COMMON COURSE OUTLINE: Course discipline/number/title: WELD 1002: SMAW-Shielded Metal Arc Welding

A. CATALOG DESCRIPTION
   1. Credits: 3
   2. Hours/Week: 6 hours lab
   3. Prerequisites (Course discipline/number): MATH 1015 or test into MATH 0098
   4. Co-requisites (Course discipline/number): WELD 1001, WELD 1003, WELD 1004, WELD 1005, WELD 1006
   5. MnTC Goals (if any): NA

Student will learn fundamentals of arc welding (stick welding) and its applications. Student will learn to set up work area, adjust machine and learn terminology associated with setting. The art of striking an arc, rod selection, controlling the arc and controlling and weld pool will be part of the course. Student will understand various weld joints with different metal types and thickness. Student will also understand what is an acceptable and unacceptable welding.

B. DATE LAST REVISED (Month, year): December, 2012

C. OUTLINE OF MAJOR CONTENT AREAS:
   1. Arc Welding
   2. Weld Joints
   3. Quality Assurance

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
   1. Demonstrate safety practices with different types of welding equipment, maintenance of welding equipment, safe set-up, start-up and proper shut-down of welding equipment.
   2. Learn and demonstrate proper application of the different type of electrodes.
   3. Demonstrate striking an arc and maintain a proper arc.
   4. Demonstrate a stringer bead in flat position, lap weld in flat position and a fillet weld in the flat position.
   5. Demonstrate proper cleaning, inspection of weld and identify the differences between good and bad welds.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
   1. Daily Lab Assignments
   2. Midterm Exam
   3. Final Exam

G. RCTC CORE OUTCOME(S) ADDRESSED:
   Communication ☑️
   Critical Thinking ☑️
   Global Awareness/Diversity ☐
   Civic Responsibility ☐
   Personal/Professional Accountability ☐
   Aesthetic Response ☐

H. SPECIAL INFORMATION (if any): None