



# Mulvane High School

## Mass Production II

**Instructor: Mr. Dieker**

### **Course Description:**

**Mass Production II** - This is an advanced course for students, which covers many aspects of production technology. Students will incorporate LEAN manufacturing concepts to design and build projects that will be sold to the community. Students will be required to utilize oxyfuel, ARC, and MIG welding while constructing their mass production project that is decided on by the class. Students will also use a wide variety of metalworking machines, including but not limited to the lathe, mill, sheet metal breaks, and various hand tools to complete their project. Students will be required to work as a team in order to produce a quality product.

### **Text:**

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

### **Course Objectives:**

Mass Production II is designed to allow the student an opportunity to become proficient in the different aspects of welding, metal working, and the different aspects of production technology through hands on laboratory work. Written assignments will be completed weekly which will explore different processes used in industry.

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

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

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

1. Safety practices in metal working.
2. Sheet metal.

3. Bench metal.
4. Lathe.
5. Mill.
6. Welding.
7. Production processes. (Cutting, grinding, welding, Quality Control, Etc.)

**Activities:** - To accomplish the course objectives, at least one mass production project must be completed during the course. Along with this lab work, text assignments and study questions will be completed regularly. Students will be required to market and produce a quality product as a team.

**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** – Each student will be required to complete a flow chart, explain their marketing strategy they used to sell their product, and explain how areas of their strategy could have been improved.
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, not working as a team, not meeting deadlines, ect. Points will also be deducted for those who choose not to follow classroom rules and procedures.
5. **Projects** – At least one mass production project that is assigned and or chosen by the class will need to be completed and marketed. This product will be evaluated on the quality of the end product as well as the quality of the marketing strategy.

**Grading Scale:**

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

**Student Signature:** \_\_\_\_\_

**Parent/Guardian Signature:** \_\_\_\_\_