Bellingham Technical College
ADVANCED MANUFACTURING

INDUSTRIAL MAINTENANCE & MECHATRONICS
INSTRUMENTATION & CONTROL
MACHINING
PROCESS TECHNOLOGY
WATER & WASTEWATER TREATMENT
WELDING & FABRICATING TECHNOLOGY
BACHELOR OF APPLIED SCIENCE:
OPERATIONS MANAGEMENT

TECHNICALLY SPEAKING
www.btc.edu
About Bellingham Technical College

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

Advanced Manufacturing at BTC

Manufacturing is the most diverse sector of the U.S. economy, from the immense variety of goods produced to the technology used to create them. Taking ideas and materials and turning them into valuable products takes highly skilled employees.

BTC’s programs in Advanced Manufacturing are ideal for students with mechanical aptitude or an interest in the math, science, and technology of the manufacturing process. You’ll learn skills needed for a career in high-demand, dynamic industries such as manufacturing, aerospace, biotechnology, and energy, with pathways to BTC’s bachelor of applied science degree in Operations Management.

The employment outlook for these industries is very strong, and students can expect to earn excellent wages.

Our graduates are readily employable and are actively recruited by local, regional, national, and international industries.

**BTC Degree Options**

**Associate of Applied Science (AAS) degree:**
A two-year associate degree that allows you to go directly to work in your field.

**Associate of Applied Science-Transfer (AAS-T) degree:**
A two-year associate degree with transferable general education courses that allows you to either go directly into your field, transfer to a specific program at a four-year college or university, or prepare for your bachelor of applied science degree at BTC.

**Bachelor of Applied Science (BAS) degree:**
A two-year bachelor’s degree that can be added on top of an existing associate degree from an accredited college, or even a previous bachelor’s degree.

**Transitioning to BTC:** BTC accepts both traditional and non-traditional credit for equivalency to BTC courses on a case-by-case basis. Contact Admissions at admissions@btc.edu or call 360.752.8345. Learn more: www.btc.edu/Transfers

- Wage & Employment Data Sources
Industrial machine maintenance technicians combine knowledge of mechanical technology, automation, and electrical and electronic circuits to install, repair, and upgrade the high-tech systems relied upon by many industries.

BTC’s Industrial Maintenance and Mechatronics program places graduates in solid careers as industrial maintenance technicians, millwrights, or instrument technicians. Demand for skilled workers is strong in high-growth industries such as refining, water treatment, aerospace, advanced manufacturing, pharmaceuticals, and power generation.

As an Industrial Maintenance graduate, you’ll possess a broad range of highly sought skills and knowledge. BTC’s program will teach you to troubleshoot, maintain, repair, and analyze sophisticated equipment in advanced manufacturing operations. Industrial Maintenance is a great program choice if you want a high-wage career with local employers.

About 88% of BTC Industrial Maintenance & Mechatronics students are employed within nine months of graduation. The average annual wage in this field is $59,925, with an earning potential of about $75,379 per year.*
INSTRUMENTATION & CONTROL
Associate of Applied Science — Transfer Degree
Associate of Applied Science Degree
Program Length: 7 quarters

Instrumentation and control technicians install, maintain, repair, and adjust the measuring and controlling instruments that make plants run safely.

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

You’ll learn how to maintain, repair, and troubleshoot instrumentation and control systems in industries that increasingly rely on automation.

“I chose BTC because from all my research, BTC really had an understanding of what kind of workers the industry needed… What we do here is closely related to what we see out in the field.”

— Steven Oliver, Instrumentation & Control graduate

The average annual wage in this field is $65,510, with an earning potential of about $77,012 per year.*
**PROCESS TECHNOLOGY**
Associate of Applied Science — Transfer Degree
Associate of Applied Science Degree
Program Length: 6 quarters

**Process Technology**
Certificate of Completion
Program Length: 3 quarters

Process technicians work in a variety of industries to ensure the safety standards of production and oversee quality for an employer’s processes. BTC’s Process Technology program will prepare you for a position as a process technician or operator for employers in power generation, refining, manufacturing, and many other industries.

Currently, our primary employers are the four refineries in Whatcom and Skagit counties. Graduates have also gone to work in water treatment, power generation, and manufacturing facilities in our region, across the state, and beyond.

You’ll learn how to monitor and control processing equipment, troubleshoot and solve equipment problems, test product quality, and implement safety standards and procedures.

About 86% of BTC Process Technology students are employed within nine months of graduation. The average annual wage in this field is $51,958, with an earning potential of about $64,147 per year.*

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**MACHINING**
Associate of Applied Science — Transfer Degree
Associate of Applied Science Degree
Program Length: 6 quarters

**Principles of Machining & CNC Operation**
Certificate of Completion
Program Length: 3 quarters

Machinists use their knowledge of mathematics, mechanics, and metals to set up and operate the sophisticated machines used to produce precision parts and instruments. After graduating from BTC’s Machining program, you’ll be prepared to work right away as a machinist; with experience, you can advance to positions such as journey-level machinist, tool programmer, CNC operator/programmer, or engineer.

You’ll learn how to use machines such as manual and Computer Numerical Control (CNC) tools, including lathes, drill presses, and milling machines, and you’ll gain skills in blueprint reading, basic CNC programming, and machine processes. Employers who hire graduates from the Machining program include aircraft, boat, and automobile manufacturers, industrial machinery firms, and machine shops.

About 82% of BTC Machining students are employed within nine months of graduation. The average annual wage in this field is $59,155, with an earning potential of about $90,542 per year.*
BTC’s Water & Wastewater Treatment program will train you for top jobs at water and wastewater treatment plants, including positions as water and wastewater treatment operators.

WWT operators work to ensure that the safety, environmental and water quality standards for an employer’s treatment system are met. Currently, our primary employers in Washington state are municipalities and private contractors who run fresh water and wastewater treatment plants. All municipalities are required to meet rigorous fresh water and wastewater treatment standards, and these facilities require highly skilled employees who are trained in advanced treatment methods.

In BTC’s Water and Wastewater Treatment program, you will learn how to monitor and control processing equipment, troubleshoot and solve equipment problems, test product quality, and implement safety standards and procedures.

The average annual wage in this field is $62,046, with an earning potential of about $73,986 per year.*
Any industry that creates goods and structures from metal will rely on skilled welders to create strong products, whether in aerospace, automotive, marine or construction fields.

In BTC’s state-of-the-art welding and fabrication facility, you’ll learn valuable skills that high-wage employers are looking for, from safety practices and blueprint reading to technical skills like metallurgy, MIG, and TIG welding. BTC’s hands-on training will prepare you for a welding career in boat manufacturing, steel manufacturing, refining, and transportation, or with federal, state, or local governments. Students can choose between a general welding degree or specialize in pipe welding.

“I have teachers that know what they’re doing and have that experience, because it makes a difference, especially if they’re passionate about what they’re teaching…but I feel like what they teach you here is what you’re really going to use out in the real world.”

— Lindsey Martin, Welding student
BTC’s Bachelor of Applied Science Degree

If you’ve completed an associate degree from an accredited college, BTC’s Bachelor of Applied Science degrees allow you to use your existing degree as the first two years of one of our bachelor’s programs, so you can earn your bachelor’s degree in two years.

For students interested in getting their associate degree and bachelor’s degree at BTC, please take the AAS-T track in your chosen program. Cohorts for BTC’s bachelor’s programs start in Fall Quarter, but students can start their program entry requirements at any time.

Operations Management

BTC’s fully online, two-year bachelor’s degree in Operations Management is designed to meet the needs of working adults who want to advance their careers. Develop the skills you need to take your career to the next level and train for roles that range from facilities supervisors and managers to VPs and managers of operations in industries such as aerospace, manufacturing, transportation, retail/wholesale, healthcare, IT, and more. Students will learn about operations management tools and techniques, develop their business skills, and apply them to solve practical problems in their chosen industry.

The employment outlook for operations managers and general managers in Washington state is strong and is expected to grow over the next several years.

*Wage & Employment Data Sources

To get started, a one-on-one meeting with our program specialist is required: bachelorprograms@btc.edu
**Apply to BTC & Apply for Financial Aid**

Apply at [www.btc.edu/applyonline](http://www.btc.edu/applyonline) and get your Student Identification Number (SID).

Complete the Free Application for Federal Student Aid (FAFSA) online at [www.btc.edu/financialaid](http://www.btc.edu/financialaid)

Use BTC college code 016227.

**Assess Your Starting Point**

Degree- and certificate-seeking students need to determine their math and English starting points. Some programs require certain placement scores before starting program classes. BTC uses multiple measures to determine placement, including assessment testing. Visit: [www.btc.edu/assessment](http://www.btc.edu/assessment)

**Advising & Registration**

Students will meet with Advising and Career Services staff for a mandatory GET Started appointment: navigate Goals, create an Education Plan, become Tech Ready, and register for classes. Contact Admissions & Advising to schedule your appointment: admissions@btc.edu or call 360.752.8345.

**Prepare to Attend**

Participate in New Student Orientation to learn about campus resources and what to expect before your first quarter.

Sign up: [www.btc.edu/events](http://www.btc.edu/events)

Pay tuition and fees: [www.btc.edu/tuition](http://www.btc.edu/tuition)

Buy textbooks: [www.btc.edu/campusstore](http://www.btc.edu/campusstore)