

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. ELCO

COURSE NUMBER: 1100

NUMBER OF CREDITS: 3

Lecture: 3 Lab: 0 OJT 0

Course Title:

Electrical Circuits Fundamentals

Catalog Description:

Electrical Circuits Fundamentals describes the basic concepts of electricity from DC to AC. Calculate Ohm's law formulas. Describe series circuits, parallel circuits, capacitance circuits, and inductive circuits. Calculate series circuits, parallel circuits, capacitance circuits, and inductive 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

Ohm's Law

Series Circuits

Parallel Circuits

Student Learning Outcomes

Define Volts

Define Amps

Define Ohms

Apply Ohm's Law

Describe Series Circuits
Describe Parallel Circuits
Solve Series Circuits
Solve Parallel Circuits
Describe Inductance
Describe Capacitance
Describe Series Parallel Circuits

Is this course part of a transfer pathway: Yes No

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

Revised Date: 1/1/2022