



[burlingtontech.org](http://burlingtontech.org)

## **BTC Daytime Program of Studies 2018-2019**

### **Introduction**

Burlington Technical Center (BTC) provides students with the opportunity to explore careers and acquire skills in comprehensive technical programs of study. All students are supported in working toward individual goals through immersive, hands-on study with highly trained professional instructors, experts in their career fields, in state-of-the-art labs and classrooms, and through experiential learning opportunities.

Our half-day programs are a unique opportunity for students to develop academic and technical knowledge and skills in a morning or afternoon session while attending classes at their sending high school. BTC offers two (2) one-year Tech Foundational Programs for students in grades 9 or 10, and eleven (11) two-year Technical Programs for students in grades 10 and 11. Students attend BTC daily in one session: morning (9:35-11:47 a.m.) or afternoon (12:09-2:21 p.m.).

**Freshman or sophomores** complete a Tech Foundational Program in one year. Each student who completes a Tech Foundational program will be awarded three high school credits. See program descriptions for specific academic and elective credits awarded.

**Juniors and seniors** complete a Technical Program in two years. Each student who completes a technical program will be awarded six high school credits. See individual program descriptions for specific academic and elective credits awarded. In addition, many BTC programs offer students dual enrollment credits through agreements with colleges.

BTC programs support students' **Personalized Learning Plan (PLP)** goals, offering **Flexible Pathways** to graduation, careers, and postsecondary education through high school credits, dual enrollment/college credits, internships and work-based learning opportunities (Co-op), and industry recognized credentials and/or licenses.

#### **High School Credits:**

BTC students earn core academic credits which are approved by the Vermont State Board of Education and meet state high school graduation requirements. Full details on credits are listed in each of the program descriptions below.

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for all programs.

#### **Dual Enrollment/College Credits:**

Many BTC programs offer students dual enrollment college credits (up to 17 credits) for free or at a significantly reduced rate within the program's integrated curriculum. Dual enrollment credits and the opportunity to build a college transcript with transferable

credits are valuable for students pursuing postsecondary education goals. In addition to the two dual enrollment course vouchers (for up to 8 credits) that students receive from their sending high school, students may use two additional dual enrollment course vouchers (for up to 8 credits) at BTC (Fast Forward).

**Professional Certifications:**

Many BTC programs offer pathways to earn professional certifications, industry-recognized credentials (IRCs) and/or licenses related to their technical fields as students build specialized and transferable skills.

**Work-Based Learning and Cooperative Work Experience (Co-op):**

Students participate in Work-Based Learning experiences, and may be eligible for paid work (Co-op) positions across technical fields at BTC through partnerships with local businesses and organizations.

**Career Technical Student Organizations (CTSOs):**

Students in BTC programs opt to participate in the National Technical Honor Society, HOSA, DECA, and/or SkillsUSA activities and competitions as they prepare for the workforce, higher education, and continued community involvement.

**Interdisciplinary Studies:**

BTC offers students connections across fields and programs through working and collaborating with other students on challenging projects in program labs and classrooms, and in the makerspace.

**For additional information, updated news, photos, and videos, visit the BTC web site: [burlingtontech.org](http://burlingtontech.org)**

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**How to Apply / Admission Requirements:**

1. Visit the program of interest: BTC hosts a number of school visits (Open Labs) and an annual Open House; students may arrange an individual visit.
2. Prerequisites for Grades 11-12 Programs: Applicants must have a minimum of 10 high school credits, including 2 credits in math, science, social studies, and English by June, 2018 for 11th-12th grade programs of study, to be eligible for the 2018-2019 school year. (In addition, some programs have specific academic prerequisites.)

Prerequisites for Grade 9 or 10 Tech Foundational Programs:

FRESHMAN: Approval from sending school Guidance Director.

SOPHOMORE: 9th grade transcript showing award of 5 high school credits, including 1 math, 1 science, 1 English, 1 social studies

3. The application form must be completed and signed by the student, school counselor, advisor, and/or case manager (if applicable), and parent/guardian.
4. Submit application to your school counselor by March 16, 2018. School counselors will submit applications to BTC with transcript, attendance, and discipline records.

**School counselors** may forward applications to BTC in one of the following ways:

- Email scanned PDF to: [btcAdmissions@bsdvt.org](mailto:btcAdmissions@bsdvt.org)
- Mail to: 52 Institute Rd., Burlington, VT 05408
- Fax: 802-864-8521
- Arrange pickups at your school by calling BTC at: 802-864-8426

### **How do I get from my school to BTC?**

Round trip busing from your sending school is provided. For Burlington High School students, just walk into A or F building.

### **BTC provides academic support for students' learning needs:**

Academic Counseling:

- Personalized Learning Plan (PLP) and Flexible Pathways integration
- Dual enrollment college credits
- Professional certification pathways
- Work-based learning and robust internship opportunities

**ELL Support Services:** BTC offers ELL students in and out-of-class support, guided study labs, differentiated curriculum, and individualized learning strategies to support academic achievement and goals across programs.

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## **BTC Program of Studies: 2018 - 2019: Descriptions and Course Listings**

### **Tech Foundational Programs (Grade 9 or 10):**

Tech Foundational Programs are a viable option for **Flexible Pathways to HS graduation:**

- as a year-long opportunity for students to navigate through personalized learning plan goals.
- as a means to incorporate evidence of proficiencies outside the traditional high school classroom environment.
- as an opportunity to frontload proficiency in skills which are integral to grades 11-12 technical center programs of study.
- as a means to provide evidences to support proficiency based graduation requirements
- as an early opportunity to participate in work-based learning experiences, earn certifications, and plan for Dual Enrollment options during high school.

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### **Design Tech (Digital Media, Design and Illustration, Programming and Computer Science) - 4769 (Freshman or Sophomore Program)**

**HS Credits for 1 Year Program:** 1.0 Science Credit and 2.0 Elective Credits

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Tech Foundational Programs.

Students attend the one-year Design Tech Foundational program at BTC Monday through Friday in either the morning (9:35-11:47 a.m.) or afternoon (12:09-2:21 p.m.) session. Design Tech is designed to prepare students for the following technology cluster of grade 11-12

Programs of Study at BTC: Programming and Computer Science, Digital Media Lab, and Design and Illustration.

This program is designed to provide 9th and 10th grade students with a unique experience in a collaborative makerspace environment where they explore technology, innovation, and entrepreneurship. Students progress through multiple modules in Technology & Application of Science including: Structural and Mechanical Design/ Fabrication, Information Technology, Web & Digital Communications, and Visual Art. Each module consists of a variety of projects that are designed to help students develop their knowledge of 2D and 3D design, rapid prototyping, communication, problem solving, data analysis, and critical thinking skills. Throughout this course, students have access to a variety of resources including traditional hand tools, power tools, and computer controlled equipment such as a vinyl cutter, 3D printers, CNC routers, and a laser cutter. In addition, they will be introduced to mechatronics through the design and fabrication of a computer (Arduino) controlled mechanical system. This program can advance student preparation for 11th and 12th grade tech programs as well as employment in the trades and introductory college courses in engineering and design.

**Prerequisites/Recommended Skills:**

Students should be at an 8th grade reading level, be able to perform basic math (addition, subtraction, multiplication, division) and to take measurements using fractions, decimals, and percentages. An innate interest in making things and working with their hands, a curiosity about how things work, and a drive to solve problems are also highly recommended.

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**Health, Hospitality, and Human Services Tech (Health Science Academy, Culinary Arts/Professional Foods, Human Services) - 4770 (Freshman or Sophomore Program)**

**HS Credits for 1 Year Program:** 1.0 Science Credit and 2.0 Elective Credits

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Tech Foundational Programs.

**Industry Recognized Certifications:** CPR/First Aid

Students attend the one-year Health, Hospitality, and Human Services Tech Foundational program at BTC Monday through Friday in the morning (9:35-11:47 a.m.) or afternoon (12:09-2:21 p.m.) session. This program is designed to prepare students for the following technology cluster of grade 11-12 Programs of Study at BTC: Health Sciences Academy, Culinary Arts/Professional Foods, and Human Services.

The Health, Hospitality, and Human Services Tech Foundational program will offer 9th and 10th grade students hands-on-learning, group projects and real world experiences as they explore several exciting and rapidly growing fields. Students will progress through projects incorporating Health Sciences, Hospitality/Culinary Arts, and Human Services concepts and foundational skills. This program is designed for students who want to explore: creativity and innovation, working on a team, participating in community service, working with people of all ages and backgrounds, caring for people and animals, learning about other cultures, how to respond quickly and calmly in emergencies, and how sciences apply to the community. Students will build knowledge and skills in Human Development, Nutrition, CPR/First Aid, creating business plans, entrepreneurship, workplace skills, presentation, and research.

**Prerequisites/Recommended Skills:**

Students should be at an 8th grade reading level, be able to perform basic math (addition, subtraction, multiplication, division) and to take measurements using fractions, decimals, and percentages. Students should also have an interest in the human body and behavior and be willing to work with others.

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## **Technical Programs (Grades 11-12):**

Students attend two-year Technical Programs at BTC Monday through Friday in either the morning (9:35-11:47 a.m.) or afternoon (12:09-2:21 p.m.) session.

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**Auto Body Repair 1- 4826**

**Auto Body Repair II - 4827**

### **HS Credits for 2 Year Program**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Science Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** S/P2 Collision Repair Safety

**Articulation Agreement:** Lincoln Technical Institute

Students in this program will acquire the knowledge and skills to repair and refinish vehicles with a hands-on, minds-on approach. Using lessons and vocabulary learned in the classroom, students will apply research and problem solving skills in a scientific way to diagnose and repair vehicles, keep up with technological changes, as well as work independently and as a team. Units of study include: safety, hand and power tool identification and use, measuring, fasteners and materials, non-structural repairs, refinishing, and estimating. Successful students either enter the workforce directly or continue to post-secondary education and trade schools.

### **Prerequisites/Recommended Skills:**

Algebra and reading at grade level for industry tests and manuals. Students who succeed in this program have a high attention to detail, a strong work ethic, and good hand/eye coordination.

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**Automotive Science and Technology I - 4822**

**Automotive Science and Technology II - 4823**

### **HS Credits for 2 Year Program**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Science Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** SP2: Mechanical Safety, Mechanical Pollution Prevention, Ethics and you in the Automotive Industry, Land That Job: Interview Skills for Automotive Students; ASE: Automotive Service E-Learning

**College Credit:** Qualified students can earn guaranteed admission status and up to six college credits in the General Motors-Automotive Associate's Degree Program at New Hampshire Technical College (Laconia), six college credits at University of Northwestern Ohio.

Automotive Science and Technology is a two-year program that meets for just over two hours per day, five days per week. The rigorous curriculum is designed to prepare students for college and/or career opportunities. Common Core and National Science standards are an integral part of the automotive curriculum; subsequently, students study scientific principles as they're applied to the design, operation and service of a modern automobile. Students will learn how engines work, troubleshoot common engine problems and fuel system issues, analyze and complete vehicle manufacture repair algorithms. Students disassemble a modern vehicle engine, use micrometers, dial indicators to measure engine components, build and test electrical circuits, complete basic vehicle maintenance procedures and operate machinery associated with lifting a car, changing / balancing wheels and performing wheel alignments. While a large percentage of graduates pursue further education and careers associated with the automotive industry, others have utilized the electro-mechanical knowledge and skills acquired in the program to begin successful careers in related areas such as: electrical/mechanical engineering, heating/ventilating, plumbing, industrial refrigeration and heavy equipment. Following graduation, 80% of the students continue on to postsecondary education, including schools associated with vehicle manufacturers such as General Motors Automotive Education Program (GM ASEP), 15% go into the workforce with opportunities for advanced training and 5% enter the military. Students have been accepted to the following schools: American International College, Carleton University, Champlain College, Franklin Pierce College, Vermont Technical College, Mount Hood Community College, New England Institute of Technology, New Hampshire Technical College, Stonehill College, University of Northwestern Ohio, University of Vermont.

**Prerequisites/Recommended Skills:**

Algebra and reading/writing at grade level for industry tests and manuals. Students who succeed in this program have a high attention to detail, a strong work ethic, and are capable of working both independently and as part of a team.

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**Aviation and Aerospace Technology I - 4834**

**Aviation and Aerospace Technology II - 4835**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 1.0 Elective Credit, 1.0 Science Credit, and 1.0 Math Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** Airframe & Powerplant (A&P)

**Articulation Agreements:** The American Council on Education (ACE) will award up to 67 college credits for students earning their Airframe & Powerplant License (A&P).

This program is a highly technical and multidisciplinary curriculum that teaches students not only how aircraft work, but how to troubleshoot, inspect and maintain those aircraft. Units review everything from the basics like math and physics to more specific subjects like corrosion control, aircraft hardware and flight surfaces, and even FAA rules and regulations. This program blends classroom theory with plenty of hands on practical experience in order to prepare students for a future in aviation. Students disassemble and reassemble piston and turbine engines, learn about hand tools and how to properly use them, learn to weld and even how to start up and run an aircraft. The graduates from the BTC Aviation and Aerospace Technology program have the

option of attending our satellite facility at the Burlington airport to continue their training and obtain their A&P Certificate (Airframe and Powerplant Mechanic Certificate). Students completing the program can find jobs in almost any part of the U.S. Some aviation students have continued on to college and/or to flight school. Others have joined the armed services to become aircraft mechanics.

**Prerequisites/Recommended Skills:**

Proficiency in Algebra, Trigonometry and Geometry.

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**Criminal Justice I - 4850**

**Criminal Justice II - 4851**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Social Studies Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** Boater Safety Certification, NIMS certifications

This program provides students with an introduction into careers in a variety of fields related to criminal justice, corrections, homeland security, juvenile justice, rehabilitation services and victim advocacy, and law. Units of study include: the history of law enforcement, the court system, juvenile law, ethics, criminal law, criminal procedures, interview and interrogation, defensive tactics, criminal investigation, corrections, forensics and investigation (to include evidence identification, collection and analysis). Field trips, guest speakers, and the use of industry-specific equipment and simulated crime scene investigations involving guest experts allow students to study modern techniques and procedures in real world scenarios using industry-standard equipment are some of the practical experiences provided that enhance classroom learning and are an integral part of the curriculum. Hands-on learning is an important part of the program, with students directly engaged in learning, preparing, practicing, and demonstrating their knowledge and skills in criminal justice and law. Approximately 50% of students who complete this program go to successfully perform in college/university, and 40% enter the military and perform to exemplary standards.

**Prerequisites/Recommended Skills:**

Strong English skills required for extensive research, organization, and writing. Basic computer and software proficiency (Microsoft and Google products).

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**Culinary Arts / Professional Foods I - 4772**

**Culinary Arts / Professional Foods II - 4773**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Science Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** ServSafe Food Handler, ServSafe Food Manager

This program encompasses many aspects of the foodservice industry, including practicing and mastering essential safety and sanitation standards, cooking and baking methods, menu and recipe development, nutrition, global cuisine, restaurant management, entrepreneurship, table service and employability skills such as time management, communication and reliability. Students incorporate skills into running a full service restaurant as well as fulfilling requests for special events and baked goods. Also included within this program are career readiness and exploration of many different types of culinary related jobs such as food stylist, banquet chef, pastry chef, food scientist, food journalist, food sales and marketing, just to name a few. Successful students either enter the workforce directly, or continue to post-secondary education in culinary arts programs (such as New England Culinary Institute, Johnson and Wales University, and the Culinary Institute of America).

**Prerequisites/Recommended Skills:**

Strong math and reading skills are recommended for culinary arts for successfully completing recipes, formulas, and for accurate measurement and conversions.

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**Design and Illustration I - 4750**  
**Design and Illustration II - 4752**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Art Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** Adobe Photoshop, Illustrator, InDesign

This program is for students prepared to be challenged to expand their expertise in the visual arts. Students have the opportunity to build skills in traditional and digital media, with a focus on building a portfolio. Students will be exposed to many different forms of art, from the foundation of observational drawing to photography and graphic design—using Macintosh computers, the Adobe Creative Cloud, DSLR cameras, and Wacom drawing tablets. Units of study include figure drawing from life, photographing indoor and outdoor themes, designing logos, greeting cards, and magazine articles, and illustrating. Successful students attend prestigious art schools and liberal arts schools, often earning scholarships for their portfolios. Some students work at apprenticeships or enter the workforce directly. In recent years students have been accepted to Maine College of Art, MassArt, Savannah College of Art and Design, Rhode Island School of Design, Parsons, and the School of Museum of Fine Arts.

**Prerequisites/Recommended Skills:**

Art 1, examples of 5-10 pieces of artwork to be shared at required interview, 9th grade reading level.

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**Digital Media Lab I - 4767**  
**Digital Media Lab II - 4768**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Science Credit



**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Dual Enrollment/College Credit:** CCV: Intro to Filmmaking (3.0 credits), Intro to Technology in Music (3.0 credits)

**Industry Recognized Certifications:** Adobe Photoshop, Premiere Pro

This program provides an introduction to digital media production with a focus on electronic music, podcasting, digital video, graphic design, VFX, photography, and emerging media (examples include animation, VR, apps for mobile devices and game design). The classroom environment provides a mix of drama, art, music, and technology. Students in this program engage in projects ranging from filmmaking to sampling music and ambient sound to syncing kinetic type to music and designing digital FX for an action sequence. DML is a project-based learning structure, where students work both independently and in groups on a variety of media projects. Students attend universities and colleges to pursue degrees in Filmmaking, Music Production, Digital Media, and Graphic Design (Motion Graphics).

**Prerequisites/Recommended Skills:**

9th grade reading level, interview with instructor. Experience with technology strongly recommended for this program.

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**Health Sciences Academy I - 4780**

**Health Sciences Academy II - 4782**

**HS Credits for 2 Year Program:**

**Year 1** - 2.5 Elective Credits and .5 Human Growth and Development (Social Studies) Credit

**Year 2** - 2.0 Elective Credits and 1.0 Anatomy & Physiology (Science) Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** American Red Cross Certifications in: Adult, Infant and Child CPR, Automated External Defibrillator, First Aid and Bloodborne Pathogens

**Dual Enrollment/College Credit:** VTC: Anatomy and Physiology I (4.0 credits), Anatomy and Physiology II (4.0 credits), Human Growth and Development (3.0 credits), Nutrition (3.0 credits); CCV: Human Biology (3.0 credits), Medical Terminology (3.0 credits)

This program immerses students in rigorous academics (anatomy and physiology, medical terminology, human growth and development, microbiology and nutrition), practical applications (medical assessment techniques, such as vital signs, reflex testing, goniometry, electrocardiography, diagnostic lab testing ), and experiential learning (including dissections, job-shadowing, simulated job interviews). Students perform research and develop presentations to explore their specific areas of interest. Students are provided with guidance in the college application process and will also complete a workplace skills unit, geared to careers in health care, including job applications, resumes, cover letters, and interviews. 95+% of our students go on to rigorous college programs such as Cornell University, Brown University, Northeastern University, University of Vermont, and have successfully earned degrees as health care professionals in a variety of fields.

**Prerequisites/Recommended Skills:**

One year of high school biology is required for this program. Students are also recommended to have an 11th grade reading level, and a strong grasp of arithmetic.

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**Human Services I - 4776**  
**Human Services II - 4777**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Social Studies Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** American Red Cross First Aid, CPR & Automated External Defibrillator Certification for infant, child and adult; First Aid Bloodborne Pathogens

**Dual Enrollment/College Credit:** CCV: (12 credits) Introduction to Early Childhood Education, Curriculum Development for Early Childhood Education, and Communication in the Early Childhood Education & Afterschool Workplace

This program provides the foundational knowledge and skills needed to work with a diverse group of people in entry level professions such as mental health, community development, respite and health organizations, and education. The study of human growth and development sets the framework for discoveries, discussions, and presentations of various topics (such as human behavior, brain development, and developmental psychology). Students sharpen their interpersonal communication skills, reflect on and assess human behavior in a variety of settings, and have opportunities to develop projects that make a difference in their communities. Students participate in work-based learning by partnering with industry professionals and through working in community agencies and organizations. Students have the opportunity to work with preschool children in our on-site preschool classroom. Most of our students go on to colleges/universities to pursue degrees in psychology, education, social work. Other students go directly into the workforce related to our program of study.

**Prerequisites/Recommended Skills:**

8th Grade reading level and recommended experience using Google and Microsoft Office applications.

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**Programming and Computer Science I - 4765**  
**Programming and Computer Science II - 4766**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Science Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Dual Enrollment/College Credit:** CCV: Intro to Python Programming (3.0 credits)

This program provides students with foundational programming skills applicable to almost any programming language with an emphasis on Python, JavaScript, and C. Students will learn how to apply mathematics and analytics to solve complex problems to build solutions with digital tools and explore computational thinking and design processes. Through hands-on instruction, students will program applications for mobile technology, work on projects in programmable electronics and robotics, and apply skills and knowledge to create solutions on interdisciplinary

projects. Students completing this program continue their studies in Computer Science related fields such as: Systems Architecture, Programming, and Software development, or enter into entry level jobs in microchip or computer manufacturing.

**Prerequisites/Recommended Skills:**

Proficiency in problem solving and analytical thinking skills, and recommended experience with basic to Algebra level math.

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**Welding and Metal Fabrication I - 4832**  
**Welding and Metal Fabrication II - 4833**

**HS Credits for 2 Year Program:**

Year 1 - 3.0 Elective Credits

Year 2 - 2.0 Elective Credits and 1.0 Math Credit

**VT Proficiency-Based Graduation Requirements (PBGRs):** BTC is currently in the process of aligning PBGRs for Grade 11-12 Programs.

**Industry Recognized Certifications:** American Welding Society (AWS) Structural Welder SMAW 3G 1" Plate, SP/2 safety certification

In this program students will learn the fundamentals of Mig welding, Tig welding, stick welding, and other cutting-edge welding processes. Students will have opportunities to apply academic and technical skills in welding and metal fabrication and demonstrate creativity and innovation through individualized projects and practice. Students learn how to use SolidWorks to design and Plasma Cam to cut individual projects which can be fabricated and welded in the shop. Qualified students will have the opportunity to obtain industry approved welding certifications and participate in work-based learning opportunities and co-op placements with instructor approval. Students who have successfully completed the program are able to immediately enter the job market (Hazelett's, Fab-Tech, PG Adams, Blodgett Oven). Students have also gone on to further their education in programs at Lincoln Technical Institute and Advance Welding Institute.

**Prerequisites/Recommended Skills:**

Successful students entering the program will have mathematics coursework in pre-algebra or geometry, and 10th grade level reading skills.

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**Work-Based Learning (Co-op):**

Work-Based Learning is an extension of our technical programs, which enables students to develop both their technical and general employability skills, and may include supervised, planned work experiences with area employers. Work-Based Learning experiences include career exploration, unpaid short-term internships, job shadows, informational interviews, and Cooperative Career Employment (long-term salaried positions).

Our highest level of Work-Based Learning is Student Apprenticeship. This program requires an employment/training commitment of at least one year between the student and the employer and leads to a Certificate approved by the State Board of Education. It can also be linked to a nationally recognized Registered Apprenticeship program and/or a college or other post secondary educational program. These services provide our students with invaluable

experience and references for college admission or employment, as well as opportunities for career exploration and decision making. They may also result in permanent, full time employment.

Work-Based Learning services are individual and flexible. The work experience is planned according to the needs and career goals of the student, the structure of the technical program and the opportunities available in the community. Work-Based Learning may be paid or unpaid, during class or after school, limited or long term. The Evaluation and Learning Plan are used to determine and measure learning and skill development.

Academic credit is given for Cooperative Education experiences based on the length of time students participate in the work experience in addition to their time in class. Typically, students earn .5 credit per semester, with a possible maximum of 2 credits. All students who are enrolled in a technical program are eligible for Work-Based Learning services. It is BTC's belief that WBL is an integral part of every program and our goal is to provide every student with experiences and support. For more information about Work-Based Learning, contact Jane Donahue Davis, at 802-846-8427.

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## **Career Technical Student Organizations (CTSOs)**

### **DECA (Distributive Education Clubs of America)**

DECA prepares emerging leaders and entrepreneurs for careers in marketing, finance, hospitality, and management in high schools and colleges around the globe. Students practice key leadership skills such as goal setting, consensus building, and project management. Through the BTC Culinary/Professional Foods program, students have the opportunity to participate in DECA activities and competitions.

### **HOSA (Health Occupations Student Organization)**

HOSA provides a unique program of leadership development, motivation, and recognition exclusively for secondary students enrolled in health science education and biomedical science programs or have interests in pursuing careers in health professions. HOSA is an international student organization recognized by the U.S. Department of Education and the Health Science Education (HSE) Division of ACTE. HOSA's two-fold mission is to promote career opportunities in the healthcare industry and to enhance the delivery of quality health care to all people. Through the BTC Health Sciences Academy, students have the opportunity to participate in HOSA state and national level competitions.

### **National Technical Honor Society**

The National Technical Honor Society currently serves approximately 100,000 active members and nearly a million members since its inception in 1984. Awarding over \$1.7 million in scholarships to date, NTHS honors the achievements of top CTE students, provides scholarships to encourage the pursuit of higher education, and cultivates excellence in today's highly competitive, skilled workforce. For over 30 years, NTHS has been the acknowledged leader in the recognition of outstanding student achievement in career and technical education. BTC students have the opportunity to be inducted into the NTHS to honor student achievement and leadership in career technical education.

## **SkillsUSA**

SkillsUSA is a national career and technical student organization for any student in technical programs. A vital solution to the growing skills gap, SkillsUSA improves the quality of America's skilled workforce through a framework of personal, workplace and technical skills grounded in academics. SkillsUSA enhances the lives and careers of students, instructors and industry representatives as they strive to prepare students for the workforce, higher education and continued community involvement. Students may have the option to participate in State SkillsUSA competitions in BTC programs. State winners move on to the National Competition.

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### **Equal Opportunity Statement**

Applicants for admission and employment, students, parents, employees, sources of referral of applicants for admission and employment, and all unions or professional organizations holding collective bargaining or professional agreements with the Burlington School District are hereby notified that it is the intent of the Burlington Board of School Commissioners that the District will not discriminate against employees and/or applicants for employment, students or other designated beneficiaries of the statutes listed below on the basis of race, sex, gender (including but not limited to pregnancy and parental status), color, age, creed, religion, disability, handicap, ancestry, place of birth, national origin, marital status, political affiliation, sexual orientation, gender identity or gender expression in any of its employment and education practices, policies, procedures or decisions or in the operation of, access to, participation in, benefit of or admission to its programs, activities, services and facilities and that it will provide equal access to the Boy Scouts of America and other designated youth groups in compliance with and to the extent provided by the laws listed below. The District's Title VI Coordinator, the Age Discrimination Act Coordinator and Americans with Disabilities Act Coordinator for employees and others: Nikki Fuller, Human Resources Director, Burlington School District [\(802\) 864-2159](tel:802-864-2159); [1-800-253-0191](tel:1-800-253-0191) TDD; The District's Title IX Coordinator for employees, students, parents and other such relatives, friends, guest speakers or visitors: Rich Cormier, Labor and Relations Manager, Burlington School District [\(802\) 864-2159](tel:802-864-2159); [1-800-253-0191](tel:1-800-253-0191) TDD; The District's Americans with Disabilities Act Coordinator for students and §504 Coordinator: Director of Special Services of the Burlington School District [\(802\) 864-2159](tel:802-864-2159); [1-800-253-0191](tel:1-800-253-0191) TDD

**Burlington Technical Center - 52 Institute Road, Burlington, VT 05408**  
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