

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 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): Y
- 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

Instructional Units	Pacing
1st Semester Personal & Occupational Health & Safety Mathematics in Construction Measurement in Construction Project Management Skills	1 st Grading Period
Computer Aided Design Techniques Hand Tool ID & Terminology I Hand Tool ID & Terminology II Hand Tool ID & Terminology III Portable Wood Power Tools - I: Safety, Operation & ID Portable Wood Power Tools - II: Safety, Operation & ID Large Wood Power Tools - I: Safety, Operation & ID Large Wood Power Tools - II: Safety, Operation & ID Large Metal Power Tools: Safety & Operation	2 nd Grading Period
2nd Semester Gooseneck Stock Trailer Construction - I Gooseneck Stock Trailer Construction - II Gooseneck Stock Trailer Construction - III Oxy-Fuel Cutting Plasma Arc Cutting Shielded Metal Arc Welding: Preparation & Safety Gas Metal Arc Welding: Equipment, Set-Up & Maintenance Fencing Tools & Techniques	3 rd Grading Period
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	4 th Grading Period

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