Chambersburg Area Senior High School

Department of Agricultural Education

# Course Syllabus

## Welding Theory & Applications

**Course Instructor:** Ms. Walburn

**Textbooks:** No textbook is required for this course; various texts will be supplemented by the instructor.

**Course Description:**

In this course, students will study basic theory and concepts regarding modern metalworking and welding. Students will explore career opportunities in the welding industry. The goals of this course is to learn and practice basic methods of arc welding, oxyacetylene cutting, plasma cutting and MIG Welding as well as develop shop management and organization skills. This course is a great introductory course for a career in welding, fabrication, repair, and maintenance.

**Classroom Rules/Expectations:**  
 See “Agriculture’s Expectations and Procedures”

**Grading Policy:** Total points earned by you, the student, in the course will be divided by the points available in the course to calculate the student’s percentage grade. This course will follow the grade scale adopted by CASD. Grades will be based on weekly performances, projects, quizzes, and other forms of assessment. A cumulative final exam will be given in this course.

**Course Outline/Units:**

Unit 1: What is Welding and Careers in Welding

Unit 2: Safety in the Agricultural Shop / Welding Safety

Unit 3: Metal & Tool Identification

Unit 4: Methods of Cutting Metal/Oxy-fuel Cutting & Plasma Cutting

Unit 5: Basic Electrode Arc Welding

Unit 6: Common Welding Joints

Unit 7: Basic MIG Welding

Unit 8: Project Planning/Layout

Unit 9: Welding Applications

**Items needed for class:**

* Pencil/Pen
* 3-Ring Binder (provided, but students may supply their own)
* Shop clothes (optional)
* Approved safety glasses (provided but student may supply their own)
* Welder’s helmet/welding gloves (provided but students are encouraged to bring their own),
* **Closed-toe shoes must be worn at ALL TIMES!!!**