



Mulvane High School Production Welding II

Instructor: Mr. Dieker

Course Description:

Production Welding Processes II - This is an advanced course in welding fabrication. Students will be required to become proficient in oxyfuel, ARC, MIG, and TIG welding while learning the various techniques required to weld multiple positions. Students will also be required to become proficient in a variety of cutting techniques using oxyfuel, plasma, and CNC plasma cutting equipment. Students will use a wide variety of metalworking machines, including but not limited to the lathe, mill, sheet metal breaks, and various hand tools. Students will apply these skills when completing required projects of their choice

Text:

Victor E. Repp (1994). Metalwork Technology and Practice. 9th Edition, Glencoe/McGraw-Hill, Peoria, Illinois.

Course Objectives:

Production Welding Processes II is designed to allow the student an opportunity to learn the different aspects of welding and metal working through hands on laboratory work. Written assignments will be completed weekly which will explore different processes used in the welding industry.

As an advanced welding class it has as its objective the following:

1. To provide an opportunity to become proficient to the area of production welding.
2. To provide an opportunity for the development of skills, a degree of “know how” and an understanding of several of the production welding techniques.
3. To provide information which will aid in the selection and application of various materials.
4. To ensure the student understands and practices safe work habits.

Course Content: - Through the use of class discussions, laboratory activities, book work, and testing, instructional information of the following topics will be presented.

1. Safety practices in welding and metal working.
2. Welding (Oxyfuel, ARC, MIG, TIG)

3. CNC Plasma Cam.
4. Mill.
5. Lathe.
6. Metal Working.

Activities: - To accomplish the course objectives, projects and assignments from each area must be completed. Along with this lab work, text assignments and study questions will be completed regularly.

Evaluation: - Evaluations will be made from the following.

1. **Quizzes and Assignments** – Quizzes will be given each week covering the information given during the week and the questions completed during the week. Quizzes will generally be 10 short answer questions.
2. **Mid-term Exam** – The mid term exam will be given during the eighth week of classes.
3. **Final Exam** – The final exam will be practical and each student will need to complete four tasks which will be randomly selected. Each task must be completed to receive full credit and the student will need to clean up before leaving the room.
4. **Attendance** – Each class period is worth ten points, for each class period that is missed 10 points will be deducted. For each tardy three points will be deducted. The only exception will be for those involved with school activities. Points will also be deducted for those who choose not to participate in class. Points will also be deducted for those who choose not to follow classroom rules and procedures. Students will need to arrange a time before or after school to make up the time missed during class.
5. **Projects** – A project or assignment in each area will need to be completed. I will assign various tasks in each area worth 100 points.

Grading Scale:

- 100-90% = A
- 89-80% = B
- 79-70% = C
- 69-60% = D
- 59 and below = F

Student Signature: _____

Parent/Guardian Signature: _____