

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

**DEPT. ELUT**

**COURSE NUMBER: 2110**

**NUMBER OF CREDITS: 2**

**Lecture: 1 Lab: 1 OJT 0**

Course Title:
Transformer Banking II

Catalog Description:
Transformer Banking II is a continuation of Transformer Banking I. This course will look into single-phase power banks and auto transformers used in the transmission and distribution of small and large blocks of power.

Prerequisites or Necessary Entry Skills/Knowledge:
ELUT 1110

### FULFILLS MN TRANSFER CURRICULUM AREA(S)

- ☐ Goal 1: Communication: By meeting the following competencies:
- ☐ Goal 2: Critical Thinking: By meeting the following competencies:
- ☐ Goal 3: Natural Sciences: By meeting the following competencies:
- ☐ Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- ☐ Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- ☐ Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- ☐ Goal 7: Human Diversity: By meeting the following competencies:
- ☐ Goal 8: Global Perspective: By meeting the following competencies:
- ☐ Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- ☐ Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Transformer components
Auto transformers
Ratio tests
Nameplates
Open Circuits
Trouble shooting
Voltage
Current
Construction and application of single phase, v phase, and 3 phase

<b>Student Learning Outcomes</b>
Identify transformer components
Explain function and draw schematic of an autotransformer
Perform ratio test
Locate nameplate and interpret nameplate data
Determine cause of open circuit
Troubleshoot low-voltage complaint
Interpret codes used in abbreviated cooling
Calculate total power
Demonstrate transformer safety procedures

<b>Is this course part of a transfer pathway:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Revised Date: October, 2020