

## Siemens Mechatronic Systems Certification Program (SMSCP) Instructor Certification: Level 1 (SMSCP-L1)

### Objectives

This course covers the application of Systems Approach to the content topics of the four Level 1 courses: Electrical Components; Mechanical Components and Electrical Drives; Electro-Pneumatic and Hydraulic Control Circuits; Digital Fundamentals and PLCs

This Instructor Certification is based on a Train-the-Trainer model: during this course you will apply the didactic teaching methods from the SAPW course to four courses that you can integrate and teach to students at your educational institution or employees at a training center.

### Target Group

Teachers  
Engineering or Engineering Technology Faculty or Professors  
Engineers  
Maintenance and Training Managers  
Technical Instructors for non-educational institutions

### Content

System Approach paradigm and course-specific didactic training in Electrical Components; Mechanical Components and Electrical Drives; Electro-Pneumatic and Hydraulic Control Circuits; Digital Fundamentals and PLCs  
Overview of job profile for Level 1 (Assistant, Intelligent Machine Operator)  
Review course syllabi  
Hands-on exercises with mechatronic systems, modules, and sub-systems  
Hardware fault implementation and troubleshooting  
Sample question review for Siemens student examination  
Test question development, using Systems Approach  
Troubleshooting strategies for systems, using the Diagnostic Kit  
Exposure to additional simulation tools  
Hands-on tasks with mechatronic systems  
Developing model systems for adaptive expertise  
Role of factory tours in study programs  
Sample lessons for troubleshooting  
Creation of sample lessons utilizing the Systems Approach  
Development of strategies for knowledge transfer from one system to another  
Implementation workshop for implementation of SMSCP locally

### Prerequisites

Teaching or industry background in Mechatronics or Electrical or Mechanical Engineering.  
Completion of Systems Approach Paradigm Week (SAPW) Instructor Certification course

### Note

In this course you will work with SIMATIC STEP7.  
After successfully completing this course, participants will be certified as a Siemens Mechatronic Systems Certified Instructor for Level I.

### Type

Face-to-face training

### Duration

5 days

### Language

en