

# CFISD Agricultural Mechanics and Metal Technologies

## Scope and Sequence

**Course Description:**

This course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. Construction of a project or demonstration of skills will fulfill the requirements of the Supervised Agricultural Experience Program.

- ◆ 1 credit, Grades 10-12
- ◆ Required prerequisite (or concurrent) for 10th graders: Principles of Agriculture, Food, and Natural Resources
- ◆ AWS certification satisfies requirement to earn a performance acknowledgement.
- ◆ Lab supplies or fee may be required.

TEKS

Cluster: Agriculture, Food, and Natural Resources

Endorsement: Business & Industry

- Meets advanced course requirement (Y/N): N
- Meets foundation requirement for math, science, fine arts, English, LOTE (Y/N-area): N

Industry Certification/Credentials: OSHA 10-Hour Card & American Welding Society D9.1 and D1.1 (Advanced)

Instructional Units	Pacing
<b>1<sup>st</sup> Semester</b> Basic Shop Safety (OSHA 10) Hand Tool ID & Terminology Marking & Measuring Devices	1 <sup>st</sup> Grading Period
Welding Shop Safety Oxy-Fuel Set-Up & Safety Oxy-Fuel Cutting Intro to Plasma Cutting/Other Cutting Techniques Oxy-Fuel Welding & Brazing Shielded Metal Arc Welding	2 <sup>nd</sup> Grading Period
<b>2<sup>nd</sup> Semester</b> Gas Metal Arc Welding Flux Cored Arc Welding	3 <sup>rd</sup> Grading Period
Plumbing Electrical AC/DC Theory Electrical Application Building Construction Welding Certification Prep Small Engine	4 <sup>th</sup> Grading Period

Primary Instructional Materials: Agricultural Mechanics and Technology Systems by Goodheart-Wilcox Company