPORT REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 184	Customer Service	36	3
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 138	MS Word	90	5
CAP 142	MS Excel	90	5
CAP 146	MS Access	90	5
CAP 148	MS PowerPoint	45	3
CIS 145	Website Development	90	5
CIS 160	Computer User Support I	90	5
CIS 251	Script Programming	90	5
CIS 276	Internship	180	6
IT 112	PC Hardware A+	126	8
IT 141	Operating Systems	126	8
IT 160	Network Technologies	126	8
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		225	13
<b>TOTAL (approx. 5-6 quarters)</b>		<b>1818</b>	<b>105</b>

## CERTIFICATE COMPUTER APPLICATIONS SPECIALIST REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 184	Customer Service	36	3
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 138	MS Word	90	5
CAP 142	MS Excel	90	5
CAP 146	MS Access	90	5
CAP 148	MS PowerPoint	45	3
CIS 160	Computer User Support I	90	5
IT 112	PC Hardware A+	126	8
	or		
IT 141	A+ Operating Systems	126	8
	or		
IT 160	Network Technologies	126	8
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		90	5
<b>TOTAL (approx. 3-4 quarters)</b>		<b>1071</b>	<b>65</b>

# 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.

## 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 Quarterly Schedule for specific information.

## CERTIFICATE REQUIREMENTS

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

## CONSTRUCTION MANAGEMENT CERTIFICATE REQUIREMENTS

<b>COURSE#</b>	<b>TITLE</b>	<b>HR</b>	
CONST 141	Blueprint Reading	44	4
CONST 200	Basic Estimating	84	4
CONST 201	Commercial Estimating	44	4
CONST 220	Planning and Scheduling	33	3
CONST 241	Autocad for Construction	33	3
CONST 250	Safety and Accident Prevention	33	3
CONST 251	Safety Plan Administration	33	3
CONST 260	Project Management	30	3
CONST 100	Computers in Construction	33	3
CONST 280	Building Codes I	33	3
<b>TOTAL (approx. 3 quarters)</b>			<b>360 33</b>

## PROGRAMS OF STUDY

## Culinary Arts



The Culinary Arts Program is Accredited by the American Culinary Federation.

## PROGRAM DESCRIPTION

This program is designed to provide graduates with the skills and knowledge to function professionally in the hospitality industry. Bellingham Technical College's *Culinary Arts* program is taught by an award-winning faculty. Students receive a combination of theory and lab in food production, food management, purchasing and receiving, pantry, salads, soups and stocks, short order, restaurant line cooking, cafeteria service, baking, institutional cooking, starch and vegetable cooking, and dining room service. The food service industry is one of the largest and fastest growing industries in the United States. This program prepares students for careers such as sous chef, line cook, prep cook, as well as to move into management positions.

Program Outcomes: Culinary graduates will demonstrate knowledge and skills of standards in sanitation, safety, personal hygiene, and pass the National Restaurant Association Educational Foundation Applied Food Service Sanitation examination. Graduates will prepare, cook, bake, and present a variety of foods in a flavorful and artistic manner; demonstrate effective customer service, human relation and communication skills with co-workers, customers, and supervisors.

## APPLICATION &amp; REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the *Culinary Arts* program at the start of each quarter and at other times during the quarter by consultation with the program instructor. Admission is offered on a space available basis. Full-time is 6 hours per day. It is recommended that students register in MATH 100, PSY 180, or COM 170 from 1:40pm to 3:00pm in addition to their culinary coursework.

## SEQUENCE &amp; 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 &amp; 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 application procedure is listed on page 73.

CERTIFICATE  
CULINARY ARTS  
REQUIREMENTS

Students may complete the certificate in approximately 4 quarters. To complete the AAS degree, students will need to complete one to two additional quarters. It is anticipated that many of these students will be working in the food service industry during their last quarters.

COURSE#	TITLE	HR	CR
COM 170	Oral and Written Communications	54	5
CUL 106	Culinary Arts I	84	5
CUL 108	Culinary Arts II	168	10
CUL 123	Food Service Production I	192	8
CUL 130	Pies, Tarts, and Custards	60	3
CUL 131	Bread and Laminated Doughs	60	3
CUL 132	Restaurant/Individual Desserts	60	3
CUL 133	Quick Breads and Cookies	60	3
CUL 134	Cakes	60	3
CUL 135	French Pastries	60	3
CUL 143	Food Service Production II	192	8
CUL 163	Food Service Production III	192	8
CUL 172	Buffet & Table Service	120	6
FSRV 102	Sanitation, Safety, and Hygiene	36	3
FSRV 103	Intro. to Food Service	48	4
FSRV 112	Nutrition for the Food Industry	36	3
FSRV 151	Food Service Management I	48	4
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psy.	54	5
<b>TOTAL (approx. 4 quarters)</b>		<b>1638</b>	<b>92</b>

ASSOCIATE IN APPLIED SCIENCE  
CULINARY ARTS  
REQUIREMENTS

(Above listed Certificate requirements—1638 hrs/92 cr—plus the following courses)

COURSE#	TITLE	HR	CR
CAP 199	Computer Fundamentals	60	5
CUL 207	Garde Manger	90	5
CUL 250	Sous Chef	84	5
	<i>or</i>		
CUL 251	Internship Option	210	7
CUL 261	Portfolio/Assessment	18	1
FSRV 109	Food Service Personnel Mgmt	48	4
FSRV 200	Food Service Computer Apps	36	2
FSRV 240	Food Service Management II	84	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2058</b>	<b>119</b>

CERTIFICATE  
CULINARY ARTS - PASTRY

COURSE#	TITLE	HR	CR
CUL 130	Pies, Tarts, and Custards	60	3
CUL 131	Bread and Laminated Doughs	60	3
CUL 132	Restaurant/Individual Desserts	60	3
CUL 133	Quick Breads and Cookies	60	3
CUL 134	Cakes	60	3
CUL 135	French Pastries	60	3
<b>TOTAL (approx. 1 quarter)</b>		<b>360</b>	<b>18</b>

## PROGRAMS OF STUDY

# 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.

## 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE CUSTOMER SERVICE MANAGEMENT REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 140	Supervision & Management	30	3
BUS 141	Total Quality Management	20	2
BUS 184	Customer Service Essentials	36	4
HRM 201	Human Resource Management	33	3
MGMT 100	Business and Professional Ethics	30	3
MGMT 101	Conflict Management	15	1
MGMT 104	Defining Customer Service in Management	30	3
<b>TOTAL (approx. 3 quarters)</b>		<b>194</b>	<b>19</b>

# 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.

## 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 *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.

## 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 IC<sup>3</sup> Certification tests. The certificate application procedure is listed on page 73.

### CERTIFICATE DATA ENTRY SPECIALIST REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 100	Electronic Math Applications	45	3
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 110	Data Entry	45	3
CAP 142	MS Excel	90	5
CAP 146	MS Access	90	5
DEPARTMENTAL ELECTIVES		255	12
<b>TOTAL (approx. 2 quarters)</b>		<b>720</b>	<b>40</b>

# Dental Assisting

The Dental Assisting Program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the U.S. Department of Education.

## 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: Graduates will demonstrate current dental assisting techniques, the use and application of dental materials, safety and health standards; cognitive retention of dental terminology, theory and science; positive work ethics, team skills, and professionalism; and a foundation in professionalism through 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.

After acceptance in the *Dental Assisting* program, and prior to the beginning of the second quarter, students are required to:

- Have completed their high school diploma or its equivalent
- 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)

## 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. See advanced placement procedure on page 79.

## SEQUENCE AND 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.

## 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. The application procedure is listed on page 73.

### CERTIFICATE DENTAL ASSISTING REQUIREMENTS

COURSE#	TITLE	HR	CR
BIO 105	Essentials of Anatomy & Physiology	60	5
DEN 100	Intro to Dental Assisting	10	1
DEN 110	Dental Foundations	90	6
DEN 112	Chairside Assisting I	120	7
DEN 114	Dental Sciences	53	4
DEN 115	Dental Clinic Practicum I	90	5
DEN 120	Patient Assessment	120	7
DEN 122	Chairside Assisting II	106	6
DEN 124	Radiography	60	3
DEN 125	Dental Clinical Practicum II	74	4
DEN 130	Preventative Dentistry	54	3
DEN 132	Dental Specialties	15	1
DEN 134	Laboratory Procedures	33	2
DEN 135	Dental Clinical Practicum III	72	4
DEN 137	Extramural Practicum	206	7
COM 170	Oral & Written Communications	54	5
	or		
ENG 101	English Composition		
HLTH 133	HIV/AIDS for Healthcare Workers	7	0
MATH 100	Occupational Math	54	5
PSY 101	General Psychology	54	5
	or		
PSY 180	Interpersonal & Organizational Psychology		
<b>TOTAL (approx. 4 quarters)</b>		<b>1332</b>	<b>80</b>

## PROGRAMS OF STUDY

## Diesel Equipment Technology



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.

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 demonstrate entry-level knowledge and skills in repairs of problems in the required ASE areas, possess an in-depth knowledge of the medium/heavy truck repair industry, demonstrate entry-level knowledge in the use of common reference materials including Internet searches, common service and repair manuals.

## APPLICATION &amp; 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 is 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 &amp; SCHEDULE

You may enter *Diesel Equipment Technology* fall, winter or spring quarter. For your first quarter you will enroll into Transportation 101, 102, and 103 plus at least one additional class (MATH 100, COM 170 or PSY 180). We recommend you register into morning MWF or an evening related class so we can schedule your afternoons for lab sessions. Lab sessions will be scheduled Tuesdays and Thursdays and around the related classes. Students who start winter quarter will need to take other related classes 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 enrollment qualifies for full-time financial aid. As a full-time student you will finish in six quarters; summer is required.

**Fall:** Start Date: 09/19/06 End Date: 12/01/06

**Winter:** Start Date: 01/02/07 End Date: 03/14/07

**Spring:** Start Date: 04/09/07 End Date: 06/18/07

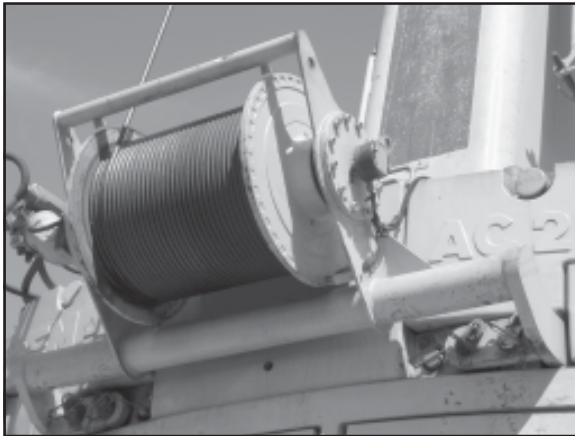
## DEGREE &amp; CERTIFICATE REQUIREMENTS

Students may apply for an Associate in Applied Science degree or a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

ASSOCIATE IN APPLIED SCIENCE  
DIESEL EQUIPMENT TECHNOLOGY  
REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
DET 104	Hydraulic Brakes	40	2
DET 106	Electrical/Electronics I	60	4
DET 116	Electrical/Electronics II	60	4
DET 126	Electrical/Electronics III	60	4
DET 129	Applied Diesel Concepts I	246	12
DET 139	Applied Diesel Concepts II	246	12
DET 201	Hydraulics	140	8
DET 202	Diesel Engines	200	13
DET 203	Drive Train	60	3
DET 204	Air Brakes	90	5
DET 205	Suspension/Steering	90	5
DET 208	PM (Preventive Maintenance)	100	6
DET 239	Applied Diesel Concepts III	300	13
MATH 100	Occupational Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2100</b>	<b>121</b>

# PROGRAMS OF STUDY



## CERTIFICATE DIESEL ENGINES & ELECTRICAL ELECTRONIC SYSTEMS REQUIREMENTS

COURSE#	TITLE	HR	CR
DET 104	Hydraulic Brakes	40	2
DET 106	Electrical/Electronics I	60	4
DET 202	Diesel Engines	200	13
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL (approx. 3 quarters)</b>		<b>546</b>	<b>34</b>

## CERTIFICATE HYDRAULICS PREVENTATIVE MAINTENANCE REQUIREMENTS

COURSE#	TITLE	HR	CR
DET 116	Electrical/Electronics II	60	4
DET 201	Hydraulics	140	8
DET 208	PM (Preventive Maintenance)	100	6
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL (approx. 3 quarters)</b>		<b>546</b>	<b>33</b>

## CERTIFICATE BASIC TRANSPORTATION REQUIREMENTS

COURSE#	TITLE	HR	CR
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL (approx. 1 quarter)</b>		<b>246</b>	<b>15</b>

## CERTIFICATE DRIVE TRAIN/BRAKES/SUSPENSION STEERING/ ELECTRICAL ELECTRONIC SYSTEMS REQUIREMENTS

COURSE#	TITLE	HR	CR
DET 126	Electrical/Electronics III	60	4
DET 203	Drive Train	60	3
DET 204	Air Brakes	90	5
DET 205	Suspension/Steering	90	5
TRANS 101	Basic Transportation Service & Systems I	82	5
TRANS 102	Basic Transportation Service & Systems II	82	5
TRANS 103	Basic Transportation Service & Systems III	82	5
<b>TOTAL (approx. 3 quarters)</b>		<b>546</b>	<b>32</b>





## PROGRAMS OF STUDY

## 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 &amp; 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.

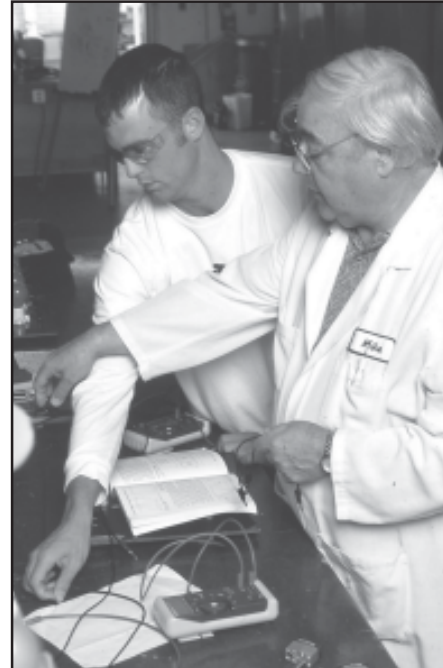
## SEQUENCE &amp; SCHEDULE

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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

ASSOCIATE IN APPLIED SCIENCE  
ELECTRICIAN  
REQUIREMENTS

COURSE#	TITLE	HRCR
COM 170	Oral & Written Communications	54 5
ELEC 100	Intro to Electrician Trade	18 1
ELEC 101A	Electricity I	252 13
ELEC 102	Electricity II	234 13
ELEC 103A	Electricity III	207 11
ELEC 104A	Electricity IV	252 13
ELEC 105A	Occupational Safety	18 1
ELEC 119A	Electric Zone Heating	18 1
ELEC 123	Soldering	18 1
ELEC 160A	Environmental Awareness	18 1
ELEC 191A	Leadership	18 1
ELEC 192A	Job Preparation	9 1
ELEC 201A	Residential Wiring	234 12
ELEC 205A	Motor Control Diagrams I	54 3
ELEC 207A	Motor Control Diagrams II	108 7
ELEC 208A	Programmable Controllers	108 7
ELEC 209A	Conduit I	18 1
ELEC 210A	Conduit II	18 1
ELEC 211A	Solid State Devices	18 1
ELEC 213	Warehouse Work	18 1
MATH 100	Occupational Mathematics	54 5
PSY 180	Interpersonal & Organizational Psychology	54 5
<b>TOTAL (approx. 5 quarters)</b>		<b>1800 105</b>

# 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

Students may enroll in the *Electronics-Biomedical Equipment Technician* program at the start of each quarter or at other times with instructor permission. Admissions information is listed on page 61.

## 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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers or CAP 199 Computer Fundamentals by passing the three IC<sup>3</sup> Certification tests. The degree application procedure is listed on page 73.

## ASSOCIATE IN APPLIED SCIENCE ELECTRONICS - BIOMEDICAL EQUIPMENT TECHNICIAN REQUIREMENTS

COURSE#	TITLE	HRCR
CAP 199*	Computer Fundamentals	60 5
COM 170	Oral and Written Communications	54 5
CTE 290	Job Search	42 4
ELTR 100	DC1	75 4
ELTR 105	DC2	75 4
ELTR 110	AC1	78 4
ELTR 115	AC2	78 4
ELTR 120	Semiconductors 1	90 5
ELTR 125	Semiconductors 2	90 5
ELTR 130	Op-Amps 1	66 3
ELTR 135	Op-Amps 2	60 3
ELTR 140	Digital 1	90 5
ELTR 145	Digital 2	90 5
ETEC 152	Microprocessors	126 6
ETEC 201	Test Equip & Troubleshooting	90 5
ETEC 205	Troubleshooting	90 5
ETEC 210	Electronic Communications	180 8
ETEC 214	Nano Technology	90 5
ETEC 236	Photonics 1 Fiber	90 5
ETEC 241	Photonics 2 Laser	90 5
ETEC 245	Sensors, Trans, Cont Circuits	96 5
ETEC 270	Biomedical Equipment	100 6
ETEC 272	Biomedical Cert. Test Prep	90 5
HT 126	Fundamentals of Medical Terminology	60 5
MATH111	Technical Math	54 5
PSY 180	Interpersonal & Organizational Psychology	54 5
<b>TOTAL (approx. 6 quarters)</b>		<b>2158 126</b>

\*CAP 101 may be taken in place of CAP 199

## OPTIONAL

ETEC 294	Work Based Learning	90 3
ETEC 295	Work Based Learning	180 6

## PROGRAMS OF STUDY

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

## APPLICATION & REGISTRATION

Students may enroll in the *Electronics-Computer Systems Technician* program at the start of each quarter or at other times with instructor permission. Admissions information is listed on page 61.

## 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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers or CAP 199 Computer Fundamentals by passing the three IC<sup>3</sup> Certification tests. The degree application procedure is listed on page 73.

## ASSOCIATE IN APPLIED SCIENCE ELECTRONICS - COMPUTER SYSTEMS TECHNICIAN REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP 199*	Computer Fundamentals	60	5
COM 170	Oral and Written Communications	54	5
CTE 290	Job Search	42	4
ELTR 100	DC1	75	4
ELTR 105	DC2	75	4
ELTR 110	AC1	78	4
ELTR 115	AC2	78	4
ELTR 120	Semiconductors 1	90	5
ELTR 125	Semiconductors 2	90	5
ELTR 130	Op-Amps 1	66	3
ELTR 135	Op-Amps 2	60	3
ELTR 140	Digital 1	90	5
ELTR 145	Digital 2	90	5
ETEC 152	Microprocessors	126	6
ETEC 201	Test Equip & Troubleshooting	90	5
ETEC 205	Troubleshooting	90	5
ETEC 210	Electronic Communications	180	8
ETEC 214	Nano Technology	90	5
IT 112	PC Hardware	126	8
IT 141	A+ Operating Systems	126	8
IT 160	Networking Technologies	126	8
MATH111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
IT Electives Approved by Instructor		150	7
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>126</b>

\*CAP 101 may be taken in place of CAP 199

## OPTIONAL

ETEC 294	Work Based Learning	90	3
ETEC 295	Work Based Learning	180	6

# 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

Students may enroll in the *Electronics-Manufacturing Technician* program at the start of each quarter or at other times with instructor permission. Admissions information is listed on page 61.

## 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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers or CAP 199 Computer Fundamentals by passing the three IC3 Certification tests. The degree application procedure is listed on page 73.

## ASSOCIATE IN APPLIED SCIENCE ELECTRONICS - MANUFACTURING TECHNICIAN REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP 199*	Computer Fundamentals	60	5
COM 170	Oral and Written Communications	54	5
CTE 290	Job Search	42	4
ELTR 100	DC1	75	4
ELTR 105	DC2	75	4
ELTR 110	AC1	78	4
ELTR 115	AC2	78	4
ELTR 120	Semiconductors 1	90	5
ELTR 125	Semiconductors 2	90	5
ELTR 130	Op-Amps 1	66	3
ELTR 135	Op-Amps 2	60	3
ELTR 140	Digital 1	90	5
ELTR 145	Digital 2	90	5
ETEC 152	Microprocessors	126	6
ETEC 201	Test Equip & Troubleshooting	90	5
ETEC 205	Troubleshooting	90	5
ETEC 210	Electronic Communications	180	8
ETEC 214	Nano Technology	90	5
ETEC 236	Photonics 1 Fiber	90	5
ETEC 241	Photonics 2 Laser	90	5
ETEC 245	Sensors, Trans, Cont Circuits	96	5
ETEC 276**	Introduction to Electronic CAD	18	1
ETEC 281	Robot Technology	138	5
ETEC 282	Certified Electronics Tech Test Prep	40	3
MATH 111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2104</b>	<b>119</b>

\*CAP 101 may be taken in place of CAP 199

\*\*ENGT 911 may be taken in place of ETEC 276

## OPTIONAL

ETEC 294	Work Based Learning	90	3
ETEC 295	Work Based Learning	180	6

## PROGRAMS OF STUDY

# Electronics - Telecommunications Technician

## 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

Students may enroll in the *Electronics-Telecommunications Technician* program at the start of each quarter or at other times with instructor permission. Admissions information is listed on page 61.

## 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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of required courses and standards. Students may successfully challenge CAP 101, Introduction to Computers or CAP 199 Computer Fundamentals by passing the three IC<sup>3</sup> Certification tests. The degree application procedure is listed on page 73.

## ASSOCIATE IN APPLIED SCIENCE ELECTRONICS - TELECOMMUNICATIONS TECHNICIAN REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP 199*	Computer Fundamentals	60	5
COM 170	Oral and Written Communications	54	5
CTE 290	Job Search	42	4
ELTR 100	DC1	75	4
ELTR 105	DC2	75	4
ELTR 110	AC1	78	4
ELTR 115	AC2	78	4
ELTR 120	Semiconductors 1	90	5
ELTR 125	Semiconductors 2	90	5
ELTR 130	Op-Amps 1	66	3
ELTR 135	Op-Amps 2	60	3
ELTR 140	Digital 1	90	5
ELTR 145	Digital 2	90	5
ETEC 152	Microprocessors	126	6
ETEC 201	Test Equip & Troubleshooting	90	5
ETEC 205	Troubleshooting	90	5
ETEC 210	Electronic Communications	180	8
ETEC 230	Introduction to Routers & Switches	90	5
ETEC 236	Photonics 1 Fiber	90	5
ETEC 241	Photonics 2 Laser	90	5
ETEC 250	Principles of Electronic Communications/Telephony	44	3
ETEC 256	Telephone Systems	75	4
ETEC 262	FCC Test Prep	60	3
IT 160	Networking Technologies	126	8
MATH 111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2117</b>	<b>123</b>

\*CAP 101 may be taken in place of CAP 199

### OPTIONAL

ETEC 294	Work Based Learning	90	3
ETEC 295	Work Based Learning	180	6

# 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 healthcare 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 (NREMT-P).

## APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College *EMT-Paramedic* program, applicants must meet college admission requirements (viewable at: (<http://www.btc.ctc.edu/CourseDocs/Admissions/AdmissionRequirements.html>)) 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.**

# PROGRAMS OF STUDY

## SEQUENCE AND SCHEDULE

The *EMT-Paramedic* is five 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 upon completion and verification of all requirements and standards.

The degree application procedure is listed on page 73.

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



## ASSOCIATE IN APPLIED SCIENCE EMT - PARAMEDIC REQUIREMENTS

COURSE#	TITLE	HR	CR
EMS 260	Advanced Cardiac Life Support	16	1.5
EMS 261	Pediatric Advanced Life Support	16	1.5
EMS 262	Pre-hospital Trauma Life Support	16	1.5
EMS 264	Pediatric Education Paramedic	16	1.5
BIO 105	Essentials of Anatomy/Physiology	60	5.0
EMTP 103	Intermediate Life Support	150	12.0
EMTP 115	ILS Clinical Practicum	132	4.0
EMTP 111	Paramedic Applied Principles I	201	18.0
EMTP 117	Paramedic Clinical I	48	1.0
EMTP 221	Paramedic Applied Principles II	126	11.0
EMTP 225	Paramedic Clinical II	86	3.0
EMTP 231	Paramedic Applied Principles III	125	11.0
EMTP 237	Paramedic Clinical III	76	3.0
EMTP 239	Paramedic Field Experience I, II, III	300	10.0
EMTP 240	Paramedic Capstone Exam	24	1.0
EMTP 245	Field Internship Evaluation	300	10.0
COM 170	Oral & Written Communications	54	5
or			
ENGL 101	English Composition		
PSY 180	Interpersonal & Organizational Psychology	54	5
or			
PSY 110	General Psychology		
MATH 100	Occupational Math	54	5

National Registry Exam (written and 2 days practical)

\*Note: State and NREMT requirements specify that the National Registry Exam is not considered classroom hours.

**TOTAL (approx. 5 quarters) 1854 110**



# Engineering Technology

## CIVIL ENGINEERING



Western Washington Student Chapter of the American Society of Certified Engineering 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 199 - Computer Fundamentals is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC<sup>3</sup> 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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

#### ASSOCIATE IN APPLIED SCIENCE CIVIL ENGINEERING TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
ENGT 127	Civil/Survey CAD 1	120	8
ENGT 128	Civil/Survey CAD 2	120	8
ENGT 132	MS Office Applications	90	5
ENGT 152	Estimating & Scheduling	90	5
ENGT 153	ArcView	120	8
ENGT 156	Earthmoving Fundamentals	90	5
ENGT 251	Land Desktop - Survey Add-on	240	11
ENGT 252	Land Desktop - Civil Add-on	240	11
ENGT 256	As-Builts & Civil Inspection	60	3
ENGT 258	Construction Materials	120	8
MATH 111	Technical Math	54	5
MATH 130	Precalculus I	60	5
MATH 131	Precalculus II	60	5
PSY 180	Interpersonal & Organizational Psychology	54	5
SURV 102	Fundamentals of Surveying I	120	6
SURV 104	Construction & Highway Surveys	120	6
SURV 116	Survey Data Systems	60	3
SURV 140	Fundamentals of GIS & GPS	60	3
SURV 152	Zoning, Permitting, & Platting	60	4
SURV 191	Professional Development & Safety	48	2
SURV 205	Advanced GIS Applications	120	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>126</b>



## PROGRAMS OF STUDY

## Engineering Technology

**MECHANICAL ENGINEERING****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 statics 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 199 - Computer Fundamentals is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC<sup>3</sup> 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 *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 12:00pm to 6:00pm.

**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 application procedure is listed on page 73.

**ASSOCIATE IN APPLIED SCIENCE  
MECHANICAL ENGINEERING TECHNOLOGY  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
ENGT 121	Drafting I	120	6
ENGT 122	CAD I: BASICS	120	6
ENGT 123	Descriptive Geometry	132	8
ENGT 125	Drafting II: Adv. Concept & Standards	156	8
ENGT 126	CAD II: Intermediate Applications	132	7
ENGT 132	MS Office Applications	90	5
ENGT 210	CAD III: Advanced Applications	120	6
ENGT 211	Project Design 1	90	4
ENGT 212	Project Design 2	60	3
ENGT 213	Project Design 3	90	4
ENGT 215	Statics	180	12
ENGT 216	Strength of Materials	120	6
ENGT 220	Parametric Modeling	120	6
ENGT 223	Structural Detailing	120	6
ENGT 224	Process Pipe Drafting	180	12
MATH 111	Technical Math	54	5
MATH 130	Precalculus I	60	5
MATH 131	Precalculus II	60	5
PSY 180	Interpersonal & Organizational Psychology	54	5
SURV 191	Professional Development & Safety	48	2
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>126</b>

**CERTIFICATE  
MECHANICAL ENGINEERING DRAFTING  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
ENGT 121	Drafting I	120	6
ENGT 122	CAD I: BASICS	120	6
ENGT 123	Descriptive Geometry	132	8
ENGT 125	Drafting II: Adv. Concept & Standards	156	8
ENGT 126	CAD II: Intermediate Applications	132	7
ENGT 132	MS Office Applications	90	5
MATH 111	Technical Math	54	5
MATH 130	Precalculus I	60	5
MATH 131	Precalculus II	60	5
PSY 180	Interpersonal & Organizational Psychology	54	5
SURV 191	Professional Development & Safety	48	2
<b>TOTAL (approx. 3 quarters)</b>		<b>1080</b>	<b>67</b>

# PROGRAMS OF STUDY

## Fisheries Technology

### 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 Center 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 spawning duties and sampling techniques as a member of a team or an individual fish culturist; effective use of computer application programs; accurate mathematical operations appropriate to the occupation; proper use of incubation units in the hatchery; appropriate oral and written communications and interpersonal human relations skills in dealing with public, fellow students, and supervisors.

### 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 quarter with instructor permission. Admission is offered on a space available basis. Students may enroll full-time or part-time. Part-time is with instructor permission only.

### CERTIFICATE FISHERIES RESOURCES REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
FISH 100	Introduction to Safety	18	2
FISH 105	Water Quality	18	1
FISH 111	Salmonid Biology	36	3
FISH 116	Operation Of Computers I	18	1
FISH 125	Sampling Techniques	36	3
FISH 133	Hatchery Operations I	72	5
FISH 135	Spawning Techniques	162	12
FISH 146	Fish and Shellfish Biology	36	3
FISH 150	Operation of Computers II	36	3
FISH 155	Environmental Awareness	36	3
FISH 161	Aquaculture Techniques	72	6
FISH 170	Hatchery Operations II	54	4
FISH 175	Operation of Computers III	18	1
FISH 186	Hatchery Operations III	144	10
FISH 192	Job Search Tech and Resume	36	3
FISH 195	Field Projects	126	6
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 3 quarters)</b>		<b>1080</b>	<b>81</b>

### 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.

<b>Fall:</b>	Start Date: 09/05/06	End Date: 12/15/06
<b>Winter:</b>	Start Date: 01/02/07	End Date: 03/30/07
<b>Spring:</b>	Start Date: 04/09/07	End Date: 06/15/07
<b>Summer:</b>	Start Date: 06/18/07	End Date: 08/31/07

### 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 application procedure is listed on page 73.

### ASSOCIATE IN APPLIED SCIENCE FISHERIES TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
FISH 100	Introduction to Safety	18	2
FISH 105	Water Quality	18	1
FISH 111	Salmonid Biology	36	3
FISH 116	Operation of Computers I	18	1
FISH 125	Sampling Techniques	36	3
FISH 133	Hatchery Operations I	72	5
FISH 135	Spawning Techniques	162	12
FISH 146	Fish and Shellfish Biology	36	3
FISH 150	Operation of Computers II	36	3
FISH 155	Environmental Awareness	36	3
FISH 161	Aquaculture Techniques	72	6
FISH 170	Hatchery Operations II	54	4
FISH 175	Operation of Computers III	18	1
FISH 186	Hatchery Operations III	144	10
FISH 192	Job Search Tech and Resume	36	3
FISH 195	Field Projects	126	6
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5

In consultation with the program instructor, students **must** complete **720** hours / **42** credits from the following electives:

FISH 200	Adv Fisheries Technician I	270	17
FISH 205	Fish Tech Field Projects I	90	4
FISH 210	Adv Hatchery Fish Culture I	270	17
FISH 215	Hatchery Field Projects I	90	4
FISH 220	Adv Net Pen Fish Culture I	270	17
FISH 225	Net Pen Field Projects I	90	4
FISH 230	Adv Shellfish Culture I	270	17
FISH 235	Shellfish Field Projects I	90	4
FISH 240	Adv Habitat Restoration I	270	17
FISH 245	Habitat Restoration Field Projects I	90	4
FISH 250	Adv Fisheries Technician II	270	17
FISH 255	Fish Tech Field Projects II	90	4
FISH 260	Adv Hatchery Fish Culture II	270	17
FISH 265	Hatchery Field Projects II	90	4
FISH 270	Adv Net Pen Fish Culture II	270	17
FISH 275	Net Pen Field Projects II	90	4
FISH 280	Adv Shellfish Culture II	270	17
FISH 285	Shellfish Field Projects II	90	4
FISH 290	Adv Habitat Restoration II	270	17
FISH 295	Habitat Restoration Field Projects II	90	4

**TOTAL (approx. 5 quarters) 1800 123**

## PROGRAMS OF STUDY

# 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.

## 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.

## SEQUENCE & SCHEDULE

One to three courses are offered quarterly in the evening, generally from 6:30pm to 9:30pm. 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.



### CERTIFICATE HUMAN RESOURCE MANAGEMENT REQUIREMENTS

COURSE#	TITLE	HR	CR
HRM 201	Mgmt. of Human Resources- An Overview	33	3
HRM 205	Recruitment & Staffing Policies	30	3
HRM 207	Fundamentals of Benefits/ Compensation	30	3
HRM 210	Employment Law & Labor Relations	30	3
HRM 220	Training & Staff Development	30	3
HRM 235	Human Resource Information Systems	30	3
HRM 240	Risk Management & Safety	30	3
HRM 245	Diversity in the Workplace	10	1
HRM 255	Strategic Human Resources	30	3
HRM 260	Conducting Internal Investigations	10	1
MGMT100	Business & Professional Ethics	30	3
<b>TOTAL (approx. 4-5 quarters)</b>		<b>293</b>	<b>29</b>

# 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.

## 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 6:30pm to 9:30pm 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE HYPNOTHERAPY REQUIREMENTS

COURSE#	TITLE	HR	CR
HLTH 103	CPR: Adult Heartsaver	3	0
HLTH 131	HIV/AIDS for Counselors and other Healthcare Professionals	4	0
HYPN 101	Basic Hypnosis for the Healthcare Field	50	5
HYPN 102	Intermediate Hypnotherapy for the Healthcare Field	50	5
HYPN 103	Advanced Hypnotherapy Techniques	50	5
<b>TOTAL (approx. 3 quarters)</b>		<b>157</b>	<b>15</b>

# Industrial Maintenance Technology (IMTEC)

## PROGRAM DESCRIPTION

The Associate in Applied Science degree in *Industrial Maintenance Technology (IMTEC)* 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). Through a combination of classroom theory and practical application, students develop a strong industrial maintenance foundation in the program core. Elective courses offer students opportunity to specialize toward their individual goals.

## APPLICATION & REGISTRATION

Admissions information is listed on page 61.

### DEGREE & CERTIFICATE REQUIREMENTS

The Industrial Maintenance Technology (IMTEC) Program is currently under revision. The courses and degree and certificate requirements are being modified to reflect on-line learning through Coastal Training Technologies®.

For further information, contact the Engineering & Technology Department at 360.752.8444.



## PROGRAMS OF STUDY

# 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

Admissions information is listed on page 61.

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.

CAP 199 - Computer Fundamentals is a required prerequisite for students to enroll in this program. Students may test out of this by passing the three IC<sup>3</sup> 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 *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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of all requirements and standards. Students must maintain a 2.0 grade point average with no course (including related instruction) below C- (1.7) to earn the degree. The application procedure is listed on page 73.

### ASSOCIATE IN APPLIED SCIENCE INSTRUMENTATION & CONTROL TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
<b>First Year Courses</b>			
COM 170	Oral & Written Communications	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
MATH 111	Technical Math	54	5
ELTR 100	DC1	75	4
ELTR 105	DC2	75	4
ELTR 110	Alt. Current I	78	4
ELTR 115	Alt Current II	78	4
ELTR 120	Semiconductors I	90	5
ELTR 125	Semiconductors II	90	5
ELTR 130	Op-Amps I	66	3
ELTR 135	Op-Amps II	60	3
ELTR 140	Digital I	90	5
ELTR 145	Digital II	90	5
ELTR 152	Microprocessors	126	6
<b>Second Year Courses</b>			
PHSY 102	Fundamentals of Physics II	40	3
CAP 199	Computer Fundamentals	60	5
INST 200	Introduction to Instrumentation	30	1
INST 205	Job Prep I	30	1
INST 206	Job Prep II	30	1
INST 240	Pressure and Level Measurement	120	5
INST 241	Temperature and Flow Measurement	120	5
INST 242	Analytical Measurement	90	3
INST 250	Final Control Elements	100	5
INST 251	PID Controllers and Tuning	100	5
INST 252	Process Optimization and Control Strategies	90	3
INST 260	Data Acquisition Systems	70	3
INST 261	Programmable Logic Controllers	100	5
INST 262	DCS and Fieldbus	100	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>113</b>
ELECTIVE:			
INST 290	Internship	360	10

# PROGRAMS OF STUDY

## Legal Administrative Assistant

### ASSOCIATE IN APPLIED SCIENCE LEGAL ADMINISTRATIVE ASSISTANT REQUIREMENTS

#### 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 Professionals (IAAP). The program offers a *Legal Administrative Assistant* Associate in Applied Science (A.A.S.) degree or a *Legal Assistant Certificate*.

#### 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

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 IC<sup>3</sup> certification tests.

Students may apply for an Associate in Applied Science degree or a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

COURSE#	TITLE	HR	CR
ACCT 141	Financial Accounting I	90	5
BUS 100	Electronic Math Applications	45	3
BUS 123	Records Management	45	3
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 178	Business English II	45	3
BUS 184	Customer Service	36	3
BUS 200	Business Law	90	5
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 107	Computerized Keyboard Skillbuilding I/Filing	45	3
CAP 109	Computerized Keyboard Skillbuilding II	45	3
CAP 138	MS Word	90	5
CAP 142	MS Excel	90	5
CAP 148	PowerPoint	45	3
LGL 127	Legal Office Procedures	90	5
LGL 132	Legal Terminology/Transcription	90	5
LGL 211	Legal Document Processing	90	5
LGL 226	Internship	180	6
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		225	13
<b>TOTAL (approx. 5 - 6 quarters)</b>		<b>1815</b>	<b>108</b>

### CERTIFICATE LEGAL ASSISTANT REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 123	Records Management	45	3
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 178	Business English II	45	3
BUS 200	Business Law	90	5
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 107	Computerized Keyboard Skillbuilding I	45	3
LGL 127	Legal Office Procedures	90	5
LGL 132	Legal Terminology/Transcription	90	5
LGL 211	Legal Document Processing	90	5
LGL 225	Internship	90	3
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		45	3
<b>TOTAL (approx. 3<sup>1/2</sup> quarters)</b>		<b>1104</b>	<b>65</b>

## PROGRAMS OF STUDY

# 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.

## 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE LEADERSHIP MANAGEMENT REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 140	Supervision & Management	30	3
BUS 141	Total Quality Management	20	2
HRM 201	Human Resource Management	33	3
MGMT 100	Business & Professional Ethics	30	3
MGMT 101	Conflict Management	15	1
MGMT 102	The Leadership Process	30	3
MGMT 152	Small Business Management	45	3
<b>TOTAL (approx. 3 quarters)</b>		<b>203</b>	<b>18</b>

# 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.

## 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.

## CERTIFICATE REQUIREMENTS

Student may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE MEDICAL CODING REQUIREMENTS

COURSE#	TITLE	HR	CR
BIO 105	Essentials of Anatomy & Physiology	60	5
BIO 127	Diseases of the Human Body	48	4
*HT 126	Fundamentals of Medical Terminology	60	5
HT 135	Pharmacology for the Medical Office	20	2
HT 230	Medical Coding ICD-9	30	3
HT 240	Medical Coding CPT	30	3
HT 242	Medical Coding Applications	42	3
HT 250	Advanced Medical Coding	60	5
HT 262	Medical Coding Internship	30	1
HT 270	Excel for the Medical Office	30	2
<b>TOTAL (approx. 5 quarters)</b>		<b>410</b>	<b>33</b>

\*HT 129 may be taken in place of HT 126.

## PROGRAMS OF STUDY

# 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 medical offices, hospitals or insurance companies. 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.

## REGISTRATION

Admissions information is listed on page 61.

Students may enroll in the *Medical Billing and Coding Generalist* program at the start of fall and winter quarters only. Admission is offered on a space available basis. This is a full-time, two-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 full-time quarters.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

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

### CERTIFICATE MEDICAL CODING & BILLING GENERALIST REQUIREMENTS

COURSE#	TITLE	HR	CR
BIO 105	Essentials of Anatomy & Physiology	60	5
BIO 127	Diseases of the Human Body	48	3
BUS 184	Customer Service	36	3
BUS 221	Internship	30	1
BUS 230	Medical Office Procedures	90	5
*CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 110	Data Entry	45	3
HT 120	Medical Insurance Billing	60	5
HT 126	Fundamentals of Medical Terminology	60	5
HT 135	Pharmacology for Medical Office	20	2
HT 230	Medical Coding ICD-9	30	3
HT 240	Medical Coding CPT	30	3
HT 265	Medical Coding & Billing Practicum	60	4
<b>TOTAL (approx. 2 quarters)</b>		<b>749</b>	<b>53</b>

\*CAP 199 may be accepted in place of CAP 101.

# 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.

## 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE MEDICAL INSURANCE BILLING REQUIREMENTS

COURSE#	TITLE	HR	CR
BIO 105	Essentials of Anatomy & Physiology	60	5
BIO 127	Diseases of the Human Body	48	4
HT 120	Medical Insurance Billing	60	5
HT 126	Fundamentals of Medical Terminology	60	5
<i>or</i>			
HT 129	Comprehensive Medical Terminology (online) may be taken instead of HT 126		
HT 135	Pharmacology for the Medical Office	20	2
HT 230	ICD-9 Coding	30	3
HT 240	CPT Coding	30	3
HT 270	Excel for the Medical Office	30	2
<b>TOTAL (approx. 4 quarters)</b>		<b>338</b>	<b>29</b>



## PROGRAMS OF STUDY

# 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.

## APPLICATION & REGISTRATION

Admissions information is listed on page 62.

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.

## 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 IC<sup>3</sup> Certification tests. The Certificate application procedure is listed on page 73.

### CERTIFICATE MEDICAL RECEPTIONIST REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 123	Records Management	45	3
BUS 184	Customer Service	36	3
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 110	Data Entry	45	3
CAP 106	Formatting with MS Word	60	4
BUS 230	Medical Office Procedures	90	5
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		270	15
<b>Recommended Elective HT 126 Fundamentals of Medical Terminology</b>		<b>60</b>	
<b>TOTAL (approx. 2 quarters)</b>		<b>720</b>	<b>45</b>

# 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.

## 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE MEDICAL RECORDS CLERK REQUIREMENTS

COURSE#	TITLE	HR	CR
HT 126	Fundamentals of Medical Terminology	60	5
HT 129	Comprehensive Medical Terminology (online) may be taken instead of HT 126		
HT 130	Medical Office Procedures	90	5
HT 135	Pharmacology for the Medical Office	20	2
HT 145	Health Care Records Systems	60	5
HT 260	Health Care Records Internship	48	2
HT 270	Excel for the Medical Office	30	2
<b>TOTAL (approx. 3 quarters)</b>		<b>308</b>	<b>21</b>

*Prerequisite: Students must be able to keyboard a minimum of 45 wpm.*

# Medical Transcription

## PROGRAM DESCRIPTION

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

## 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.



### CERTIFICATE MEDICAL TRANSCRIPTION REQUIREMENTS

*Prerequisite: Student must have basic keyboarding skills. Students can test out of CAP 107 with a typing speed of 45 wpm or better.*

COURSE#	TITLE	HR	CR
BIO 105	Essentials of Anatomy & Physiology	60	5
HT 126	Fundamentals of Medical Terminology	60	5
CAP 107	Computerized Keyboard Skillbuilding	45	3
HT 135	Pharmacology for the Medical Office	20	2
HT 108	Medical Transcription I	30	3
HT 109	Medical Transcription II	60	5
<b>TOTAL (approx. 4 quarters)</b>		<b>275</b>	<b>23</b>

## PROGRAMS OF STUDY

## Nursing

**BELLINGHAM TECHNICAL COLLEGE OFFERS A CAREER LADDER IN NURSING ASSISTANT, PRACTICAL NURSING, AND REGISTERED NURSING.**

**NURSING ASSISTANT****PROGRAM DESCRIPTION**

The *Nursing Assistant* program provides instruction for persons interesting in obtaining certification as a Nursing Assistant to enter positions in a nursing care facility such as an extended care facility, hospital, clinic, or home health agency. The program is approved by the State of Washington and meets all OBRA requirements.

Program Outcome: Students completing the *Nursing Assistant* program will be able to take the Washington State written and practical examination for certification as a Nursing Assistant Certified and State certification.

**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.

**SEQUENCE & SCHEDULE**

The *Nursing Assistant* certificate takes approximately three to five 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 12:00pm to 6:30pm. 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.

**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.

**CERTIFICATE  
NURSING ASSISTANT  
REQUIREMENTS**

<u>COURSE#</u>	<u>TITLE</u>	<u>HR</u>	<u>CR</u>
NA 101	Nursing Assistant Essentials	38	3
NA 102	Nursing Assistant Clinical	51	2
HLTH 103	CPR: Adult Heartsaver	3	0
HLTH 133	HIV/AIDS: For Healthcare Professional	7	0
<b>TOTAL</b>		<b>99</b>	<b>5</b>

# PROGRAMS OF STUDY

## PRACTICAL NURSING

### 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:** Graduates will demonstrate clinical competency in the nursing process, communication skills, client teaching, personal/professional responsibility as a member of a learning team, nursing knowledge and critical thinking. Graduates will demonstrate entry level competence on the national practical nursing exam (NCLEX-PN).

### ARTICULATION WITH RN EDUCATION

Students planning to continue their nursing education should meet with the program counselor as well as with the Admissions Department of the institution offering the program to determine admission requirements and transferability of courses. Historically, graduates of the Bellingham Technical College *Practical Nursing* program are admitted to the second year of the Associate Degree RN program upon successful completion of all other program prerequisites. Transferability is determined by the receiving institution. It is recommended that students take Math 99.

### APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College *Practical Nursing* program, applicants must meet college admission requirements as listed on page 61 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.

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 second clinical series).

### 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 78.

### N.A.C. CERTIFICATE REQUIREMENTS

*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.).

### SEQUENCE & SCHEDULE

Practical Nursing students begin by completing BIO 121 - Cell Biology, ENG 101 English Composition, PSY 101 - 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, BIO 210/211, 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 part-time 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 8:00am and 3:00pm 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 8:00am and 3:00pm 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.

### 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 application procedure is listed on page 73.

#### CERTIFICATE PRACTICAL NURSING REQUIREMENTS

COURSE#	TITLE	HR	CR
ENGL 101	English Composition	54	5
MATH 98	Elementary Algebra	54	5
MATH 99	Intermediate Algebra		
PSY 101	General Psychology	55	5
BIO 121	Cell Biology	66	5
BIO 210	Anatomy & Physiology I	78	5
BIO 211	Anatomy & Physiology II	78	5
NUR 105	Pharmacology	16	2
<b>NUR 010</b>	<b>Nursing Foundations I:</b>		
HLTH 133	HIV/AIDS for Healthcare Professionals	7	0
NUR 101	Common Health Needs	233	15
NUR 102	Nursing Practice 1	160	7
<b>NUR 020</b>	<b>Nursing Foundations II:</b>		
NUR 121	Common Health Disturbances 1	240	15
NUR 122	Nursing Practice 2	160	7
<b>NUR 030</b>	<b>Nursing Foundations III:</b>		
NUR 131	Common Health Disturbances 2	240	15
NUR 132	Nursing Practice 3	160	7
<b>TOTAL</b>	<b>(approx. 5 quarters full-time or 9 quarters part-time)</b>	<b>1600</b>	<b>98</b>

# PROGRAMS OF STUDY

## REGISTERED NURSING

### LPN TO RN BRIDGE CERTIFICATE PROGRAM DESCRIPTION

This certificate includes the additional general education requirements for LPNs to enter the second year of an ADN/RN program. This certificate is available to those individuals who have graduated from a PN program containing the relevant coursework, are now LPNs, and who wish to continue their education to become RNs.

### APPLICATION & REGISTRATION

After completing this series of courses, students will be prepared to enter the Registered Nursing:LPN to RN Option. Students should note that each of these courses has a prerequisite.

To qualify for the *LPN to RN Bridge Certificate*, the student will:

- 1) Be a Licensed Practical Nurse (LPN)
- 2) Have completed all of the following with a grade of C or better:

MATH 99	Intermediate Algebra	55hrs (5cr)
ENG 101	Composition	54hrs (5cr)
BIO 121	Cell Biology	54hrs (5cr)
BIO 210	Anatomy & Physiology I	54hrs (5cr)
BIO 211	Anatomy & Physiology II	54hrs (5cr)
PSY 101	General Psychology	54hrs (5cr)

### SEQUENCE AND SCHEDULE

The four courses are offered as a two quarter sequence.

### CERTIFICATE REQUIREMENTS

To apply for the *LPN-RN Bridge* certificate, complete the checklist, including the BTC Admissions application form. Students may apply for a certificate upon successful completion of all program requirements. The application procedure is listed on page 73.

#### LPN TO RN BRIDGE CERTIFICATE REQUIREMENTS

COURSE#	TITLE	HR	CR
CHEM 131	Inorganic Chemistry	66	5
BIO 215	General Microbiology	77	5
PSY 210	Developmental Psychology	55	5
MATH 130	PreCalculus I	60	5
<b>TOTAL</b>		<b>258</b>	<b>20</b>

## REGISTERED NURSING

### REGISTERED NURSING: LPN TO RN OPTION

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).

### APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College *Registered Nursing: LPN to RN Option*, applicants must complete an application packet. Application packets are available by calling the Admissions office at 360-752-8345. 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
- Evidence of recent successful completion of a PN program
- Completed BTC admissions application and \$45 fee
- Official transcripts containing evidence of successful completion of the prerequisite courses with a 2.0 or above
- BIO 210 Anatomy & Physiology I 78 hrs (5 cr)
- BIO 211 Anatomy & Physiology II 78 hrs (5 cr)
- ENG 101 English Composition 54 hrs (5 cr)
- BIO 215 General Microbiology 77 hrs (5 cr)
- PSY 210 Developmental Psychology 55 hrs (5 cr)
- MATH 130 Pre-Calculus I 60 hrs (5 cr)

Submit certificate application materials and transcripts to:

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

### SEQUENCE AND SCHEDULE

The *LPN to RN Option* begins fall quarter with continuous enrollment through spring quarter (three quarters). 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 REQUIREMENTS

Students may apply for a degree upon completion and verification of all requirements and standards. The degree application procedure is on page 73.

#### REGISTERED NURSING: ASSOCIATE IN APPLIED SCIENCE LPN TO RN OPTION REQUIREMENTS

COURSE#	TITLE	HR	CR
NUR 211	Nursing Dimensions I	70	7
NUR 212	Client Care: Management Practice I	60	3
NUR 221	Nursing Dimensions II	60	6
NUR 222	Client Care: Management Practice II	80	4
NUR 231	Nursing Dimensions III	50	5
NUR 234	Capstone Clinical	100	5
<b>TOTAL</b>		<b>420</b>	<b>30</b>

# Office Assistant / Receptionist

## 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 (three minute timed writing with a three error limit, 40 wpm), word processing (MOUS certification), written business communications, business math, effective oral communications 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 quarters. Because not all courses are offered every quarter, completion times may vary depending on which quarter the student first enrolls.

## 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 IC<sup>3</sup> Certification tests. The certificate application procedure is listed on page 73.

### CERTIFICATE OFFICE ASSISTANT REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 100	Electronic Math Applications	45	3
BUS 123	Records Management	45	3
BUS 150	Mathematics for Business	90	5
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 178	Business English II	45	3
BUS 184	Customer Service	36	3
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
CAP 138	MS Word	90	5
CAP 142	MS Excel	90	5
CAP 148	MS PowerPoint	45	3
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		210	12
<b>TOTAL (approx. 3 quarters)</b>		<b>1080</b>	<b>67</b>

### CERTIFICATE RECEPTIONIST REQUIREMENTS

COURSE#	TITLE	HR	CR
BUS 100	Electronic Math Applications	45	3
BUS 123	Records Management	45	3
BUS 171	Technical Communications	90	5
BUS 177	Business English I	45	3
BUS 184	Customer Service	36	3
BUS 280	Portfolio/Assessment	15	1
CAP 101	Introduction to Computers	90	5
CAP 105	Computerized Touch Keyboarding	30	2
CAP 106	Formatting with MS Word	60	4
PSY 180	Interpersonal & Organizational Psychology	54	5
DEPARTMENTAL ELECTIVES		225	13
<b>TOTAL (approx. 3 quarters)</b>		<b>735</b>	<b>47</b>

## PROGRAMS OF STUDY

## 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 defined 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.

**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.

**APPLICATION & REGISTRATION**

Admission information is listed on page 61.

Students may enroll in the *Operations Management* program at the start of each quarter. Upon receiving a registration appointment, students may 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.

To enroll in individual courses, students do not need to meet with the program Dean.

**SEQUENCE AND 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 REQUIREMENTS**

Students may apply for an Associate in Applied Science degree or a certificate upon successful completion of all program requirements. The application procedure is listed on page 74.

**CERTIFICATE  
OPERATIONS MANAGEMENT  
REQUIREMENTS**

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 576 clock hours (30 credits).

**ASSOCIATE IN APPLIED SCIENCE  
OPERATIONS MANAGEMENT  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
MATH 111	Technical Math	54	5
COM 170	Oral & Written Communication	54	5
PSY 180	Human Relations	54	5
CAP 199	Computer Fundamentals	60	5
OPMGT 250	Practicum I	360	12
OPMGT 255	Practicum II	360	12
<b>TOTAL</b>		<b>942</b>	<b>44</b>

Select a minimum of **860 clock hours** (72 credits) from the following groups. Students must take a minimum of **two** classes from each group.

GROUP A	PRODUCTION PLANNING AND CONTROL	HR	CR
OPMGT 105	Intro to Operations Management	60	5
OPMGT 107	Fundamentals of Process Mgmt.	60	5
OPMGT 119	Statistical Process Control	60	5
OPMGT 207	Materials Management	60	5
OPMGT 215	Production Plant Planning	60	5
OPMGT 225	Operations Management Special Topics	60	5

GROUP B	THE HUMAN SIDE OF BUSINESS	HR	CR
BUS 184	Customer Service	36	3
HRM 110	Human Resource Management	60	5
HRM 120	Supervision Fundamentals	60	5
HRM 130	Team Building	60	5

GROUP C	BUSINESS SKILL COURSES	HR	CR
GBUS 100	Business Fundamentals	60	5
GBUS 110	Business Communications	60	5
GBUS 120	Technical Writing	60	5

GROUP D	QUALITY CONTROL	HR	CR
TQM 109	Intro to Total Quality Management	60	5
PMP 160	Project Management	60	5
TQM 200	Six Sigma - Statistical Analysis Tools	60	5
TQM 209	Case Studies in Quality Mgmt.	60	5
<b>TOTAL</b>		<b>1802</b>	<b>116</b>

## PROGRAMS OF STUDY

## 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.

## 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 &amp; 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

CERTIFICATE  
PARAEDUCATOR  
REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP XXX	Computer Courses ( <i>Excel, Windows, Word</i> )	5	1
EDUC131	Paraeducator I: Foundations of Learning	46	4
EDUC133	Paraeducator II: Strategic Learning	46	4
EDUC134	Paraeducator III: Effective Instruction	46	4
EDUC137	Reading, Writing, & Math for the Paraeducator	10	1
<b>TOTAL (approx. 3 quarters)</b>		<b>153</b>	<b>13</b>

## OPTIONAL ELECTIVES:

BAS/ABE	Basic Academic Skills Courses		
CAP 199	Computer Fundamentals	60	5
MATH 085	Basic Math	30	3

Completion of the Test of Adult Basic Education (TABE) for those with less than a two-year degree.

## Parenting Education

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 ranging in age 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](http://www.btc.ctc.edu). View the BTC Parenting Program video on the website at <http://www.btc.ctc.edu/Videos/Parenting.wmv>



## PROGRAMS OF STUDY

## 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, that works 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 life style by giving them the tools to develop healthy lifestyle habits.

**APPLICATION & REGISTRATION**

Program application and admission are not required. Students must have current First Aid and CPR cards.

**SEQUENCE AND SCHEDULE**

The *Personal Fitness Trainer* classes will meet on Tuesday and Thursday evenings and Saturday mornings. One course will be offered each quarter, so students can complete the program in three quarters. Refer to the Quarterly Schedule for dates and registration information.

**CERTIFICATE REQUIREMENTS**

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

**TYPICAL SCHEDULE**

COURSE#	TITLE	HR	CR
PFT 100	Foundations of Health & Fitness	108	6
PFT 110	Program Development and Training Principles	108	6
PFT 120	Facility Management and Marketing for a Fitness Trainer	108	6
<b>TOTAL</b>		<b>324</b>	<b>18</b>

## Precision Machining

**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. Generally, classroom theory is scheduled between 8:00am and 9:30am.

**CERTIFICATE  
CNC OPERATOR  
REQUIREMENTS**

*Prerequisite: Completion of Machine Operator Certificate or two or more years of trade experience.*

COURSE#	TITLE	HR	CR
MACH 125	Quality Control	36	2
MACH 162	Applied Math I	72	3
MACH 241	Intro to CNC Machining	126	8
MACH 242	CNC Programming/Operation	144	9
MACH 244	CNC-CAD/CAM Prog & Oper	180	5
MACH 262	Applied Math II	72	3
MATH 100	Occupational Math	54	5
<b>TOTAL (approx. 2 quarters)</b>		<b>684</b>	<b>40</b>

# PROGRAMS OF STUDY

## ASSOCIATE IN APPLIED SCIENCE PRECISION MACHINING TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
MACH 100	Intro to Trade/Occup Safety	18	1
MACH 101	Machine Technology I	36	2
MACH 102	Machine Technology II	36	2
MACH 103	Machine Technology III	36	2
MACH 111	Benchwork/Hand Tools	36	2
MACH 113	Machinery's Handbook	18	1
MACH 119	Machine Fundamentals A	90	5
MACH 120	Machine Fundamentals B	90	5
MACH 122	Machine Fundamentals II	180	12
MACH 123	Machine Fundamentals III	180	12
MACH 125	Quality Control	36	2
MACH 131	Blueprint Reading I	54	2
MACH 132	Blueprint Reading II	54	2
MACH 162	Applied Math I	72	3
MACH 192	Job Preparation	18	1
MACH 201	Machine Technology IV	72	3
MACH 202	Machine Technology V	36	2
MACH 212	Metallurgy and Heat Treatment	54	3
MACH 213	Applied Machinery's Handbook	18	1
MACH 214	Tool and Cutter Grinding	54	3
MACH 215	Hydraulics	18	1
MACH 221	Machine Fundamentals IV	90	5
MACH 222	Machine Fundamentals V	180	10
MACH 241	Intro to CNC Machining	126	8
MACH 242	CNC Programming/Operation	144	8
MACH 244	CNC-CAD/CAM Prog & Oper A	90	5
MACH 245	CNC-CAD/CAM Prog & Oper B	90	5
MACH 262	Applied Math II	72	3
MATH 100	Occupational Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>126</b>

## CERTIFICATE MACHINE OPERATOR REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
MACH 100	Intro to Trade/Occup Safety	18	1
MACH 101	Machine Technology I	36	2
MACH 102	Machine Technology II	36	2
MACH 103	Machine Technology III	36	2
MACH 111	Benchwork/Hand Tools I	36	2
MACH 113	Machinery's Handbook	18	1
MACH 119	Machine Fundamentals A	90	5
MACH 120	Machine Fundamentals B	90	5
MACH 122	Machine Fundamentals II	180	12
MACH 123	Machine Fundamentals III	180	12
MACH 125	Quality Control	36	2
MACH 131	Blueprint Reading I	54	2
MACH 132	Blueprint Reading II	54	2
MACH 162	Applied Math I	72	3
MACH 192	Job Preparation	18	1
MACH 212	Metallurgy and Heat Treat	54	3
MACH 213	Applied Machinery's Handbook	18	1
MACH 241	Intro to CNC Machining	126	8
MACH 262	Applied Math II	72	3
MATH 100	Occupational Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
<b>TOTAL (approx. 4 quarters)</b>		<b>1386</b>	<b>84</b>

## Process Technology



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.

# PROGRAMS OF STUDY

## APPLICATION & REGISTRATION

Admissions information is listed on page 61.

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 or a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.



### ASSOCIATE IN APPLIED SCIENCE PROCESS TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP 199	Computer Fundamentals	60	5
CHEM 101	General Chemistry	66	5
COM 170	Oral & Written Communication	54	5
ECON 103	Industrial Economics	55	5
ELEC 110	AC/DC Electricity	30	3
ENGL 175	Technical Communications	54	5
MATH 111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
PTEC 101	Intro to Process Technology	77	5
PTEC 102	Process Technology I (Equipment)	99	7
PTEC 103	Safety, Health, & Environment I	77	5
PTEC 105	Process Technology II (Systems)	88	6
PTEC 107	Process Science	77	5
PTEC 110	Process Instrumentation I	99	7
PTEC 203	Safety, Health, & Environment II	77	5
PTEC 205	Dynamic Process Control	77	5
PTEC 207	Quality Control	66	5
PTEC 210	Process Instrumentation II	99	7
PTEC 212	Industrial Process Equipment	88	6
PTEC 215	Process Technology III (Operations)	99	7
PTEC 217	Process Troubleshooting	88	6
PTEC 270	Process Tech Project I	88	4
PTEC 272	Process Tech Project II	180	8
ELECTIVE:			
PTEC 120/220	Special Topics in Process Technology	44	3
PTEC 130/230	Cooperative Education	44	3
*These 2 electives can be taken in place of project hours.			
<b>TOTAL (approx. 6 quarters)</b>		<b>1806</b>	<b>132</b>

### CERTIFICATE PROCESS TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP 199	Computer Fundamentals	60	5
COM 170	Oral and Written Communication	54	5
ELEC 110	AC/DC Electricity	30	3
MATH 111	Technical Math	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
PTEC 101	Intro to Process Technology	77	5
PTEC 102	Process Technology I (Equipment)	99	7
PTEC 103	Safety, Health, & Environment I	77	5
PTEC 105	Process Technology II (Systems)	88	6
PTEC 110	Process Instrumentation I	99	7
PTEC 205	Dynamic Process Control	77	5
PTEC 210	Process Instrumentation II	99	7
PTEC 215	Process Technology III (Operations)	99	7
<b>TOTAL (approx. 3 quarters)</b>		<b>967</b>	<b>72</b>

# 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, and, thusly, is not offered as a full-time immersion program. Students are rated according 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:** Graduates will demonstrate their knowledge and skills in managing learning environments; developing outcomes, assessments, and curricula; developing and reviewing programs; providing effective well-organized student-centered instructional activities and lesson plans; demonstrating the effective use of instructional technology into teaching and learning strategies; performing faculty administrative functions, i.e. documentation, record keeping, grades, committee participation, budgets, program management functions; creating and maintaining a professional environment; promoting the program and recruiting students; learning and adapting to new technologies; recognizing current legislation's impact on workplace education; developing a personal philosophy of teaching consistent with the history and philosophy of vocational education.

## 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 full-time 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 REQUIREMENTS

Students may apply for an Associate in Applied Science-Transfer degree upon completion and verification of all requirements and standards. The application process is listed on page 73. Students must maintain a 2.0 grade point average with no course grade below C (2.0) to earn a degree.

### ASSOCIATE IN APPLIED SCIENCE-TRANSFER DEGREE PROFESSIONAL TECHNICAL EDUCATION REQUIREMENTS

COURSE#	TITLE	HR	CR
<b>Communications:</b> (5 credits minimum)			
ENGL 101	English Composition (or other transferable writing course)	54	5
<b>Quantitative Reasoning:</b> (5 credits minimum)			
MATH 130	Precalculus 1	60	5
<b>Social Science, Humanities, or Science:</b> (10 credits minimum)			
PSY 101	General Psychology	55	5
Other social science, humanities or science		55-72	5
Required:		<b>224-241</b>	<b>20</b>
<b>Professional Technical CORE Education Coursework:</b>			
EDUC 200	Intro to Professional Technical Education	36	3
EDUC 201	Teaching & Facilitating Learning I	36	3
EDUC 206	Teaching & Facilitating Learning II	36	3
EDUC 211	Planning for Instruction	36	3
EDUC 216	Assessment of Learning	36	3
EDUC 231	Learning Environment Management	36	3
EDUC 175	Achieving Info Literacy	16	1
HLTH 150	Industrial First Aid/CPR	12	1
		<b>244</b>	<b>20</b>
<b>Professional Technical Applications Coursework:</b>			
EDUC 251	Teaching Practicum I	360	12
EDUC 299	Professional Technical Education Capstone	120	5
Required:		<b>480</b>	<b>17</b>
<b>Electives:</b> (410 clock hours chosen from the following)			
EDUC 252	Teaching Practicum II	360	12
CAP 199	*Computer Fundamentals	60	5
EDUC 199	*Professional Technical Specialization	120	12
EDUC 261	*Industry-Based Professional Development	60	5
EDUC 262	*Advanced Industry-Based Professional Development	120	6
EDUC 221	Leadership Development	50	3
EDUC 226	Learning Styles	50	3
EDUC 236	Occupational Analysis	50	3
EDUC 241	Learning & Adapting New Technologies	50	3
EDUC 246	The Adult Learner	36	3
EDUC 256	Program Mgmt, Promotion, & Recruitment	50	5
EDUC 257	Current Topics for Professional-Technical Educators	36-72	3-6
*recommended courses			
Degree Total:			<b>90</b>

## PROGRAMS OF STUDY

# Project Management

## PROGRAM DESCRIPTION

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

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

## 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 Career and Counseling 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 72.

### CERTIFICATE PROJECT MANAGEMENT REQUIREMENTS

COURSE#	TITLE	HR	CR
CAP 150	MS Project Level 1	7	
CAP 151	MS Project Level 2	7	
PMP 100	Project Management Fundamentals	7	
PMP 120	Project Management PMP Prep	27	3
PMP 130	Project Management Integration	7	
<b>TOTAL (approx. 1-2 quarters)</b>		<b>55</b>	<b>3</b>

# Radiologic Technology

## 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: Graduates will demonstrate knowledge and skills in the field of Radiologic Technology, and related subjects, and will average an improvement of 30% above knowledge demonstrated on pre-tests when compared to mock registry at the completion of program. Graduates will demonstrate an acceptable level of technical ability and professionalism in the medical community. Graduates will pass the ARRT registry exam.

## PROGRAM MISSION

The *Radiologic Technology* program is committed to provide quality educational opportunities helping individuals prepare for entry-level competency as staff radiographers.

The *Radiologic Technology* program is designed to prepare students to be radiographers who are members of the health care delivery team. Technical and professional competency development will involve the following Program Outcomes:

- Demonstrate professional behavior that is consistent with the delivery of appropriate and ethical client care to a diverse population;

# PROGRAMS OF STUDY

- Demonstrate the ability to comprehend, apply and evaluate information and concepts relevant to the entry-level skill of a radiographer;
- Deliver competent radiographic practice with entry-level skill related to fluoroscopic, general and mobile radiographic procedures;
- Apply the principles of radiation protection for clients, self, and others; and
- Analyze finished radiographs for quality and acceptability, and demonstrate sound problem-solving techniques in correcting unacceptable radiographs at entry-level competence.

## 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:

- English Composition (ENG 101) 5 credits or equivalent. (Minimum 2.0 GPA)
- Computer Fundamentals (CAP 199) 60 clock hours or equivalent. Equivalent courses must include windows, word processing, and spreadsheet. Challenge procedure information for CAP 199 is available from the Admissions Office. (Minimum 2.0 GPA)
- Intermediate Algebra (MATH 099) 5 credits or equivalent within the last 3 years or departmental approval. (Minimum 2.7 GPA)
- Medical Terminology (HT 126) 60 clock hours, or 3 credits. (Minimum 2.0 GPA)
- Anatomy and Physiology I & II, 5 credits each or equivalent. (Minimum 2.7 GPA)
- General Psychology (PSY 101) 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 proof 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.

Within the first week of the quarter, 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); and •show proof of personal health insurance (student accident insurance is available).

## SEQUENCE AND 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 REQUIREMENTS

Students may apply for a degree upon completion and verification of all requirements and standards. The degree application procedure is listed on page 73.

### DEGREE RADIOLOGIC TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
HLTH 133	HIV /AIDS Education	7	0
RT 101	Radiographic Position I	60	4
RT 102	Radiographic Position II	60	4
RT 103	Radiographic Position III	60	4
RT 110	Intro to Radiologic Tech	48	4
RT 112	Patient Care in Radiology	48	4
RT 114	Leadership Seminar	12	1
RT 120	Imaging and Processing	48	4
RT 121	Radiographic Physics I	48	4
RT 122	Quality Assurance	24	2
RT 123	Radiographic Physics II	36	3
RT 131	Radiographic Clinic I	192	8
RT 132	Radiographic Clinic II	192	8
RT 133	Radiographic Clinic III	270	12
RT 201	Advanced Patient Procedures and Pathology I	48	5
RT 202	Advanced Patient Procedures and Pathology II	48	5
RT 205	Pharmacology	18	2
RT 210	Radiation Biology	36	3
RT 220	Radiographic Physics III	36	3
RT 230	Registry Review & Employment Readiness	36	3
RT 231	Radiographic Clinic IV	288	12
RT 232	Radiographic Clinic V	288	12
RT 233	Radiographic Clinic VI	240	9
<b>TOTAL</b>		<b>2143</b>	<b>116</b>

## PROGRAMS OF STUDY

# Residential Home Inspection

Short Certificate Program (approx. 4 weeks)

## PROGRAM DESCRIPTION

Bellingham Technical College and locally-owned Arbutus Inspection Training have combined efforts to provide 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 160-hour program consists of an intensive 4-week full-time Home Inspection Training Program. Coursework will follow the American Society of Home Inspectors (ASHI) approved curriculum. Instructional materials were developed by Carson, Dunlop and Associates. 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. Check the Quarterly Schedule or the Arbutus Inspection Training website: [www.arbutusinspectiontraining.com](http://www.arbutusinspectiontraining.com) for details.

Program Outcomes: Graduates will receive a Bellingham Technical College Certificate and be able to pass both the Washington State Pest Inspector Exam and the National Home Inspector Examination.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE RESIDENTIAL HOME INSPECTION REQUIREMENTS

COURSE#	TITLE	HR	CR
RHI 110	Complete Residential Home Inspection Program	160	15
<b>TOTAL</b>		<b>160</b>	<b>15</b>

# Surgery Technology

## PROGRAM DESCRIPTION

The *Surgery Technology* program is 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 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 provide their own transportation to clinical sites.

Program Outcomes: Graduates will perform surgery technician procedures in a surgery setting, pass the national exam by AST Program Assessment Exam (P.A.E.), provide for patient and staff safety, practice sterile techniques and demonstrate positive work ethics, team skills, and professionalism.

## APPLICATION & REGISTRATION

To be eligible for admission to the Bellingham Technical College *Surgery Technology* program, applicants must meet college admission requirements as listed on page 61 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.

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

- show evidence of a high school diploma or GED;
- 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)

### 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.

### 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 with a (C) 2.0 to progress to the next course.

### CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CENTRAL SERVICE SPECIALIST CERTIFICATE REQUIREMENTS

Students who have completed the *Surgery Technology* sequence, SURG 120, SURG 125, and CSC 136 can exit the program and qualify for the Central Service Specialist certificate.



### CERTIFICATE SURGERY TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral and Written Communications	54	5
	<i>or</i>		
ENGL 101	English Composition		
MATH 98	Elementary Algebra	54	5
	<i>or</i>		
MATH 99	Intermediate Algebra		
PSY 180	Interpersonal & Organizational Psychology		
	<i>or</i>		
PSY 101	General Psychology	54	5
BIO 121	Cell Biology	66	5
BIO 210	Anatomy and Physiology I	78	5
BIO 211	Anatomy and Physiology II	78	5
HLTH 133	HIV/AIDS for Health Professionals	7	0
HO 125	Intro to Medical Terminology	30	3
HO 105	Pharmacology	24	2
SURG120	Surgery Technology I	101	10
SURG125	Surgery Technology Lab	174	8
SURG133	Surgery Technology II	120	10
SURG136	Surgery Technology Clinical Practice I	240	10
SURG143	Surgery Technology III	60	5
SURG145	Surgery Technology Clinical Practice II	300	12
<b>TOTAL (approx. 5 quarters)</b>		<b>1440</b>	<b>90</b>



## PROGRAMS OF STUDY

# 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 199 Computer Fundamentals is a required prerequisite for students to enroll in this program. Students may test out of this requirement by passing the three IC<sup>3</sup> 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 *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 REQUIREMENTS

Students may apply for an Associate in Applied Science degree upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

## ASSOCIATE IN APPLIED SCIENCE SURVEYING & MAPPING TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HR	CR
COM 170	Oral & Written Communications	54	5
ENGT 127	Civil/Survey CAD 1	120	8
ENGT 128	Civil/Survey CAD 2	120	8
ENGT 132	MS Office Applications	90	5
ENGT 153	ArcView	120	8
ENGT 251	Land Desktop - Survey Add-On	240	11
MATH 111	Technical Mathematics	54	5
PSY 180	Interpersonal & Organizational Psychology	54	5
SURV 102	Fundamentals of Surveying I	120	6
SURV 103	Fundamentals of Surveying II	90	6
SURV 104	Construction & Highway Surveys	120	6
SURV 112	Public Lands Survey System	90	5
SURV 113	Boundary Law & Land Descriptions	120	6
SURV 116	Survey Data Systems	60	4
SURV 140	Fundamentals of GIS & GPS	60	4
SURV 152	Zoning, Permitting, & Platting	60	4
SURV 191	Professional Development & Safety	48	2
SURV 201	Advanced Survey Seminar	120	6
SURV 202	GPS Systems	120	8
SURV 204	Environmental Mapping	60	3
SURV 205	Advanced GIS Applications	120	5
SURV 252	Land Desktop - Surveyor's Final Project	120	6
<b>TOTAL (approx. 6 quarters)</b>		<b>2160</b>	<b>126</b>



## PROGRAMS OF STUDY

## Technical 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 internships 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 &amp; 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.

**CERTIFICATE  
SALES SPECIALIST  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
BUS 184	Customer Service	36	3
CAP 199*	Computer Fundamentals	60	5
CIS 140	Website Development	45	4
COM 170***	Oral & Written Communications	54	5
GBUS 100	Business Fundamentals	60	5
MATH 100	Occupational Math	54	5
MKT 100	Marketing Fundamentals	60	5
PSY 180	Interpersonal & Organizational Psychology	54	5
SAL 100	Selling Fundamentals	60	5
SAL 110	Hi Tech Tools for Selling	30	3
SAL 115	Sales Techniques & Procedures	60	5
SAL 120	e-Sales	60	5
SAL 190**	Work Based Learning I	180	6
<b>TOTAL (approx. 3 quarters)</b>		<b>813</b>	<b>61</b>

\* CAP 199 or CAP 101

\*\* SAL 190 or CIS 275 AND SAL 191

\*\*\*COM 170 or ENG 101 or BUS 177 AND BUS 178

## SEQUENCE AND 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 that enter the program will have already completed some or all of the industry specific training.

## DEGREE AND 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 application procedure is listed on page 73.

**ASSOCIATE IN APPLIED SCIENCE  
TECHNICAL SALES SPECIALIST  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
BUS 184	Customer Service	36	3
CAP 199*	Computer Fundamentals	60	5
CIS 140	Website Development	45	4
COM 170***	Oral & Written Communications	54	5
ENTR 150	Entrepreneurship Fundamentals	45	4
GBUS 100	Business Fundamentals	60	5
MATH 100	Occupational Math	54	5
MKT 100	Marketing Fundamentals	60	5
PSY 180	Interpersonal & Organizational Psychology	54	5
SAL 100	Selling Fundamentals	60	5
SAL 110	Hi Tech Tools for Selling	30	3
SAL 115	Sales Techniques & Procedures	60	5
SAL 120	e-Sales	60	5
SAL 140	Marketing Research & Territory Management	60	5
SAL 190**	Work Based Learning I	180	6
SAL 200	Sales Management	60	5
SAL 290	Work Based Learning II	180	6

Prior Learning of Technology specific courses taken throughout the program 642 30

**TOTAL (approx. 5-6 quarters) 1800 111**

**CERTIFICATE  
SALES ASSOCIATE  
REQUIREMENTS**

COURSE#	TITLE	HR	CR
BUS 184	Customer Service	36	3
CAP 199	Computer Fundamentals	60	5
CIS 140	Website Development	45	4
GBUS 100	Business Fundamentals	60	5
MKT 100	Marketing Fundamentals	60	5
SAL 100	Selling Fundamentals	60	5
SAL 110	Hi Tech Tools for Selling	30	3
SAL 115	Sales Techniques & Procedures	60	5
SAL 120	e-Sales	60	5
<b>TOTAL (approx. 2 quarters)</b>		<b>471</b>	<b>40</b>

## PROGRAMS OF STUDY

# 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.

## 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.

## CERTIFICATE REQUIREMENTS

Students may apply for a certificate upon completion and verification of all requirements and standards. The application procedure is listed on page 73.

### CERTIFICATE VETERINARY ASSISTANT REQUIREMENTS

COURSE#	TITLE	HR	CR
PSY 180	Interpersonal & Organizational Psychology	54	5
VET 101	Veterinary Assisting Essentials	60	5
VET 105	Applied Principles of Veterinary Assisting II	60	5
VET 107	Applied Principles of Veterinary Assisting III	60	5
VET 115	Veterinary Assisting Practicum	54	5
VET 117	Veterinary Assisting Internship	54	5
VET 120	Veterinary Math	21	2
<b>TOTAL (approx. 3 quarters)</b>		<b>363</b>	<b>32</b>



# Welding Technology



Student Chapter of the American  
Welding Society (AWS)

## PROGRAM DESCRIPTION

The *Welding Technology* program prepares students for employment in the metal trades. Students will gain experiences and competencies in all major welding theory, processes and Washington Association of Building Officials (WABO) welding certification testing procedures.

The AAS degree includes classroom instruction and hands-on training in metal trades safety, blueprint reading, metallurgy, power sources, tools and materials, and layout and fitting techniques. 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. Thirty-hour self-guided upgrades are designed 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; 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 from approximately 7:00am to 6:30pm, Monday through Thursday.

## 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 application procedure is listed on page 73.

### CERTIFICATE

#### BASIC WELDING SKILLS REQUIREMENTS

COURSE#	TITLE	HRCR
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Students must complete a minimum of **720** hours (approximately 36 credits) from any combination of WELD 100-299 courses.

**TOTAL (approx. 2 quarters) 720 36**

### ASSOCIATE IN APPLIED SCIENCE WELDING TECHNOLOGY REQUIREMENTS

COURSE#	TITLE	HRCR
COM 170	Oral & Written Communications	54 5
MATH 100	Occupational Math	54 5
PSY 180	Interpersonal & Organizational Psychology	54 5
WELD101	Intro to Trade Safety	36 2
WELD105	Power Sources	122 6
WELD106	Blueprint Reading	122 6
WELD108	Cutting Processes	76 5
WELD110	Theory of Gases	54 3
WELD111	Welding Leadership	54 3
WELD114	Metallurgy	122 6
WELD120	Layout & Fabrication Techniques	122 6
WELD122	Hand Tools - Power Tools	36 3
WELD123	Fabrication & Piping Theory	122 6
WELD124	Resume & Job Preparation	36 2
WELD125	Shield Metal Arc Welding I	108 5
WELD131	Shield Metal Arc Welding II	40 2
WELD132	Shield Metal Arc Welding III	116 5
WELD133	Gas Metal Arc Welding I	68 4
WELD135	Gas Metal Arc Welding II	68 4
WELD136	Flux Core Arc Welding I	108 5
WELD137	Flux Core Arc Welding II	40 2
WELD138A	Gas Tungsten Arc Welding I	72 4
WELD139A	Gas Tungsten Arc Welding II	72 4
WELD140	Gas Tungsten Arc Welding III	72 4
WELD201, 202, or 203	Certification SMAW, FCAW, or PIPE	130 7

In consultation with your faculty advisor, students must complete **202** hours (**11** credits) from the following electives:

WELD215	Shield Metal Arc Welding V	90 5
WELD216	Flux Core Arc Welding IV	90 5
WELD217	Pipe II	90 5
WELD220	Shield Metal Arc Welding VI	112 6
WELD222	Gas Metal Arc Welding III	112 6
WELD224	Flux Core Arc Welding V	112 6
WELD226	Gas Tungsten Arc Welding IV	112 6
WELD230	Pipe III	112 6
WELD235	Pipe IV	112 6

**TOTAL (approx. 6 quarters) 2160 120**

### CERTIFICATE

#### INDUSTRIAL WELDING REQUIREMENTS

COURSE#	TITLE	HRCR
COM 170	Oral & Written Communications	54 5
MATH 100	Occupational Mathematics	54 5
PSY 180	Interpersonal & Organizational Psychology	54 5

Students must complete a minimum of **918** hours (approximately 45 credits) from any WELD 100-299 prefix courses including WABO certification or equivalent.

**TOTAL (approx. 3 quarters) 1080 60**

## GETTING STARTED

## CHAPTER 3 - GETTING STARTED

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## ENROLLMENT SERVICES

## ADMISSION &amp; 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. Students should consult a BTC counselor, advisor, and/or faculty advisor to assist in determining the best schedule option to meet their needs. Full-time students generally attend class six hours per day, five days per week. Students are registered in a program rather than in individual courses. 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.

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 Admissions & Advising at 360.752.8345.

Students seeking admission must do the following:

1. Complete the *Degree/Certificate Program Admissions Application* (page 128) and submit 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 of above 100 level courses in English, college mathematics, college algebra or equivalent with a "C" grade or above, may have the Accuplacer assessment requirement waived upon evaluation of an official transcript from an accredited college or university and completion of the Accuplacer Waiver Request form. Requests for evaluation of transcripts for Accuplacer waiver can be made to Admissions & Advising.
  - 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 78.

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 institution, 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.

## GETTING STARTED

### 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 short-term courses. Requests for consideration of an underage admission or permission to register in a course must be submitted to the Vice President of Student Services, in writing, at least one week prior to the start date or registration date. Written request must include evidence that

1. The student is competent at an appropriate academic level and/or technical skill level, and
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 Admissions & Advising at 360.752.8345. Students must present picture identification when they report for testing.

## 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.

## GETTING STARTED

### 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](http://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](http://www.aacrao.org)

World Education Services  
[www.wes.org](http://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 Hours Request* form or an *Add/Drop* form and submitting the completed form to the Registration & Enrollment Office. A reduction in clock hours 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 POLICY

Students may officially withdraw from the College by submitting a completed *Add/Drop* form to the Registration & Enrollment Office. Refer to the college calendar (page 2) for specific program withdrawal and schedule change dates for each quarter. Students who do not officially withdraw from the College will forfeit any refund to which they may be entitled. A student who does not officially withdraw may be issued a failing grade by the instructor.

It is important that students attend all scheduled class times or notify the instructor of any absences.

1. If a student is absent for 10 consecutive days without instructor notification, the student may be withdrawn from class.
2. Students absent for 5 consecutive days during the first week of the program are considered a "no show" and may be withdrawn.

It is the student's responsibility to determine if he/she has been withdrawn by the College for non-attendance.

### 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. Credit card refunds are processed immediately.

## TUITION & FEES

### TUITION AND FEES

All tuition, program/course fees and laboratory/supply 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.**

# GETTING STARTED

## 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, and Radiologic Technology .....	\$45.00
Student Body Card .....	\$6.50
replacement cards .....	\$5.00
Official Transcript .....	\$3.00
(no cost for unofficial copy - available on website)	
Replacement Degree/Certificate (per copy) .....	\$3.00

## REFUND POLICY

Students who leave a course or program without official withdrawal will forfeit all claims to refund of tuition and fees. Official withdrawal will be defined as student submission of a completed *Add/Drop* form to the Registration & Enrollment Office. The refund will be calculated based on the date the form is submitted rather than the last day of attendance.

Requests for refunds/course transfers for courses beginning on Monday must be received by the previous Friday. Refunds for payments made by cash or check will be processed through the Business Office and mailed within three (3) weeks. Refunds for payments made by credit card will be processed immediately. Course transfers will be accepted up to 24 hours before course begins.

### Course Refund Policy

100% refund if withdrawal is prior to the start date or BTC cancels the course.

90% refund if withdrawal is submitted within and up to the first 10% of the course clock hours.

50% refund if withdrawal is submitted between 11% and up to 30% of the course clock hours.

There are NO refunds after 30% of course clock hours. There are NO refunds after the start date for courses 15 hours or less.

### Distance Education Course Refund Policy

100% refund if withdrawal is prior to the start date or BTC cancels the course.

90% refund if withdrawal is submitted within the first 10% of the instructional days in the quarter.

50% refund if withdrawal is submitted between 11% and 30% of the remaining instructional days in the quarter.

There are NO refunds after 30% of the instructional days.

Refunds of less than ten dollars (\$10.00) will not be made.

### Degree and Certificate Program Refund Policy

In determining the degree/certificate program refund, official college vacation breaks (Winter, Spring, Summer) will not be utilized in calculation of instructional day or calendar day for programs that officially begin after the start of the regular quarter.

100% of tuition and fees refunded if withdrawal is prior to the student's start date.

90% of tuition and fees refunded if withdrawal is between the 1st and up to the 5th instructional day.

50% of tuition and fees refunded if withdrawal is between the 6th instructional day and up to the 20th calendar day.

There are NO refunds after the 20th calendar day of enrollment. Refer to the college calendar (page 2) for specific program withdrawal and schedule change dates for each quarter.

### Degree and Certificate Program Summer Quarter Refunds

100% of tuition and fees refunded if withdrawal is prior to the student's start date.

90% of tuition and fees refunded if withdrawal is between 1st and up to the 3rd instructional day.

50% of tuition and fees refunded if withdrawal is between the 4th instructional day and up to the 10th calendar day.

There are NO refunds after the 10th calendar day of enrollment.

### Exceptions to the Refund Policy

In accordance with RCW 28B.15.623, the college may extend the refund period for students with medical reasons or those called into military service of the United States. Request for exceptions to the refund policy must be in writing with documentation for consideration of exception included.

## 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 Scholarship and the Lifetime Learning Tax Credit. The HOPE Scholarship 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 a degree, certificate, or other recognized educational credential. The amount that may be claimed as a credit is generally equal to (1) 100 percent of the first \$1,000 of the taxpayer's out-of-pocket expenses for each student's qualified tuition and related expenses, plus (2) 50 percent of the next \$1,000 of the taxpayer's out-of-pocket expenses for each student's qualified tuition and related expenses. Thus, the maximum credit a taxpayer may claim for a taxable year is \$1,500 multiplied by the number of students in the family who meet the enrollment criteria described above.

The Lifetime Learning Credit may be claimed for the 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 credit amount is equal to 20 percent of the taxpayer's first \$10,000 of out-of-pocket qualified tuition and related expenses. Thus, the maximum credit a taxpayer may claim for a taxable year is \$2,000.

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.



## GETTING STARTED

## 2006-2007 Academic Year

## Tuition &amp; Fee Rates for Degree and Certificate Programs

Programs on a Quarter Schedule	Fall	Winter	Spring				
Accounting	\$1073.53	\$1090.15	\$1056.91				
Administrative Assistant	\$1073.53	\$1090.15	\$1056.91				
Appliance Repair	\$1023.53	\$1040.15	\$1006.91				
Auto Collision Repair	\$1227.53	\$1245.05	\$1210.01				
Automotive Technology	\$1052.53	\$1052.33	\$1052.33				
Building Construction	\$1023.53	\$1040.15	\$1006.91				
Civil Engineering Technology	\$1122.53	\$1140.05	\$1105.01				
Commercial Refrig & HVAC	\$1077.53	\$1095.05	\$1060.01				
Computer Machining & Manufacturing	\$1077.53	\$1095.05	\$1060.01				
Computer Network Technology	\$1127.53	\$1145.05	\$1110.01				
Computer Software Support	\$1073.53	\$1090.15	\$1056.91				
Culinary Arts	\$1302.53	\$1320.05	\$1285.03				
Diesel Technology	\$1052.33	\$1052.33	\$1052.33				
Electrician	\$1077.53	\$1095.05	\$1060.01				
Electronics	\$1023.53	\$1040.15	\$1006.91				
Fisheries	\$1189.73	\$1040.15	\$840.71				
Instrumentation & Control	\$1023.53	\$1040.15	\$1006.91				
Legal Administrative Assistant	\$1073.53	\$1090.15	\$1056.91				
Mechanical Engineering	\$1122.53	\$1140.05	\$1105.01				
Medical Coding & Billing Generalist	\$1123.53	\$1140.15	\$1106.01				
Medical Receptionist	\$1073.53	\$1090.15	\$1056.91				
Office Assistant	\$1073.53	\$1090.15	\$1056.91				
Process Technology	\$1227.53	\$1245.05	\$1210.01				
Receptionist	\$1073.53	\$1090.15	\$1056.91				
Surveying Technology	\$1122.53	\$1140.05	\$1105.01				
Technical Sales Specialist	\$1073.53	\$1090.15	\$1056.91				
Transportation Core	\$880.08	\$880.08	\$880.08				
Veterinary Assistant	\$378.24	\$535.66	\$535.66				
Welding Technology	\$1302.53	\$1320.05	\$1285.01				
Health Programs							
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	5th Qtr	6th Qtr	7th Qtr
Dental	\$208.32	\$1247.09	\$1202.53	\$1260.93			
Practical Nursing	\$186.74	\$484.28	\$1229.94	\$1184.33	\$1184.33		
Radiologic Tech	\$681.89	\$1246.91	\$1211.09	\$727.13	\$1235.09	\$1287.65	\$1192.85
Registered Nursing: LPN - RN	\$505.93	\$505.93	\$505.93				
Surgery Tech	\$353.16	\$528.36	\$899.41	\$1077.53	\$1077.53		
General Education Courses							
CAP 199 - Computer Fundamentals	\$206.49		MATH 111 - Technical Math				\$147.02
CHEM 101- General Chemistry	\$196.64		NATH 130 - Precalculus II				\$162.92
CHEM 131 - Inorganic Chemistry	\$196.64		MATH 131 - Precalculus II				\$162.92
COM 170 - Oral & Written Comm.	\$147.02		PSY 101 - General Psychology				\$258.57
ENGL 101 - English Composition	\$253.94		PSY 180 - Interpers. & Organiz. Comm.				\$147.02
MATH 100 - Occupational Math	\$147.02		PSY 210 - Developmental Psychology				\$248.57

\*\*\*\*Please plan for additional tuition and fees for up to three academic courses during the first quarter.

### Programs and Costs are Subject to Change Without Notice

Tuition and fees are based on quarter clock hours. Students attending less than full-time are charged prorated tuition and fees.

**Canadian Residents: \$3.28** per clock hour plus fees per quarter.

**Non-Resident Fee: \$7.72** per clock hour and fees per quarter: Non-resident defined as resident of countries other than U.S., Canada or Mexico.

## FINANCIAL AID PROGRAMS

**Purpose of Financial Aid**

Obtaining a college education is one of the most important investments students will make in their lifetime. The **purpose of financial aid** is to assist students who might otherwise be unable to pursue the higher education program of their choice. Although the primary responsibility for meeting college costs rests with the student and his or her family, it is recognized that many families have limited resources and are unable to meet such costs. For this reason, financial aid programs have been established by the institution and by federal, state, and local governments.

**Eligibility Requirements**

To receive financial aid, the student must meet the following conditions:

- Be accepted for enrollment as a regular student in an eligible program of study of at least 600 clock hours and meet all admissions requirements
- Be a United States citizen or an eligible non-citizen
- Have earned a high school diploma, its recognized equivalent, or demonstrate the ability to benefit through BTC Assessment Center testing
- Not owe a refund or repayment on prior financial assistance received, nor have a student loan in default at any colleges attended
- Be registered with Selective Service, if required
- Demonstrate financial need as determined in part by the Free Application for Federal Student Aid (FAFSA)

**In addition,**

- Federal student loans must be repaid;
- Students who have received a bachelor's degree are ineligible for Federal Pell Grants or FSEOG or SNG, 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 elements. 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 FAFSA 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**

Applying for financial aid is a lengthy process that requires careful completion of the appropriate forms, attention to deadlines, and prompt response to requests for additional information. Application forms (FAFSA) are available in the Financial Aid Office at BTC.

**Start the application process** at least three months prior to the beginning of your first quarter at BTC. Your application will be reviewed only after ALL required documents are in your financial aid file.

**For the Fall quarter**, because of the high workload and limited funding levels, students who complete the financial aid application process prior to April 30 will have the best chance of being considered for all financial aid programs and of having an award commitment made prior to the start of school. The FAFSA can be submitted as early as January for the upcoming academic year. However, students should be sure they have accurate tax information prior to filing.

- New students at BTC must apply for and meet all **admissions** requirements.
- You must complete the **FAFSA**. If using the Internet web site address [www.fafsa.ed.gov](http://www.fafsa.ed.gov), your first step is to apply for a Personal Identification Number (PIN) at [www.pin.ed.gov](http://www.pin.ed.gov). You will receive your PIN within 5-10 days. This is used to electronically sign your FAFSA. If you have no PIN, be sure you send the signed Certification Page within three (3) days of submitting your FAFSA on the Internet. The results of your application (Student Aid Report) will be transmitted electronically to BTC. All applicants must list BTC as an intended school, using the code **016227**. The FAFSA is also available in paper form from any financial aid office.

Approximately four weeks after you submit your federal application, the U.S. Department of Education will send you a Student Aid Report (SAR). The SAR will show the Expected Family Contribution (EFC). The Department of Education uses a formula established by law to calculate this number from the information you give them.

The U.S. Department of Education has a toll-free number you may use to check the processing status of your student aid applications. Applicants can also use this automated system to request duplicate copies of the Student Aid Report. To use the system, the caller must have a touch-tone phone and dial 800-4-FED AID (800.433.3243). If you do not want to use the automated system or if you have a rotary phone, call 319.337.5665. Access your application at <http://www.fafsa.ed.gov>.

- All applicants must complete the BTC **Financial Aid Supplemental Information Sheet**, which can be obtained from the BTC Financial Aid Office. Complete the form and submit it to the Financial Aid Office as part of your application.
- Other supporting documents must be submitted promptly to the Financial Aid Office as requested.

If your SAR indicates that you have been selected for Verification, the U.S. Department of Education requires you to verify the information you gave on your FAFSA. This includes (but is not limited to) completing a **Verification Worksheet** (obtained from the Financial Aid Office) and a signed copy of your **Income Tax Return**. Dependent students must also provide signed copies of their parent(s)' tax return(s). *If your tax return is unavailable to you, call the IRS at 800.829.1040.*

## GETTING STARTED

### Available Programs

The two basic types of financial aid available to help meet college costs are gift aid and self-help aid. **Gift aid** includes grants and scholarships: aid that does not need to be repaid. **Self-help aid** includes work study and loans. Loans must be repaid at a future date and work study must be earned.

**Federal Pell Grant** — This grant is considered to be the foundation of the financial aid award. The amount available will vary from year to year, depending on appropriations from Congress. Eligibility for this grant is determined by the information submitted on the FAFSA.

**Federal Supplemental Educational Opportunity Grant (FSEOG)** — Eligible students may receive additional grant funds through this program. FSEOG is awarded to students showing the lowest family contribution who are also eligible for a Pell Grant. Since funds are limited, these grants are awarded on a first-come first-served basis for fall, winter and spring quarters.

**State Need Grant (SNG)** — Similar to the FSEOG, this grant is awarded to eligible students on a first-come first-served basis to Washington State residents only. Information on the SAR is used to determine eligibility for the SNG. In addition, a Statement of Eligibility must be signed and in the student's file prior to delivery of the SNG. This form is mailed to all eligible financial aid applicants.

**State Work Study** — Students who demonstrate financial need, as reported on the SAR, and who are enrolled at least half-time may apply for State Work Study. If eligible, he or she must complete a Work Study Application, available in the Financial Aid Office. Student applications are provided to the potential employer. Prior to starting work, the student must complete the appropriate paperwork necessary for working in the state of Washington. The standard SWS award amount is \$2400 per year, which can be increased based on student eligibility and level of funding. A wage scale approved by the Higher Education Coordinating Board (HECB) has been established by BTC for each position consistent with non-work-study positions. *Paychecks are released the tenth of the month following the period of employment.*

**Stafford Loans** – Students may borrow federally guaranteed funds from the Stafford Loan Program to help meet the costs of attendance. These funds must be repaid at a future date. Eligibility is determined by information provided by the student on the FAFSA. Information concerning loan limits is available in the Financial Aid Office.

**Parent Loan for Undergraduate Students (PLUS)** — PLUS enables parents with good credit histories to borrow money to assist with the education expenses of each child who is a dependent undergraduate enrolled at least half-time. The annual limit of a PLUS is equal to the student's cost of attendance minus any other financial aid received. PLUS loan information is available from the Financial Aid Office.

### Other Available Financial Aid

**Scholarships** - Scholarships are available throughout the academic year. The Financial Aid 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 Career Center 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, such as Division of Vocational Rehabilitation, Northwest Workforce Development Council, Tribal Funding, Labor and Industries, and Employment Security. Contact the Financial Aid Office for further information.

Other funding administered through the Worker Retraining and WorkFirst programs. See page 69 for further information.

### Attendance

Because BTC is a clock-hour college, **attendance** is the primary determining factor for receipt of financial aid, as well as maintaining satisfactory academic progress. Federal funds (Pell Grant, SEOG, Stafford Loans, PLUS) are delivered only on a **full-time basis**. For instance, if you are enrolled in and attending the Business & Office Technology program, you will receive a financial aid delivery at the beginning of your program (at zero hours). The next delivery of financial aid will be after you have attended a minimum of 360 hours, the next delivery after attending a minimum of 720 hours, and so on in 360-hour blocks. If you are enrolled in and attending less than 360 hours in the term, it will take longer to complete a 360 hours block and funds may not be available at the start of each term.

Because **attendance** is the primary determining factor for delivery of financial aid, missing class time will affect the number of hours you accumulate toward eligibility for the next disbursement. (Attendance hours are different from academic hours.) Attendance is reported at the end of each month. Students who are within 30 hours of the minimum requirement for delivery of financial aid funds at the end any month should contact the Financial Aid Office for Supplemental Hours Request Form. Balance checks are ordered only after all requirements are met. *Delivery of your funds could take another ten (10) business days after verification of eligibility.*

Students enrolled in the **Health Profession** programs (i.e.: Nursing, Surgery Technology, Dental Assistant, and Radiologic Technology) need to be especially alert to planning for payment of tuition. Since the courses are of differing length, but the delivery points are in 300-hour blocks, you may not be eligible to receive a delivery of financial aid monies at the time you need to pay your tuition.

**Loan Entrance Interview** — If you are interested in participating in the student loan program, stop by the Financial Aid Office to pick up information on applying. You will need to complete a Loan Entrance Interview over the internet. You will learn of your rights and responsibilities as a student loan borrower. After completing the Entrance Interview, you will need to apply for the loan itself through the online loan application process of one of our preferred lenders. The PIN obtained from filing your FAFSA is required for your online loan application.

## GETTING STARTED

### Ombudsman

The Office of the Ombudsman at the Department of Education responds to inquiries regarding financial aid. This office may be contacted on the Internet at <http://fsahelp.ed.gov>; the toll free telephone number is 877.557.2575; and mail may be sent to:

U.S. Department of Education  
FSA Ombudsman  
830 First Street, NE  
Fourth Floor  
Washington, DC 20202-5144

### Return of Title IV Funds

If a recipient of Title IV aid (Pell, SEOG, or Stafford Loan) withdraws or ceases attendance during the school term, the institution must calculate the amount of Title IV funds that the student did not earn because they did not complete the term. Any unearned Title IV funds must be returned to the Title IV programs by both the student and the school. Failure of the student repaying their unearned amount will affect future eligibility for Title IV funds. The student will be billed for any amount that the institution is required to return to the Federal Government over and above the institutional refund policy. In accordance with Bellingham Technical College Policy 110.0, the College will withhold College services, including but not limited to record blocking, registration, grade mailers, financial aid checks, certificates of completion, GED transcripts, and official or unofficial transcripts for students with outstanding College debts.

Further information is available at the Financial Aid Office.

### Satisfactory Academic Progress

Students who receive financial aid at Bellingham Technical College are required to make satisfactory academic progress toward their program objective in order to maintain financial aid eligibility. Prior to the disbursement of financial aid, the Financial Aid Office must determine if a student is making satisfactory academic progress. The standards are based on the College's Academic Standards. Students who successfully complete at least 67% of total enrolled clock hours with a cumulative grade point average of 2.0, in a given quarter, are considered to be making satisfactory academic progress.

A student who does not meet this minimum standard will be placed on Financial Aid Probation for the following term. During this term, the student will still be eligible to receive financial aid. However, if the student once again fails to meet the minimum standard for satisfactory academic progress at the end of this term, the student will be placed on Financial Aid Suspension and all financial aid eligibility for the following term will be suspended.

### 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 Financial Aid 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.

### ESTIMATED COST OF ATTENDANCE

The following budgets have been recommended by the Washington Financial Aid Association and approved by the Financial Aid Office of Bellingham Technical College for the 2006-2007 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	\$2,520	\$7,140
Allowance for Miscellaneous Personal Expenses	\$1,524	\$1,608
Allowance for Transportation Costs	\$1,362	\$1,362
Estimated Loan Fees	\$75	\$105
Subtotal	\$5,481	\$10,215
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.

## 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?  
2006 high school graduates planning to enroll at BTC, plus new or returning students enrolled at BTC during the 2006/2007 academic year.
- How do I apply?  
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. Scholarships are available at:

BTC Financial Aid Office

BTC Foundation Office

Online at:

[www.btc.ctc.edu/Welcome/BTCFoundation/Scholarships.html](http://www.btc.ctc.edu/Welcome/BTCFoundation/Scholarships.html)

## GETTING STARTED

### 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 along with a one-time transcript processing fee. 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 transcribed with the grade earned in the student's high school course. Courses are only transcribed within the academic year the student completes the course work.

Award of articulated credits through BTC does not guarantee or imply acceptance of such credits by other institutions.

For more information, contact the BTC Tech Prep coordinator via email at [techprep@btc.ctc.edu](mailto:techprep@btc.ctc.edu) or visit Whatcom County's Tech Prep web site at [www.whatcomtechprep.org](http://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 Affairs Advisor as early as possible before enrolling. The Veterans Affairs Advisor is located within the Financial Aid Office. Contact advisor at [veteransaffairs@btc.ctc.edu](mailto:veteransaffairs@btc.ctc.edu)

The Veterans Affairs Advisor 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 clock hour/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 360.752.8324.

### 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 100).



## STUDENT LIFE & SERVICES

### CHAPTER 4 - STUDENT LIFE & SERVICES

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### 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
- Running Start
- Tutoring services
- Worker Retraining

Counselors are located in the 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 with a counselor 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.



## STUDENT LIFE & SERVICES

### ASSOCIATED STUDENT GOVERNMENT

The Student Council (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.

### 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.

### 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 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 provides food service on campus. They operate the Cafe Culinaire Restaurant, open to the public at selected times throughout the year. Additionally, the *Culinary Arts* 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, and Haskell Center. Snack items can also be purchased in the campus bookstore.

## STUDENT LIFE & SERVICES

### 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.

### 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/StuServices/Library/ITRCHome.html>). 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 (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:

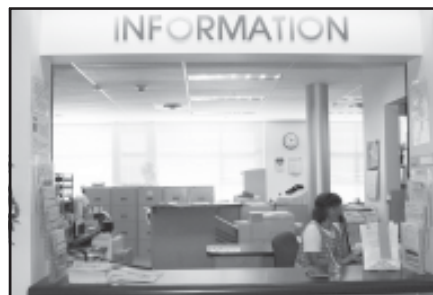
- Any vehicle that receives three "Warning! Parking Violation" tickets will be subject to towing (\$150) when the third violation is issued.
- Any vehicle parked in a fire lane or in handicap parking without a handicap parking permit will be immediately subject to towing and a parking citation by the 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 vehicles parked in the campus parking lot.

### PROGRAM SERVICES FOR THE PUBLIC

Many of the College's degree/certificate programs provide service 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 throughout the year. 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.





# POLICIES, REQUIREMENTS & RECORDS

## CHAPTER 5 - POLICIES, REQUIREMENTS & RECORDS

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## 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 1800 or more clock hours in length.

A certificate of completion is awarded for successful completion of an approved course of study totaling less than 1800 clock hours 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 FOR ALL DEGREES & CERTIFICATES

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 (54 hours) or ENGL 101 English Composition (54 hours), PSY 101 General Psychology (54 hours) or PSY 180 Interpersonal & Organizational Psychology (54 hours), and MATH 100 Occupational Math (54 hours) or MATH 111 Technical Math (54 hours), 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 COM 170 and most math courses is permitted. Students must be registered in the course to be eligible to challenge. Successful challenge of courses will be transcribed with a CR grade. Challenge procedure directions are available 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.

# POLICIES, REQUIREMENTS & RECORDS

## 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	
<b>AU</b>	<b>Audit</b>
<b>CR</b>	<b>Credit for prior experiential learning</b>
<b>I</b>	<b>Incomplete</b>
<b>NP</b>	<b>No Pass</b>
<b>P</b>	<b>Pass</b>
<b>T</b>	<b>Transfer</b>
<b>V</b>	<b>Unofficial Withdrawal</b>
<b>W</b>	<b>Withdrawal</b>

## 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 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 or designation of administrative withdrawal of the student by the College.

## ACADEMIC ACHIEVEMENT

### Academic Awards

**Dean's List** - Awarded to each student enrolled for a minimum of 150 clock hours in the quarter during regular academic year and 90 clock hours in Summer Quarter in a degree/certificate program and who earns at least 90% of the enrolled clock hours with a quarterly grade point average of 3.75 or higher. Awarded each quarter and noted on the student's transcript.

**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 270 clock hours 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.

## POLICIES, REQUIREMENTS & RECORDS

This standard is defined as maintaining a minimum of 2.0 quarterly grade point average\* and completion of a minimum of 67% of the enrolled quarterly clock hour 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 for the following quarter. Students who do not demonstrate satisfactory progress for two consecutive quarters will be placed on academic probation. Students who are on academic probation for two consecutive quarters will be suspended.

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.

### **Excessive Credits Policy**

Students enrolled in a degree or certificate program will be penalized if they take college-level courses in excess of 150% of the credits needed to complete their program of study. To assist students in meeting this standard, the college will monitor degree progress at three critical stages and provide appropriate intervention. Only college-level credits will be monitored.

#### **Stage 1**

When students reach 50% of the number of clock-hours required for their degree/certificate, they will receive direct notification.

- Students will be encouraged to meet with their faculty advisor or a counselor to assure completion of remaining requirements in a timely manner.
- The notification and faculty advisor or counselor will remind students of academic standards and progress policies, and explain possible consequences of exceeding 125% of the credits required for their degree/certificate program.

#### **Stage 2**

When students reach 125% of the number of clock-hours required for their degree/certificate, they will receive direct notification.

- Registration will be restricted to courses required for program completion. Students will only be allowed to register for approved courses, identified by an advisor signature indicating the courses are required for degree completion.

- At this 125% tracking point, students will need to register in person, and will not be able to web-register.
- Students who feel inappropriately restricted may appeal to the appropriate Dean.

#### **Stage 3**

When students reach 150% of the number of clock-hours required for their degree/certificate, they will receive direct notification.

- At this 150% tracking point, students' registration will be blocked.
- Students may appeal their registration block to the appropriate Dean for the program.
- If the student fails to appeal, or whose appeal is denied, and the student petitions to continue their studies at BTC, an additional tuition surcharge may be added to their tuition.

#### **Appeals**

Students may appeal their 125% course restriction or their 150% registration block if they have extenuating circumstances. The appeal is an informal meeting with the Dean of Professional Technical Education or his/her designee. Students are required to bring a copy of their current transcript and program verification form. The Dean reviews appeals on a case-by-case basis. The Dean may grant the appeal, may allow the student to continue under certain conditions, or may deny the appeal. The decision of the Dean is final.

## 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
- Program of enrollment
- Period 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 birthdate 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 Vice President of Student Services, in writing, each quarter.

## POLICIES, REQUIREMENTS & RECORDS

### 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 National 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.

The official transcript is a copy of the student's academic record bearing the College's seal and the signature of the Registrar. An unofficial transcript is an unsigned and unsealed copy of the student's record. Unofficial transcripts are available through the College website under Online Services. Request for official transcripts must be made in writing and accompanied by a \$3.00 payment. There is no charge for unofficial transcript copies. Transcripts are withheld if all obligations to the College, financial or otherwise, are not fully filled. To request a transcript by mail, include name, social security number or student identification number, approximate dates of attendance, signature and appropriate fee payment.

## 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 Affirmative Action Officer in the College's Human Resources Office at 360.752.8354. Sexual harassment complaints are treated as sexual discrimination complaints under state and federal regulations. Complaints are confidential.

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

### 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.

## POLICIES, REQUIREMENTS & RECORDS

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

See 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:

- For Basic Skills, ESL, Learning Center, Student Services: Vice President of Student Services

- 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.

## TRANSFERRING & EARNING CREDITS

### CREDIT ACCEPTANCE POLICY

#### Transfer Credit

Transfer credit is credit that is granted for course work completed at other accredited institutions. Only courses completed at an accredited college or university with an earned grade of "C" or better will be considered for equivalent transfer credit. Recency of coursework will be considered in acceptance of transfer credit as defined in the Transfer Credit Advising Guide. Appropriate college level courses numbered above 100 level or equivalent will be considered for acceptance of transfer credit for general education courses in psychology, oral and written communications, mathematics, English, and academic support

courses.

Course work equivalent to technical content in the degree/certificate programs will be evaluated for acceptance based on the content of the courses. Programs may establish higher grade requirements for technical content transfer credit award.

### **Transfer Credit Evaluation Procedures**

The College will maintain Transfer Credit Advising Guides that list courses that have been identified as equivalent for related instruction and academic support courses.

Students seeking transfer credit must submit a completed *Transfer Credit Request Form* and present it with official copies of all college transcripts documenting equivalent credit to Admissions & Advising.

Course syllabi or other descriptive information may be required in addition to an official transcript for some courses.

### **Technical Course Requirements**

A student seeking transfer credit for technical courses must submit a completed *Transfer Credit Request form*, along with official transcripts or equivalent documentation to the Admissions 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. Once evaluated, and when the student is scheduled to register, the completed *Transfer Credit Request Form* and the official transcript will be returned to Registration & Enrollment for posting of the transfer credit grade (T) and 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 clock hours 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, PSY 101, PSY 180, 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 profes-



sional 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 coursework 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 for credit for prior experiential learning. The assigned College evaluator(s) will conduct the evaluation of general education or academic support courses.
3. The evaluation of transcripts and/or certification(s) will determine advanced placement, outline which coursework the applicant/student has completed (students will receive transfer credit for college coursework), 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 Office. The form is routed to the Registration & Enrollment Office for processing and will be filed in the student's permanent record.
5. The student is notified of the results of the advanced placement evaluation.

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.

## POLICIES, REQUIREMENTS & RECORDS

### 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 transferrable 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.

#### 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 TechPrep 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 may earn a four-year degree. City University offers courses on BTC's campus at a very competitive price.

Beyond the formalized degree articulation agreements, BTC has a number of transfer agreements with state colleges and universities regarding courses. To 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. Students may request their prior credits to be transferred to BTC to satisfy some of their course requirements. Students must fill out an *Award of Transfer Credit Request* form in Admissions & Advising.



# COURSE DESCRIPTIONS

## CHAPTER 6 - COURSE DESCRIPTIONS

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Most courses require program admission prior to registration.

## ACCOUNTING

### ACCT 103 ACCOUNTING LEVEL III 30 HR/3 CR

Coursework focuses on accounting for partnerships and corporations. Topics covered include accounts receivable and notes received; accounts payable; merchandise inventory; property, plant, and transactions; and statement analysis. Computerized accounting explored. PREREQUISITE: ACCT 141 (Section B) or equivalent.

### ACCT 105 COMPUTERIZED PAYROLL ACCOUNTING 30 HR/3 CR

A practical course covering the calculation of payroll and payroll taxes and the preparation of records and reports. PREREQUISITE: ACCT 141 (Section A) or equivalent.

### ACCT 141 FINANCIAL ACCOUNTING I 90 HR/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 141 ACCOUNTING (SECTION A) 45 HR/3 CR

Coursework includes analyzing business transactions, posting, preparing worksheets and adjusting entries, closing, banking, payroll, and the electronic calculator.

### ACCT 141 ACCOUNTING (SECTION B) 45 HR/3 CR

Coursework focuses on accounting for a merchandising business. Topics include special journals, the subsidiary ledgers for accounts receivable and accounts payable, adjusting and closing entries for a merchandising business, and the preparation of end-of-the-cycle financial statements. PREREQUISITE: ACCT 141 (Section A) or equivalent.

### ACCT 200 PERSONAL INCOME TAX PREPARATION 90 HR/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 90 HR/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 90 HR/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.



# COURSES: ACCOUNTING - APPRENTICESHIPS

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**ACCT 245 PAYROLL PROCEDURES** **90 HR/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** **90 HR/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 248 COMPUTERIZED ACCOUNTING II** **90 HR/5 CR**  
Uses the commercially popular Peachtree accounting software to teach how to setup a company, create a chart of accounts, enter transactions for receivables and payables, reconcile bank accounts, track inventory, and prepare financial statements. PREREQUISITE: a minimum grade of B- (2.7) in ACCT 141.

**ACCT 254 MANAGERIAL ACCOUNTING** **90 HR/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** **90 HR/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.

**ACCT 273 INTERNSHIP** **120 HR/4 CR**  
Students will arrange to work in an office where they will apply accounting skills and knowledge. The internship may be paid or unpaid work experience.

## APPLIANCE REPAIR

**APPL 100 INTRO TO TRADE & OCCUP SAFETY** **18 HR/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 105A ELECTRICAL THEORY I** **126 HR/8 CR**  
The application of mathematical principles and procedures for electrical calculations used for the repair of various appliances.

**APPL 106 ELECTRICAL - PRACTICAL I** **90 HR/5 CR**  
Work here will apply to hands-on approach to electricity. PREREQUISITES: APPL 100 and APPL 105A.

**APPL 109 TOOLS/TESTING EQUIPMENT** **18 HR/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** **36 HR/2 CR**  
The process of motor application in the Appliance/Refrigeration Industry.

**APPL 114A ELECTRIC DRYERS** **126 HR/7 CR**  
Application of dryer theory, dryer mechanical systems, electrical systems, and proper diagnosing techniques used in the industry.

**APPL 116A AUTO WASHERS** **288 HR/17 CR**  
Covers the installation, cycles of operation, mechanical systems, electrical systems, and diagnosis and servicing of all major brands of automatic washers.

**APPL 122A DISHWASHERS** **144 HR/8 CR**  
Introduction to water and detergent problems and solutions, me-

chanical systems and design variations, electrical components, and diagnosis of servicing procedures.

**APPL 124 COMPACTORS/DISPOSERS** **72 HR/4 CR**  
Focuses on mechanical construction and application, electrical components, operating characteristics, and service and diagnosis.

**APPL 126A MICROWAVE OVENS** **108 HR/6 CR**  
Review of microwave theory, components, electrical systems, and diagnosis procedures on microwaves.

**APPL 191A LEADERSHIP** **18 HR/1 CR**  
Study practical applications surrounding technicians and their relationships with customers.

**APPL 201 WATER HEATERS** **18 HR/1 CR**  
The recognition of installation requirements, mechanical construction, electrical systems, and service and diagnosis procedures.

**APPL 202 GAS SYSTEMS** **108 HR/6 CR**  
The theory of gas systems, application of gas systems, mechanical systems, related to gas products, and electrical component testing.

**APPL 203A RANGES/ OVENS/ COOKTOPS** **162 HR/10 CR**  
The fundamental installation, component familiarization, mechanical construction, schematic reading, and diagnosis of problems.

**APPL 205A REFRIGERATION THEORY** **126 HR/7 CR**  
Examination of theory, matter and energy, refrigeration and refrigerants, refrigerant handling, and safety.

**APPL 207 REFRIGERATION LAB I** **270 HR/ 14 CR**  
Application of lab projects from tubing piping projects, refrigerant management, through servicing procedures required on all refrigerators and freezers.

**APPL 208A REFRIGERATION LAB II** **108 HR/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 210A ICE MAKERS** **72 HR/4 CR**  
Ice maker installation, operation, and servicing procedures.

**APPL 212A AIR CONDITIONERS** **72 HR/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** **18 HR/1 CR**  
Evaluate the inventory for a service vehicle, looking up parts using microfiche cards, and mark up on parts.

## APPRENTICESHIPS

Bellingham Technical College works in partnership with the following Apprenticeship organizations to offer training classes both on-campus and off-campus:

- Carpenters-Employers Apprenticeship & Training Trust Fund of Western Washington 360.428.2933
- Construction Industry Training Council of Washington (Sheet Metal) 425.454.2482
- Independent Electrical Contractors of Washington Educational Training Fund 800.595.0900
- Northwest Washington Electrical Industry JATC 360.428.5080
- Northwest Laborers-Employers Training Trust Fund 360.297.3035
- Seattle City Light Hydro Machinist Apprenticeship 206.386.1607

# COURSES: APPRENTICESHIPS - AUTO COLLISION REPAIR

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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Please contact these organizations directly for more information.

## AUTO COLLISION REPAIR

**ABDY 101 INTRO TO COLLISION REPAIR 22 HR/2 CR**  
An introduction into the collision repair industry with emphasis on safety, professionalism, basic measurements and right-to-know. Part location and nomenclature will be studied and collision/estimating equipment will be used.

**ABDY 103 BASIC BODY REPAIR I 22 HR/2 CR**  
**ABDY 145 BASIC BODY REPAIR II 42 HR/2 CR**  
A general introduction into light damage analysis and products and equipment used in minor repairs. Students develop skills in minor plastic repair.

**ABDY 105 BASIC PAINT 86 HR/5 CR**  
A general introduction into paints, preparation procedures, and application techniques. Basic substrate preparation will be stressed.

**ABDY 107 FINISH PRODUCT MIXING 43 HR/ 2 CR**  
An in-depth study of looking up and reading paint codes from different OEM manufactures then mixing the color to paint manufacture spec with an emphasis on personal safety and paint-mixing skills.

**ABDY 108 VEHICLE PRE-REFINISHING 80 HR/4 CR**  
Theory of specific preparation and products with application drills. In addition, finish analysis and paint removal systems will be covered.

**ABDY 109 INTRO TO WELDING FOR COLLISION REPAIR 22 HR/2 CR**  
Personal safety, proper and safe use of the MIG welding equipment is emphasized. The student is instructed in how to properly set up and how to adjust MIG welders to make proper welds to I-Car standards.

**ABDY 110 WELDING FOR COLLISION REPAIR 95 HR/4 CR**  
After demonstrating the proper and safe way to set up the MIG welder for various types of welds and metal thicknesses, the student will perform the basic types of welds to I-Car standards used in Collision repair and pass all welding tests.

**ABDY 112 OXYACETYLENE/PLASMA CUTTING 32 HR/2 CR**  
Proper and safe use of the oxyacetylene cutting and plasma cutting equipment is emphasized. The student is instructed in how to properly set up and adjust the oxyacetylene and plasma cutting equipment and the proper cutting methods for cutting sheet metal.

**ABDY 114 OXYACETYLENE WELDING 32 HR/2 CR**  
Proper and safe use of the oxyacetylene equipment is emphasized. The student is instructed in how to properly set up and adjust the oxyacetylene torch. Following this, the techniques of heating of panels for shrinking, welding various types of welds in common positions, and some brazing methods are taught using a combination of classroom and hands on practice.

**ABDY 115 INTRO TO NON-STRUCTURAL REPAIR 64 HR/4 CR**  
A general introduction into light damage analysis, products, equipment and techniques used in non-structural repairs. Student develops skills in minor plastic repair and replacing non-structural panels.

**ABDY 117 INTRO TO REFINISHING FOR COLLISION REPAIR 40 HR/3 CR**  
A general introduction into paints, preparation procedures, personal safety, environment safety and painting application techniques. Paint gun safety, proper gun adjustment techniques and cleaning. Basic substrate preparation will be stressed.

**ABDY 118 VEHICLE REFINISHING I 64 HR/4 CR**  
Theory of specific preparation and products with application drills. In addition, finish analysis and paint removal systems will be covered.

**ABDY 119 REFINISHING FOUNDATIONS I 43 HR/3 CR**  
**ABDY 122 REFINISHING FOUNDATIONS II 76 HR/4 CR**  
Theory of specific preparation and products with application drills including finish analysis and paint removal systems will be covered.

**ABDY 121 VEHICLE PRE-REFINISHING 43 HR/3 CR**  
Theory of specific preparation and products with application drills.

**ABDY 123 FINISH FOUNDATIONS I 32 HR/2 CR**  
**ABDY 124 FINISH FOUNDATIONS II 52 HR/3 CR**  
Skill development in preparation procedures and undercoat product applications. Includes: application drills, color code, e.g. solvents, additives, mixing and measuring.

**ABDY 125 ADVANCED REFINISHING FOUNDATIONS 32 HR/2 CR**  
A more in-depth study of preparation procedures and products to include: Application drills, color code, e.g. solvents, additives, mixing and measuring.

**ABDY 126 ANTICORROSION 32 HR/2 CR**  
Theory and application of how to and when to apply anticorrosion to panels to I-Car standards.

**ABDY 127 REFINISH PRODUCT MIXING 43 HR/2 CR**  
An in-depth study of looking up and reading paint codes from different OEM manufactures then mixing the color to paint manufacture spec with an emphasis on personal safety and paint mixing skills.

**ABDY 128 COLLISION DAMAGE REPORTING SYSTEMS 43 HR/3 CR**  
A detailed study of manual and computerized systematic approaches for inspecting, checking, identifying, measuring and determining damage. A detailed study of preparing and interpreting computerized damage reports is part of this course to I-Car standards.

**ABDY 129 NON-STRUCTURAL REPAIR I 62 HR/4 CR**  
A variety of panels are furnished for the students to use during this course. The student is taught how to repair small dents using a combination of metal straightening techniques and body filler.

**ABDY 130 VEHICLE REFINISHING 73 HR/4 CR**  
Theory and practical application in spray booth and vehicle pre-spray preparation, topcoat material and application, flexible part and plastic refinishing, and final detailing.

**ABDY 131 VEHICLE REFINISHING PROCEDURES I 73 HR/3 CR**  
**ABDY 141 VEHICLE REFINISHING PROCEDURES II 60 HR/3 CR**  
Theory and practical application in spray booth and vehicle pre-spray preparation, topcoat material and application, flexible part and plastic refinishing, and final detailing. Students enrolled in ABDY 130 will have more application practice.

**ABDY 132 TOPCOAT SYSTEMS I 52 HR/3 CR**  
**ABDY 133 TOPCOAT SYSTEMS II 52 HR/2 CR**  
Practical application and skill development from ABDY 137 with an emphasis on material and application procedures

**ABDY 135 NON-STRUCTURAL REPAIR II 63 HR/3 CR**  
**ABDY 140 NON-STRUCTURAL REPAIR III 80 HR/4 CR**  
The student will repair damage to non-structural panels using a variety of techniques on live projects.

**ABDY 136 REFINISH DETAILING 53 HR/3 CR**

# COURSES: AUTO COLLISION REPAIR - AUTOMOTIVE

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Theory and practical application of color sanding, buffing after refinishing, and vehicle clean up after leaving the body and paint shop.

**ABDY 137 COLOR ANALYSIS, TINTING, & BLENDING 43 HR/2 CR**  
A course in spot refinishing, color analysis, tinting, blending and product troubleshooting.

**ABDY 143 NON-STRUCTURAL PARTS ALIGNMENT & REPAIR 40 HR/2 CR**  
Theory and skill development of body cosmetics and bolt-on components with the emphasis on fit, finish, and function.

**ABDY 201 MIG WELDING FOR COLLISION REPAIR 42 HR/3 CR**  
Skill development in MIG welding with emphasis on welding to I-Car standards in Lap, Spot, and Butt with a Backing in Vertical and Overhead positions used in collision repair, and pass all welding tests.

**ABDY 203 INTRO TO STRUCTURAL REPAIR 43 HR/3 CR**  
This course is a general introduction into structural damage analysis, steering and suspension, equipment and techniques used in structural repairs.

**ABDY 205 PLASTIC REPAIR (BUMPER & SMC) 53 HR/3 CR**  
A comprehensive course in repair of interior and exterior plastics, as well as fiberglass and sheet molded compounds. The student will learn how to repair the common plastics used on today's automobile by either welding or chemical repair.

**ABDY 206 STRUCTURAL DAMAGE ANALYSIS & MEASURING 53 HR/3 CR**  
An introduction to state-of-the-art measurement systems and structural repair theory.

**ABDY 207 AUTOBODY PRACTICES I: NON-STRUCTURAL REPAIR 63 HR/3 CR**  
A course featuring further skill development of cosmetic repair techniques. Continued emphasis on planning and skill development with style lines and difficult compound curves.

**ABDY 208 STRUCTURAL PANEL REPLACEMENT I 64 HR/3 CR**  
Introduction to and application of welded panel replacement and structural sectioning procedures, as well as practical equipment applications in structural vehicle straightening and alignment.

**ABDY 209 VEHICLE REFINISHING PRACTICES 42 HR/2 CR**  
A skill development/refinishing course with emphasis on spot repair, blending, finessing and final detailing.

**ABDY 230 STRUCTURAL PANEL REPLACEMENT II 73 HR/3 CR**  
Application of welded panel replacement and structural sectioning procedures, as well as practical equipment applications in structural vehicle straightening and alignment.

**ABDY 232 VEHICLE SAFETY SYSTEMS 86 HR/5 CR**  
Theory and operation of air bags and other passive restraint systems. Latest developments used in the collision repair industry for the diagnosis and repair of advanced safety in automobiles will be included to I-Car standards.

**ABDY 233 STRUCTURAL GLASS 64 HR/3 CR**  
Theory, operations, and proper removal and installation of structural glass to I-Car standards.

**ABDY 235 NON STRUCTURAL REPAIR IV 63 HR/3 CR**  
Students go further in this course than Non-Structural Repair I, in that they use pulling techniques to unlock metal and restore length before finish work is started.

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**ABDY 236 INTRO TO ADVANCED REFINISHING 74 HR/5 CR**  
Theory and application of multistage paint systems and how to repair them. Custom paint layout and application.

**ABDY 240 INTRO TO VEHICLE SYSTEMS 54 HR/3 CR**  
A study of vehicle mechanical, electrical and braking systems, as they apply to collision damage repair.

**ABDY 243 AUTO BODY PRACTICES II : STRUCTURAL REPAIR 63 HR/3 CR**

**ABDY 245 AUTO BODY PRACTICES III: NON-STRUCTURAL REPAIR 63 HR/3 CR**  
The student will repair damage to structural panels using a variety of techniques on live projects.

**ABDY 247 AUTO BODY PRACTICES IV: VEHICLE REFINISHING 63 HR/3 CR**  
The student will refinish damage areas of non-structural and structural panels using a variety of techniques on live projects.

**ABDY 249 ADVANCED REFINISHING 42 HR/3 CR**  
The student will apply techniques learned in Introduction to Advanced Refinishing on various types of panels.

**ABDY 260 WORK-BASED LEARNING 74 HR/2 CR**  
In this course, the training is provided under the joint cooperation of BTC's Auto Collision Repair Technology and a collision repair shop. Prerequisite: Sixth quarter student and passing all courses to date.

## AUTOMOTIVE

**AUTO 103 ENGINES 150 HR/10 CR**  
An introductory look at the 4 stroke gasoline engine followed by in-depth study and practice of industry standard service procedures including diagnosis and repair of internal engine systems.

**AUTO 107 BRAKES 120 HR/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 40 HR/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 30 HR/2 CR**  
This course will focus on the basic fundamentals of fuel, ignition and computer-controlled engine management systems.

**AUTO 208 ELECTRICAL/ELECTRONICS 220 HR/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 110 HR/7 CR**  
Covers the operation, diagnosis and repair of suspension and steering systems including four-wheel laser alignment.

**AUTO 213 HVAC 80 HR/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.

# COURSES: AUTOMOTIVE - BASIC ACADEMIC SKILLS

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**AUTO 219 APPLIED AUTOMOTIVE CONCEPTS I 300 HR/9 CR**  
**AUTO 229 APPLIED AUTOMOTIVE CONCEPTS II 150 HR/5 CR**  
**AUTO 259 APPLIED AUTOMOTIVE CONCEPTS III 96 HR/3 CR**  
**AUTO 279 APPLIED AUTOMOTIVE CONCEPTS IV 96 HR/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 241 ENGINE PERFORMANCE II 150 HR/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 90 HR/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 260 MANUAL TRANS./DRIVETRAIN 60 HR/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.

## BASIC ACADEMIC SKILLS

**ABE 020 MATH 1 36-93 HR**

Includes the numbering system, order of whole numbers, and addition and subtraction of single digit numbers. Students will identify the causes of problems in order to find solutions, learn from their own mistakes, accept correction and direction, respect and interact appropriately with peers and supervisors, and demonstrate personal responsibility. Students will also practice technology at the appropriate level.

**ABE 021 MATH 2 36-93 HR**

Includes identifying place value, adding, subtracting, multiplying, and dividing whole numbers, solving real life word problems, estimating and averaging whole numbers to accomplish a variety of daily tasks. Students will generate ideas about problems, causes, and solutions; participate in groups; recognize their learning style; and learn from others. They will set personal goals and recognize the connection between behavior and outcomes.

**ABE 022 MATH 3 36-93 HR**

Includes applying decimal and fraction concepts and procedures to solve real-life problems, and recognizing, naming and using metric and/or standard units of measurement. Students will identify their own personal values and financial choices and state clearly personal needs to accommodate their own learning style. They will participate in a familiar group, learn to recognize and relate to differences in others, recognize a good leader, identify appropriate work behavior and attitudes, and relate classroom experience to the workplace. They will also practice technology at the appropriate level.

**ABE 023 MATH 4 36-93 HR**

Includes using percents, ratios, proportions, simple formulas and measurements, and interpretation of graphs and tables to solve real life problems. Students will solve multistep problems by identifying

the issue, thinking creatively, applying a variety of skills, implementing solutions, and evaluating the outcomes. Students will work in teams and groups and communicate effectively through listening, speaking, writing, and peer monitoring.

**ABE 030 READING/WRITING 1 36-93 HR**

This course provides instruction in recognition of letters of the alphabet, symbol/sound correspondences, division of words by syllables, sentence differences, and practice decoding by context. The instruction helps students to recognize the outcomes from a variety of reading and writing sources. Practice in reading and writing for survival needs and personal communication will be offered.

**ABE 031 READING/WRITING 2 36-93 HR**

This course provides instruction in the selection of reading materials for specific purposes and application of reading strategies to assist with comprehension and integration of new information. The instruction helps the student to summarize main idea and supporting details, and to write topic sentences with supporting details.

**ABE 032 READING/WRITING 3 36-93 HR**

This course provides instruction in selecting appropriate reading materials for particular purposes and in expanding choices of texts/genres. The instruction helps the student to purposefully use a wide array of reading strategies to assist in reading comprehension and problems solving, applying the knowledge to real life needs and goals. The instruction helps the student gain competence in writing through organizing a paragraph using topic sentence and supporting details. The instruction helps the student write sentences that express complex ideas and contain minimal errors in mechanics and grammatical structure.

**ABE 033 READING/WRITING 4 36-93 HR**

This course provides instruction in independently determining reading purpose and selecting the best reading resources to satisfy the purpose. This course provides instruction in using diverse strategies (format, skimming, context clues, etc.) and skills (transition words, inferences, point of view) to analyze, evaluate, and draw meaning from text. This course provides instruction in applying reading to real life needs and goals, persevering in reading material of limited interest to achieve this. This course provides instruction in writing consistently effective paragraphs that can be organized into a 5 paragraph essay format. Instruction in writing complex sentences showing minimal errors in mechanics and grammar is offered.

**BAS 020 COMPUTER SURVIVAL SKILLS 72 HR**

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

**BAS 050 INTRO TO CAREERS IN TECHNOLOGY 72 HR**

Students will explore careers in technical fields, with emphasis on those entered through programs offered by BTC. Students will research careers, visit programs and do job shadows in appropriate industries. Student must be enrolled in another ABE, GED or ESL (Level 3-6) course at BTC to participate. Continuing enrollment throughout the quarter.

**BAS 051 INTRO TO HEALTH OCCUPATIONS 1 90 HR**

This course provides an overview of health occupations and the communication skills necessary for students to enter and succeed in health occupation courses. Students will study English-as-a-Second Language, reading, grammar, writing, speaking, listening, and math as applied to health occupations. Open to ESL Levels 4-6 and ABE Levels 3-6.

# COURSES: BASIC ACADEMIC SKILLS - BUILDING CONSTRUCTION

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**BAS 052 INTRO TO HEALTH OCCUPATIONS 2 90 HR**  
This basic skills course is part of the larger "Bridge to Health Occupations" Program and is designed to prepare ESL and ABE students for health occupation classes. In addition to receiving an introduction to medical terminology, anatomy, and physiology, students will examine how culture, ethnicity, and race affect people's beliefs about health and health care. Workplace safety and first aid are also topics of learning. Furthermore, this "bridge" course will reinforce students' development of study, language, and computer skills. Open to ESL Levels 5-6 and ABE Levels 4-6 and those who have completed Intro to Health Occupations 1.

**BAS 053 INTRO TO HEALTH OCCUPATIONS 3 90 HR**  
This basic skills course is part of the larger "Bridge to Health Occupations" Program and is designed to prepare ESL and ABE students for health occupation classes. In addition to receiving an introduction to medical terminology, anatomy, and physiology, students will examine how culture, ethnicity, and race affect people's beliefs about health and health care. Workplace safety and first aid are also topics of learning. Furthermore, this "bridge" course will reinforce students' development of study, language, and computer skills. Open to ESL Levels 5-6 and ABE Levels 4-6 and those who have completed Intro to Health Occupation 2.

**BAS 060 BASIC ACADEMIC SKILLS 30-80 HR**  
This course includes refresher skills in math and communications necessary for success in occupational programs. Specific content will be based on individual needs.

**BAS 065 STUDY SKILLS 24 HR**  
Course intended for students who are enrolled or on waiting lists in occupational programs who need help with study skills. The course covers learning styles, time management, organization, reading, writing, and math strategies, memorization, test preparation, and test taking strategies.

**GED 040 GED PREPARATION 36-93 HR**  
This course includes instruction in grade levels 9-12 reading, writing, and math as well as in the content areas of social studies, and arts and literature. Emphasis is placed on GED test taking skills, reasoning skills and critical thinking skills.

## BIOLOGY

**BIO 105 ESSENTIALS OF ANATOMY & PHYSIOLOGY 60 HR/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.

**BIO 121 CELL BIOLOGY 66 HR/5 CR**  
This course provides an introduction to basic concepts of biology, with an emphasis on the cell as the fundamental unit of life. Topics include cell structure, basic chemical and biochemical concepts, metabolism, cell division, principles of genetics, biological diversity, and methods of scientific inquiry and critical thinking. Course establishes foundation necessary for continued biology study, especially in human anatomy and physiology. Lab included.

**BIO 127 DISEASES OF THE HUMAN BODY 48 HR/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.

**BIO 210 HUMAN ANATOMY & PHYSIOLOGY I 78 HR/5 CR**  
**BIO 211 HUMAN ANATOMY & PHYSIOLOGY II 78 HR/5 CR**  
These courses emphasize understanding the function of the normal human, which will serve as a foundation of general understanding as well as a foundation for future study in allied health fields. Lecture, group discussion, literature and internet research, and laboratory exercises are included. Acquisition of basic knowledge, application and integration of concepts is emphasized. BIO 210 includes anatomy survey; tissues; and integumentary, skeletal, muscular, nervous, and endocrine systems. BIO 211 includes circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems. PREREQUISITE for BIO 210: BIO 121 or equivalent. PREREQUISITE for BIO 211: Completion of BIO 210 with C or better.

**BIO 215 GENERAL MICROBIOLOGY 77 HR/5 CR**  
Exploration of microbial world with a focus on medical microbiology for students in the healthcare field. Areas of study include classification of microbes, life cycle, metabolism, control, and common infectious diseases of the human body. Laboratory component will demonstrate procedures to identify and control microbes. PREREQUISITE: BIO 121 and CHEM 131 or equivalent.

## BUILDING CONSTRUCTION

**BCT 102 INTRODUCTION TO BUILDING CONSTRUCTION 306 HR/23 CR**  
Designed to give the student a foundational experience with the materials, tools, and techniques of the construction industry. Topics include safety, construction materials and applications, power and hand tool familiarization, concrete, and masonry construction.

**BCT 126 BUILDING CONSTRUCTION I 306 HR/23 CR**  
Focus will be on the areas of blueprint reading, rough carpentry, roofing, and code compliance. Topics include reading and interpreting blueprints, floor framing and wall framing, roof framing, and building codes. PREREQUISITE: Instructor permission.

**BCT 128 BUILDING CONSTRUCTION II 306 HR/23 CR**  
Focuses on the processes and skills necessary for the finishing-out of a building. Areas of study include advanced roof framing, stair building, weatherization, interior finishing, and electrical/mechanical systems. Subjects covered will include stair building and layout, "roof cutting," dry walling, wall coverings, floor coverings, finish carpentry, and an overview of electricity and plumbing. PREREQUISITES: BCT 126 and/or instructor permission.

**BCT 131 BUILDING CONSTRUCTION III 342 HR/25 CR**  
Course gives the student an introduction to and familiarization with the principles of surveying, drafting, and design, and common business practices. Students will learn elementary surveying, drafting and design conventions, material and labor estimation, computer applications, and accounting and scheduling methods. PREREQUISITES: BCT 128 and/or instructor permission.

**BCT 133 BUILDING CONSTRUCTION SPECIALTY 360 HR/12 CR**  
Allows the student time to practice a desired specialty to build their skill level beyond entry level. PREREQUISITES: BCT 131 and/or instructor permission.

**BCT 192 JOB SEARCH 18 HR/1 CR**  
Provides students with job search techniques that will assist them in meeting their employment goals, now and in the future.

**CONST 100 COMPUTERS IN CONSTRUCTION 33 HR/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 construction applications.

# COURSES: BUILDING CONSTRUCTION - BUSINESS & SUPERVISION

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

**CONST 110 CIVIL CONSTRUCTION ESTIMATION 120 HR**  
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 90 HR**  
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 90 HR**  
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 44 HR/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 44 HR/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 COMMERCIAL ESTIMATING 44 HR/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 202 CONTRACTS AND CONSTRUCTION LAW 90 HR**  
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.

**CONST 210 CIVIL PROJECT DOCUMENTATION 90 HR**  
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 212 TECHNICAL WRITING FOR CONSTRUCTION MANAGEMENT 90 HR**  
This course is a continuation of the CONST 210, Civil Project Documentation course. The students will now edit and prepare the documents that were reviewed in the previous course. The course focuses on preparing contracts, contract modification, project correspondence, permits, and project billing documentation specific to the heavy civil construction industry.

**CONST 214 CIVIL CONSTRUCTION PROJECT CONTROLS 90 HR**  
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.

**CONST 216 CIVIL CONSTRUCTION SAFETY MANAGEMENT 78 HR**  
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 & SCHEDULING 33 HR/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 33 HR/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 33 HR/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 33 HR**  
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 30 HR/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.

**CONST 266 ADVANCED COMPUTERS FOR CONSTRUCTION 43 HR**  
Focus on industry standard construction exercises utilizing computers to generate project costs. Advanced spreadsheet design, word-processing, databases, and Timberline Precision Estimating software is presented. PREREQUISITE: CONST 100 and 200. Recommended: Adequate keyboarding (20-30 wpm).

**CONST 280 BUILDING CODES I 33 HR/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.

**CONST 281 BUILDING CODES II 33 HR**  
An in-depth study of the relationships between occupancy classification, types of construction, location on property, exiting requirements, and fire resistive standards. Interpretation of the International Building Code and applicable parts of the IRC. PREREQUISITE: CONST 280.

## BUSINESS & SUPERVISION

**BUS 100 ELECTRONIC MATH APPLICATIONS 45 HR/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.

# COURSES: BUSINESS & SUPERVISIONS

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**BUS 123 RECORDS MANAGEMENT 45 HR/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 125 OFFICE PROCEDURES FOR THE RECEPTIONIST 90 HR/5 CR**  
 Prepares the student for the role of receptionist and the broader role as a professional member of the office staff. The class exposes the student to the skills necessary to answer telephones, schedule appointments and meetings, to format documents, and to applications of human relations and customer service techniques. PREREQUISITE: CAP 106.

**BUS 135 OFFICE MANAGEMENT 30 HR/3 CR**  
 Course provides students with tools for supervising people and technology in the rapidly changing office. Problem-solving and critical-thinking skills will be developed and applied to office situations. This course is intended to improve students' promotability in the office environment. Office Management can replace Supervision & Management as a required course for the Business Management Certificate. PREREQUISITE: BUS 116 or equivalent.

**BUS 140 SUPERVISION & MANAGEMENT I 30 HR/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 20 HR/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.

**BUS 150 MATHEMATICS FOR BUSINESS 90 HR/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.

**BUS 171 TECHNICAL COMMUNICATIONS 90 HR/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. PREREQUISITES: CAP 106 and BUS 177.

**BUS 177 BUSINESS ENGLISH I 45 HR/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 45 HR/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 36 HR/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

Prefix Number	Title	Clock Hours/Credit Equivalencies
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expected service, and defining "who is the customer" when dealing in business relations.

**BUS 200 BUSINESS LAW 90 HR/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 30 HR/1 CR**  
**BUS 222 INTERNSHIP 60 HR/2 CR**  
**BUS 223 INTERNSHIP 90 HR/3 CR**  
 Students will work in an office-related job receiving pay or volunteering. PREREQUISITE: instructor permission.

**BUS 225 INTERNSHIP 180 HR/6 CR**  
 Students will work in an office-related job receiving pay or volunteering. Prerequisite: Instructor permission.

**BUS 230 MEDICAL OFFICE PROCEDURES 90 HR/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 90 HR/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 15 HR/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.

**ENTR 101 HOW DO I BECOME AN ENTREPRENEUR? 6 HR**  
 Do you have what it takes to open and run a small business? Look beyond the traditional stereotypes of entrepreneurs and discover the key behaviors that lead to success in business. Many small businesses fail in the first year—you need to do more than hang out a shingle. Get an overview of what it means to be an entrepreneur, the challenges you will face and the benefits you will reap. This course is designed as a six-hour workshop to introduce the basic logistics of opening a business, business planning and the core competencies needed for entrepreneurial success. The key difference in this workshop offers is the ability to discuss ideas rather than work in isolation.

**ENTR 102 PRACTICAL SOLUTIONS FOR ENTREPRENEURS 30 HR**  
 Just "hanging out a shingle" is only the first step to running a successful business. There are key personal qualities and professional behaviors that can help an entrepreneur become successful that are often neglected in the traditional business class. This course is designed for students who currently own a small business or are close to opening their own enterprise. Students will be encouraged to bring their real world issues to class and apply strategies developed during the course to actual entrepreneurial challenges.

**ENTR 150 ENTREPRENEURSHIP FUNDAMENTALS 45 HR/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.

## BUSINESS & SUPERVISION - COMMUNICATIONS

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

### GBUS 100 BUSINESS FUNDAMENTALS 60 HR/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 60 HR/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 60 HR/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.

## CHEMISTRY

### CHEM 101 GENERAL CHEMISTRY 66 HR/5 CR

A survey course for non-science majors. Fundamental topics of chemistry such as atoms and molecules, periodic table, organic and biochemistry, and radioactivity will be covered. Applications to selected and variable topics including process technology. Includes lab.

### CHEM 131 PRINCIPLES & APPLICATIONS OF INORGANIC CHEMISTRY 66 HR/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 of the theory and applications of inorganic chemistry. Lab work included. PREREQUISITE: MATH 99 or equivalent.

## COMMERCIAL DRIVING

### CODR 940 COMMERCIAL DRIVERS LICENSE PREPARATION 35 HR/3 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 for driving 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 200 HR/6 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 120 FUNDAMENTALS OF REFRIGERATION 306 HR/18 CR

Presents the fundamentals of vapor compression refrigeration, tools and equipment, refrigerants, controls, motors, electrical theory, and applications. Students prepare for the A.R.I certification of the E.P.A. Section 608 refrigerant management laws.

### CREF 130 COMMERCIAL REFRIGERATION SYS I 306 HR/18 CR

Presents medium and low temperature refrigeration systems and equipment used in commercial applications. Emphasis is placed on troubleshooting techniques on live equipment as installed in industry. PREREQUISITES: MATH 100 and CREF 120.

### CREF 140 AIR CONDITIONING SYSTEMS 306 HR/18 CR

Presents high temperature refrigeration systems and equipment for comfort cooling, air properties, ventilation, psychrometrics, air flow design, heat pumps, system troubleshooting. PREREQUISITE: CREF 130.

### CREF 220 HEATING SYSTEMS 306 HR/18 CR

Presents heating systems and equipment using commercially available fuel sources. Proper equipment design, installation, fuel piping systems, venting and combustion air, and code compliance is emphasized. PREREQUISITE: CREF 130.

### CREF 230 COMMERCIAL REFRIGERATION SYS II 306 HR/18 CR

Commercial systems covered in depth include marine systems, super-market rack refrigeration, chilled water cooling systems, ultra-low temp freezing systems, and ice making systems. PREREQUISITE: CREF 130.

### CREF 240 ADV. COMMERCIAL & INDUSTRIAL SYS 360 HR/20 CR

Presents energy management and control systems, boilers and combustion controls, flame safeguards, air and hydronic balancing, pneumatic and electronic control systems. Includes job preparation and search. PREREQUISITES: CREF 140, 220, and 230.

### CREF 250-258 ADVANCED PROJECTS I-V 54 HR/2 CR EA

Presents advanced study opportunities of special interest to students on an individual basis. Include independent research and out of classroom training and industry analysis.

### CREF 260 SEC 608 EPA CERTIFICATION TYPE I & II

Students are required to obtain EPA Technician Certification for at least Type I and II under Section 608 of the Clean Air Act.

### CREF 261 ARI LIGHT COMMERCIAL AIR CONDITIONING & HEATING INDUSTRY COMPETENCY EXAM

Students are required to pass the Air-Conditioning and Refrigeration Institute (ARI) Industry Competency Exam for Light Commercial Air Conditioning & Heating.

### CREF 262 ARI COMMERCIAL REFRIGERATION INDUSTRY COMPETENCY EXAM

Students are required to pass the Air-Conditioning and Refrigeration Institute (ARI) Industry Competency Exam for Commercial Refrigeration.

## COMMUNICATIONS

### COM 170 ORAL & WRITTEN COMMUNICATIONS 54 HR/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.



## COURSES: COMPUTERS

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

## COMPUTERS

**CAP 101 INTRODUCTION TO COMPUTERS 90 HR/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 IC<sup>3</sup> certification exam. *CAP 199 may be accepted in place of CAP 101.*

**CAP 105 COMPUTERIZED TOUCH KEYBOARDING 30 HR/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 60 HR/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/  
SKILLBUILDING 45 HR/3 CR**

Designed to help students improve their speed and accuracy at the computer. Computerized lessons analyze areas of weakness and provide appropriate drills for improvement. PREREQUISITE: CAP 106.

**CAP 109 COMPUTERIZED KEYBOARD  
SKILLBUILDING II 45 HR/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 45 HR/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 90 HR/5 CR**

Students receive hands-on instruction using the commands and features of MS Word to create simple to complex business documents. PREREQUISITE: CAP 106.

**CAP 142 MS EXCEL 90 HR/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 105.

**CAP 145 WEBSITE DEVELOPMENT 90 HR/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 146 MS ACCESS 90 HR/5 CR**

Table design, relationships, filters, queries, forms, and reports will be introduced. Students will apply skills to database projects.

**CAP 148 MS POWERPOINT 45 HR/3 CR**

Presents an overview of a presentation graphics program. Students will create and present a slide show projected from their computer. PREREQUISITE: CAP 105.

**CAP 150 PROJECT LEVEL 1 7 HR**

The first in a series of two courses designed for individuals who will use Microsoft Project 2002 as a tool to assist them in managing projects. Topics include critical skills to create and modify a project plan file containing tasks, resources, and assignments; create a

project plan file to organize tasks in a work breakdown structure determined by relationships; assign resources and confirm strategy to implement the project plan.

**CAP 151 PROJECT LEVEL 2 7 HR**

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 154 COMPUTERIZED ACCOUNTING  
LEVEL A USING QUICKBOOKS 30 HR/3 CR****CAP 155 COMPUTERIZED ACCOUNTING  
LEVEL B USING QUICKBOOKS 30 HR/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 199 COMPUTER FUNDAMENTALS 60 HR/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 90 HR/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. PREREQUISITES: CAP 138, CAP 142, CAP 146, & CAP 148.

**CAP 201 INTRO TO COMPUTER APPLICATIONS 48 HR/4 CR**

This fast-paced course covers a wide range of computer functions and skills, introducing hardware and terminology, an introduction to Windows (disk formatting, mouse use, creating folders/files, desktop shortcuts, and a basic knowledge of the Internet). Other modules covered are: Word, Excel, Access, PowerPoint, and a brief introduction to integrating applications. At the completion of each module, students will be required to take both a written and practical exam. Students need to type a minimum of 25 words per minute to enter CAP 201; otherwise CAP 199 is recommended.

**CIS 140 WEBSITE DEVELOPMENT 45 HR/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 90 HR/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.

**CIS 160 COMPUTER USER SUPPORT I 90 HR/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: BUS 184, CAP 101, CAP 138, CAP 142, and CAP 146 with minimum grade of C (2.0).

**CIS 251 SCRIPT PROGRAMMING 90 HR/5 CR**

Course provides computer script design and development. Various introductory script programming concepts and techniques will be taught.

**CIS 275 INTERNSHIP 105 HR/3 CR**

Students will arrange to work in an office solving computer software problems for users. It may be a paid or an unpaid work experience. PREREQUISITE: instructor permission.

# COURSES: COMPUTERS - CULINARY ARTS

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**CIS 276 INTERNSHIP****180 HR/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 work experience. **PREREQUISITE:** Instructor permission.

## CONSTRUCTION MANAGEMENT

**CONST 100 COMPUTERS IN CONSTRUCTION 33 HR/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 to some common practices.

**CONST 141 BLUEPRINT READING I 44 HR/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 44 HR/4 CR**

Practical 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 permission.

**CONST 201 COMMERCIAL ESTIMATING 44 HR/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 220 PROJECT PLANNING AND SCHEDULING 33 HR/3 CR**

An 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 permission

**CONST 241 AUTOCAD FOR CONSTRUCTION 33HR/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 33 HR/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 33 HR**

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 30 HR/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.

**CONST 280 BUILDING CODES 33 HR/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 requireme

## CULINARY ARTS

**CUL 106 CULINARY ARTS I 84 HR/5 CR**

Focuses on the techniques and theory utilized in preparation, storage, and handling. Students will cook a variety of market forms of fruits, vegetables, nuts, salads, salad dressings, cheese, eggs, and dairy products. Students will practice techniques of preparation, cooking, and breakfast cookery of products described in this course. Yield study and costing analysis of edible and as-purchased products will also be incorporated into lessons throughout the course.

**CUL 108 CULINARY ARTS II 168 HR/10 CR**

Introduction into the theory of meats (beef, veal, pork, lamb, wild game), poultry and game birds, fish, crustaceans and mollusks. Focus is on preparations, applied techniques, and yield studies. Sandwiches, canapes, rice, potatoes, grains, and pasta preparations will be addressed in theory and application for the food service industry.

**CUL 123 FOOD SERVICE PRODUCTION I 192 HR/8 CR****CUL 143 FOOD SERVICE PRODUCTION II 192 HR/8 CR****CUL 163 FOOD SERVICE PRODUCTION III 192 HR/8 CR**

Students will complete three lab stations per quarter. A total of 720 clhr of production labs are required. The course focuses on the application of real life food service operations in our cafeteria and fine dining restaurant. The lab stations are utilized for practical application, production skills, yield study analysis, and cost analysis. Students will operate three lab stations per quarter. Lab stations are salads and salad bar; pantry cook; short order cook; stocks, soups, and sauce cook; institutional cook; vegetable/starch cook; restaurant line cook; storeroom clerk/cashier; dining room server.

**CUL 130 PIES, TARTS & CUSTARDS 60 HR/3 CR**

You learn the basics of the professional pastry kitchen, including measurements, equipment, and procedures. You make French pastry dough and short dough, such as pâte brisée and pâte sucrée, as well as cookie dough and tart fillings. In this unit, as in all units, theory, recipes, and procedures precede practice with approximately 20 hours of theory and 40 hours of lab skill development.

**CUL 131 BREAD & LAMINATED DOUGHS 60 HR/3 CR**

This course identifies the theory of breads, roll in dough, and make up of a delicious array of breads and pastries including sweet croissants; Danish, brioches; and crusty yeast breads including classic European breads and specialty breads. You will practice four primary methods that help you create both sweet and savory breads and pastries. In this unit, as in all units, theory, recipes, and procedures precede practice with approximately 20 hours of theory and 40 hours of lab skill development.

**CUL 132 RESTAURANT/INDIVIDUAL DESSERTS 60 HR/3 CR**

This course comprises a full array of desserts created to order (à la minute), the standard for fine restaurant service. You will learn hot desserts (soufflés, crepes, individual cakes baked to order) and making and molding of frozen desserts including ice creams, sorbets, and parfaits. You will create and decorate individual offerings. You will also learn the organization, assembly, component de-

# COURSES: DENTAL ASSISTANT - DIESEL EQUIPMENT

Prefix Number	Title	Clock Hours/Credit Equivalencies
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velopment, decoration, and menu wording that comprises a complete dessert menu. In this unit, as in all units, theory, recipes, and procedures precede practice approximately 20 clock hours of theory and 40 hours of lab skill development.

**CUL 133 QUICK BREADS & COOKIES 60 HR/3 CR**

In this course you will identify chemical leavened products and make a delicious array of quick breads, muffins, and scones. You will make an array of ice box, bar, meringues, and fruit smears. You will practice a variety of methods in garniture cookies such as tuilles, Florentines and snap cookies. In this unit, as in all units, theory, recipes, and procedures precede practice approximately 20 clock hours of theory and 40 hours of lab skill development.

**CUL 134 CAKES 60 HR/3 CR**

You will learn the theory of cake methodology and decorating. You will create and assemble a wide variety of sponge (génoise, joconde) cakes and meringue-based (dacquoise, succès ) cakes. You will learn meringues, Bavarian creams, mousses, and ganache fillings. You will make the bite-sized, beautiful treats known as petits fours. You will learn both non-baked and baked petits fours - cutting, molding, filling, glazing, and decorating them as tiny works of art. In this unit, as in all units, theory, recipes, and procedures precede.

**CUL 135 FRENCH PASTRIES 60 HR/3 CR**

You will make four different types of multilayered puff pastry, each with its own texture and use. Learn how to fill and decorate rich, flaky napoléons and create palmiers as well as other time-honored delicacies and modern desserts. Discover the secret of making great cream puff pastry, (pâte à choux), then create a variety of desserts with this unique dough, exploring different shapes, glazes, and fillings. In this unit, as in all units, theory, recipes, and procedures precede practice approximately 20 clock hours of theory and 40 hours of lab skill development.

**CUL 172 BUFFET AND TABLE SERVICE 120 HR/6 CR**

Learn to apply the principles of buffet design and preparation. Menu planning for various types of functions and service.

**CUL 207 GARDE MANGER 90 HR/5 CR**

The applications of planning, preparation, and execution of culinary salon work. Students will apply fundamental and advanced cooking and garnishing methods in order to present show pieces, such as salt dough sculpture, ice sculpture, and tallow sculptures. Students will develop skills in advanced preparations of center pieces and show pieces. **PREREQUISITES:** CUL 108, CUL 172 or significant food service experience may be substituted with permission from the instructor.

**CUL 250 SOUS CHEF 84 HR/5 CR**

Designed to provide the student with real life situations in a professional kitchen environment. The student will supervise, assist, train, and apply fundamentals of supervision and management in the Culinary Arts kitchen. This elective must be scheduled with the chef instructor for times and assignments. **PREREQUISITES:** Completion of 1st year Culinary Arts Program, and FSRV 109 or permission from instructor.

**CUL 251 INTERNSHIP OPTION 210 HR/7 CR**

Students will be placed in a professional hotel or restaurant and successfully apply skills gained throughout the culinary program. The required hours of internship are 210 hrs at the intern site. The internship may be paid or unpaid work experience. **PREREQUISITES:** completion of 1st year Culinary Arts Program, FSRV 109, attendance, and a minimum GPA of 3.0.

**CUL 261 PORTFOLIO/ASSESSMENT 18 HR/1 CR**

Students will create a portfolio showcasing work and complete a capstone project to demonstrate their overall skill and theory competencies.

Prefix Number	Title	Clock Hours/Credit Equivalencies
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## DENTAL ASSISTANT

**DEN 100 INTRO TO DENTAL ASSISTING 10 HR/1 CR**

This course provides information relating to the role of the Dental Assistant within the dental team. The history of dental assisting, progress of dentistry, and concepts of dental health are included. In addition, college/program policies and strategies for successful learning are incorporated.

**DEN 110 DENTAL FOUNDATIONS 90 HR/6 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 120 HR/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 53 HR/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 90 HR/5 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.

**DEN 120 PATIENT ASSESSMENT 120 HR/7 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 106 HR/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 60 HR/3 CR**

The student will learn to accurately and safely expose, process, and mount full mouth periapicals, maxillary and mandibular occlusal films. Also includes panoramic radiographs utilizing a variety of techniques. This course will provide the skills necessary to produce films with optimal diagnostic quality on a variety of patient situations, including pedodontics, edentulous, and extra oral.

## COURSES: DIESEL EQUIPMENT - EDUCATION

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**DEN 125 DENTAL CLINICAL PRACTICUM II 74 HR/4 CR**  
 Orients the student and identifies the clinic competencies that must be successfully demonstrated in order for the student to advance to DEN 135. This course provides the hands-on experience required for front office, clinic coordination, and assistive functions with the clinic dentist and dental hygienist.

**DEN 130 PREVENTATIVE DENTISTRY 54 HR/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 15 HR/1 CR**  
 Provides the knowledge and skills necessary to assist in dental specialties, including prosthodontics, oral surgery, pediatrics, and orthodontics.

**DEN 134 LABORATORY PROCEDURES 33 HR/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 72 HR/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 required clinic competencies in order to be eligible to participate in the extramural experience.

**DEN 137 EXTRAMURAL PRACTICUM 206 HR/7 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.

### DIESEL EQUIPMENT

**DET 104 HYDRAULIC BRAKES 40 HR/2 CR**  
 Hands-on and theory of operation of hydraulic braking systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 106 ELECTRICAL/ELECTRONICS I 60 HR/4 CR**  
 Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on diesel engine systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 116 ELECTRICAL/ELECTRONICS II 60 HR/4 CR**  
 Hands-on and theory of operation of the electrical/electronic systems used in diesel equipment, with an emphasis on hydraulic systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 126 ELECTRICAL/ELECTRONICS III 60 HR/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. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 129 APPLIED DIESEL CONCEPTS I 246 HR/12 CR**

**DET 139 APPLIED DIESEL CONCEPTS II 246 HR/12 CR**

**DET 239 APPLIED DIESEL CONCEPTS III 300 HR/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. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 201 HYDRAULICS 140 HR/8 CR**  
 Hands-on and theory of operation of hydraulic systems. This course will deal primarily with mobile hydraulic systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 202 DIESEL ENGINES 200 HR/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. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 203 DRIVE TRAIN 60 HR/3 CR**  
 Hands-on and theory of operation of drive train systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 204 AIR BRAKES 90 HR/5 CR**  
 Hands-on and theory of operation of air brake systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 205 SUSPENSION/STEERING 90 HR/5 CR**  
 Hands-on and theory of operation of suspension/steering systems. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

**DET 208 PREVENTIVE MAINTENANCE 100 HR/6 CR**  
 Hands-on experience in preventive maintenance for equipment. Fleet management practices are included in this class. PREREQUISITES: TRANS 101, 102, 103 or instructor permission.

### ECONOMICS

**ECON 103 INDUSTRIAL ECONOMICS 55 HR/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

**ECED 112 STARS - BASICS IN CHILD CARE 20 HR/2 CR**  
 This course provides people beginning their work with young children a basic core knowledge of child care based on the guidebook, An Adult Guide to Child Sized Environments. Students will be provided information, practice and opportunity to demonstrate mastery of the course concepts: child growth and development, child guidance, health and safety, and communication. Required for child care directors, site supervisors, and lead teachers in center settings.

**ECED 120 CDA ESSENTIALS 1: INTRO TO ECE/HEALTH, SAFETY & NUTRITION 50 HR/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.

## COURSES: EDUCATION

Prefix Number Title Clock Hours/Credit Equivalencies

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**ECED 121 CDA ESSENTIALS 2: CHILD DEVELOPMENT/LEARNING ENVIRONMENTS 50 HR/4CR**

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 50 HR/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 10 HR/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.

**EDUC 131 PARAEDUCATOR I: FOUNDATIONS OF LEARNING 46 HR/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 46 HR/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 46 HR/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 10 HR/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 16 HRS/1 CR**

This course is designed to improve the research skills of professional-technical instructors and to help these instructors integrate information literacy into their curricula. The classes are designed to be a combination of demonstration and practice, with emphasis on practice. Additionally, these professional-technical instructors will develop a plan for integrating information-literacy skills into classes that they teach.

**EDUC 199 PROFESSIONAL TECHNICAL SPECIALIZATION 60 HRS/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 coursework project will enhance the instructor's ability to accurately assess their present skills against the Washington State Skill Standards for Professional-Technical Educators and complete an initial Professional Development Plan.

**EDUC 200 INTRODUCTION TO TEACHING PROFESSIONAL TECHNICAL EDUCATION 50 HRS/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 201 TEACHING & FACILITATING LEARNING - LEVEL I 50 HR/3 CR**

As an introduction to vocational teaching, college instructors begin or expand their training as a skilled educator. Instructor-learners learn about "successful beginnings," being a positive role model, and developing effective lessons based on identified student learning outcomes and competencies. New instructor-learners practice implementing a variety of instructional strategies and student assessments and learn ways to evaluate the progress of diverse learners to meet course objectives. Focus is on four primary modes of instruction: lecture, discussion, demonstration, small group work, and ways in which instructors act as facilitators of learning in their classrooms.

**EDUC 206 TEACHING & FACILITATING LEARNING: LEVEL II 50 HR/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 developing model facilitation practices for establishing learning communities within the classroom. This course is particularly helpful to experienced instructor-learners who wish to hone and apply their facilitation and instructional delivery skills and deepen their understanding of how students learn. Focus is on preparing instructor-learners to be facilitators as well as dynamic pre-

## COURSES: EDUCATION

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

senters and on increasing the quality of instruction and self-assessing their own effectiveness.

**EDUC 211 PLANNING FOR INSTRUCTION 50 HR/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 50 HR/3 CR**

Research in learning assessment has transformed the way educators approach the task of teaching. When developing and designing curriculum, instructors need to understand the paradigm shift between traditional, teacher-centered learning where the emphasis is placed on the one-way delivery of content, and active, student-centered learning where the emphasis shifts to the collaborative, integrated learning process facilitated by the teacher. In this course, instructor-learners will demonstrate assessment literacy and will design and develop assessments to be integrated into the learning process, including performance-based and portfolio assessments. These assessments—prior assessment, formative assessment, summative assessment—will be linked directly to clearly developed learning outcomes and will inform the process of curriculum evaluation and revision. Effective testing and evaluation linked to course outcomes and grading policies will also be discussed.

**EDUC 218 HISTORY & PHILOSOPHY OF PROFESSIONAL TECHNICAL EDUCATION 30 HR/3 CR**

This course will address the history of vocational or professional technical education, including societal and legislative influences, current trends, and new initiatives. The student will develop definitions of terminology, professional technical education programs, and delivery systems. Professional technical education organizations at state and national levels and Washington State and local teacher certification requirements will be researched. Students will examine philosophies of professional technical education and will develop a personal philosophy of professional technical education that includes a description of how that philosophy will be implemented within their occupational area.

**EDUC 221 LEADERSHIP DEVELOPMENT 50 HR/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 50 HR/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 50 HR/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 50 HR/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 50 HR/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-learner will develop the skills required to research, organize and maintain information about certification requirements for program-specific technology.

**EDUC 246 THE ADULT LEARNER 50 HR/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 I 360 HR/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.

**EDUC 252 TEACHING PRACTICUM II 360 HR/12 CR**

This course will provide opportunities for instructors to enhance their professional skills and provides a viable vehicle for attainment of the skills required of a fully qualified instructor. Evidence of learning and skill-building will be evidenced via project portfolio. In a classroom, lab, and workplace learning environment, the student-instructor will establish and implement learning outcomes focused on assessment, new technologies such as distance learning, hybrid courses, electronic instruction.

**EDUC 256 PROGRAM MANAGEMENT, PROMOTION, AND RECRUITMENT 50 HR/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 college-

# COURSES: EDUCATION - ELECTRICIAN

Prefix Number	Title	Clock Hours/Credit Equivalencies
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wide conversations and decisions regarding enrollment, recruitment and community relations.

**EDUC 257 CURRENT TOPICS FOR PROFESSIONAL-TECHNICAL EDUCATORS 50 HR/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 60 HR/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 120 HR/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 100 HR/4 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 paradigm. 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 120 HR/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 INTRO TO ELECTRICIAN TRADE 18 HR/1 CR**

Gives information about the program's organization: rules & regulations, the electrician trade, the job market, essential safety information & procedures.

**ELEC 101A ELECTRICITY I 252 HR/14 CR**

Emphasis is placed on the basic understanding of electrical theory and its application to devices, circuits and materials. Also, the fundamental 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 234 HR/13 CR**

Studies the ideas of electron flow applied to direct current circuits and 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 103A ELECTRICITY III 207 HR/11 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

Prefix Number	Title	Clock Hours/Credit Equivalencies
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so they can perform effectively on the job. Basic transformer principles, single and three phase circuits are also covered.

**ELEC 104A ELECTRICITY IV 252 HR/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 105A OCCUPATIONAL SAFETY 18 HR/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 110 AC/DC ELECTRICITY 30 HR/2 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 119A ELECTRIC ZONE HEATING 18 HR/1 CR**

Introduction to the electrical heating systems used in homes and light commercial facilities. Proper installation and supply circuits will be explained using NEC guidelines.

**ELEC 123 SOLDERING 18 HR/1 CR**

Covers the basic theory of soldering and gives the student hands-on experiences for practicing soldering skills.

**ELEC 160A ENVIRONMENTAL AWARENESS 18 HR/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 191A LEADERSHIP 18 HR/1 CR**

Explores the importance of leadership and how it effects the work life of the electrician.

**ELEC 192A JOB PREPARATION 9 HR/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 234 HR/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 205A MOTOR CONTROL DIAGRAMS I 54 HR/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 207A MOTOR CONTROL DIAGRAMS II 108 HR/7 CR**

An expansion on the teachings of ELEC 205A. More advanced motor control practices are explored & explained.

**ELEC 208A PROGRAMMABLE CONTROLLERS 108 HR/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 209A CONDUIT I 18 HR/1 CR**

Examines the skills and techniques required by the electrician to

# COURSES: ELECTRONICS

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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accurately and efficiently bend conduits.

**ELEC 210A CONDUIT II** **18 HR/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 211A SOLID STATE DEVICES** **18 HR/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** **18 HR/1 CR**  
Course familiarizes the electrician with the types of work and responsibilities involved with parts in an electrical warehouse.

**ELEC 901 ELECTRICIAN UPGRADE** **30 HR/3 CR**  
A course for electricians to upgrade skills in all electrical procedures, materials, and positions. This is for 30 hours of instruction. Specific schedule is to be arranged with instructor individually.

## ELECTRONICS

**CTE 290 JOB SEARCH** **42 HR/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** **75 HR/4 CR**  
A thorough introduction for the new student to the fundamental properties and applications of electricity. This course opens the doors to a wide array of career opportunities in computer servicing, biomedical equipment servicing, manufacturing technology, telecommunications, and home entertainment equipment servicing. In addition, safety procedures are emphasized. Students learn how to make good solder connections and recognize and repair bad solder connections. Students learn how to select and clean soldering tools. This course continues with the basics of current, voltage and resistance. The application of Ohm's Law and the construction of circuits to verify electronic theory provide the knowledge necessary to build the foundation for a thorough understanding of electronics.

**ELTR 105 DC 2** **75 HR/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 110 AC 1** **78 HR/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 115 AC 2** **78 HR/4 CR**  
Students continue their exploration of AC with transformers and filter circuits (low-pass, high-pass, band-stop and band-pass), with theory and labwork. PREREQUISITE: ELTR 110.

**ELTR 120 SEMICONDUCTORS 1** **90 HR/5 CR**  
Students learn how discrete semiconductor devices are constructed, how to handle them, how diodes, bipolar transistors, FETS, and thyristors operate and how to use them in practical circuits. AC-DC power supply circuits introduced as well. PREREQUISITE: ELTR 115.

**ELTR 125 SEMICONDUCTORS 2** **90 HR/5 CR**  
This course introduces the student to various "building block" circuits including amplifiers, oscillators, and power supply circuits, through theory and labwork. PREREQUISITE: ELTR 120.

**ELTR 130 OP-AMPS 1** **66 HR/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** **60 HR/3 CR**  
Oscillators, active filters and single power-supply circuits and other applications of op-amps are covered in theory and practical labs. PREREQUISITE: ELTR 130.

**ELTR 140 DIGITAL 1** **90 HR/5 CR**  
A comprehensive focus on the concepts, terminology, components and circuits that combine to form basic digital systems. PREREQUISITE: ELTR 135.

**ELTR 145 DIGITAL 2** **90 HR/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** **126 HR/6 CR**  
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** **90 CLHR/5 CR**  
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** **90 CLHR/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** **180 HR/8 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** **90 HR/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** **96 HR/5 CR**  
Router interface, port configuration, IP addressing, bridging, route maps and troubleshooting, routers and switches. This course maps to CISCO Certified Network Administrator (CCNA) training. PREREQUISITE: ELTR 145.

**ETEC 236 PHOTONICS 1** **90 HR/5 CR**  
An introduction to the fundamentals and applications of optical principles with fiber optics. PREREQUISITE: ELTR 145.

**ETEC 241 PHOTONICS 2** **90 HR/5 CR**  
Concepts and physics are taught along with characteristics needed to understand and repair electronic devices that incorporate lasers. PREREQUISITE: ETEC 236.



# COURSES: ELECTRONICS - ENGINEERING

Prefix Number	Title	Clock Hours/Credit Equivalencies
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<b>ETEC 245</b>	<b>SENSORS, TRANSDUCERS, &amp; CONTROL CIRCUITS</b>	<b>96 HR/5 CR</b>
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.		
<b>ETEC 250</b>	<b>PRINCIPLES OF ELECTRONIC COMMUNICATIONS/TELEPHONY</b>	<b>44 HR/3 CR</b>
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 telecommunication course. PREREQUISITE: ELTR 145.		
<b>ETEC 256</b>	<b>TELEPHONE SYSTEMS</b>	<b>75 HR/4 CR</b>
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.		
<b>ETEC 262</b>	<b>FEDERAL COMMUNICATIONS COMMISSION TEST PREP</b>	<b>60 HR/3 CR</b>
This course prepares students for the nationally recognized FCC license tests.		
<b>ETEC 270</b>	<b>BIOMEDICAL EQUIPMENT</b>	<b>100 HR/6 CR</b>
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.		
<b>ETEC 272</b>	<b>BIOMEDICAL CERTIFICATION TEST PREP</b>	<b>90 HR/5 CR</b>
This course prepares students for the nationally recognized Biomedical Technician 1 test.		
<b>ETEC 276</b>	<b>INTRO TO ELECTRONIC CAD</b>	<b>18 HR/1 CR</b>
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.		
<b>ETEC 281</b>	<b>ROBOT TECHNOLOGY</b>	<b>138 HR/5 CR</b>
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.		
<b>ETEC 282</b>	<b>CERTIFIED ELECTRONICS TECHNICIAN TEST PREP</b>	<b>40 HR/3 CR</b>
This course prepares students for the nationally recognized Certified Electronics Technician (CET) test.		
<b>ETEC 294</b>	<b>WORK BASED LEARNING</b>	<b>90 HR/3 CR</b>
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.		
<b>ETEC 295</b>	<b>WORK BASED LEARNING</b>	<b>180 HR/6 CR</b>
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.		

Prefix Number	Title	Clock Hours/Credit Equivalencies
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## EMERGENCY MEDICAL SERVICES

<b>EMS 104</b>	<b>COMBITUBE TRAINING FOR EMT'S</b>	<b>6 HR</b>
A six hour course on the use of Combitube Airways for current emergency medical technicians. Course will include hands-on training and assessment per current protocol.		
<b>EMS 110</b>	<b>EMERGENCY MEDICAL TECHNICIAN - BASIC</b>	<b>150 HR/12 CR</b>
Covers the broad range of pre-hospital emergency care under the current Washington State curriculum guidelines as governed by the Washington State Department of Health and the local EMS Council, and is supervised by a physician and lay-coordinator. PREREQUISITE: AHA Healthcare Provider CPR or ARC Professional Rescuer CPR care and Infectious Disease Prevention for EMS Providers.		
<b>EMS 111</b>	<b>FIRST RESPONDER</b>	<b>93 HR/8 CR</b>
Course prepares student for dealing with the broad range of pre-hospital emergency care. Course uses Washington State curriculum guidelines as directed by the Department of Health and local protocols, per the direction of the county medical program director. This course is recommended, but not required to be taken prior to Emergency Medical Technician. PREREQUISITE: AHA Healthcare Provider CPR or ARC Professional Rescuer CPR care and Infectious Disease Prevention for EMS Providers.		
<b>EMS 112</b>	<b>BLS EVALUATOR/VICTIM WORKSHOP</b>	<b>6 HR</b>
A 6 hour course which meets the requirements for current EMT's and Paramedics who would like to receive Washington State approval for becoming Basic Life Support Evaluators and/or victims for initial and continuing education classes. Skills and evaluation techniques will be both demonstrated and practiced. Basic use of mannequin will also be addressed. Both EMT-B's and Paramedics must have gone through one recertification cycle prior to registering.		

## ENGINEERING

<b>ENGT 121</b>	<b>DRAFTING I</b>	<b>120 HR/6 CR</b>
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.		
<b>ENGT 122</b>	<b>CAD I: BASICS</b>	<b>120 HR/6 CR</b>
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.		
<b>ENGT 123</b>	<b>DESCRIPTIVE GEOMETRY</b>	<b>132 HR/8 CR</b>
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.		
<b>ENGT 125</b>	<b>DRAFTING II: ADVANCED CONCEPT &amp; STANDARDS</b>	<b>156 HR/8 CR</b>
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.		

## COURSES: ENGINEERING

Prefix Number Title Clock Hours/Credit Equivalencies

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**ENGT 126 CAD II: INTERMEDIATE APPLICATIONS 132 HR/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. PREREQUISITES: ENGT 121 and ENGT 122.

**ENGT 127 CIVIL/SURVEY CAD 1 120 HR/8 CR**  
**ENGT 128 CIVIL/SURVEY CAD 2 120 HR/8 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 30 HR**

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 131 MS OFFICE APPLICATIONS 90 HR**

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 ENG 101. PREREQUISITE: ENGT 130.

**ENGT 132 MS OFFICE APPLICATIONS 90 HR/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 ENG 101.

**ENGT 152 ESTIMATING AND SCHEDULING 90 HR/5 CR**

An introduction to the construction process, project scheduling, and estimation of concrete, rebar, and earthwork quantities.

**ENGT 153 ARCVIEW 120 HR/8 CR**

An introduction to desktop mapping, focusing on the use of ArcView software in Geographic Information Systems applications.

**ENGT 154 EARTHMOVING FUNDAMENTALS 120 HR**

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 156 EARTHMOVING FUNDAMENTALS 90 HR/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 120 HR/6 CR**

A continuation in the series of CAD courses, coursework involves utilizing advanced drawing, editing, and customization techniques. Topics include LISP enhancements, macros, creating CAD layouts, creating user defined settings, and techniques for automating repetitive operations. PREREQUISITES: ENGT 125 and ENGT 126.

**ENGT 211 PROJECT DESIGN 1 90 HR/4 CR**

A project-oriented design course in which students create working drawings of an existing assembly or of one of their own designs. Each student is required to prepare a portfolio including sketches, detail and assembly drawings in accordance with ANSI standards. PREREQUISITES: ENGT 125 and ENGT 126.

**ENGT 212 PROJECT DESIGN 2 60 HR/3 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 90 HR/4 CR**

A project-oriented design course in which students create a 3D model of an existing assembly and use it as a visual and design aid for developing engineering detail and assembly drawings. Students will enhance their 3D solid modeling skills and apply these skills as an aid for visualization, assembly, interference checking, and design verification of 2D engineering drawings.

**ENGT 215 STATICS 180 HR/10 CR**

An introduction to physics concepts, including the determination and analysis of "static" (non-moving) loads and forces in engineering structures and machines. PREREQUISITES: MATH 130 & 131.

**ENGT 216 STRENGTH OF MATERIALS 120 HR/6 CR**

Involves the *application* of statics analysis to determine minimum structural shape and size requirements. Topics will include the importance of physical characteristics (size, shape, length) and mechanical properties of various engineering materials (metals, wood, concrete). Lecture will focus on materials testing and composition, manufacturing processes and standards, and how each impacts materials selection. PREREQUISITE: ENGT 215.

**ENGT 220 PARAMETRIC MODELING 120 HR/6 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 120 HR/6 CR**

Instruction in the areas of structural drafting and design. Includes drafting and design of bolted and welded connections, specifications for structural members, and standard design concepts. PREREQUISITES: ENGT 125 and ENGT 126.

**ENGT 224 PROCESS PIPE DRAFTING 180 HR/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. PREREQUISITES: ENGT 125 and ENGT 126.

**ENGT 251 LAND DESKTOP - SURVEY ADD-ON 240 HR/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. PREREQUISITES: ENGT 128 and SURV 102.

**ENGT 252 LAND DESKTOP - CIVIL ADD-ON 240 HR/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. PREREQUISITES: ENGT 128 and SURV 102.

**ENGT 256 STANDARDS, SPECIFICATIONS, AND CODES 60 HR/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.

# COURSES: ENGLISH AS A SECOND LANGUAGE - FISHERIES

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**ENGT 257 ENVIRONMENTAL TECHNOLOGY 120 HR**  
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.

**ENGT 258 CONSTRUCTION MATERIALS 120 HR/8 CR**  
An introduction to the engineering properties and testing requirements of construction materials. Focuses on aggregates, asphalt, and Portland cement concrete as construction materials.

**ENGT 911 CAD LEVEL 1 30 HR/3 CR**  
An introductory course in computer aided drafting. This course will cover the fundamental concepts of drafting with computers using AutoCAD Version 2004. Topics include file management, drawing navigation, initial settings, primitive entities, layers, entity selection, editing, and dimensioning.

**ENGT 912 CAD LEVEL 2 30HR/3 CR**  
A continuation of CAD 1 instruction in the use of AutoCAD drawing and editing commands. Topics include Blocks, Advanced Editing, Inquiry, System Access and Management, Productivity Concepts, Prototype Setup, and Grips Editing.

## ENGLISH

**ENGL 092 FUNDAMENTALS OF ENGLISH 55 HR/5 CR**  
This course focuses on the fundamentals of college-level standard written English. Coursework includes a study of the conventional grammatical rules of English in the construction of effective sentences and paragraphs, leading to the essay. Critical readings of paragraphs and short essays, and applying these principles to the student's own writing, is also part of the curriculum.

**ENGL 101 ENGLISH COMPOSITION 54 HR/5 CR**  
In this composition course, 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 thinking, which will reflect a command of college-level literacy standards. Attention to writing fundamentals and stylistic techniques will also be included. Equivalent to a 5 credit course. **PREREQUISITE:** Accuplacer test score of 86 or higher on Sentence Skills and 85 or higher on Reading.

**ENGL 175 TECHNICAL COMMUNICATIONS 54 HR/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.

## ENGLISH AS A SECOND LANGUAGE

**ESL 010 BASIC CONVERSATIONAL ENGLISH 39 HR**  
Individualized practice in listening, speaking, writing, and reading English for adults who need to improve English communication skills. Time will be spent in conversation about U.S. customs, culture, employment, and family interests.

**ESL 011 READING/WRITING LEVEL I (LITERACY) 36-93 HR**  
This course is designed for adults who have no proficiency in the English language. Emphasis is on functioning in situations related to immediate needs and tasks in which basic reading and writing communication skills are necessary. Progress in appropriate technology level is expected.

**ESL 012 READING/WRITING LEVEL II (BEGINNING) 36-93 HR**  
This course is designed for the adult who functions with difficulty in situations related to immediate needs such as providing personal information on simple forms. Emphasis is on reading simple material on familiar subjects; interpreting simple directions, schedules, signs, and maps; and conveying ideas in simple notes and messages using present verb tenses. Progress in appropriate technology level is expected.

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**ESL 013 READING/WRITING LEVEL III (LOW INTERMEDIATE) 36-93 HR**  
This course is designed for adults who can understand simple learned phrases, interpret simple directions, schedules, signs and maps; can fill out simple forms; can handle routine entry level jobs that involve some written or oral English communication, but in which job tasks can be demonstrated. Emphasis is on reading simple material on familiar topics with understanding; following specific written direction; using context to determine meaning; writing and editing simple paragraphs; and completing basic forms and job applications. Progress in appropriate technology level is expected.

Introduction of skills needed to operate computers in Fisheries related occupations will be covered.

**ESL 014 READING/WRITING LEVEL IV (HIGH INTERMEDIATE) 36-93HR**  
This course is designed for adults who can meet basic survival and social needs, follow simple oral and written instruction, and who have some ability to write and edit paragraphs related to basic needs. Emphasis is on understanding descriptive narratives and responding appropriately; reading inferences, comparisons and contrasts; writing and editing descriptions and essays on familiar topics. Progress in appropriate level of technology is expected.

**ESL 015 READING/WRITING LEVEL V (LOW ADVANCED) 36-93HR**  
This course is designed for adults who can read, write, and edit simple descriptions on familiar topics and handle grammar and writing mechanics with few errors. Emphasis is on reading real-life materials on everyday subjects, and using meaning-making strategies with unfamiliar reading materials; writing and editing multi-paragraph essays that include introductions and conclusions and filling out multiple real-life forms. Progress in appropriate technology level is expected.

**ESL 016 READING/WRITING LEVEL VI (ADVANCED) 36-93HR**  
This course is designed for adults who can read and understand materials on common subjects, use strategies to infer meaning in unfamiliar texts, write multi-paragraph essays, and edit their own writing for grammar and word choice. Emphasis is on applying critical thinking; conducting research using electronic sources; summarizing, analyzing, and making inferences when reading authentic and unfamiliar texts; writing a resume and cover letter; writing multi-paragraph essays using a variety of organizational patterns; and using a variety of sentence structure types with correct punctuation. Instruction in appropriate technology is included.

**ESL 018 ADVANCED ESL: MEDICAL TERMINOLOGY 93 HR**  
This course helps prepare ESL students for health occupations classes. Reading, writing, listening, and speaking skills are integrated with medical word elements, an overview of basic anatomy, and selected diseases, symptoms, tests, procedures, and health professions. It is co-taught by health and ESL professionals. **PREREQUISITES:** Successful completion of ESL Level 3 or ESL placement into Level 4.

**ESL 019 ESL CIVICS 72 HR**  
ESL students in Levels 3-6 will develop basic computer literacy while learning about community resources. Students will use computers to learn about local services in the areas of health care, transportation, library, housing, citizenship, local government, education, childcare, or employment. Students will develop and practice their English skills

# COURSES: FISHERIES

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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through reading, discussions, guest speakers, field trips, and reports related to community agencies. Class projects may include volunteering, accessing community resources, or assisting others to access community resources.

**ESL 021 LISTENING/SPEAKING LEVEL I (LITERACY) 36-93 HR**

This course is designed for adults who have no proficiency in the English language. Emphasis is on functioning in situations related to immediate needs and tasks in which basic oral communication skills can be demonstrated. Progress in appropriate technology level is expected.

**ESL 022 LISTENING/SPEAKING LEVEL II (BEGINNING) 36-93 HR**

This course is designed for the adult who functions with difficulty in situations related to immediate needs and in limited social situations and has some simple oral communication abilities using simple learned and often repeated phrases. Emphasis is on listening actively to understand simple learned phrases containing familiar vocabulary and responding to verbal and non-verbal communication, speaking so others can understand, expressing basic survival needs, and participating in some routine social conversations. Progress in appropriate technology level is expected.

**ESL 023 LISTENING/SPEAKING LEVEL III (LOW INTERMEDIATE) 36-93 HR**

This course is designed for adults who can understand simple learned phrases, interpret simple directions, and can handle routine entry level jobs that involve some oral English communication. Emphasis is on listening actively to understand learned and new phrases containing familiar vocabulary and responding appropriately to verbal and non-verbal communication, including telephone calls, on familiar subjects, and speaking so others can understand to express basic survival and social needs. Progress in appropriate technology level is expected.

**ESL 024 LISTENING/SPEAKING LEVEL IV (HIGH INTERMEDIATE) 36-93 HR**

This course is designed for adults who can meet basic survival and social needs, follow simple oral and written instruction, and who have some ability to communicate on the telephone. Emphasis is on understanding spoken narratives and responding appropriately; speaking clearly on many everyday subjects; requesting, clarifying and confirming basic information on familiar topics. Progress in appropriate technology level is expected.

**ESL 025 LISTENING/SPEAKING LEVEL V (LOW ADVANCED) 36-93 HR**

This course is designed for adults who can converse on many everyday subjects. Emphasis is on listening and speaking to effectively and independently participate in everyday survival, work, and social situations face-to-face or on the telephone. Progress in appropriate technology level is expected.

**ESL 026 LISTENING/SPEAKING LEVEL VI (ADVANCED) 36-93 HR**

This course is designed for adults who can participate in everyday conversations in English and understand materials on common subjects. Emphasis is on applying critical thinking skills and analyzing complex grammar patterns in listening; making oral presentations; conducting research using electronic sources; summarizing, analyzing, and making inferences. Instruction in appropriate technology is included.

## FISHERIES

**FISH 100 INTRODUCTION TO SAFETY 18 HR/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 18 HR/1 CR**  
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 SALMON ID BIOLOGY 36 HR/3 CR**  
Identification of salmon and trout, life cycles and the characteristics of each of the species will be examined in this course.

**FISH 116 OPERATION OF COMPUTERS I 18 HR/1 CR**  
Introduction of skills needed to operate computers in Fisheries related occupations will be covered.

**FISH 125 SAMPLING TECHNIQUES 36 HR/3 CR**  
Students will identify and use methods of sampling fish for numbers, age, and disease.

**FISH 133 HATCHERY OPERATIONS I 72 HR/5 CR**  
By working in hatcheries, students gain experience with brood stock, eggs, and hatchery equipment.

**FISH 135 SPAWNING TECHNIQUES 162 HR/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 36 HR/3 CR**  
Fish and shellfish biology, basics of respiration, organs, life cycles, and basic requirements will be covered. Dissections will be performed.

**FISH 150 OPERATION OF COMPUTERS II 36 HR/3 CR**  
Course will train students to operate computers in Fisheries-related occupations. Several software programs will be used.

**FISH 155 ENVIRONMENTAL AWARENESS 36 HR/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 72 HR/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 54 HR/4 CR**  
Course will teach students the required skills to work in a hatchery. This course will emphasize hands-on skills. Students will work in hatcheries to gain experience with eggs, incubators, and hatchery equipment.

**FISH 175 OPERATION OF COMPUTERS III 18 HR/1 CR**  
Skills needed to operate computers in Fisheries-related occupations will be gained by hands-on training.

**FISH 186 HATCHERY OPERATIONS III 144 HR/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 192 JOB SEARCH TECH AND RESUME 36 HR/3 CR**  
Students will be taught skills needed to seek and obtain employment. Applications, resumes, skills lists, and cover letters will be used.

**FISH 195 FIELD PROJECTS 126 HR/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.

# COURSES: FISHERIES - FOOD SERVICE

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**FISH 200 ADV FISHERIES TECHNICIAN I 270 HR/17 CR**  
The student will utilize basics of data collection, tissue samples, stream surveys, tag recovery, and the use of proper logs and forms.

**FISH 205 FISH TECH FIELD PROJECTS I 90 HR/4 CR**  
Designed to enable a student to work in a field of their choice with employees in industry. Student will gain valuable experience while showing prospective employers their skills and work habits.

**FISH 210 ADV HATCHERY FISH CULTURE I 270 HR/17 CR**  
Focuses on the additional skills needed to work in state, federal, or private hatcheries.

**FISH 215 HATCHERY FIELD PROJECTS I 90 HR/4 CR**  
Students will work at a hatchery with the species of fish of their choice. Gaining valuable experience while showing prospective employers their skills and work habits.

**FISH 220 ADV NET PEN FISH CULTURE I 270 HR/17 FISH CR**  
Practical application for students specializing as a salmon net pen workers. The student will focus on the additional skills needed to work at state, federal or private net pen operations.

**FISH 225 NET PEN FIELD PROJECTS I 90 HR/4 CR**  
Students will work at a net pen operation. This allows the student to show prospective employers the skills and work habits they have and gain valuable experience.

**FISH 230 ADV SHELLFISH CULTURE I 270 HR/17 CR**  
A specialized course for students to gain experience as a shellfish worker. The student will focus on the additional skills needed to work at an oyster, clam, mussel or other shellfish farm or hatchery.

**FISH 235 SHELLFISH FIELD PROJECTS I 90 HR/4 CR**  
Students will work at a shellfish farm or shellfish hatchery. Student will gain valuable experience while showing prospective employers their skills and work habits.

**FISH 240 ADVANCED HABITAT RESTORATION I 270 HR/17 CR**  
Students will work with a local enhancement group to learn and perform tasks which will help restore, monitor, and evaluate salmonid habitat and stream health. Spawning surveys as well as stream evaluations may be part of the training.

**FISH 245 HABITAT RESTORATION FIELD PROJECTS I 90 HR/4 CR**  
The student will focus on additional skills needed to work with state, federal or private enhancement agencies. Water quality equipment, GPS, and other specialized gear will be used. Identification and planting native vegetation will also be part of some projects.

**FISH 250 ADV FISHERIES TECHNICIAN II 270 HR/17 CR**  
Further specialization as a Fisheries Technician. The student will learn basics of data collection, tissue samples, stream surveys, tag recovery and the use of proper logs and forms.

**FISH 255 FISH TECH FIELD PROJECTS II 90 HR/4 CR**  
Experience will be gained while working at a selected site with employees in industry. This allows the student to show prospective employers the skills and work habits they have and gain valuable experience in the field of their choice.

**FISH 260 ADV HATCHERY FISH CULTURE II 270 HR/17 CR**  
Students will specialize as a fish hatchery worker. The student will focus on the additional skills needed to work in state, federal or private hatcheries.

**FISH 265 HATCHERY FIELD PROJECTS II 90 HR/4 CR**  
Experience will be gained by working at a hatchery with various

Prefix Number	Title	Clock Hours/Credit Equivalencies
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species of fish. This allows the student to show prospective employers the skills and work habits they have and gain valuable experience.

**290 ADVANCED HABITAT RESTORATION 270 HR/17 CR**  
Students will work with a local enhancement group to learn and perform tasks which will help restore, monitor, and evaluate salmonid habitat and stream health. Spawning surveys as well as stream evaluations may be part of the training.

**FISH 295 HABITAT RESTORATION FIELD PROJECTS II 90 HR/4 CR**  
The student will focus on additional skills needed to work with state, federal or private enhancement agencies. Water quality equipment, GPS, and other specialized gear will be used. Identification and planting native vegetation will also be part of some projects.

## FOOD SERVICE

**FSRV 102 SANITATION, SAFETY & HYGIENE 36 HR/3 CR**  
This course provides students with the understanding and practice of the principles of sanitation and safety in order to maintain a safe and healthy environment for the consumer in the food service industry. Laws and regulations related to safety, fire, and sanitation and adherence to them in the food service operation are addressed. *Serv Safe*® course text and national certification examination are required (exam is part of the text purchase).

**FSRV 103 INTRO TO FOOD SERVICE 48 HR/4 CR**  
Provides a history of the food service industry and introduces the broad spectrum of hospitality/food service organizations and career opportunities.

**FSRV 109 FOOD SERVICE PERSONNEL MGMT 48 HR/4 CR**  
Personnel issues in a restaurant or institutional food service facility will be addressed. Content includes legal issues and their implementation, motivation, discipline, evaluation, communication, problem solving, and hiring practices.

**FSRV 112 NUTRITION FOR THE FOOD SERVICE INDUSTRY 36 HR/3 CR**  
This course teaches nutritional basics and how they can be applied to all phases of the food service industry.

**FSRV 151 FOOD SERVICE MANAGEMENT I 48 HR/4 CR**  
Applies issues related to business and operations management. The planning and development of menus, kitchen design, dining room lay out, point of sale operations, business projections, and planning.

**FSRV 200 FOOD SERVICE COMPUTER APPS 36 HR/2 CR**  
Course will instruct the student in software applications associated with the food service industry. Commercial Software Programs designed for recipe writing, cookbook, CD-ROMS, menu costing, analysis, and inventory. Students will create basic inventory sheets and develop alternative food service programs. PREREQUISITE: CAP 199 or equivalent.

**FSRV 240 FOOD SERVICE MANAGEMENT II 84 HR/5 CR**  
Applies advanced issues related to business and operations management. The planning and development of menus, kitchen design, dining room lay out, point of sale operations, business projections, and planning. PREREQUISITE: FSRV 151.

# COURSES: HEALTH & SAFETY

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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## HEALTH & SAFETY

**BTC OFFERS AN ARRAY OF CPR & FIRST AID COURSES. SEE A QUARTERLY SCHEDULE FOR MORE DETAILS.**

- HLTH 103 CPR: ADULT HEARTSAVER 3 HR**  
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 104 ADULT CPR: SPANISH 3 HR**  
This American Heart Association course, taught entirely in Spanish, teaches adult CPR, relief for foreign body airway obstruction, an introduction to the Automated External Defibrillator, and use of barrier devices. Skills completion and written exam are required for card, which is good for two years. Pocket mask required. *Este curso Americano de la asociacion del Corazon, ensenado enteramente en espanol, ensena el adulto CPR, la obstruccion de via aerea extranjera del cuerpo del fro de la relevacion, una introduccion al defibrillador externo autmatizado, y el uso de los dispositivos de la barrera. Laterminacion de las habilidades y written el examen se require para la tarjeta, que es Buena por dos anos. La mascara del bosillo requirio.*
- HLTH 105 CPR: PEDIATRIC HEARTSAVER 3 HR**  
This three-hour course teaches infant and child CPR and obstructed airway techniques, as well as discussing home safety. Skills completion and written exam are required for card, which is good for 2 years.
- HLTH 107 ADULT HEARTSAVER REFRESHER 2 HR**  
A course to re-certify citizens in AHA adult, one rescuer CPR. Must have a current CPR card to register for this course.
- HLTH 110 CPR: HEARTSAVER COMPLETE 6 HR**  
The Heartsaver Complete course is intended for the lay-public who want to learn adult, child, and infant CPR and foreign body airway obstruction techniques. Concepts taught in this course are risk factors for heart disease and stroke, signs and symptoms of a heart attack and stroke, reasons for cardiac arrest in adults and how they differ in children/infants, child safety, relief of foreign bodies in the airway and basic life support for all ages. Text will be distributed in class. Attendance at all sessions is required for receipt of participation card.
- HLTH 111 CPR INSTRUCTOR COURSE 8 HR**  
This course prepares the student to teach CPR as an American Heart Association instructor. The class includes one and two-person adult, infant and child CPR, obstructed airway techniques, and risk factors of heart disease.
- HLTH 112 CPR INSTRUCTOR RECERTIFICATION 8 HR**  
This course meets the requirements for EMT and First Responder recertification.
- HLTH 113 HEARTSAVER CPR INSTRUCTOR 8 HR**  
This 8-hour course is "American Heart Association Heartsaver-level Instructor" only, and is designed for those who need to teach basic CPR skills, mainly for the workplace or schools. The course will cover "Heartsaver CPR" both adult and pediatric, which includes relief of foreign-body airway obstruction. The student who takes this course is only allowed to teach "Heartsaver" level, and does not include instruction in "Healthcare Provider" skills. Instructors' text and Heartsaver participant text required. Students must also have their own pocket mask.

- HLTH 114 PEDIATRIC CPR FOR FAMILY & FRIENDS 2 HR**  
A course designed to assist anyone desiring to learn CPR for personal reasons, but not needing a completion card for employment. This pediatric course covers CPR for infants and children, and relief of foreign body airway obstruction. A participation card is issued for this course.
- HLTH 115 ADULT CPR FOR FAMILY & FRIENDS 2 HR**  
A two hour course which teaches the basics of adult CPR and relief of foreign body airway obstruction. This course is excellent for someone wanting the knowledge without having to take a test. A participation card only is issued, and does not meet requirements of CPR training for employment purposes.
- HLTH 130 HIV/AIDS FOR THE COMMUNITY 2 HR**  
This two hour class offers basic HIV/AIDS education information while also meeting mandatory licensing requirements.
- HLTH 131 HIV/AIDS FOR COUNSELORS 4 HR**  
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 7 HR**  
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 138 INFECTIOUS DISEASE PREVENTION FOR EMS 4 HR**  
A four-hour course that covers the required information per Washington State Department of Health, Office of Emergency Medical and Trauma Prevention, for anyone involved, or entering the area of "Emergency Medical Services" in Washington State. This course will cover basic etiology, epidemiology, clinical manifestations and treatment, infection control standards, psychosocial issues as well as the legal and ethical aspects of dealing with individuals with HIV, hepatitis, tuberculosis, and other infectious diseases.
- HLTH 140 FIRST AID & SAFETY FOR BABYSITTERS 8 HR**  
This course is designed for students from ages 11 to 15, and will help prepare them for various emergencies that may arise while performing child care. Topics which will be covered include: hygiene, safety, first aid, CPR, and how to react in emergencies. Both First Aid and CPR cards, good for 2 years, will be issued.
- HLTH 150 FIRST AID INDUSTRIAL 12 HR/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.
- HLTH 152 PEDIATRIC/ADULT CPR & FIRST AID 12 HR/1 CR**  
This 12-hour course is in compliance with WAC 296-24-61 of the State of Washington and meets OSHA/WISHA requirements with emphasis on infant, child, and adult CPR as well as basic first aid. Attendance at all sessions is required to receive First Aid and AHA CPR card, each valid for two years.
- HLTH 155 FIRST AID FUNDAMENTALS 8 HR**  
This 8-hour First Aid course is in compliance with WAC 296-800-15010 of the State of Washington and meets OSHA/WISHA requirements for First Aid Training. This course teaches the fundamentals of

# COURSES: HEALTH & SAFETY - HEALTH TECHNOLOGY

Prefix Number	Title	Clock Hours/Credit Equivalencies
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first aid in order to gain access to the EMS system, render emergency care in a low-occupational risk environment, and teaches Adult CPR and Obstructed Airway techniques. Both CPR and First Aid cards are valid for two years.

**HLTH 156 FIRST AID REFRESHER 6 HR**

This course is intended for those individuals who must maintain their First Aid training, and is open only to those holding current First Aid and CPR cards. This course will update the student by providing oral, written, and practical material for the individual to take charge, gain access to the EMS system, and provide immediate, temporary care as needed in the event of an accident, illness, or injury. Cards received will be valid for 2 years from date of course.

## HEALTH OCCUPATIONS

**HO 105 PHARMACOLOGY 24 HR/2 CR**

This course provides an introduction to the basic concepts needed 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. This course also introduces the principles of safe drug administration and documentation. PREREQUISITE: MATH 98, MATH 99, or equivalent.

**HO 125 INTRO TO MEDICAL TERMINOLOGY 30 HR/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.

**HO 127 HEALTHCARE PROVIDER CPR 6 HR**

This 6 hour basic life support course is designed for healthcare providers and includes adult one- and two-rescuer CPR, pediatric one-rescuer CPR, and barrier devices. Successful written and mannequin skill evaluation and attendance at all sessions is required to receive card. Course now includes an introduction to automatic external defibrillation.

**HO 131 RESTORATIVE AIDE 30 HR/3 CR**

A course for nursing home restorative aides. Learn about the aging process, problems specific to geriatrics, and the rehabilitative approach. Practical skills are included with patient transfers, positioning, range of motion and progressive mobility. Students must be *Nursing Assistant Certified* to take this course.

**HO 157 INTRO TO PHLEBOTOMY SKILLS 30 HR/3 CR**

This course introduces the student to the principles of phlebotomy. Sessions cover basic anatomy & physiology, asepsis, disease processes, equipment & supplies, collection procedures and quality assurance, as well as medical and legal issues associated with phlebotomy practice. The laboratory portion of the course includes practice & performance of venipuncture and finger-stick methods. Students must meet the following minimum requirements: high school education or equivalent, ability to apply college level reading and writing, and ability to converse in English language. Students must also demonstrate background in Medical Terminology and Anatomy & Physiology, either through previous schooling or work-related experience. Manual dexterity to perform skills is essential to the successful completion of the course.

**HO 163 BASIC SPANISH FOR HEALTHCARE WORKERS 15 HR/1 CR**

In this practical and interactive course, students learn the grammar and vocabulary necessary for the essential communications in a healthcare setting.

**HO 164 IV THERAPY FOR NURSES 30 HR/3 CR**

Class is designed for Registered Nurses, Graduate and Licensed Practical Nurses seeking upgrade training in monitoring, starting, and administering intravenous therapy to patients in the acute and long term setting.

**HO 233 ADV RESTORATIVE AIDE TECHNIQUES 12 HR/1 CR**

This course is designed to update and enhance skills for Restorative Aides, LPNs, and RNs who work with rehab/restorative programs in ECF and home care settings. Topics covered will include review of basic techniques with discussion, advanced gait, neuro-development treatment, amputee exercises and care, transfers, balance, discussion on contracture assessments, and problem solving. PREREQUISITE: 6 months experience as an R.A., or a license as an LPN/RN.

**HO 914 FUNDAMENTALS OF CAREGIVING 28 HR/2 CR**

This course teaches basic caregiving concepts and skills to caregivers who provide care for a client/resident or residents residing in a private home, boarding home or adult family home, or in a certified Division of Developmental Disabilities program. The content of the Revised Fundamentals of Caregiving curriculum is based on the required knowledge and skills outlined for basic caregiving training in WAC 388-112-0055. Learning goals include: understanding what is required and expected of caregivers on the job; knowing how and why it is important to protect a client's rights; using good communication and problem solving skills with a client, family members, and other care team members; protecting the health and physical safety of a client and a caregiver; and correctly providing personal care and other authorized tasks.

**HO 915 FUNDAMENTALS OF CAREGIVING & SAFETY 32 HR/2 CR**

This course teaches basic caregiving concepts and skills to paid caregivers providing care in the client's own home. Topics to be covered include: observation/reporting skills, safety, activities of daily living, assistance with medication, nutrition, resources, consumer rights, caregiver resources, and delegation. This course includes a four hour safety training and is designed for the Individual Provider.

**HO 916 NURSE DELEGATION SELF STUDY 9 HR/1 CR**

This self-study course will teach the fundamental concepts and principles of nurse delegation and the specific delegable tasks, based on the nurse delegation protocols. This course does not include skills training for the delegable tasks, which will be taught by the delegating nurse. Topics to be covered include: knowledge, medication, delegation, and HIV/AIDS. Students need to register in time to do a self-study workbook and video prior to the test.

**HO 918 MODIFIED FUNDAMENTALS OF CAREGIVING-SELF STUDY 7 HR/1 CR**

This self-study course is for people who are giving direct personal care to AASA clients in licensed facilities who have previously taken an approved AFH or Personal care course, are NACs, or are home health aides. Topics include delegation of nursing tasks, client rights, assistance with medication, caregiver resources, safety, and infection control. Students need to register in time to do a self-study workbook prior to the test.

**HO 921 CAREGIVING SAFETY FOR INDIVIDUAL PROVIDERS 4 HR**

This short caregiving safety course is for Individual Providers (IPs) who have successfully completed the Revised Fundamentals of Caregiving 28 hour course. Information on emergency procedures, provider safety, in-home hazards, and outside hazards will be covered.

# COURSES: HEALTH & SAFETY - HUMAN RESOURCE MANAGEMENT

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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## HEALTH TECHNOLOGY

**HT 108 MEDICAL TRANSCRIPTION I 30 HR/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. PREREQUISITES: HT 126 and BIO 105, and typing 50 wpm.

**HT 109 MEDICAL TRANSCRIPTION II 60 HR/5 CR**  
This course provides working knowledge of the transcription practices with realistic cases. PREREQUISITES: HT 108, typing speed of 50 wpm, and word processing knowledge.

**HT 120 MEDICAL INSURANCE BILLING 60 HR/5 CR**  
This course focuses on insurance billing procedures, billing requirements in relation to insurance companies, clinics, and physicians' offices; and insurance coding to include CPT and ICD-9-CM codes. Students will learn skills that will enable them to process insurance claims. Other subjects include basic health office duties as related to medical insurance, accounts receivable, and collection techniques. PREREQUISITES: HT 126 and BIO 105.

**HT 126 FUNDAMENTALS OF MEDICAL TERMINOLOGY 60 HR/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 83 HR/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 90 HR/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 20 HR/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.

**HT 145 HEALTHCARE RECORDS SYSTEMS 60 HR/5 CR**  
Functions of medical record departments and record systems will be addressed. Hands-on process of hospital records, uses, content, and evaluation.

**HT 229 COMPREHENSIVE MEDICAL TERMINOLOGY II 83 HR/5 CR**  
This course builds on the prerequisite course, HT 129. The class is designed to expand and enhance the student's knowledge base through continued medical terminology studies in the systems of the body with an emphasis on specialized clinical applications. Studies

will include investigation of diagnostic and therapeutic procedures, advanced abbreviations and symbology, systemic diseases, and treatment modalities. The ability to read, understand, and interpret various types of medical reports and physician generated documentation will be stressed and required.

**HT 230 MEDICAL CODING ICD-9 30 HR/3 CR**  
Learn to assign codes in medical/health records to ensure accurate and complete reimbursement documentation. The focus will be on ICD-9 codes with some discussion of CPT codes. PREREQUISITES: HT 126 and BIO 105 or equivalent.

**HT 240 MEDICAL CODING CPT 30 HR/3 CR**  
Learn to assign physician's Current Procedural Terminology (CPT) codes in medical/health records to ensure accurate and complete reimbursement documentation. PREREQUISITES: HT 126 and BIO 105 or equivalent.

**HT 242 MEDICAL CODING APPLICATIONS 42 HR/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 245 MEDICAL CODING PRACTICUM 30 HR/3 CR**  
Designed for those individuals who want a supervised practical experience applying the principles of medical coding to the processing of medical records in a hospital setting. PREREQUISITES: HT 230 and 240.

**HT 250 ADVANCED MEDICAL CODING 60 HR/5 CR**  
A continuation of the procedures and practices of HT 230 & 240, and helps prepare the student for certification testing. PREREQUISITES: HT 230 and HT 240.

**HT 260 HEALTHCARE RECORDS INTERNSHIP 48 HR/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.

**HT 262 MEDICAL CODING INTERNSHIP 30 HR/2 CR**  
Students will complete a medical coding work experience. PREREQUISITE: Instructor permission.

**HT 265 MEDICAL CODING & BILLING PRACTICUM 60 HR/4 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.

**HT 270 EXCEL FOR THE MEDICAL OFFICE 30 HR/2 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.

## HUMAN RESOURCE MANAGEMENT

**HRM 110 HUMAN RESOURCE MANAGEMENT 60 HR/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 60 HR/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



# COURSES: HUMAN RESOURCE MANAGEMENT - INFORMATION TECHNOLOGY

Prefix Number	Title	Clock Hours/Credit Equivalencies
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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 60 HR/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 33 HR/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 30 HR/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 or experience as a Human Resource Manager or Recruiter.

**HRM 207 FUNDAMENTALS OF EMPLOYEE BENEFITS & COMPENSATION 30 HR/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 or previous HR experience.

**HRM 210 EMPLOYMENT LAW & LABOR RELATIONS 30 HR/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.

**HRM 220 TRAINING & STAFF DEVELOPMENT 30 HR/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.

**HRM 235 HUMAN RESOURCE INFO SYSTEMS 30 HR/3 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.

**HRM 240 RISK MANAGEMENT & SAFETY 30 HR/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

Prefix Number	Title	Clock Hours/Credit Equivalencies
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risk management is the combination of three steps: risk evaluation, emission and exposure control, and risk monitoring.

**HRM 245 DIVERSITY IN THE WORKPLACE 10 HR/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.

**HRM 250 HUMAN RESOURCES MANAGEMENT INTERNSHIP 80 HR/3 CR**  
This is a structured practical work experience that provides the opportunity for the student to further develop human resource skills. PREREQUISITES: HRM 201, 205, 207, 210, 230 and instructor permission.

**HRM 255 STRATEGIC HUMAN RESOURCES 30 HR/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.

**HRM 260 CONDUCTING INTERNAL INVESTIGATIONS 10 HR/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.

## HYPNOTHERAPY

**HYPN 101 BASIC HYPNOSIS 50 HR/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 50 HR/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 50 HR/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.

## INDUSTRIAL MAINTENANCE

The Industrial Maintenance Technology (IMTEC) Program is currently under revision. The courses and degree and certificate requirements are being modified to reflect on-line learning through Coastal Training Technologies.

For further information contact the Engineering & Technology Department at 360-759-9444.

## INFORMATION TECHNOLOGY

**IT 102 IT ETHICS AND CAREERS 90 HR/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

# COURSES: INFORMATION TECHNOLOGY - INSTRUMENTATION

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**IT 112 PC HARDWARE 126 HR/8 CR**  
This course prepares the student to understand, install, configure, upgrade, troubleshoot, and repair PC hardware components. Course material parallels the CompTIA A+ Core Hardware certification objectives. CO-REQUISITE: CAP 101

**IT 121 INTRODUCTION TO PROGRAMMING 90 HR/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. CO-REQUISITE: CAP 101.

**IT 140 COMMAND LINE OPERATING SYSTEMS 90 HR/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. CO-REQUISITE: CAP 101.

**IT 141 OPERATING SYSTEMS 126 HR/8 CR**  
This course prepares the student to install, maintain, and troubleshoot Windows operating systems. Course material parallels the CompTIA A+ Operating Systems certification objectives. CO-REQUISITE: CAP 101.

**IT 142 CLIENT/DESKTOP OPERATING SYSTEMS II 126 HR/8 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 141.

**IT 160 NETWORKING TECHNOLOGIES 126 HR/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. CO-REQUISITE: CAP 101.

**IT 210 NETWORK SECURITY FUNDAMENTALS 180 HR/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 90 HR/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 180 HR/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 permis-

sions, 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 90 HR/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 90 HR/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 90 HR/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 262 ADVANCED TOPICS IN NETWORKING II 90 HR/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 180 HR/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. CO-REQUISITE: IT 261 or IT 262.

**IT 272 CAPSTONE PROJECT 90 HR/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. CO-REQUISITE: IT 261 or IT 262.

## INSTRUMENTATION

**SEE PAGE 86 FOR "ELTR" COURSES**

**INST 123 PNEUMATIC TEST EQUIPMENT 18 HR/1 CR**  
An examination of various types of test equipment used to calibrate, troubleshoot, and operate pneumatic instrumentation. PREREQUISITE: MATH 111.

**INST 150 DIGITAL 3 60HR/3 CR**  
This course uses theory and hands-on labwork to introduce students to digital signal processing and programmable devices, including analog-digital converters, solid state memory, and microcontrollers. Performance-based assessment ensures competency suitable for the practical nature of the profession. PREREQUISITE: ELTR 145.

# COURSES: INSTRUMENTATION - MACHINING

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**INST 155 NETWORKS & SYSTEMS** **66 HR/3 CR**  
 Students apply advanced mathematical techniques to the analysis and troubleshooting of complex networks and systems, including DC and AC power circuits and data communication lines. Performance-based assessment ensures competency suitable for the practical nature of the profession. PREREQUISITE: ELTR 150.

**INST 191 LEADERSHIP** **18 HR/1 CR**  
 An introduction to the behaviors and traits of good leaders and how to get respect from others while getting the job done.

**INST 192 JOB PREP** **18 HR/1 CR**  
 Preparation for employment in industry by exposing the student to the typical work environment and expectations and by writing a resume.

**INST 200 INTRODUCTION TO THE TRADE** **18 HR/2 CR**  
 Overview of the program and the opportunities that exist in various industries and related disciplines.

**INST 201 APPLIED PHYSICS** **90 HR/5 CR**  
 The basic principles of physics encountered regularly in the field of Instrumentation. The student will perform calculations that apply to the instruments that they are working on in the lab. PREREQUISITE: MATH 111.

**INST 203 SAFETY II** **18 HR/1 CR**  
 An introduction to the nonelectrical hazards of working on and with process instrumentation and the required safety equipment needed. PREREQUISITE: INST 100.

**INST 205 ENVIRONMENTAL AWARENESS** **18 HR/1 CR**  
 Designed to instruct the student in performing job functions in a way that will reduce or eliminate damage to the environment.

**INST 207 TRADE TERMINOLOGY** **36 HR/2 CR**  
 Examines the language of the trade, which allows students to communicate with industry professionals and prospective employers.

**INST 209 COMMON PROCESS VARIABLES & PRIMARY SENSING ELEMENTS** **144 HR/7 CR**  
 An introduction to the various common process variables and the primary sensing elements used to measure them. It also teaches the methods of calculating the required inputs and outputs for the various primary sensing elements. PREREQUISITES: INST 105, INST 112, and INST 113.

**INST 211 CALIBRATION TECHNIQUES** **36 HR/1 CR**  
 Focus on correct procedures for calibrating process instrumentation, the industry standards and recognized leaders in the calibration field. The student will perform several calibrations on transmitters, transducers, controllers, indicators, and final control elements. PREREQUISITE: INST 123.

**INST 213 PNEUMATIC & ELECTRONIC TRANSMITTERS** **126 HR/7 CR**  
 Focus on the theory of operation, calibration, and troubleshooting of common temperature, pressure, level, and flow transmitters. They work on pneumatic, electronic, and smart transmitters. PREREQUISITES: INST 105, INST 112, and INST 113.

**INST 215 TRANSDUCERS** **18 HR/1 CR**  
 Further examination of the theory of operation, calibration, and troubleshooting of common transducers. The student will perform the necessary calculations for calibration and troubleshooting of these devices. PREREQUISITES: INST 105, INST 112, and INST 113.

**INST 217 CONTROL VALVES & FINAL CONTROL ELEMENTS** **36 HR/2 CR**  
 Instruction of the theory of operation, calibration, and troubleshooting of common control valves, as well as the theory behind VSD's and VFD's.

**INST 219 P & I DIAGRAMS** **18 HR/1 CR**  
 Course teaches the student how to read and draw process and instrumentation diagrams. PREREQUISITES: INST 213, INST 215, and INST 223.

**INST 221 CONTROL (PID, CASCADE, FEED FORWARD, BATCH, RATIO)** **90 HR/6 CR**  
 Students will study proportional, integral, and derivative control individually, then combine the three for PID control. They will learn about advanced control strategies such as Cascade and Feed-Forward control and when they are needed. They will also learn the basics of Batch and Ratio control and their applications. PREREQUISITE: INST 209.

**INST 223 CONTROLLERS AND TUNING** **72 HR/4 CR**  
 An application of the basics of controller theory, calibration alignment, and troubleshooting, as well as tuning. PREREQUISITE: INST 221.

**INST 225 INDICATORS AND RECORDERS** **36 HR/2 CR**  
 Explores the importance of theory of operation, calibration, and troubleshooting of indicators and recorders. PREREQUISITES: INST 105, INST 112, and INST 113.

**INST 227 BASIC COMPUTER SKILLS** **36 HR/2 CR**  
 Essential introduction to the basic components of a computer, the basic terminology, how to perform basic functions, and how to become productive in as short a time as possible. The student will write a resume and cover letter for job openings in which they are interested.

**INST 229 PLC (PROGRAMMABLE LOGIC CONTROLLERS)** **72 HR/5 CR**  
 A review of the basics of PLCs, their applications, programming, and troubleshooting. PREREQUISITES: INST 105, INST 112, and INST 113.

**INST 231 DCS (DISTRIBUTED CONTROL SYSTEMS)** **108 HR/6 CR**  
 This course is an introduction to the basics of DCS, their applications, programming, and troubleshooting. PREREQUISITE: INST 209.

**INST 233 APPLIED MATH** **54 HR/5 CR**  
 This course instructs the instrumentation student in specific mathematical techniques used in predicting the behavior of electronic circuits and other physical systems. Topics covered include negative exponents, square and cube roots, solution of multiple unknown variables in linear equations, logarithms, slopes and vectors, complex number arithmetic (both rectangular and polar forms), trigonometry, decibels, numeration systems, binary arithmetic, Boolean algebra, and physical unit conversions. Fundamental principles of differential and integral calculus are also introduced in a very easy to understand manner, through the behavior of capacitors and inductors, and later through application in PID control systems. PREREQUISITE: MATH 111.

**INST 290 INTERNSHIP** **360 HR/10 CR**  
 The optional elective course provides work experience in related industry refining technical and workplace skills in a work environment. The specific student performance skills will be developed for each individual student internship. Clock hours are variable and may be repeated for clock hour credit. PREREQUISITE: Instructor permission.

## LEGAL

**LGL 127 LEGAL OFFICE PROCEDURES** **90 HR/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.

# COURSES: INSTRUMENTATION - MACHINING

Prefix Number	Title	Clock Hours/Credit Equivalencies
<b>LGL 132</b>	<b>LEGAL TERMINOLOGY/TRANSCRIPTION</b>	<b>90 HR/5 CR</b>
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.		
<b>LGL 211</b>	<b>LEGAL DOCUMENT PROCESSING</b>	<b>90 HR/5 CR</b>
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 127.		
<b>LGL 225</b>	<b>INTERNSHIP</b>	<b>90 HR/3 CR</b>
Students will work in a legal related job receiving pay or volunteering. PREREQUISITE: Instructor permission.		
<b>LGL 226</b>	<b>INTERNSHIP</b>	<b>180 HR/6 CR</b>
Students will work in a legal office-related job receiving pay or volunteering. PREREQUISITE: Instructor permission.		
MACHINING		
<b>MACH 100</b>	<b>INTRO TO TRADE/OCCUPATIONAL SAFETY</b>	<b>18 HR/1 CR</b>
Overview of the program, college, and program policies and procedures, student equipment requirements, machine occupations, and material safety data.		
<b>MACH 101</b>	<b>MACHINE TECHNOLOGY I</b>	<b>36 HR/2 CR</b>
Basic machine tool operation and safety on grinders, lathes, mills, and drills.		
<b>MACH 102</b>	<b>MACHINE TECHNOLOGY II</b>	<b>36 HR/2 CR</b>
Covers saws and sawing, machine speeds, feeds, setup, and secondary drilling operations. PREREQUISITES: MACH 100, MACH 101, and MACH 121.		
<b>MACH 103</b>	<b>MACHINE TECHNOLOGY III</b>	<b>36 HR/2 CR</b>
Fundamentals of milling machine operation, lathe setup and accessories, job planning, safety, and production methods. PREREQUISITE: MACH 102.		
<b>MACH 111</b>	<b>BENCH WORK/HAND TOOLS</b>	<b>36 HR/2 CR</b>
The safe uses and selection of hand tools for holding, striking, assembly, and cutting.		
<b>MACH 113</b>	<b>MACHINERY'S HANDBOOK</b>	<b>18 HR/1 CR</b>
Introduction to the use of <i>Machinery's Handbook</i> , how to research, identify, and find basic information.		
<b>MACH 119</b>	<b>MACHINE FUNDAMENTALS IA</b>	<b>90 HR</b>
This is the first in a two part series. This course provides for basic experience using pedestal grinders, lathes, hand tools, mills and material identification. This course is taken in conjunction with MACH 101 and provides students an opportunity to practice entry level machining skills.		
<b>MACH 120</b>	<b>MACHINE FUNDAMENTALS IB</b>	<b>90 HR</b>
This is the second course in a two part series that provides for basic experience using pedestal grinders, lathes, hand tools, mills and material identification. This course is taken in conjunction with MACH 101 and provides students an opportunity to practice entry level machining skills.		
<b>MACH 122</b>	<b>MACHINE FUNDAMENTALS II</b>	<b>180 HR/12 CR</b>
A continuation of MACH 121, lathes, mills, drilling, setup, and secondary operations. PREREQUISITE: MACH 121.		
<b>MACH 123</b>	<b>MACHINE FUNDAMENTALS III</b>	<b>180 HR/12 CR</b>
Includes advanced machine operation on a lathe and mills, machine accessories, job planning, and production methods. PREREQUISITE: MACH 122.		

Prefix Number	Title	Clock Hours/Credit Equivalencies
<b>MACH 125</b>	<b>QUALITY CONTROL</b>	<b>36 HR/2 CR</b>
The use of visual and precision instrument techniques for quality control. Surface finish and quality problem solving.		
<b>MACH 131</b>	<b>BLUEPRINT READING I</b>	<b>54 HR/2 CR</b>
Provides instruction for development in print reading using basic sketching techniques, lettering, dimensioning, lines, and makeup of a print as a form of communication.		
<b>MACH 132</b>	<b>BLUEPRINT READING II</b>	<b>54 HR/2 CR</b>
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.		
<b>MACH 162</b>	<b>APPLIED MATH I</b>	<b>72 HR/3 CR</b>
Study of basic algebra, ratio and proportion, and plane geometry, and applying the principles learned to practical shop problems. PREREQUISITE: MACH 100.		
<b>MACH 192</b>	<b>JOB PREPARATION</b>	<b>18 HR/1 CR</b>
Focuses on skills to seek and keep a job. PREREQUISITE: COM 170.		
<b>MACH 201</b>	<b>MACHINE TECHNOLOGY IV</b>	<b>72 HR/3 CR</b>
Covers precision measuring tools, metal cutting technology, carbide cutting tools, and advanced grinding operations. PREREQUISITE: MACH 103.		
<b>MACH 202</b>	<b>MACHINE TECHNOLOGY V</b>	<b>36 HR/2 CR</b>
Advanced milling machine setups and operations, speeds, feeds, and gear cutting. Includes indexing head calculations and the theory for using the rotary table.		
<b>MACH 212</b>	<b>METALLURGY AND HEAT TREAT</b>	<b>54 HR/3 CR</b>
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.		
<b>MACH 213</b>	<b>APPLIED MACHINERY'S HANDBOOK</b>	<b>18 HR/1 CR</b>
An introduction to the use of information in <i>Machinery's Handbook</i> to solve shop-related problems.		
<b>MACH 214</b>	<b>TOOL AND CUTTER GRINDING</b>	<b>54 HR/3 CR</b>
Provides cutting tool nomenclature and the reconditioning of worn or dull cutting tools.		
<b>MACH 215</b>	<b>HYDRAULICS</b>	<b>18 HR/1 CR</b>
Designed to promote hydraulic principles, fundamental system components, and hydraulic oils. PREREQUISITES: Completion of three quarters in program.		
<b>MACH 221</b>	<b>MACHINE FUNDAMENTALS IV</b>	<b>90 HR/5 CR</b>
This course includes advanced machining techniques using computer aided machining practices. In addition, machining methods used for CNC programming and operation are emphasized.		
<b>MACH 222</b>	<b>MACHINE FUNDAMENTALS V</b>	<b>180 HR/11 CR</b>
Includes advanced instruction of turning, milling, and grinding machines. The selection and use of carbide cutting tools will be emphasized.		
<b>MACH 241</b>	<b>INTRO TO CNC MACHINING</b>	<b>126 HR/8 CR</b>
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.		
<b>MACH 242</b>	<b>CNC PROGRAMMING/OPERATION</b>	<b>144 HR/9 CR</b>
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.		

# COURSES: MACHINING - MATHEMATICS

Prefix Number	Title	Clock Hours/Credit Equivalencies
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**MACH 243 CNC-CAD/CAM PROG & OPER I 90 HR**  
Course focuses on advanced programming related to CNC, including macros and subroutines and computer-aided programming using the Master CAM programming system.

**MACH 244 CNC-CAD/CAM PROG & OPER II 90 HR**  
This is the second course in a two part series which focuses on advanced programming related to CNC, including macros, subroutines and computer-aided programming using the Master CAM programming system.

**MACH 262 APPLIED MATH II 72 HR/3 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.

**MACH 903 MACHINE TECHNOLOGY UPGRADE 40 HR/2 CR**  
This course upgrades machine shop skills. Content will vary according to the student's needs. This is a 30-hour block of time to be arranged with the instructor on an individual basis. PREREQUISITE: Instructor permission.

## MANAGEMENT

**MGMT100 BUSINESS & PROFESSIONAL ETHICS 30 HR/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.

**MGMT101 CONFLICT MANAGEMENT 15 HR/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.

**MGMT102 THE LEADERSHIP PROCESS 30 HR/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.

**MGMT104 DEFINING & MANAGING QUALITY CUSTOMER SERVICE 30 HR/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.

**MGMT152 SMALL BUSINESS MANAGEMENT 45 HR/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.

**MGMT210 SUPERVISION FOR THE OFFICE 90 HR/5 CR**  
Demonstrates knowledge of appropriate office supervisory skills.

Prefix Number	Title	Clock Hours/Credit Equivalencies
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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 60 HR/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.

**MKT 101 BUSINESS MARKETING 30 HR**  
This course focuses on the basic skills in positioning, targeting customers, selecting marketing methods, making an offer, tracking results, and following up to successfully grow a business. Course format includes group discussion with an emphasis on practical, real life marketing ideas and plans. Note that classroom discussions will take priority over but be guided by lectures in order to come up with marketing "best practices." Students will be graded by the quality of their discussion and the successful completion and presentation of their own marketing plan. Text Required.

## MATHEMATICS

**MATH 080 BASIC MATH REFRESHER 30 HR/3 CR**  
This course includes a review of basic math concepts and operations of addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions.

**MATH 085 BASIC MATH 30 HR/3 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.

**MATH 086 BASIC ALGEBRA 30 HR/3 CR**  
An introduction to algebraic concepts including operations on integers, variables, polynomials, and rational expressions. Students will also solve linear equations. Students who successfully complete Math 86 will have met the Accuplacer algebra test requirement for selected program admission.

**MATH 090 BASIC ALGEBRA REFRESHER 30 HR/3 CR**  
This course will be a review and introduction of basic concepts and applications of algebra. It will include applications of positive and negative numbers; algebraic expressions and equations; concepts of powers, roots, and exponents of constants and variables. Applications to core and specific technical programs will be covered.

**MATH 098 ELEMENTARY ALGEBRA 54 HR/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.

# COURSES: MATHEMATICS - NURSING

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**MATH 099 INTERMEDIATE ALGEBRA** **55 HR/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** **54 HR/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.

**MATH 111 TECHNICAL MATH** **54 HR/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.

**MATH 130 PRECALCULUS I** **60 HR/5 CR**  
 The focus of this course will be on functions. Students will manipulate and graph linear, polynomial, rational, exponential, logarithmic, and quadratic functions. The course will also cover systems of equations, matrices and determinants, and their functions.

**MATH 131 PRECALCULUS II** **60 HR/5 CR**  
 The majority of this course will cover trigonometry. Students will explore trigonometric functions, right and oblique triangle trigonometry, graphing, trigonometric identities, laws of Sine and Cosine, as well as trigonometric application problems. This course will also cover vectors in the plane and in space, along with parametric equations. Polar coordinates and graphs of polar equations will also be included.

## NURSING

**NA 101 NURSING ASSISTANT ESSENTIALS** **35 HR/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** **54 HR/2 CR**  
 During the clinical practicum, the student is given the opportunity to put into practice those skills learned in the classroom and lab settings. The clinical experiences include orientation to the extended care facility and a clinical final exam, which is conducted in the college lab. **PREREQUISITES:** NA 101, HLTH 103, and HLTH 133.

**NA 103 NURSING ASSISTANT ACUTE CARE** **41 HR/3 CR**  
 This is a companion course to NA 101/102 and is designed to build on the skills already learned, based on the OBRA requirements. This course has both a theoretical and a clinical component and prepares the student to perform the role of the Nursing Assistant in acute care settings, emphasizing assessment and nursing care of the acutely ill client. **PREREQUISITES:** NA 101/102, HLTH 903 and HLTH 933.

**NUR 101 COMMON HEALTH NEEDS** **233 HR/15 CR**  
 This first course introduces the student to the concepts of health and wellness. A foundation for practice is established through the study of the history, legal parameters and ethics of nursing. Common healthcare needs throughout the life span are addressed system by system, utilizing the nursing process as a problem solving technique essential to the practice of nursing as both an art and science. An emphasis is placed on safety as it relates to nursing practice. Further emphasis is placed on the needs of the elderly, including the process of

death and dying. **PREREQUISITES:** BIO 211 and NUR 105 or equivalent.

**NUR 102 NURSING PRACTICE 1** **160 HR/7 CR**  
 Concurrent with NUR 101, NUR 102 provides the student with an opportunity to learn and practice basic nursing skills, including assessment techniques, non-parenteral medication administration, and the fundamental techniques of physical care, such as bathing, positioning, and the use of proper body mechanics. An emphasis is placed on the care of the elderly and rehabilitation. Includes both college lab time, and clinical experiences in a long-term care facility. **PREREQUISITES:** BIO 211, HLTH 103, HLTH 133, and NUR 105 or equivalent.

**NUR 105 PHARMACOLOGY** **16 HR/2 CR**  
 An introduction to the basic concepts required by nurses to provide safe and effective pharmacotherapeutics. The metabolism and actions of drugs, with an emphasis on absorption, duration of action, distribution in the body, and methods of excretion will be studied. Also introduces the nursing implications, including the principles of safe drug administration, documentation, and client teaching. Students are expected to demonstrate competency in arithmetic computations, and to apply knowledge of related vocabulary and medical symbols. **PREREQUISITES:** BIO 211, MATH 98 or MATH 99, or equivalent.

**NUR 121 COMMON HEALTH DISTURBANCES 1** **240 HR/15 CR**  
 Prepares the student to assist people with common health disturbances in single or multiple systems. The systems studied include the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems. In addition, fluid and electrolyte disturbances, surgical asepsis, and perioperative care are addressed. All care is approached utilizing the nursing process. An emphasis is placed on young, middle, and elderly adults. **PREREQUISITES:** all courses within NUR 010 or their equivalent.

**NUR 122 NURSING PRACTICE 2** **160 HR/7 CR**  
 Concurrent with NUR 121, NUR 122 provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the respiratory, cardiovascular, gastrointestinal, genitourinary, endocrine, and musculoskeletal systems, or a fluid and electrolyte disturbance. Sterile technique is covered, as well as subcutaneous and intramuscular injection techniques. An opportunity to care for a client throughout the perioperative process is also provided. Includes college lab time, and clinical experiences in both acute and long-term care facilities. **PREREQUISITES:** all courses within NUR 010 or their equivalent.

**NUR 131 COMMON HEALTH DISTURBANCES 2** **240 HR/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). **PREREQUISITES:** all courses within NUR 020.

**NUR 132 NURSING PRACTICE 3** **160 HR/7 CR**  
 Concurrent with NUR 131, NUR 132 provides the student with an opportunity to learn and practice the skills associated with the care of patients with some common health disturbances in the neurological, immune, and integumentary systems. Additionally, students will experience working with clients with mental health disturbances. Common pediatric disturbances and normal mother/infant care experience will be provided. Skills, such as basic intravenous therapy, will be practiced in the college lab, and clinical experiences will be provided in a variety of health care settings, culminating in a series of clinical days closely approximating employment in a health care facility as a practical nurse. **PREREQUISITES:** all courses within NUR 020.

# COURSES: NURSING- PERSONAL FITNESS TRAINER

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**NUR 211 NURSING DIMENSIONS I 70 HR**  
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.

**NUR 212 CLIENT CARE MANAGEMENT PRACTICE I 60 HR**  
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 60 HR**  
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 80 HR**  
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 50 HR/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 100 HR/5 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 60 HR/5 CR**  
Introduces students to the fundamentals of business operations management and the administrative process relationships.

**OPMGT 107 FUNDAMENTALS OF PROCESS MANAGEMENT 60 HR/5 CR**  
Planning, leading, motivating, group dynamics and exploring the role of the facilitator are studied in this course.

**OPMGT 119 STATISTICAL PROCESS CONTROL 60 HR/5 CR**  
Understanding the current state of processes and the methodology of continuous improvement.

**OPMGT 207 MATERIALS MANAGEMENT 60 HR/5 CR**  
Overview of production materials planning, control, and capacity estimation.

**OPMGT 215 PRODUCTION PLANT PLANNING 60 HR/5 CR**  
Performance metrics development, the seven wastes, improving work flow, and the SMART test.

**OPMGT 225 OPERATIONS MANAGEMENT SPECIAL TOPICS 60 HR/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 360 HR/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.

**OPMGT 255 PRACTICUM II 360 HR/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 108 HR/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 108 HR/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.

# COURSES: PERSONAL FITNESS TRAINER - PROCESS TECHNOLOGY

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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## **PFT 120 FACILITY MANAGEMENT & MARKETING FOR A FITNESS TRAINER 108 HR/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.

## **NFPT PERSONAL FITNESS TRAINER CERTIFICATION TEST**

The National Federation of Professional Trainers (NFPT) is the sponsor of the certification test. There is a \$375 fee to take the test that must be paid to NFPT prior to sitting for the test. The test may be taken at the college, proctored by your instructor.

- Students must have a current First Aid/CPR card.
- Because the program is only 324 clock hours, it does not qualify for federal student financial aid.

## PROCESS TECHNOLOGY

### **PTEC 101 INTRO TO PROCESS TECHNOLOGY 77 HR/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) 99 HR/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, & ENVIRONMENT I 77 HR/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) 88 HR/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 af-

fecting 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 107 PROCESS SCIENCE 77 HR/5 CR**

This course covers both general and specifically targeted principles of physics and organic chemistry. The course relates these principles and scientific concepts to their use in the process industry. The applied science emphasis of the course shows how process design and operating methods are based upon universal scientific principles. Broad subjects such as the mechanics of solids, friction, fluid mechanics, motion, the relationship between temperature and pressure, chemical reactions, and catalysts will be discussed and related to industry practices.

### **PTEC 110 PROCESS INSTRUMENTATION I 99 HR/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 120/220 SPECIAL TOPICS 44 HR**

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 130/230 COOPERATIVE EDUCATION 44 HR**

In this course a student would take a portion of a course offered by a cooperating institution or BTC program. The student would attend the class with the regular students and do assignments and projects for the course. Before attending the course, the student would obtain permission from the BTC PTEC instructor. Students enrolled in this course may do the work individually or as a part of the group. The culmination of the course would be a written project paper and presentation or exam.

### **PTEC 203 SAFETY, HEALTH, & ENVIRONMENT II 77 HR/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 77 HR/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.



# COURSES: PROCESS TECHNOLOGY - RADIOLOGY

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

**PTEC 207 QUALITY CONTROL 66 HR/ 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 99 HR/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 PROCESS EQUIPMENT 88 HR/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) 99 HR/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 88 HR/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 I 90 HR**  
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 180 HR/6 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 TECH INTERNSHIP 360 HR /15 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 7 HR**

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 27 HR/3 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 7 HR**

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 60 HR/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 101 GENERAL PSYCHOLOGY 55 HR/5 CR**  
An overview of the factors affecting behavior including topics related to theories of learning, the senses, perceptions, nervous system, emotions, personality theory, motivation, abnormal behavior and therapy, and social psychology. PREREQUISITE: Accuplacer score of 86 or higher on Sentence Skills and 85 or higher on Reading or ENG 101 with a 2.0

**PSY 180 INTERPERSONAL & ORGANIZATIONAL PSYCHOLOGY 54 HR/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.

**PSY 210 DEVELOPMENTAL PSYCHOLOGY 55 HR/5 CR**  
A systematic study of the developmental processes in humans from conception to late adulthood. Special emphasis will be given to the topics of physical development, cognitive development, and personality/social development. PREREQUISITE: PSY 101.

# COURSES: RADIOLOGY

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

## RADIOLOGY

**RT 101 RADIOGRAPHIC POSITIONING I 60 HR/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 60 HR/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 60 HR/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 48HR/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 requirements and commitment necessary for program success.

**RT 112 PATIENT CARE IN RADIOLOGY 48HR/4 CR**

This course provides the student with basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine patient care will be included, as well as infection control techniques, vital signs, safety and transfer positioning, medical emergencies, barium studies, oxygen therapy and catheters. Patient education and documentation will be addressed.

**RT 114 LEADERSHIP SEMINAR 12 HR/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 48 HR/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 48 HR/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 24 HR/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 36 HR/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 192 HR/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 192 HR/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 270 HR/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 48 HR/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 48 HR/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 18 HR/2 CR**

This course will provide basic concepts of pharmacology. Concepts included are pharmacokinetic and pharmacodynamic principles of



# COURSES: RADIOLOGY - SALES

Prefix Number	Title	Clock Hours/Credit Equivalencies
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drugs, categories specific to drugs, actions and side effects of select medications, and legal and ethical status of radiographer's role in drug administration.

**RT 210 RADIATION BIOLOGY 36 HR/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 36 HR/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 36 HR/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 288 HR/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 288 HR/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 240 HR/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.

## READING

**RDG 085 READING SKILLS 30 HR/3 CR**  
 This course focuses on developing technical/college-level reading skills, e.g., comprehension, vocabulary in context, locating main ideas, making inferences, outlining, and summarizing content. **PRE-REQUISITE:** Accuplacer Reading score of 50 or above. Students who successfully complete RDG 85 will have met the Accuplacer reading requirement for occupational program enrollment.

## RESIDENTIAL HOME INSPECTION

**RHI 110 RESIDENTIAL HOME INSPECTION 160 HR/10 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 be prepared to take the National Home Inspector Examination as well as the Washington State Licensed Pest Inspector test, and meet requirements to become a member of the American Society

Prefix Number	Title	Clock Hours/Credit Equivalencies
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of Home Inspectors (ASHI). Course content is based on the ASHI Curriculum and will include field inspections. The student will receive a BTC Certificate upon satisfactory completion of the 160-hour home inspection course. Text required.

## SALES

**SAL 100 SELLING FUNDAMENTALS 60 HR/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.

**SAL 110 HI-TECH TOOLS FOR SELLING 30 HR/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 60 HR/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 60 HR/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 60 HR/5 CR**  
 Presents the structure and use of market research in sales territory management decision making. Students learn data analysis and interpretation skills that lead to sound decisions in personal territory management.

**SAL 190 WORK BASED LEARNING I 180 HR/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.

**SAL 191 WORK BASED LEARNING IA 90 HR/6 CR**  
 Students will intern in a sales position for 90 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. This internship should be taken with CIS 275.

**SAL 200 SALES MANAGEMENT 60 HR/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.

# COURSES: SALES - SURVEYING

Prefix Number	Title	Clock Hours/Credit Equivalencies
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Prefix Number	Title	Clock Hours/Credit Equivalencies
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**SAL 290 WORK BASED LEARNING II 180 HR/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

**SURG 120 SURGERY TECHNOLOGY I 101 HR/10 CR**  
An introduction to surgical technology including practical knowledge of the operating room environment. Includes legal and ethical aspects, relationships with coworkers, hospital organization and interdepartmental relations; physical and psychological aspects of patient care; instruments and supplies, general equipment, aseptic technique, and set up for specialty areas. PREREQUISITES: BIO 210/211, HO 125, COM 170 or ENGL 101, PSY 101 or PSY 180, and MATH 98 or MATH 99.

**SURG 125 SURGERY TECHNOLOGY LAB 174 HR/8 CR**  
Principles and techniques of operating room procedures. Includes surgical scrub techniques, gowning and gloving, aseptic technique, creating and maintaining a sterile field, draping materials, basic instrumentation and patient transport. Experience in scrub role function.

**SURG 133 SURGERY TECHNOLOGY II 120 HR/10 CR**  
Microbiology, pharmacology and anesthesiology relating to the surgical patient. Includes additional preoperative care techniques and surgical procedures, pathophysiology and the technologist's role in surgery. PREREQUISITES: SURG 120, SURG 125, and HO 105.

**SURG 136 SURGERY TECH CLINICAL PRACTICE I 240 HR/10 CR**  
Clinical practice with focus on development of entry-level skills.

**SURG 143 SURGERY TECHNOLOGY III 60 HR/5 CR**  
Covers moderately complex to complex surgical procedures and focuses on specialty instrumentation application and supplies. PREREQUISITE: SURG 133, and SURG 136.

**SURG 145 SURGERY TECH CLINICAL PRACTICE II 300 HR/12 CR**  
Continuation of clinical practice. Advanced clinical practice to develop entry-level skills.

## SURVEYING

**SURV 102 FUNDAMENTAL OF SURVEYING I 120 HR/6 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.

**SURV 103 FUNDAMENTALS OF SURVEY II 90 HR/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.

**SURV 104 CONSTRUCTION & HIGHWAY SURVEYS 120 HR/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 LAND SURVEY SYSTEM 90 HR/5 CR**  
Course will familiarize the student with the public land system of the

U.S. and the subdivision of sections.

**SURV 113 BOUNDARY LAW & LAND DESCRIPTIONS 120 HR/6 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 60 HR/3 CR**  
A comprehensive study of transferring data between the data collector and the computer.

**SURV 140 FUNDAMENTALS OF GIS & GPS 60 HR/3 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, & PLATTING 60 HR/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 154 ZONING, PERMITTING, & PLATTING 60HR**  
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 & SAFETY 48 HR/2 CR**

Provides an introduction to the licensing and certification procedures for land surveyors and engineers in the State of Washington as well as the RCWs and WACs that apply. The course also provides an examination of safety hazards and accident awareness that is related to both professions.

**SURV 201 ADVANCED SURVEY SEMINAR 120 HR/6 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 120 HR/8 CR**  
Global Positioning System software will be used to adjust raw field data collected with Trimble 4000 SST receivers.

**SURV 204 ENVIRONMENTAL MAPPING 60 HR/3 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 120 HR/5 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.

**SURV 252 LAND DESKTOP - SURVEYOR'S FINAL PROJECT 120 HR/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.

# COURSES: TOTAL QUALITY MANAGEMENT - WELDING

Prefix Number Title Clock Hours/Credit Equivalencies

Prefix Number Title Clock Hours/Credit Equivalencies

## TOTAL QUALITY MANAGEMENT

- TQM 109 INTRODUCTION TO TOTAL QUALITY MANAGEMENT 60 HR/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 60 HR/5 CR**  
You will learn when to use many of the proven Six Sigma problem-solving methods and statistical tools to contribute to the success of your organization. This Six Sigma Green Belt course follows the DMAIC (Define, Measure, Analyze, Improve, Control) model and teaches the soft skills required to participate in projects effectively.
- TQM 209 CASE STUDIES IN QUALITY MANAGEMENT 60 HR/5 CR**  
Students use advanced Total Quality Management techniques and apply them to their business. PREREQUISITE: TQM 109

## TRANSPORTATION

The **Transportation Core** course is a prerequisite for entry into the Automotive and Diesel programs. This core will serve as an introduction to the automotive and diesel industries. The core is made up of three courses:

- TRANS101 BASIC TRANS. SERVICE & SYSTEMS I 82 HR/5 CR**  
Students will be exposed to basic shop practices and safety. The areas of emphasis will be occupational health and safety, tools and equipment, communication skills, vehicle service information, vehicle maintenance, and vehicle preparation.
- TRANS102 BASIC TRANS. SERVICE & SYSTEMS II 82 HR/5 CR**  
Course will cover: battery maintenance, basic electrical systems, fundamentals of braking systems, basics of steering and suspension, and engine theory.
- TRANS103 BASIC TRANS. SERVICE & SYSTEMS III 82 HR/5 CR**  
Course will cover the basics of gasoline and diesel fuel systems; heating, ventilation, and air conditioning; engine cooling systems; transmission systems; clutch and associated systems; and final drive and driveline.

## VETERINARY ASSISTANT

- VET 101 VETERINARY ASSISTING ESSENTIALS 60 HR/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 60 HR/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 60 HR/5 CR**  
Coursework includes anesthesiology, pre-op, surgical patient management, resuscitation, physical examination, radiology, and clinical computer usage.
- VET 115 VETERINARY ASSISTING PRACTICUM 54 HR/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 54 HR/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. Student must also be enrolled in Applied Principles 105 or 107, depending on quarter of instruction.

- VET 120 VETERINARY MATH 21 HR/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

- WELD 101 INTRO TO TRADE SAFETY 36 HR/2 CR**  
This course must be completed satisfactorily before a student can begin training in the shop. The focus of this course is on recognized safety and emergency procedures used in the welding trade.

- WELD 105 POWER SOURCES 122 HR/6 CR**  
Students are introduced to basic welding electricity; MIG, TIG, and SMAW power sources; and associated components and maintenance of those components.

- WELD 106 BLUEPRINT READING 122 HR/6 CR**  
Developed for blueprints used in the welding trade. Students study views, symbols, and drawings. Students will learn how to interpret basic drawings, blueprints, and carry out the mathematics related to the interpretation of the blueprints.

- WELD 108 CUTTING PROCESSES 76 HR/5 CR**  
This course will introduce the student to the basics of plasma, air arc, and oxy-fuel cutting processes.

- WELD 110 THEORY OF GASES 54 HR/3 CR**  
Introduction to shielding gases and oxy-fuel gases. The student will learn the theory and use of these gases.

- WELD 111 WELDING LEADERSHIP 54 HR/3 CR**  
Students will learn and apply multiple facets of knowledge and activities necessary to plan, organize, and execute, as a member of a team of fellow students, an all-day or multi-day creative and competitive welding and fabricating performance event for the campus and community, such as the Welding Rodeo. Knowledge of Welding, Thermal Cutting, Equipment setup and Troubleshooting, Material Handling, Metallurgy, Fabrication Techniques, and Safety are all skills applied in this course. In addition, students will learn and apply soft skills, such as aspects of event staging and management, interpersonal relations in the workplace, advertising and promotion, creative thinking, and team cooperation and leadership skills. PREREQUISITE: WELD 101 & 125.

- WELD 114 METALLURGY 122 HR/6 CR**  
Introduces students to both theory and application of metallurgical principles as they are applied to design, selection, heat treating, and welding of metals and alloys.

- WELD 120 LAYOUT AND FABRICATION 122 HR/6 CR**  
Students will develop a material's list for a project, calculate the weight and cost of all materials necessary, and utilize proper layout, fitting and welding procedures necessary to complete all phases of a construction project.

## COURSES: WELDING

Prefix Number	Title	Clock Hours/Credit Equivalencies	Prefix Number	Title	Clock Hours/Credit Equivalencies
<b>WELD 122</b>	<b>HAND TOOLS - POWER TOOLS</b>	<b>36 HR/3 CR</b>			
	Covers the use of hand and power tools. The student will learn to operate and maintain hand and power tools.				
<b>WELD 123</b>	<b>FABRICATION &amp; PIPING THEORY</b>	<b>122 HR/6 CR</b>			
	Course is designed to introduce the student to layout tools and techniques used in metal fabrication, piping layout, print reading, and fabrication.				
<b>WELD 124</b>	<b>RESUME &amp; JOB PREPARATION</b>	<b>36 HR/2 CR</b>			
	This course focuses on the skills needed to seek and obtain employment and grow on the job.				
<b>WELD 125</b>	<b>SHIELDED METAL ARC WELDING I</b>	<b>108 HR/5 CR</b>			
	Course will cover basics of SMAW equipment safety, setup, operation and proper manipulation techniques with E6010 welding electrodes on mild steel plate in the Flat, Flat Fillet, and Vertical Fillet positions. PREREQUISITE: WELD 101.				
<b>WELD 131</b>	<b>SHIELDED METAL ARC WELDING II</b>	<b>40 HR/2 CR</b>			
	Continuation of the principles and practices developed in WELD 125 utilizing E7018 electrodes in Flat Fillet position. PREREQUISITE: WELD 125.				
<b>WELD 132</b>	<b>SHIELDED METAL ARC WELDING III</b>	<b>116 HR/5 CR</b>			
	An expansion on the teachings, principles, and practices developed in WELD 125 and WELD 131. Fillet welds will be accomplished in vertical and overhead fillet and groove positions on plate using E7018. PREREQUISITE: WELD 131.				
<b>WELD 133</b>	<b>INTRO GAS METAL ARC WELDING I</b>	<b>68 HR/4 CR</b>			
	Course introduces students to GMAW basics, including machine operation and setup, proper and safe use of shielding gases, and wire selection, by welding plates in a flat position. PREREQUISITE: WELD 131.				
<b>WELD 135</b>	<b>GAS METAL ARC WELDING II</b>	<b>68 HR/4 CR</b>			
	Continuation of GMAW I which gives students an advanced understanding of the GMAW process, by welding plate in the Vertical Fillet position. PREREQUISITE: WELD 133.				
<b>WELD 136</b>	<b>INTRO FLUX CORE ARC WELDING I</b>	<b>108 HR/5 CR</b>			
	Course covers machine setup, gas selection, and wire size in relationship to material thickness, with concentration on Flat and Vertical position fillet welds. PREREQUISITE: WELD 131.				
<b>WELD 137</b>	<b>FLUX CORE ARC WELDING II</b>	<b>40 HR/2 CR</b>			
	Fillet welds in the overhead fillet & groove positions on plate. PREREQUISITE: WELD 136.				
<b>WELD 138A</b>	<b>GAS TUNGSTEN ARC WELD I</b>	<b>72 HR/4 CR</b>			
	Introduction to the TIG process covers equipment safety, setup, and operation; safe and proper use of shielding gases; and proper rod selection for aluminum welding on plate in the Flat and Flat Fillet positions. PREREQUISITE: WELD 137.				
<b>WELD 139A</b>	<b>GAS TUNGSTEN ARC WELDING II</b>	<b>72 HR/4 CR</b>			
	Fillet Welds in Flat and Overhead positions on Carbon Steel Plate. PREREQUISITE: WELD 138.				
<b>WELD 140</b>	<b>GAS TUNGSTEN ARC WELDING III</b>	<b>72 HR/4 CR</b>			
	Flat and Vertical Fillet Welds on Stainless Steel Plate. PREREQUISITE: WELD 139.				
<b>WELD 180</b>	<b>WELDING UPGRADE OPEN LAB</b>	<b>30 HR/2 CR</b>			
	This course provides students with an opportunity to upgrade or enhance their welding skills in areas of their choice. Through instructor consultation, customized objectives, and creative projects, students will expand their knowledge in specific areas of Welding Technology. Testing per WABO is available. PREREQUISITE: knowledge of basic welding processes and safety.				
<b>WELD 201</b>	<b>SHIELDED METAL ARC WELDING IV</b>	<b>130 HR/7 CR</b>			
	Continues the principles and practices developed in WELD 125, WELD 131, and WELD 132. Students will apply SMAW procedures toward successful completion of WABO CERTIFICATION on 1" beveled plate. PREREQUISITE: WELD 132.				
<b>WELD 202</b>	<b>FLUX CORE ARC WELDING III</b>	<b>130 HR/7 CR</b>			
	Students will apply FCAW techniques on 1" beveled plate toward WABO CERTIFICATION. PREREQUISITE: WELD 137.				
<b>WELD 203</b>	<b>PIPE I</b>	<b>130 HR/7 CR</b>			
	Students will begin open root techniques with E6010 and E7018 electrodes on beveled plate and continue onto 6" or 8" pipe for WABO CERTIFICATION or equivalent. PREREQUISITE: WELD 132.				
<b>WELD 215</b>	<b>SHIELD METAL ARC WELDING V</b>	<b>90 HR/5 CR</b>			
	This is a continuation of WELD 201 toward WABO certification on 1" plate.				
<b>WELD 216</b>	<b>FLUX CORE ARC WELDING IV</b>	<b>90 HR/5 CR</b>			
	This is a continuation of WELD 202 toward WABO certification on 1" plate.				
<b>WELD 217</b>	<b>PIPE II</b>	<b>90 HR/5 CR</b>			
	Continuation of WABO CERTIFICATION, or better, on 8" pipe. PREREQUISITE: WELD 203.				
<b>WELD 220</b>	<b>SHIELD METAL ARC WELDING VI</b>	<b>112 HR/6 CR</b>			
	Students will explore advanced techniques in SMAW process, including open root welding on plate, alloy welding, mirror welding, and welding in confined positions.				
<b>WELD 222</b>	<b>GAS METAL ARC WELDING III</b>	<b>112 HR/6 CR</b>			
	Development of advanced level of skill in GMAW III through practice in lab, including flat, vertical, and overhead fillet welds on aluminum and/or stainless steel. PREREQUISITES: Core and WELD 135.				
<b>WELD 224</b>	<b>FLUX CORE ARC WELDING V</b>	<b>112 HR/6 CR</b>			
	Students will explore advanced welding techniques in FCAW process, including Innershield in Flat, Vertical, and Overhead positions; and submerged Arc process on Flat plate.				
<b>WELD 226</b>	<b>GAS TUNGSTEN ARC WELDING IV</b>	<b>112 HR/6 CR</b>			
	Students will explore advanced techniques in the GTAW process, including butt-welding of carbon plate in Vertical and Overhead positions.				
<b>WELD 230</b>	<b>PIPE III</b>	<b>112 HR/6 CR</b>			
	Students will explore advanced techniques in pipewelding, including 2" butt-welds on carbon pipe in the 6G position.				
<b>WELD 235</b>	<b>PIPE IV</b>	<b>112 HR/6 CR</b>			
	Students will explore advanced techniques in pipewelding, including TIG root on Carbon and Alloy pipe.				
<b>WELD 915</b>	<b>WELDING UPGRADE</b>	<b>30 HR/2 CR</b>			
	A course for welders to upgrade skills in all weld materials and positions. Testing per WABO is available. This is for 30 hours of instruction. Variable hours and tuition and fees can be arranged. Specific schedule to be arranged with instructor on an individual basis. Students furnish their own supplies.				

## WE ARE HERE FOR YOU

## CHAPTER 7 - WE ARE HERE FOR YOU

BOARD OF TRUSTEES	119	ADMINISTRATORS & FACULTY	119
MANAGERIAL/EXEMPT STAFF	122	SUPPORT STAFF	122

## BOARD OF TRUSTEES



Sonia  
Arevalo-Hayes



Yvonne  
Bianchi



Jim  
Cunningham



Sheryl S.  
Hershey



Steven W.  
Koch

ADMINISTRATORS &  
FACULTY**Don Anderson, Faculty (2000)****Welding Technology**

*B.F.A., Painting/Printmaking,  
University of Kansas*

*A.A., Painting,*

*Johnson County Community College*

*ASME/ANSI Certified 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, Faculty (2005)****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, Faculty (1987)****Culinary Arts**

*WA Professional Technical Certification*

**Dan Beeson, Faculty (1996)****Automotive Technology**

*ASE Master Technician*

*ASE L-1 Certified*

*Certified Journeyman Automotive Technician*

*WA Professional Technical Certification*

**Anne Bowen, Administrator (2002)****Executive Director, College Advancement**

*B.A., Business Administration,  
Western Washington University*

**Tom Carleson, Faculty (2005)****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, Administrator (2002)****Dean of Professional Technical****Education**

*M. Ed, Curriculum and Instruction, University*

*of New Orleans*

*B.S., Education, University of Oklahoma*

**Samuel Cheung, Faculty (2004)****Electronics Technology**

*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, Faculty (2002)****Electrician**

*B.A., Telecommunication,*

*Michigan State University*

*Washington State Master Electrician*

*WA Professional Technical Certification*

**Greg Cowan, Administrator (2004)****Director of Human Resources**

*Ed.D., Educational Leadership,  
Seattle University*

*M.Ed., Educational Administration,  
Western Washington University*

*B.S., Education - Math/Economics,  
Western Washington University*

**Linda Rawlings Crawford,****Coordinator (1979)****Child & Family Studies**

*M.A., Education/School Administration,  
Central Washington University*

*B.S., Home Economic Education,  
Washington State University*

*WA Professional Technical Certification*

*WA Professional Technical Certification*

**Liz Cunningham, Faculty (1996)****Applied & Technical Math**

*M.Ed., Adult Education Administration,  
Western Washington University*

*B.A., Education/Math,  
State University College at New Paltz*

*State University College at New Paltz*

*State University College at New Paltz*

*State University College at New Paltz*

**Mary Curran, Faculty (2004)****Practical Nursing**

*B.S., Nursing, University of Washington*

*A.T.A., Nursing, Skagit Valley College*

*Registered Nurse License, WA State*

*WA Professional Technical Certification*

**Jeff Curtis, Faculty (1996)****Diesel Equipment Technology**

*ASE Master M/H Truck Technician*

*ASE L-2 Certified*

*Journey Level Mechanic*

*WA Professional Technical Certification*

**Sharon Dahl, Faculty (1990)****Business & Office Technology**

B.A., *Business Education*, Western Washington University  
*Standard Secondary Teaching Certificate*  
*WA Professional Technical Certification*

**Connie Daugherty, Faculty (2002)****English as a Second Language**

M.A., *Art History*, San Diego State University  
 B.A., *English*, Pacific Lutheran University

**Stan DeVries, Faculty (1983)****Computerized Machining & Manufacturing Technology**

A.A.S., *Industrial Technology*, Seattle Central Community College  
*Certified Journeyman Machinist*  
*Certified Mastercam Instructor*  
*WA Professional Technical Certification*

**Jeré Donnelly, Faculty (1995)****Welding Technology**

Washington Association of Building Officials (WABO) *Certified Welder*  
*WA Professional Technical Certification*

**Alan Dunn, Faculty (2001)****Oral & Written Communication**

M.A., *English*, Arizona State University  
 B.A., *English*, California State University

**Darlene K. Edwards, Faculty (1992)****Business & Office Technology**

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, Faculty (1977)****Auto Collision Repair Technology**

*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*

**Elizabeth Lee Falta, Faculty (1999)****Computer Network Technology**

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, Faculty (2005)****Practical Nursing**

B.S., *Nursing*, University of Washington  
 A.A.S., *Nursing*, Everett Community College  
*Registered Nurse License*, Washington State Vocational Certification

**Carol Gavareski, Faculty (1990)****Biology, Cell Biology, Anatomy & Physiology**

M.S., *Forest Resources*, University of Washington  
 B.A., *Biology*, Whitman College

**Sharon Glenovich, Faculty (1966)****Business & Office Technology**

B.A., *Business Education*, Western Washington University  
*WA Professional Technical Certification*

**Peter Hodges, Faculty (1998)****Surveying & Mapping Technology**

B.A., *English*, Plymouth State College  
*Professional Land Surveyor (PLS)*, WA  
*Licensed Land Surveyor (LLS)*, NH  
*WA Professional Technical Certification*

**Cindy Hollinsworth, Faculty (2002)****Practical Nursing**

B.S., *Nursing*, University of Washington  
 ATA, *Nursing*, Skagit Valley College  
*Practical Nursing Certificate*, Bellingham Vocational Technical Institute  
*Registered Nurse License*, WA State  
*Certified Gerontological Nurse*  
*WA Professional Technical Certification*

**Debra Jones, Administrator (2005)****Vice President of Administration Services**

B.A., *Accounting*, Western Washington University  
*Certified Public Accountant*

**Christine Kahlbaum, Faculty (2005)****Practical Nursing**

M.S., *Nursing*, University of Colorado Health Sciences Center  
 B.S., *Nursing*, Linfield College

*Registered Nurse License*, Washington State Vocational Certification

**Susan Kerrick-Degnan, Counselor (1992)**

M.S., *Education: Guidance and Personnel*, Eastern Mt. College  
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M.Ed., *Business Education*, Western Washington University  
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*Microsoft Office User Specialist Certification in Word, Access, and PowerPoint 2000*  
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*Secondary Teaching Certificate*

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 M.Ed., *Counselor Education*, University of Florida  
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## WE ARE HERE FOR YOU

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**Michael Bukis, Manager**  
**Purchasing**

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**Cafeteria**

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**Outreach Events**

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**Opportunity Grant**

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# WE ARE HERE FOR YOU

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Sherry Ellis,  
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Deli

Kevin Engels,  
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Laura Fornalski,  
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Bookstore

Ronald Frazier,  
Maintenance Mechanic  
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Dawn Hawley, Assistant III  
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Timothy Hawkins, Head Custodian  
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Kathleen Hunter, Cashier II  
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Jerry Hurst, Specialist  
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Annie Johnston,  
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## 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

## APPENDIX

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.

- 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

- 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.
- 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.
- 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.
- 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.

- Disciplinary warning means oral notice of violation of college rules.
- 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.
- 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.
- 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.
- 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.
- 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

- Refund of fees for the quarter in which disciplinary action is taken shall be in accordance with the college's refund policy.
- A student suspended on the basis of conduct 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

- 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.
- 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.
- 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:
  - Terminate the proceeding, exonerating the student or students;
  - Dismiss the case after whatever counseling and advice may be appropriate;
  - 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;
  - 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.
- 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

- 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:
  - An administrator appointed by the president of the college or a designee;
  - Two members of the faculty, appointed by the college president or a designee;
  - Two representatives from the student council, appointed by the college president or a designee;
  - A counselor appointed by the college president or a designee.
- 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,

## APPENDIX

shall be made by the college president or a designee. The disciplinary committee chairperson will be elected by the members of the disciplinary committee.

3. The committee may decide that the student involved:
  - 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 com-

mittee 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.



APPENDIX

**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](http://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, Hoppel 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 \_\_\_\_\_

Are you a U.S. Citizen? Yes -  No -  Canadian Citizen? Yes -  No -

F1 = Visa Status "F" International Student  
 M1 = Visa Status "M" International Student  
 T = Temporary Resident  
 RF = Refugee/Parolee or Conditional Entrant  
 M = Immigrant/Permanent Resident

Have you previously attended this college? Yes -  No -

If yes, last year attended: \_\_\_\_\_ Name, if different \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Disability Support Services are available: Contact 360-715-8367.

Student Signature: \_\_\_\_\_

**Admission's USE ONLY: Assessment Scores: Other Requirements:**

Adm Stat: \_\_\_\_\_

READING: \_\_\_\_\_ Disclosure \_\_\_\_\_

MATH: \_\_\_\_\_ Transcript \_\_\_\_\_

ALGEBRA: \_\_\_\_\_

COMPLETION DATE: \_\_\_\_\_ SENTENCE SKILLS: \_\_\_\_\_

REGISTRATION APPOINTMENT: \_\_\_\_\_ BATCH# \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_

**CASHIER USE ONLY:**

Application Fee Paid: \_\_\_\_\_

Date Received: \_\_\_\_\_

Initial: \_\_\_\_\_

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.

Name(s) of other colleges or vocational schools attended: \_\_\_\_\_

Last year: \_\_\_\_\_ Level Completed \_\_\_\_\_

Last year: \_\_\_\_\_ Level Completed \_\_\_\_\_

When do you want to enter? YEAR: \_\_\_\_\_

QUARTER: fall  winter  spring  summer

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: \_\_\_\_\_



## APPENDIX

### **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 grade point average and completion of a minimum of 50% of the enrolled clock hour competencies. 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 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 BTC 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**

Students who leave a course or program without official withdrawal will forfeit all claims to refund of tuition and fees. Official withdrawal will be defined as student submission of a completed **ADD/DROP FORM** to the Registration counter. The refund will be calculated based on the date the form is submitted rather than the last day of attendance. In determining the degree/certificate program refund, official college vacation breaks (Winter, Spring, Summer) will not be utilized in the calculation of instructional day or calendar day for programs that officially begin after the start of the regular quarter. The College may extend the refund period for students who terminate enrollment for documented medical reasons which prohibited them from following the official withdrawal procedure.

#### **Refund Schedule:**

**100%** of tuition and fees refunded if withdrawal is prior to the student's start date.

**90%** of tuition and fees refunded if withdrawal is between the 1st and 5th instructional day.

**50%** of tuition and fees refunded if withdrawal is between the 6th instructional day and the 20th calendar day.

**There are NO refunds after the 20th calendar day of enrollment.**

Refunds for payments made by cash or check will be processed through the Business Office and mailed within three (3) weeks. Refunds for payments made by credit card will be processed immediately.

**PROGRAMS & COSTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.**

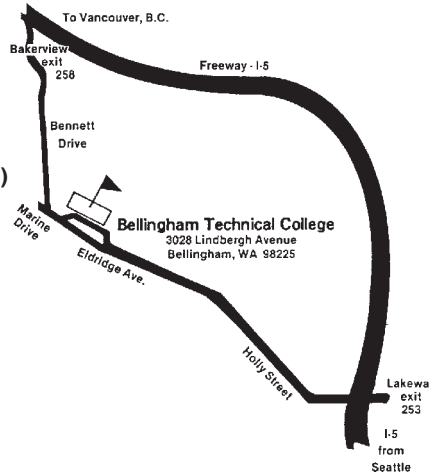
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## Bellingham Technical College

3028 Lindbergh Avenue  
 Bellingham, WA 98225  
 Phone: 360.738.0221  
 Fax: 360.676.2798  
 www.btc.ctc.edu

### HOW TO FIND OUR CAMPUS:



(College Services Bldg. is located on Nome St.)

**From I-5:** Take Exit 258 (airport exit), Follow 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 sign), turn right onto Nequalicum Ave. For College Services Bldg., go straight onto Nome St.

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.



### BUILDING - PROGRAMS & RESOURCES

A	Library
B	Building Construction, Appliance & Refrigeration, Machining & Manufacturing, Electrician
C	Dental Assisting
CSB	Student Services/ Administration
D	Computer Networking
E, F	Business Courses, Learning Center
G	Restaurant, Cafeteria, Culinary Arts
H, HAC	Health Occupations, Practical Nursing, Radiologic Technology, Surgery Technology
I	Auto Collision
J	Engineering, Surveying & Mapping
M	Automotive Technology
Morse Ctr.	Under Construction
R	Bookstore
S	Welding
T	Diesel Equipment
Tech. Ctr.	Instrumentation, Process Technology, Electronics
U	HVAC
Y	Family Learning Center

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# NOTES





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