

# Minnesota State College Southeast

## ELEC 1270: Programmable Logic Controllers

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers the basic operation of a programmable logic controller. The hardware and software aspects of the controllers will be explored in the lab. The basic ladder diagram, timer, counter and sequencer instructions will be covered. (Prerequisites: PHYS 1514 Introduction to DC Electricity or concurrent enrollment) (3 credits: 2 lecture/1 lab))

**B. COURSE EFFECTIVE DATES:** 02/04/2013 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Build ladder diagrams in RS Logix
2. Understand basic functions of Programmable logic controller
3. Program and verify operation of timer circuit
4. Verify operation control circuit
5. Verify operation control circuit
6. Identify input and output devices commonly used with PLCs

### D. LEARNING OUTCOMES (General)

None

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

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted