

Manufacturing Engineering Technology 1

Syllabus

Course Description/Goals:

In this course, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how they are applied to manufacturing. Course studies will include working in CAD to complete designs, writing programmable logic controls for robot systems, designing products using a CNC machine/lathe, working with mechanical, fluid, thermal and electrical systems. Students will understand quality-control systems through the use of industrial standards and Pareto charts. Professional employability skills like teamwork, communication, safety and portfolios will be a key element in this course. Students will have the opportunity to earn the SolidWorks CSWA Certification.

Course TEKS/Objectives:

In Manufacturing Engineering Technology I, students will 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. Students will prepare for success in the global economy. The study of manufacturing engineering will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting.

[Manufacturing Engineering Technology 1 TEKS](#)

Course Outline:

Semester 1	Semester 2
<ul style="list-style-type: none">-Manufacturing Materials-Manufacturing Concepts-Machine Tolerance-Plans and Blueprints-Product Design & Concepts	<ul style="list-style-type: none">-Measurements in Manufacturing-Electrical Concepts-Robot Applications-Power Concepts-Solidworks Certification