



ADVANCED MANUFACTURING & ENGINEERING FOR A SUSTAINABLE FUTURE

Y1 – 1 Science Credit, 1 Math Credit, 1 Elective Credit

Y2 – 1 Science Credit, 1 Math Credit, 1 Elective Credit

Opportunities to earn up to 5 College Credits (Expected)

OCCUPATIONS

- Process Technician
- Machinist
- Welder
- Assembler
- Quality Control
- Weld Inspector
- Equipment Sales
- Business Owner
- Custom Fabricator
- Construction Worker
- Engineer

ABOUT THE PROGRAM

Students in this program will learn fundamental aspects of manufacturing, engineering, and design processes through both academic and hands-on work. A number of projects will be completed throughout the year which are specifically designed to build the students' ability to conceptualize product, design that product, make that product, and, subsequently, evaluate the process. Throughout the year, students will progressively increase knowledge in four target areas:

- Precision measurement (English and Metric)
- Communication (presentation, mechanical drawing, and 3D design using SolidWorks)
- Fabrication (sheet metal, welding, machining, 3D printing)
- Data analysis (MS Excel or equivalent)

CREDENTIALS, CERTIFICATES, WORK-BASED LEARNING AND LEADERSHIP OPPORTUNITIES

Students will have opportunities to earn certifications in areas such as safety, 3D design, and welding. Students also have the option of participating in annual SkillsUSA competitions. College credits available include: VTC: Intro to Mechanical Technologies (1 Credit), Design Communication I (2 Credits), and Manufacturing Processes I (2 Credits).

PROGRAM OUTCOMES

Students that complete this program will have the skills necessary to successfully enter the workforce or go on to a rigorous college program.



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.

Pursuant to the §504 of the Rehabilitation Act of 1973, the Board will take positive steps to employ and advance in employment qualified handicapped persons in programs receiving federal assistance under the Education of the handicapped Act (Individual with Disabilities Education Act) and make reasonable accommodations to the known physical or mental limitations of the qualified handicapped applicant or employee to the extent required by law. The superintendent of his or her designee shall prepare, and the board shall approve, guidance to applicants and employees regarding requests for reasonable accommodations, including provisions for undue hardship.

The District's Title VI Coordinator, the Age Discrimination Act Coordinator and Americans with Disabilities Act Coordinator for employees and others is Ze Susan Anderson-Brown, Human Resources Director, Burlington School District (802) 864-2159; 1-800-253-0191 TDD; The District's Title IX Coordinator for employees, students, parents and other such relatives, friends, guest speakers or visitors is Henri Sparks, Director of Equity, Burlington School District (802) 864-8411; 1-800-253-0191 TDD. The District's Americans with Disabilities Act Coordinator for students and §504 Coordinator is Laura Nugent, Director of Student Support Services of the Burlington School District (802) 864-8456; 1-800-253-0191 TDD