

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. ELEC

COURSE NUMBER: 2225

NUMBER OF CREDITS: 4

Lecture: 1 Lab: 3 OJT: 0

Course Title:
Electric Motor Controls II

Catalog Description:
Electric Motor Controls II describes electromechanical and solid state relays, photoelectric controls, proximity controls, reduced voltage starting, accelerating and decelerating methods and preventive maintenance.

Prerequisites or Necessary Entry Skills/Knowledge:
ELEC 2205

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
Advanced motor control circuits
Motor breaking methods
Motor starting methods
Proximity controls
Predictive and preventive maintenance

Student Learning Outcomes
Describe motor stopping methods
Describe reduced voltage starting methods

Describe types of photoelectric controls
Describe types of proximity controls
Describe solid state relays, and motor starters
Describe variable frequency drives
Develop complex motor control circuits
Wire photoelectric sensors
Wire proximity sensors
Wire complex control circuits
Demonstrate predictive and preventive maintenance practices
Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Revised Date: 02/14/2020