

# Dakota County Technical College

## **ELEC 1230: Construction Skills and Introduction to Wiring Theory**

### **A. COURSE DESCRIPTION**

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers material and design of residential wiring, wiring methods, selection of proper fastening devices, sizing of wire and boxes, branch circuit requirements, and use of blueprints. Prerequisites: ELEC1110, ELEC1120, MATS1205.

**B. COURSE EFFECTIVE DATES:** 08/21/2003 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

#### **D. LEARNING OUTCOMES (General)**

1. Apply NEC table 310-16
2. Apply the appropriate box for residential wiring
3. Apply the symbols to blueprints
4. Compare wiring methods used in residential wiring
5. Compute wire size according the electrical load
6. Define types of wires used the residential wiring
7. Describe the tools used for residential wiring
8. Describe types of boxes used in residential wiring systems
9. Describe types of residential branch circuits
10. Describe wire sizes
11. Identify U F wire
12. Identify boxes used in residential wiring systems
13. Identify electrical metallic tubing
14. Identify symbols used for blueprints
15. Identify the proper tools for residential wiring
16. Identify the proper use of tools for residential wiring
17. Identify types of A.C. cable
18. Identify types of residential branch circuits
19. Identify types of romex
20. Identify types of wires used in residential wiring
21. Illustrate uses of branch circuits
22. Illustrate wiring methods
23. Interpret blueprints to residential wiring systems
24. Name the symbols used for blueprints
25. Recall wiring methods used in residential wiring

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

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted