

**Course Number:** EET 2200

**Course Title:** Intro to PLC's

**Course Description:**

This course provides an introduction to PLC programming and ladder logic. Interconnection of components and peripheral devices will be studied. Structured programming, debugging and the use of PC-based software will be discussed.

**Prerequisites:** EET 1100 and EET 1300.

**Credit hours:** 3

**Learning Outcomes:**

Upon completion of the course students will be able to:

1. Discuss the purpose, functions, and operations of a PLC
2. Create a PLC program using PLC software
3. Generate a ladder logic report
4. Run a PLC program using PLC software
- 5P Discuss the method of connecting peripheral devices

# INDIANA**TECH**

*College of Professional Studies*

## **EET 2200 Introduction to PLCs Online Syllabus Course Content**

### **Instructor Information**

Please see Professor Profile at the Blackboard instructional site.

### **Course Schedule**

Please see Course Schedule in the Course Syllabus area of the Blackboard instructional site.

### **Online Course Policies**

All of the online courses taken by students are required to follow the policies posted online at <http://online.indianatech.edu/tech-policies/policies/>. Please review the posted policies carefully. If you are unable to abide by the policies listed, please contact the Warrior Information Network (WIN) at 888.832.4742 and request to withdraw from this course.

### **Textbook / Course Resources**

There are lessons, videos and other resources utilized in this course. Access information and citations are noted throughout the course in the Learning Resources folders in each module.

### **Grading Events & Grading Criteria**

Unless otherwise specified, all assignments must be submitted via Blackboard.

You will have a variety of ways to demonstrate what you learn in this course. Below you will find the grading events and corresponding points available in this course.

#### **Grading Events**

<b>Week / Module</b>	<b>Description</b>	<b>Points Possible</b>
1	Course Preparation Quiz	20
1	Module 1 Discussion: PLC System in Your Workplace	25
1	Module 1 Homework	50
1	Module 1 Quiz	100
2	Module 2 Discussion: PLC Brands	25
2	Module 2 Homework	50
2	Module 2 Quiz	100

<b>Week / Module</b>	<b>Description</b>	<b>Points Possible</b>
3	Module 3 Discussion: Stopped Process	25
3	Module 3 Quiz	100
3	Module 3 Homework	45
4	Module 4 Discussion: New Production Line	25
4	Module 4 Quiz	125
5	Module 5 Discussion: Strategy, PLC Program, Motor Forward and Backward	25
5	Module 5 Project: Ladder PLC Program	100
5	Module 5 Quiz	50
6	Module 6 Discussion: Strategy, PLC Program, Time Based Sequential Outputs.	25
6	Module 6 Project: Traffic Light	100
	<b>Total Points Possible</b>	<b>990</b>

### Grading Scale

The following grade scale will be used to assign a grade at the end of the course.

Percentage Achieved	Grade
93% or above	A
90% or above	A-
87% or above	B+
83% or above	B
80% or above	B-
77% or above	C+
73% or above	C
70% or above	C-
60% or above	D
Below 60%	F

### Grading Criteria

#### *Discussion Board Assignments*

There are six (6) graded discussion board assignments in this course. These are participation activities that require you to post an original response to a prompt and then respond to two (2) classmates' original posts. You will be engaged in the Discussion Board in Modules 1-6. Your initial posting is due by Thursday (not later than 11:59 p.m. EST) and your responses to two (2) classmates are due by Sunday (not later than 11:59 p.m. EST). *Please refer to the EET 2200 Discussion Grading Rubric posted in each discussion.*

## Late Assignments

Every effort should be made to submit work for this course on time, according to the posted course schedule. The abbreviated nature of this course makes it difficult to “make-up” a missed assignment. All assignments and required online activities are due according to the deadline listed in the course schedule. Granting deadline extension is the course instructor’s autonomy.

## Incompletes

If you are unable to complete the requirements for this course due to extenuating circumstances, an Incomplete grade (I) may be granted if you meet the general guidelines stated below.

General Guidelines for submitting a course incomplete request:

- More than 50% of the course session has elapsed.
- The student has encountered an unexpected situation that is beyond his or her control.
- The student is
  - in good academic standing -- up to date on all of the course assignments and has at least an overall passing grade,
  - able to complete all of the remaining coursework within a session (5 weeks for an undergraduate course and 6 weeks for a graduate course) that immediately follows the session the student is currently enrolled, and
  - able to provide support documentations to substantiate the need for extra time should a session is not enough to complete the course requirements.

If an Incomplete is granted, the instructor will set a deadline for all work to be completed. **The deadline cannot go past one (1) session.** All incomplete grades and deadlines are subject to approval by the designated university authority.

## Blackboard Collaborate Tech Live Session

Each week, the instructor will host a one-hour Tech Live session in your course using Blackboard Collaborate. The instructor will communicate the day/time of the live session in the course schedule. Students are NOT required to attend the live session, but they must watch the recording at some point during the week if they cannot attend the scheduled time.

## Course Related Communication

Online courses are conducted in an accelerated format. Timely communication is very important. When receiving emails from your classmates or instructor, please respond as soon as you can.

Students are REQUIRED to use their Indiana Tech email account for all course related communication. The most direct, and effective, way to email your course instructor, and classmates, is by using the Send Email function from the Blackboard course site. When you use

the Send Email function, you automatically receive a carbon copy of the email you sent. In the event when you need to substantiate your claim that you did email your classmates or instructor, you can show that carbon copy to the person(s) who requested it.

Please note that Blackboard only permits you to send email, it does not provide you with the check email function. All the emails your classmates and instructor sent to you will be delivered to your Indiana Tech email account. You are strongly encouraged to check your Indiana Tech email account regularly, preferably several times a week, to minimize the likelihood of miscommunication.

The University policy requires each online course instructor to respond to a student's email within 24 hours. Unless there is an extraneous situation that prevents the instructor from following this rule, you can expect to hear from the instructor within 24 hours. If you don't receive a reply within 24 hours, please do not hesitate to follow up with another email or forward the carbon copy of the email you sent to [OnlineSupport@IndianaTech.edu](mailto:OnlineSupport@IndianaTech.edu) with a note "Please help. It's been 24 hours and I have not heard from my instructor" and the University support staff will act on your behalf to contact your course instructor.

#### Additional Course Policies

The remaining course policies are created based on the course instructor's autonomy. These course policies will be communicated at the beginning of the course on Blackboard.