

# ControlLogix Add-On Instructions, Function Block Diagrams, Structured Text Programming

September 2025

## Course Overview

After completing this course, students will develop advanced skills in programming ControlLogix Add-On Instructions, Function Block Diagrams, and Structured-Text Programs.. **The course is done on equipment made available by the client.**



## Course Objective

To provide the necessary information, resources, and hands-on activities needed to become proficient in these alternative programming methods. The course focuses on the benefits of these programming methods. There are ample hands-on exercises and troubleshooting that familiarize the student with the hardware and software.

## Who Should Attend

This course is recommended for maintenance and engineering personnel and those responsible for programming and maintaining this equipment. It is highly recommended that students have a thorough understanding of the concepts and practices included in the **ControlLogix Programming & Maintenance course (POCC101)**.

## Course Length and Cost

Per Student Cost:	\$1350 USD
Course Length:	3 Days

## Client Expectations

This training is provided at a discount by using equipment provided by the client. Students are expected to attend the entire training session to receive their certificate. It includes a separate workstation, DH/DH+ Communications Module, ControlNet Module, Ethernet Module, 1756-L75 Controller, and software for each student. An additional station for the instructor. In addition, make the following available:

- Computer and necessary software, including: RSLogix 5000, RSLogix 5, RSLogix 500, RSLinx, ControlFlash
- Internet Access
- Dry-erase board for examples, assignments, etc.

## Provider Expectations

The contractor will provide the following:

- Student Workbook with exercises
- RSLogix 5000 Instruction Set Reference (Digital)
- Select Procedure Guides
- Lab results can be provided if desired
- Certificate of Completion or Achievement
  - A completion certificate is provided to students who complete the entire class, but with no assessment
  - An achievement certificate is provided for those who complete the entire class and pass a written and programming assessment

## Course Agenda

Day 1:

- Safety
- Review of ControlLogix Communications Options
- Add-On Instructions
- Creating your own Add-On Instruction
- Locking the instruction
- Incorporating the instructions into a program

Day 2

- Function Block Diagram Programming
- FBD Instructions
- Programming using Function Block Diagrams
- Incorporating FBD programs into ControlLogix Program flows

Day 3

- Structured-Text Programming
- Structured-Text Instruction Syntax
- Programming using Structured-Text
- Incorporating Structured-Text into ControlLogix Program flows
- Comprehensive Programming Exercises using all of the above
- Assessment

## Adjustments

It may be necessary to adjust the course curriculum depending on the students' understanding of the material. Every effort will be made to include as much information as possible.

Time permitting, troubleshooting will be incorporated into the program. Troubleshooting will be limited to software, edits, and hardware configurations unless the client provides faulty equipment to be used.

If you have questions about any part of the course or would like to modify the course curriculum, please reach out to [PO Controls](#) to discuss. Price may vary depending on the extent of changes.