Faculty members are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. ELUT COURSE NUMBER: 2110

NUMBER OF CREDITS: 2 Lecture: 1 Lab: 1 OJT 0

Course Title:
Transformer Banking II

Catalog Description:
This course 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:
ELUT1110

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

**Student Learning Outcomes**

1. Identify transformer components
2. Explain function and draw schematic of an autotransformer
3. Perform ratio test
4. Locate nameplate and interpret nameplate data
5. Determine cause of open circuit
6. Troubleshoot low-voltage complaint
7. Interpret codes used in abbreviated cooling
8. Calculate total power
9. Demonstrate transformer safety procedures

**Is this course part of a transfer pathway:** Yes ☐ No ☒

Revised Date: October, 2020