

CFISD Agricultural Equipment Design and Fabrication

Scope and Sequence

Course Description:

To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural equipment design and fabrication. In this course, students will take projects from the design stage through construction and completion. Projects might include items such as agricultural machinery and equipment, fences, corrals, or other agricultural enclosures.

- 1 credit, Grades 11-12
- Required prerequisite: Agriculture Mechanics and Metal Technology
- AWS certification satisfies the requirement to earn a performance acknowledgement.
- Lab supplies or fees may be required.

[TEKS](#)

Program of Study: Applied Ag Engineering

Cluster: Agriculture, Food, and Natural Resources

Endorsement: Business & Industry

- Meets advanced course requirement (Y/N): Y
- Meets foundation requirement for math, science, fine arts, English, LOTE (Y/N-area): N
- Industry Certification/Credentials: American Welding Society D1.1

Instructional Units	Pacing
<p>1st Semester</p> <ul style="list-style-type: none"> Program of study review Personal & Occupational Health & Safety Mathematics in Construction Measurement in Construction Project Management Skills Technology, Programming and Automation 	<p>1st Grading Period</p>
<ul style="list-style-type: none"> Computer Aided Design Techniques Hand Tool ID & Terminology Portable Wood Power Tools: Safety, Operation & ID Large Wood Power Tools: Safety, Operation & ID Large Metal Power Tools: Safety & Operation 	<p>2nd Grading Period</p>
<p>2nd Semester</p> <ul style="list-style-type: none"> Gooseneck Stock Trailer Construction Oxy-Fuel Cutting Plasma Arc Cutting Shielded Metal Arc Welding: Preparation & Safety Gas Metal Arc Welding: Equipment, Set-Up & Maintenance Fencing Tools & Techniques AWS Certification 	<p>3rd Grading Period</p>
<ul style="list-style-type: none"> The World of Agriculture Career Cluster: Agriculture, Food & Natural Resources Power, Structural & Technical Systems Formulas for Career Success: Career Testing & Investigation Internships 101: The Importance of Internships Employability Skills Workplace Issues Citizenship Basics 	<p>4th Grading Period</p>

Primary Instructional Materials: iCEV Agricultural Science Site by CEV Multimedia Ltd.