ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

# COMMON COURSE OUTLINE

Course discipline/number/title: WELD 1003: Oxy-Fuel Welding, Cutting and Braze Welding

A. CATALOG DESCRIPTION
1. Credits: 3
2. Hours/Week: 6
3. Prerequisites (Course discipline/number): WELD 1001
4. Other requirements: None
5. MnTC Goals (if any): NA

B. COURSE DESCRIPTION: This course is designed to show the student the safe operation of Oxy-Fuel cutting and welding equipment. Students will learn the proper way to maintain high pressure gas cylinders, hoses, and regulators. Students will demonstrate safely operating the torch to weld and cut various thicknesses of metal in the flat position. This is a co-requisite course to be taken with WELD 1001 and WELD 1003.

C. DATE LAST REVISED (Month, year): December, 2020

D. OUTLINE OF MAJOR CONTENT AREAS:
1. GMAW
2. Weld Joints
3. Quality Assurance

E. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Demonstrate the safe and correct set up, shut down and maintenance of all GMAW related welding equipment.
2. Identify factors that affect proper GMAW electrode and shielding gas selection.
3. Identify and demonstrate the different transfer modes of the GMAW process.
4. Perform basic GMAW welds on butt, lap, corner, and T-joints in the flat and horizontal positions.
5. Demonstrate proper inspection of finished welds to determine their compliance to industry standards.

F. LEARNING OUTCOMES (MNTC): NA

G. METHODS FOR EVALUATION OF STUDENT LEARNING. Methods may include but are not limited to:
1. Daily Lab Assignments
2. Final Exam

H. RCTC CORE OUTCOME(S). This course contributes to the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

Personal and Professional Accountability. Students will take responsibility as active learners for achieving their educational and personal goals.

I. SPECIAL INFORMATION (if any): None