

Course Title: INT 102 Introduction to PLC

Course Instructor(s): Anthony Valente, Dennis Ward

Programs: Industrial Technology

Expected Learning Outcomes

- Students will be able to describe typical components of a Programmable Logic Controller.
- Students will be able to explain the basic concepts of a Programmable Logic Controller.
- Students will be able to state basic PLC terminology and their meanings.
- Students will be able to explain and apply the concept of electrical ladder logic, its history, and its relationship to programmed PLC instruction.
- Students will be able to explain the concept of basic digital electronics and data manipulation.
- Students will be able to use timer, counter, and other intermediate programming functions.
- Students will be able to design and program basic PLC circuits for entry-level PLC applications.
- Students will be able to design and program a small, automated industrial production line.

Assessment

Assessments will include:
2 written test and a final exam.
Classroom lab exercises and assignments.
A final assignment in Programming a PLC

Validation

1. Comparison of final exam results with national average skills in the electrical field of work.
2. The evaluation of student performance and ability to transfer knowledge to next level of class in the program.

3. Consult Advisory Committee participants as to performance of interns and hired students based on ability and knowledge gained.

Results

The results of the testing and final examination will show the level of retention of the classroom materials.

The results of the lab exercises and assignments will show the ability of the student to transfer textbook information to hands-on applications.

The results of the Advisory Committee input will allow us to place a rate of success in our database for ongoing improvement to the course and advise us of changes in technology and industry standards.

Follow-up

The data will be evaluated to improve teaching techniques

The data will be evaluated to help us remain up to date with technology changes.

Budget Justification

Update textbook to include changes in technology

Update lab equipment to keep pace with changes in technology