

Troy High School Agricultural Education

Agricultural Welding Course Syllabus

Instructor: Ms. Bruce

Course Description

Agricultural Welding is a hands-on Career and Technical Education (CTE) course designed to introduce students to welding processes, metal fabrication, and shop safety commonly used in the agriculture industry. Students will develop skills in oxy-fuel cutting, SMAW (Stick), GMAW (MIG), metal identification, measurement, blueprint reading, and fabrication. Emphasis is placed on safety, craftsmanship, problem-solving, and employability skills.

Course Objectives

- Demonstrate safe practices in an agricultural welding shop.
- Identify and properly use welding tools and equipment.
- Read and accurately use a tape measure.
- Interpret basic welding symbols and blueprints.
- Perform quality welds using SMAW (Stick) and GMAW (MIG).
- Operate oxy-fuel cutting equipment safely.
- Measure, cut, grind, and fabricate metal projects.
- Evaluate weld quality and identify common welding defects.
- Apply welding skills to agricultural and real-world projects.
- Demonstrate professionalism, teamwork, and responsibility.

Major Units

- Shop Safety & PPE
- Welding Shop Procedures
- Tool & Equipment Identification
- Oxy-Fuel Cutting & SMAW (Stick) & GMAW (MIG)
- Welding Symbols
- Agricultural Welding Projects
- Career Exploration

Classroom Expectations

- Arrive on time and prepared.
- Wear proper shop attire.
- Follow all safety procedures.
- Respect classmates, instructors, and equipment.
- Stay engaged and participate daily.
- Clean your work area before leaving.
- Demonstrate professionalism and responsibility.

Shop Safety Expectations

- Wear safety glasses at all times in the shop.
- Wear appropriate welding PPE.
- Wear closed-toe shoes or boots.
- Tie back long hair.
- Remove loose jewelry.
- Follow instructor directions immediately.
- Never use equipment without permission.
- Report damaged equipment or injuries immediately.
- No horseplay or unsafe behavior.

Required Materials

- Notebook or binder
- Pencil
- Closed-toe shoes or boots
- Long pants (required for shop work)
- Appropriate clothing for welding days
- Required PPE will be provided unless otherwise instructed.

Attendance

Attendance is essential. Students are responsible for making up missed assignments and shop competencies.

Parent/Guardian Communication

Please contact Ms. Bruce with any questions or concerns regarding student progress or course requirements.

Student Acknowledgment

I have read and understand the Agricultural Welding syllabus and agree to follow all classroom and shop expectations.

Student Name: _____

Student Signature: _____ Date: _____

Parent/Guardian Signature: _____ Date: _____