### MOHAWK VALLEY COMMUNITY COLLEGE

UTICA-ROME, NEW YORK

#### COURSE OUTLINE

1. CATALOG DESCRIPTION:

MT273 Welding Certification

This course discusses welding codes. Topics include set regulations covering permissible materials, service limitations, fabrication, inspection, testing procedures, and qualifications of welding operations. Emphasis is placed on preparation for the New York State Welding Certificate Exam. Welding supply fee required.

Prerequisite: MT 272 Advance Electric Arc Welding Procedures

1. COURSE OBJECTIVES:

This course is designed to provide the student with knowledge and skills to perform welder’s qualification tests. Welders may be qualified to perform qualification tests in all positions using different welding processes and equipment, understanding welding specification WPS, welding evaluation and quality of weldments, and mechanical testing. Students will be preparing to take the welding certification test for New York State DOT, ASME, AWS and API. Students will be evaluated through mechanical testing of welded joints using various testing equipment by destructive and non-destructive means.

1. Student outcomes:
2. Students will be able to SMAW in vertical up and overhead.
3. Students will be able to SMAW vertical up and overhead in all tubing and pipe sizes
4. Students will be able to correctly and safely set up, shut down and apply proper safety techniques to advance SMAW.
5. Students will be able to troubleshoot SMAW real life experiences to SMAW
6. Students will be able to fabricate from blueprints using advance SMAW techniques.
7. Students will be able to weld ferrous and non ferrous metal in advanced positions using SMAW.
8. MAJOR TOPICS

Week Reading Assignment Information & Task Detail

1-5 Chapter 30 Hands on practice, non-

Pg. 665-666 destructive and destructive

* 1. testing

6-10 Chapter 30-31 Hands on practice

Turn in assignment Pg. 680-682

answers Analysis of testing welds

11-15 Chapter 31 Taking certification test, welding

Pg. 31.1-31.5 codes, procedure qualifications,

Review chapters performance qualifications test,

7,12,13, 15, 21 and understanding workmanship standards.

1. Final Exam

**COURSE NAME:\_\_\_\_MT273 Welding Certification\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

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