

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

**DEPT. ELEC**

**COURSE NUMBER:1225**

**NUMBER OF CREDITS: 3**

**Lecture: 1 Lab: 2 OJT 0**

<b>Course Title:</b>
Electric Motors

<b>Catalog Description:</b>
Electric Motors describes the difference in alternating current (AC) and direct current (DC) motors, generators, and alternators. Compute motor calculations. Determine the load characteristics and connections of AC and DC motors, generators, and alternators.

<b>Prerequisites or Necessary Entry Skills/Knowledge:</b>
ELCO 1100 or ELCO 1110

**FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)**

- ☐ 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:

<b>Topics to be Covered</b>
AC Motors
DC Motors
Motor Circuits

<b>Student Learning Outcomes</b>
Describe DC motors
Describe AC motors
Identify parts of a motor
Read nameplates on a motor

Perform tests on motor circuits
Hookup motors

<b>Is this course part of a transfer pathway:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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\*If yes, please list the competencies below

Revised Date: 1/1/2022