



## Youth PLC Programming and Electrical Blueprint

### Course Description

This course will study the basic symbols and blueprint layout for electrical ladder logic when used with industrial automation and Programmable Logic Controllers (PLC's). The student will spend the first two sessions will provide a basic understanding of the key symbols and abbreviations associated with the electrical trades and the various devices associated with an electrical circuit. The class will use NSCC motor controls demonstration cases to simulate relay, sensor and contactor circuits.

The student will use industry recognized Allen Bradley SLC 500 PLC demonstration units to develop a ladder logic program . The student will set up digital I/O, analog, and timing programs within the SLC 500 PLC.

**The student will receive one credit hour of college credit from NSCC and a certificate upon successful completion of this course.**

<u>Module</u>	<u>Description</u>	<u>Length</u>
A	Electrical symbols and blue print Part I	4hr
B	Electrical symbols <b>(Lab1)</b> and blue print Part II <b>(Quiz)</b>	4hr
C	PLC Part I SLC 500 demo and program	4hr
D	PLC Part II SLC 500 <b>(Lab 1,2 and 3)</b>	4hr
E	PLC Part III (Lab 4) <b>(Quiz)</b>	4hr

**Facilitator Tom Bowes** Text: Lab and exercises from NSCC course MET110 and PLC200

