



AUTOMATION | ELECTRICAL  
INDUSTRIAL & SAFETY  
FLUID POWER

## AUTOMATION

MON. JAN 17 -  
FRI. JAN 21  
MON: 12 PM - 5 PM  
TUE-FRI: 8 AM - 5 PM

SMC JOPLIN  
923 W. 4TH ST.,  
JOPLIN, MO 64801

COURSE NUMBER CCP299  
**CONTROLLOGIX® / STUDIO 5000**  
**LOGIX DESIGNER® LEVEL 1: CONTROLLOGIX®**  
**FUNDAMENTALS & TROUBLESHOOTING**

## TRAINING EVENT

This course is designed for individuals who need to maintain and troubleshoot a ControlLogix system — but have no current working experience with ControlLogix systems. Upon completion of this course, you should be able to troubleshoot a previously operational ControlLogix® system and restore normal operation. All Logix5000™ systems use the same control engine; therefore, tasks are similar. You will see applicable references for other systems.

You will have the opportunity to develop and practice these skills by:

- Learning basic concepts and terminology used with
  - ControlLogix system hardware
  - Studio 5000 Logix Designer® application
- Practicing a systematic strategy for diagnosing and troubleshooting problems
  - Configuration issues
  - Electrical noise
  - Faulty/malfunctioning field devices
  - Controller I/O, or other hardware issues
- Performing hands-on exercises

This course will award 3.2 CEUs.



**Authorized  
Service Provider**

A ROCKWELL AUTOMATION PARTNER

### + HANDS-ON

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises.



**COST**  
**\$2,850**  
Includes Lunch  
(except Monday)



**REGISTER**  
To register, contact Suzan McPherson at  
smcpherson@smcelectric.com by  
Friday, December 31.

- Locating ControlLogix Components
- Navigating through the Studio 5000 Logix Designer Application
- Connecting a Computer to a Communications Network
- Downloading and Going Online
- Locating I/O Tags and Devices
- Interpreting Studio 5000 Logix Designer Project Organization and Execution
- Interpreting Ladder Logic Structure
- Locating and Editing Tag Values
- Interpreting Bit Instructions
- Interpreting Frequently Used Instructions
- Interpreting Arrays
- Interpreting Tags of User-Defined Data Types
- Searching for Project Components
- Integrated Practice - Interpreting a Basic Project
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Problems
- Troubleshooting Analog I/O Problems
- Troubleshooting Remote I/O Problems
- Updating Logix5000 Firmware
- Troubleshooting Controller Problems
- Troubleshooting Power Supply Problems
- Analyzing and Troubleshooting a System Using a Trend Chart
- Integrated Practice-Troubleshooting Basic Projects
- Editing Ladder Logic Online
- Managing Studio 5000 Logix Designer Project Files
- Documenting and Printing Components
- Troubleshooting Noise-Related Problems