

CUMBERLAND COUNTY COLLEGE

Course: IT 218 Programmable Logic Controllers

Credits: 3

Prerequisites: IT 111 or permission of instructor.

Description:

The Allen Bradley SLC 500 series PLC is used to provide students with an understanding of PLC programming instructions.

Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Assemble the components of a PLC system
- Explain the PLC wiring diagram
- Create and edit a PLC program
- Download and run a PLC program
- Troubleshoot a malfunctioning program

Topical Outline:

- Number Systems and Codes
- Basics of PLC Programming
- Understanding Electrical Wiring Diagrams
- Developing PLC Ladder Logic Programs
- Location of and Understanding Data Files
- Allen Bradley Technical Information Handout
- Programming Timers
- Programming Counters
- Program Control Instructions
- Data Manipulation Instructions
- Math Instructions
- Sequencer and Shift Register Instructions
- PLC Trouble Shooting

Text:

Programmable Logic Controllers, Au-Petruzella Pb Glencoe - McGraw Hill.

Student Assessment:

Student assessment will be based on laboratory practices, weekly assignments, class participation, mid-semester exams, and the final exam, as follows:

Lab Work	30%
Assignments	15%
Class Participation	10%
Tests	35%

Final Exam

10%

Academic Integrity:

Plagiarism is cheating. Plagiarism is presenting in written work, in public speaking, and in oral reports the ideas or exact words of someone else without proper documentation.

Whether the act of plagiarism is deliberate or accidental [ignorance of the proper rules for handling material is no excuse], plagiarism is, indeed, a “criminal” offense.

As such, a plagiarized paper or report automatically receives a grade of **ZERO** and the student may receive a grade of **F** for the semester at the discretion of the instructor.

Tutoring & Project Assist:

If you are having difficulty with work in this class tutoring is available through the Center for Academic & Student Success. If you think that you might have a learning disability, contact Project Assist at 856.691.8600 x 1282 for information on assistance that can be provided to eligible students.

Before Withdrawing From This Course:

If a student experiences adverse circumstances while enrolled in this course and considers withdrawing, s/he should see an advisor (division or advisement center) BEFORE withdrawing from the class. A withdrawal may cause harmful repercussions to completion rate standards and overall GPA, which can limit or eliminate future financial aid in addition to causing academic suspension.