

Manufacturing Engineering I



Prerequisite: Any 2 credits from Manufacturing, Transportation OR STEM

Course: 1808CT

Credits: 1

Length: 18 weeks

Placement: 10-12

Course Description

In Manufacturing Engineering, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. Knowledge and skills in the proper application of Manufacturing Engineering, the design of technology, efficient manufacturing technology, and the assessment of the effects of production technology prepare students for success in the global economy. The main project for this class will be to manufacture a solar car for the Solar Challenge.

Student Activities

Students will be instructed in advanced skills in the following areas:

- Shielded Metal Arc Welding (SMAW)
- Gas Metal Arc Welding (GMAW)
- Flux Cored Arc welding (FCAW)
- Gas Tungsten Arc Welding (GTAW)
- Oxy-Acetylene Cutting and Welding
- Plasma Cutting
- Project Design and Fabrication
- Working individually and in groups
- Employability and Careers in Manufacturing

Certifications

Amateur Ham Radio

Student Cost: \$7.50 BBIA Cost: \$7.50

Additional Considerations

Students need fine motor skills and mobility. Students handle sharp objects and use dangerous equipment. If seeking certification, curriculum cannot be modified.

Organizations/After School/Competition



SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce.