

# Dakota County Technical College

## ETSA 1512: Fundamentals of AC/DC Electricity II

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 1

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This is a fundamental course in alternating current (AC) electricity. This course is designed for students who have a fundamental knowledge and understanding of the theory and laws of direct current (DC) electricity. The primary goals of this course are to help individuals gain the knowledge and skills necessary to troubleshoot and repair single and three phase AC powered systems and equipment. Individuals will apply these skills through problem solving, simulation, and practical projects.

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

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. analyze single and three phase capacitor circuits
2. analyze single and three phase inductor circuits
3. analyze single three phase transformer circuits
4. draw and read basic electrical schematic diagrams
5. measure phase angles between voltage and current
6. measure single and three phase voltage

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

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted