

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. ELEC

COURSE NUMBER: 2220

NUMBER OF CREDITS: 3

Lecture: 1 Lab: 2 OJT: 0

Course Title:
Industrial Wiring

Catalog Description:
Industrial Wiring covers components for industrial electrical installations and operations. Students will learn to design and calculate electrical loads for an industrial application.

Prerequisites or Necessary Entry Skills/Knowledge:
ELEC 1220

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:

Topics to be Covered
Basic knowledge of threaded conduits and fittings.
The importance of grounding and bonding.
The selection and sizing of motors and transformers.

Student Learning Outcomes
Demonstrate electrical safety.
Identify National Electrical Code requirements.

Describe conduit types, conduit sizes, and conduit fittings.
Demonstrate how to cut, ream, and thread conduit.
Demonstrate how to operate a hydraulic bender.
Demonstrate bending conduit stubs, off-sets, three-bend saddles, four-bend saddles, and kick bend.
Perform all work in a professional and safe manner.
Demonstrate how to operate a conduit threading machine.

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

Revised 2/20