

DESIGN, ENGINEERING, & FABRICATION

Year 1- 1.0 Elective Credit, 1 Science Credit, 1.0 Math Credit
Year 2- 1.0 Elective Credit, 1 Science Credit, 1.0 Math Credit

ABOUT THE PROGRAM

Students in this program will learn the fundamental aspects of manufacturing, engineering, and design processes through both academic and hands-on work. Class projects are specifically designed to build the students' ability to conceptualize, design, and create a product, as well as evaluate the entire process.

- Precision measurement (imperial and metric)
- Technical Drawing: 2D and 3D
- Design and drawing for production: 2D and 3D
- 21st century manufacturing: lasers, CNC milling, 3D printing, water jet machining
- The design process and problem solving through engineering
- Soldering and introductory electrical engineering

CREDENTIALS, CERTIFICATIONS, WORK-BASED LEARNING AND LEADERSHIP OPPORTUNITIES

Level 1 IRCs: OSHA 10

Level 2 IRCs: AutoCAD (2D) and Fusion (3D) Certification;
Vermont Fundamentals of Lean Manufacturing

CTSO: Skills USA; National Technical Honor Society

PROGRAM OUTCOMES

Students completing this program may choose to continue on to 2- and 4-year college programs studying design and engineering technologies including: industrial design; environmental design and engineering, structural and mechanical design and engineering, and product design. Students may also opt to enter the workforce directly and can find employment as machine operators or technicians, computer-aided design (CAD) and computer-aided machining (CAM) operators, and fabrication specialists.



OCCUPATIONS

Assembler
Business Owner/Entrepreneur
Custom Fabricator
Construction Work
CAD Technician
Equipment Sale
Mechanical Engineer
Product/Industrial Designer
Process Technician
Quality Control



NOTES:

Equal Employment Opportunity and Non-Discrimination 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.

Burlington Technical Center and Burlington School District offer additional services to students with limited English language skills, and those with disabilities, to ensure they have access to these programs. Individuals wishing to obtain information about the existence and location of accessible services and facilities should contact the 504 Coordinator (information below).

The following persons have been designated to handle inquiries regarding the non-discrimination policies:
Title IX Coordinator, Henri Sparks, Director of Equity and 504 Coordinator, Kellie Klason, director of Student Support Services