

# Dakota County Technical College

## ELLW 1141: Distribution IIB

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites:

ELLW 1110 - Distribution I AND ELLW 1120 - Utility Equipment and Tools AND ELLW 1140 - Distribution IIA

Corequisites: None

MnTC Goals: None

This course covers more of the material that is in ELLW1140 Distribution IIA. Prerequisites: ELLW1110, ELLW1120, and concurrent enrollment in ELLW1140

**B. COURSE EFFECTIVE DATES:** 03/16/1998 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

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

1. apply and describe system coordination
2. apply armor grip suspension
3. apply bypass jumpers
4. apply deadends on on conductors
5. apply hot line knots and rigging
6. apply neutral preform ties
7. apply tangent and angle hand tie
8. apply tangent and angle preform ties
9. apply the use of hot line tools
10. barrel and apply preform armor rod
11. calculate wire resistances
12. calculate wire sizes
13. change out single phase insulator
14. conduct voltage checks
15. construct OCR station
16. define a loadbuster stick
17. define and describe NESC clearances
18. define and describe non-load breaking devices
19. define and describe OSHA requirements and clearances
20. define and identify load breaking devices
21. define and identify the three types of line construction
22. define in high out low
23. describe and identify automatic voltage devices
24. describe and install over current protection
25. describe and install over voltage protection
26. describe conductor fundamentals
27. describe copper wire armor rodding
28. describe copper wire hand ties
29. describe line and phase transpositions
30. describe pole compression loading
31. describe sleeve clearance requirements
32. determine guy wire leads
33. identify a NR switch
34. identify and describe other guying forms
35. identify and describe system neutral
36. identify and use universal clampsticks
37. identify guying requirements
38. identify OCR'S and OCB'S
39. apply neutral wire hand tie
40. identify pole saddles and snubbers
41. identify the types of hot line sticks
42. inspect rubber blankets and line hose
43. install a sectionalizer
44. inspect rubber gloves and sleeves

45. install Ampact connectors
46. install and use hot line sticks and saddles
47. install equipment bypasses
48. install guy guards
49. install hot line clamps
50. install overhead guys
51. install personal protective grounds
52. install pole and hardware cover up materials
53. install required protective equipment
54. install side guys
55. install terminal down guys
56. install various hot line ties
57. install various tap connection points
58. install vibration dampners
59. list and apply safe working procedures
60. reconnect OCR'S
61. list switching safety procedures
62. reconnect OCR'S
63. service a NR switch
64. service a sectionalizer
65. service OCR'S
66. identify and describe transmission static wire
67. remove OCR's from service

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

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted