WELDING I Course outline

Description: Ag welding will allow students to gain hands on skills that will make them employable in the field of metal fabrication. Students will refine their skills in arc and mig welding and cutting with the oxyacetylene torch. There will be an opportunity to design plans for metal projects, calculate the cost of the project, and implement the project.

Length: 180 hours, 36 weeks

Grade(s): 10-12

| Unit #/Week # | Unit Title/Topic |
|---------------|--------------------------------|
| FFA Unit | Intro to FFA |
| Week 1 | |
| Week 2 | |
| Unit 1 | Careers |
| Week 3 | |
| Unit 2 | Drafting |
| Week 4 | |
| Unit 3 | Safety |
| Week 5 | · |
| Week 6 | |
| Unit 3 | Oxyacetylene |
| Week 7 | Skill welds |
| Week 8 | Cutting |
| Unit 4 | ARC Welding |
| Week 9 | Skill Welds |
| Week 10 | Skill Welds |
| Week 11 | Scrap metal art |
| Unit 5 | MIG Welding |
| Week 12 | Skills |
| Week 13 | Products to sell |
| Unit 6 | Projects |
| Week 14 | Group designs- welding table 1 |
| Week 15 | Cutting for welding table 1 |
| Week 16 | Welding for welding table 1 |
| Week 17 | Welding for welding table 1 |
| | *Winter Break |
| FFA Unit | Record Book/SAE |
| Week 18 | |
| Unit 6 | Projects |
| Week 19 | Group designs- welding table 2 |

| Week 20 | Cutting for welding table 2 |
|---------|---------------------------------|
| Week 21 | Welding for welding table 2 |
| Week 22 | Welding for welding table 2 |
| Week 23 | Begin Personal Project Drafting |
| | |

*Every Monday will spent in the classroom doing shop math, reading drawings and symbols, and learning the processes of welding.

Grading: Grades will be entered weekly and will consist of a daily participation grade when in the shop, some homework and quizzes, tests, and projects.

PPE: **Personal Protective Equipment.** When working in the shop, all students must **wear long pants, long sleeved shirt, closed toed shoes, and safety glasses**. A locker will be provided for the storage of clothes. Safety glasses will be provided. Failure to have all PPE will result in assigned book work with the maximum daily points earned being a 50%.

Personal Days: This class is set up to mimic that of the workforce. Therefore, students are given 5 personal days a year to use at their discretion. This allows a student to miss five shop days without any make up work. Once a student has used all five days, to gain the points back, the student must come in from 3:35-4:00 to work in the shop.

Curriculum Applications for FFA Members:

Sept. 18- Greenhand Conference

Oct. 9- Dairy Judging CDE (Career Development Event)

Nov. 7- Horse Judging CDE

Nov. 14- Leadership School

Dec. 12- Public Speaking and Ag Mech. CDE

Feb. 15-22 National FFA Week

April 2- Livestock Judging CDE

April 9- Dairy Foods CDE

May 4-May 6 State CDEs

May 28-May 30 State Convention