

Course Syllabus for Basic Metals

Course Description:

Basic Metals is a course that deals with varying aspects of safe tool use, problem solving, and employability skills as it relates to the metals, fabrication, and welding industry. This course requires that the student is able to:

- Safely use metal and welding equipment
- Read a ruler to the 1/8th of an inch
- Read blueprints
- Problem solve

In order to do this, you will be reviewing the following principles:

- How to safely use the necessary tools and equipment
- How to read a tape measure
- How to accurately read a project's "blueprint"
- Problem solving skills

These tasks will be completed during class:

- Bending metal to create various projects
- Drilling holes using a cordless hand drill AND a drill press
- Creating threaded holes in metal
- Grinding metal using a corded hand grinder AND a bench grinder
- Cutting metal using a hand shears AND a plasma cutter
- Riveter to join seams of metal projects
- Learning to use various methods of joining metals using stick welding equipment
- Learning to use various methods of joining metals using wire welding equipment
- Understanding the basic concepts of a mill

Materials/Equipment/Tools needed for this class:

- Safety glasses
 - Z87 standard
 - Non-tinted

Behavioral Requirements for Class

- Bring in all needed materials and supplies to class every day.
- Safety glasses must be worn in the shop **EVERY DAY** at **ALL TIMES** when **ANY** machine is on.
- Tardiness: In the Metals shop when the bell rings (not just the classroom). A student who has 3 or more tardy's in a quarter will result in detention.
- Absent: You must make up any missed time after missing 2 class periods.
- Cell phones are turned off and put in the classroom storage receptacle until clean-up has been completed by ALL class members. Cell phones can be used **ONLY WHEN THE INSTRUCTOR GIVES YOU PERMISSION**.
- If you don't safely use the tools in the shop, you will be asked to sit down at a table for the remainder of class. Persistent issues will be dealt with individually and may result in removal from class, and therefore the appropriate letter grade will be applied for your final grade.
- Shop clean-up will take place for approximately the last 10-15 minutes of **EACH DAY**. **EVERYONE** will have an assigned clean-up responsibility. If a student is absent, I will assign someone to cover his/her responsibility for that day. Consistent improper shop cleanup by a student will result in a grade reduction.

Differentiation is built into all shop classes. The strategies that are used include varying amounts of time for students on projects, differentiated projects for students, and one-on-one instruction with students as need be. Additional instruction or re-assessment time will be made available during homeroom periods each day. Also, additional time can be made with this instructor after school until 4pm on Mondays, Tuesdays, and Thursdays once the football season ends.

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