

# Dakota County Technical College

## ELLW 1170: Line Construction and Maintenance A

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers the conversion of single-phase to multi-phase applications. The use of three-phase hot stick line applications will be applied to the changing of poles, deadends, crossarms, and running angles. The maintenance of three-phase systems will be applied. The use of insulated fiberglass boards and ladders, nylon hot line hoists, and block and tackle will be applied. Safety applications will be emphasized at all times throughout this course. Prerequisites: Concurrent enrollment in ELLW1172

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

**C. OUTLINE OF MAJOR CONTENT AREAS**

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

1. apply automatic strand splice
2. apply automatic strand vice deadend
3. apply fire safety procedures
4. apply line cover up materials
5. apply loop system safety procedures
6. apply megger in ground resistance testing procedures
7. apply preform guy strand deadends
8. apply usage and safety in applications of by-pass jumpers
9. apply preform guy strand splices
10. apply radial design safety procedures
11. apply safety and usage of ladder applications
12. apply sag chart information
13. apply stop watch sagging
14. apply tension stringing practices
15. apply three phase construction practices
16. apply three phase framing
17. apply top side and saddle hand ties
18. compare ASTM Standards of inspection and testing requirements
19. construct multiple guying applications
20. demonstrate primary overhead line terminations
21. demonstrate three phase deadend
22. identify fire extinguisher classes
23. identify fire extinguisher rating symbols
24. identify IL and SL transformers
25. identify parallel street lighting circuits
26. identify series street lighting circuits
27. inspect personal protective rubber gloves
28. inspect personal protective rubber sleeves
29. inspect rubber insulating blankets
30. inspect rubber line hose
31. inspect line protective devices
32. install Ampact connectors
33. install armor grip suspension units
34. install fiberglass strain insulators
35. install non tension sleeve applications
36. install parallel groove clamp applications
37. install preform line tie applications
38. install single and two piece full tension sleeves
39. install three phase material and equipment applications
40. use multiple reel stringing trailer
41. use wire pulling tensioner

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

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted