Name of Course: Welding Technology II (Advanced Welding)

Name of Instructor: Mr. D'Incognito Room 40 sdincognito@dist228.org 847-858-0089

Course Length: One Semester

Class Textbook / Materials: *Welding Technology Fundamentals* by: William A. Bowditch & Kevin E.

Bowditch.

Goodheart-Willcox, 1997. ISBN 1-56637-314X

Student will provide safety glasses, notebook, folder and writing utensil. Pants and closed-toes shoes are required when in the lab.

A locker and lock will be provided for the student.

Description of the Course: This is a one-semester course designed to build upon basic welding principals and go into more advanced welding techniques.

Course Unit Content:

- 1. Safety
- 2. Advanced Weld Preparations
- 2. Welding Techniques (Horizontal, Vertical, Multi-pass, Surfacing)
- 3. Welding Techniques (Inverted, Circular, Tubes)
- 4. Non-Ferris Materials (Aluminum, Brazing, Castings)
- 5. Welding Plastics and Soldering
- 6. Technical Drawings for Welding Processes

Learning Objectives:

- 1. Understand the welding process as it is applied to different work setups
- 2. Expand the understand and use of electric welding equipment-SMAW, MIG, TIG
- 3. Demonstrate troubleshooting of common welder malfunctions
- 4. Explore the use of other welding and cutting processes-EDM
- 5. Understand technical drawings containing welding information
- 6. Demonstrate the safe use of machinery and tools
- 7. Produce lab projects

Units of study include a project and/or lab that will be assessed by means of a rubric and a test at the conclusion of each unit.

Daily / Weekly Assignments, Grading Procedures, and Special Projects:

Grades are determined as follows: 40% - Lab work, 40% - Tests, 15% - Homework, and 5% Professionalism.