

# Dakota County Technical College

## HCEM 1110: Welding and Flame Cutting

### A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: \*.\*

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Students study basic arc and gas welding used in the heavy equipment industry. Theory, safety, and practice will be taught. Cutting and heat bending are also included. Prerequisites: HCEM1101 or instructor's approval

**B. COURSE EFFECTIVE DATES:** 03/22/1998 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. identify welding compressed gas types
2. demonstrate adjustment of regulators
3. demonstrate welding equipment set up
4. identify weld joint types
5. demonstrate cutting techniques
6. identify oxygen and acetylene regulators
7. operating heating torch
8. identify cylinder types
9. identify welding electrodes
10. apply failure analysis of weld defects
11. identify weld defects
12. complete welding safety examination
13. exhibit shop safety procedures
14. display shop safety procedures
15. perform various 6011 and 7018 welding joints

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted