# Welding

**WELDING**

Welding is a program that provides students an opportunity to acquire entry-level skills for employment as well an entry into an apprenticeship program. The program offers practical experience enabling each student to identify with the welding industry. The career options in the welding industry are wide and varied. They include such options as follows: welder, metal fabricator, heavy equipment repair, pipefitter and steel worker. Communication skills, a year of physical science and good mathematical skills will enhance ones career opportunities.

***INTRODUCTION TO WELDING*** ***Grades 9, 10, 11, 12***
***Course No. 946, 1/4 Year .50 Cr***

An introduction is provided to welding, one of the principle means of fabricating metal products. Industry has found that welding is an efficient, dependable and economical means of joining metal in fabricating operations. Students will acquire knowledge of the properties of metals and be able to demonstrate skills in oxy-acetylene welding, flame cutting and arc welding through construction of various joint designs and projects.

***WELDING TECHNOLOGY I*** ***Grades 10*, 11, 12***
***Course No. 948, Full Year 2.00 Cr***

In this course, the basics of shielded metal arc, oxy-acetylene welding and flame cutting with blueprint reading, mathematics and operation of metal fabrication machinery are covered extensively. Emphasis is also placed on shop safety and the development of good work habits such as: punctuality, dependability and responsible behavior. Activities designed using practical application under simulated industrial conditions, develop proficient levels skills in the use of oxy-acetylene and arc including stick, MIG and TIG welding equipment.

***WELDING TECHNOLOGY II*** ***Grades 11*, 12***
***Course No. 949, Full Year 2.00 Cr***

Prerequisite: Welding Technology I

Students will continue to improve and refine their welding skills while working towards mastery. Focus will be on skill levels commensurate with American Welding Society standards. Goals will include passing competency tests. Fundamental fabrication techniques will be explored with the opportunity for students to design and build individual projects. Students will continue to hone their skills in welding including horizontal and vertical welds. Welding alternative metals will be introduced along with plasma cutting. Greater clarity about roles in the workplace will be part of the entire program. Students completing this program will be prepared to enter an apprenticeship program or to enter post-secondary study. Some of the classes' abilities will be directed towards community service endeavors.

***Incoming 10th graders may apply for admission. See Guidance Counselor for application.**

**College Credit-Running Start:** Students successfully completing the two-year program in Welding are eligible to earn college credit through Manchester Community College. There is a fee paid to the college for these credits.