

# Dakota County Technical College

## ETSA 2516: Mechanical Systems II

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 1

Lab Hours/Week: 3

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course teaches students a higher level of knowledge and skills required to install and maintain pumps, compressors, hoists, rigging and power transmission systems.

**B. COURSE EFFECTIVE DATES:** 09/08/2010 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. check and adjust belt and chain drive tensions, along with belt pitch, size, and material identify different chain sizes and functions
2. disassemble, inspect, refurbish, and reassemble mechanical mechanisms
3. identify major components of mechanical drive systems
4. perform coupling and shaft alignment using the three different procedures
5. perform routine maintenance of mechanical mechanisms - gather PM data and analyze information
6. perform vibration analysis - monitor and analyze vibration data, and offer recommendations on replacement
7. troubleshoot, repair, and analyze mechanical systems
8. understanding of proper rigging equipment and setup procedures for different applications

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

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted