

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. ELCO

COURSE NUMBER: 1105

NUMBER OF CREDITS: 3

Lecture: 0 Lab: 3 OJT 0

Course Title:

Electrical Circuits Fundamentals Lab

Catalog Description:

Electrical Circuits Fundamentals Lab performs practical problems on both DC and AC circuits in the lab. Calculate series circuits, parallel circuits, capacitance circuits, and inductive circuits. Perform basic meter testing on circuits.

Prerequisites or Necessary Entry Skills/Knowledge:

MATH 0092 or placement by multiple measures.

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

Series, parallel, inductive, and capacitive circuits

Delta and wye circuits

Student Learning Outcomes

Apply Ohm's law

Measure Watts

Measure Volts

Measure Amps

Connect series circuits

Connect parallel circuits

Test DC and AC circuits

Is this course part of a transfer pathway: Yes No

***If yes, please list the competencies below**

Revised Date: 1/1/2022