MOHAWK VALLEY COMMUNITY COLLEGE

UTICA-ROME, NEW YORK

# COURSE OUTLINE

I. CATALOG DESCRIPTION:

MT277 Welders Blueprint Reading and Metal Fabrication C-2, P-6, Cr-5

This course covers weldment design factors. Topics include the interpretation of trade drawings, as well as the specification and use of welding symbols. Welding supply fee required.

III. COURSE OBJECTIVES:

The skilled welder must not only be competent in the manipulative skills and trade, but must be equally competent in interpreting the trade drawings and describe the work to be done. This course will deal with the fundamentals of blueprint reading including basic lines and views, dimensions, notes and specifications, structural shapes, section, detail and assembly drawings, welding symbols and their significance. Students will be prepared to work independently from prints. The course will emphasize the application of blueprint reading skills in the fabrication process.

Student learning outcomes:

The student will:

1. Be able to interpret the trade drawings and describe the work to be done.

2. Be able to identify the fundamentals of blueprint reading including basic

Lines and views, dimensions, notes and specifications, structural shapes, section, detail and assembly drawings, welding symbols and their significance.

3. Demonstrate to work independently from prints.

1. Be able to identify the application of blueprint reading skills in the fabrication process.
2. Apply ISO-9000 Global Industrial Standards to the Manufacturing Process.
3. Demonstrate start to finish outcomes in Blueprint reading.

IV. DETAILED COURSE OUTLINE: Major Topics

Week Assignment Information and Task

1 Units 1-3 Basic lines, basic views, notes and

Specifications (pg. 1-20)

2 Units 4 Dimensions (pg.22-35)

Summary Review (pg.37)

3 Units 5-6 Bill of materials (pg.42-57)

Structural shapes, other views

(pg. 60-79)

4-5 Units 7-8 other views (pg.81-96)

Section Views (pg.99-110)

Review A,B,C

Laboratory #1 Student drawing

6 Units 9-10 Detailed, assembly and sub (pg.114-

117)

Welding symbol (pg.118-137)

Summary Review 2

7 Units 11-12 Basic Joints for weldment fabrications

(Pg.146-151)

Fillet welds

(Pg.156-167)

8 Units 13, 14, 15 Groove welds (pg.169-201)

Backing

Back welds

plug and slot welds

9 Units 16,17,18,19 Surfacing welds, edge welds, spot welds,

10 Unit 21 Non-preferred welding symbols

11 Unit 22 Pipe welding symbols

* 1. Unit 23 Applied metrics for welders Unit 24 Review A,B,C,D

# ***COURSE NAME:\_\_\_\_\_MT277 Welding Blueprint and Metallurgy*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## **DATE FACULTY NAME CHANGE INPUT MEASUREMENT ASSESSMENT ACTION**

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