

Name of School:

Name of Course: **Vocational Welding I**

Instructor Information

Name:

E-mail address:

School phone number:

Best times to be reached:

Course Description

The third in a sequence of four welding courses designed to build on the skills learned in the basic and advanced level course. This program is designed to provide successful completers with the skills necessary to enter the industrial field of welding as an entry level welder. Employability skills are a major aspect of this program.

District Standards and Power Benchmarks

Power Standards

Students will be able to:

1. Utilize hand tools in their proper application in a safe manner.
2. Set up and troubleshoot welding parameters.
3. Complete welds in the major processes: SMAW, GMAW, GTAW.
4. Operate efficiently in a full functioning manufacturing environment

Power Benchmarks

Students will be able to:

1. Apply shop and equipment safety rules in accordance with Occupational Safety and Health Association guidelines.
2. Evaluate a weld for imperfections and code specifications.
3. Demonstrate the ability to properly dial in a machine to the proper welding parameters.
4. Demonstrate the ability to successfully complete SMAW welds in the flat, horizontal, and vertical positions.
5. Demonstrate the ability to successfully complete GMAW welds in the flat, horizontal, and vertical positions.
6. Demonstrate the ability to successfully complete GTAW welds in the flat, horizontal, and vertical positions.
7. Demonstrate the ability to safely set up and utilize a cutting torch operation.
8. Properly use a plasma cutting machine to part a piece of raw material.
9. Demonstrate the ability to properly troubleshoot a GMAW wire feeding mechanism.
10. Demonstrate the ability to properly don personal protective gear during the completion of out of position welding operations.

Course Information

Early bird and first block. Monday-Friday. 2 ½ hours each day. This an elective course worth 3.0 credits towards graduation. Failures at grading terms are removed from the program.

Course Outline

- A. Safety
- B. Math for Welders.
- C. Cutting Operations.
- D. SMAW Welding.
- E. GMAW Welding.
- F. GTAW Welding.
- G. Plasmcam Instruction.
- H. Final Project.

Text/Other Required Materials/Resources

Text: Welding Skills

Required Equipment: Leather gloves, safety glasses, appropriate attire.

Instructional Procedures & Support

This class is largely a lab based class with individual student work in the weld booths taking place nearly everyday. A lecture format will be used when necessary and homework will be required. Attendance will be the major component in successful completion of the course and all assignments will be completed before welding will be allowed, no exceptions.

Classroom Management Procedures

The welding lab is a strict environment with freedoms provided only after respect for classroom rules and regulations are met and maintained.

Assessment Plan

Students will be able to estimate their placement on the grading scale daily by referencing a grade chart. Mid-quarter reports will also be sent home to parents as well as the quarterly grade. Grades will be based on averaging the top three student point totals and basing the scale from that point.

Grading System

The Davenport Community Schools' district percentage grading scale is as follows:

- A 92-100%
- B 83-91%
- C 68-82%
- D 60-67%
- F 0-59%