BASIC ELECTRICITY — ELLW 1130

A. Course Description

- Credits: 2.00
- Lecture Hours/Week: 1.00
- Lab Hours/Week: 1.00
- OJT Hours/Week: 0
- Prerequisites: None
- Corequisites: None
- MnTC Goals: None

The student will use mathematics to calculate power, voltage, resistance, and current in each type of circuit. This course is an introduction to the use of formulas needed to do calculations the lineworker may encounter in the field. The introduction to the magnetic circuits will be the basis for transformer application.

B. Course Effective Dates: 3/22/98 – Present

C. Outline of Major Content Areas

As noted on course syllabus

D. Learning Outcomes

1. explain phase angles
2. identify an AC sine wave
3. Apply OHM's law formulas to calculate: Voltage, Current, Resistance and Power values in AC and DC circuits.
5. Explain counter electromotive force, AC generation, open and closed circuits, potential difference, induction principles, leading and lagging effects, electromagnetism, polarities and AC and DC sources and current behaviors.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

F. Learner Outcomes Assessment

As noted on course syllabus

G. Special Information
None noted