WELDING

The Welding course is designed to develop skills in all areas of welding and metal fabrication but most specifically those areas where there is the greatest employment potential. Approximately one quarter of the course is devoted to metal fabrication methods and the production welded items.

OBJECTIVES OF THE WELDING PROGRAM

1. To develop safe and sound practices and procedures.
2. To develop and acquire skills and concepts.
3. To select and utilize a wide variety of measuring and blueprint reading.
4. To understand the usage of metallurgy and the science of metal.
5. To assist in developing acceptable work habits and attitudes.
6. To develop job seeking skills necessary to succeed in the world of work.

UNITS OF STUDY

First Year:
Oxy-Acetylene Welding
Oxy-Acetylene Cutting
Oxy-Acetylene Brazing
Basic Arc Welding - all positions and common joints
Measurement and Basic Blueprint Reading
Hand tools
Set Up Operations
Basic MIG Welding with common joints
Basic Metallurgy
American Welding Society Entry-level Certification

Second Year:
Review of the First Year
TIG Welding (Tungsten Arc Welding) Aluminum and Stainless Steel
MIG Welding (Metal Arc Welding) Steel and Aluminum
DOT Weld Test (Department of Transportation) certificate
American Welding Society Entry-level Certification
Basic Rigging
Flux-Core Welding
Advance Stick-Arc Welding
Pipe Welding
Metal Fabrication (hand tools and machine tools)
Metallurgy
Blueprint Reading
Plasma Cutting

STUDENT ACTIVITIES

The Welding class is set up with a structured step-by-step order for moving through the various welding methods and processes. Students will be required to complete practice pieces representing various metal joints and in different positions. Fabrication will take place during the final half of the senior year. Students can expect to be working and involved in the welding process for a majority of their class time.

DEVELOPED STUDENT QUALITIES

A student who successfully completes the course will have demonstrated the following:

1. Average or above average physical strength
2. Good eyesight or corrected vision.

SUGGESTED HOME SCHOOL COURSES

The following is a list of courses that would be helpful:

Mathematics - for necessary computation and layout skills
Blueprint Reading
Metal Shop - for bench metal skills
Trade Math

COLLEGE OPPORTUNITIES

Mohawk Valley Community College
MT 170 Oxy-Acetylene Lab Work – 5 credits