MOHAWK VALLEY COMMUNITY COLLEGE

UTICA-ROME, NEW YORK

# COURSE OUTLINE

I. CATALOG DESCRIPTION:

MT278 Welding Inspection & Quality Control Testing

C-2, P-6, Cr-5

This course presents the American Welding Society standards. Topics include the standards of testing of welds, preparation of test samples, methods of inspection and quality control, and fundamentals and interpretations of the American Welding Society, the American Society of Mechanical Engineers, and the American National Standards Institute welding codes. Welding supply fee required.

II. MATERIALS:

 Welding Gauge, Fillet Weld Gauge, Ruler & Magnifier

III. COURSE OBJECTIVES:

This course is designed to provide the student with the knowledge and skill to design welded parts and structures with the least amount of material and the minimum amount of production labor, select, properly apply and inspect suitable welding processes and equipment; understand welding codes and specification. Welding evaluation and quality control includes mechanical testing of welded joints using various testing equipment by destructive and nondestructive means.

Student learning outcomes:

1. Student will demonstrate how to design welding parts and structures with the least amount of materials and the minimum amount of production labor, select, properly apply and inspect suitable welding processes and equipment.

2. Student will be demonstrate to understand welding codes and specifications.

3. Student will be demonstrating through mechanical testing of welded joints using various testing equipment by destructive and nondestructive means.

4. Students will be able to do visual inspections on welds.

 5. Students will be able to do non destructive testing on welds.

1. Students will be able to do destructive testing on weld for real life experiences.

MAJOR TOPICS:

Week Reading Assignment Information & Task Detail

1-5 Chapter 19, Pg. 560-608 Welding design factors,

Turn in assignment answer welding positions and questions 19-1-20 joints, joint design, specification

 and design

6-10 Chapter 21 Welding codes and

Pages 625-682 specification, weld

Turn in assignment answer reliability, welding procedures

question 22-1-20 and qualifying them, standard welding procedure specification

11-15 Chapter 22 Destructive and nondestructive

Pages 647 to 682 testing, corrective actions for

Turn in assignment answer weld defects, workmanship and

questions 22-1-20 standards, examination symbols.

1. FINAL EXAMINATION

# **COURSE NAME:\_\_\_MT278 Welding Inspection and Quality Control Testing\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

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