

CFISD Precision Metal Manufacturing

Scope and Sequence

Course Description: This course provides the knowledge, skills, and technologies required for employment in metal technology systems. Students will have the opportunity in this project-based course to use various types of machining equipment such as lathes, vertical mills, drill presses, saws, and other milling equipment. Students will be introduced to computer numerical controlled (CNC) equipment. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills are included. (2 Credits)

- Grades 10 – 12
- Required prerequisite: *Principles of Manufacturing AND Diversified Manufacturing I*
- Lab supplies or fee is required.

TEKS

Cluster: *Manufacturing*

Endorsement: *Business & Industry*

- Meets advanced course requirement (Y/N): Yes
- Meets foundation requirement for math, science, fine arts, English, LOTE (Y/N-area): No

Industry Certification/Credentials: *MasterCAM University and or OSHA 10 Certification*

Instructional Units	Pacing
1st Semester Career Exploration Applied Math and Measurement <ul style="list-style-type: none"> • Fractions/Decimals* Project Layout and Blueprints* Safety * Machine Tools*	1st grading Per 2nd Grading Per
2nd Semester Machine Processes* Computerized Numerical Control CNC Careers, Employment, & Business*	3rd Grading Per 4th Grading Per

Items with * are taught throughout the year.

Primary Instructional Materials: *Teacher supplied resources, CFISD Safety Curriculum, MasterCAM University (online), OSHA 10 Curriculum*