

## SIMATIC S7-TIA Safety (TIA-SAFETY)

### Short Description

You will put your theoretical knowledge to use the training system SIMATIC S7-1500F with the STEP 7 Safety Advanced software in practical exercises.

### Objectives

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. In this course, you will learn about configuring, programming, starting up, diagnosing and troubleshooting of the failsafe CPUs of the SIMATIC S7 Safety PLC (no H systems) and the failsafe, distributed ET 200 systems.

After attending the course, you can do the following:

- Starting up failsafe CPUs of the SIMATIC PLC
- Programming of safety-related programs in the languages F-BFD and F-LAD
- Diagnosing and troubleshooting of safety-related programs.

### Target Group

Programmers  
Commissioning engineers  
Engineering personnel

### Content

- Overview and guidelines
- Safety Integrated (Operating principle and system configuration)
- Configuring of the failsafe components with STEP 7 Safety
- Programming of a safety-related user program
- Failsafe communication PROFIsafe (CPU-CPU communication, master-slave communication)
- Diagnostics facilities (CPU diagnostics, I/O diagnostics, advanced diagnostics)
- Exercises for I/O configuration, communication, troubleshooting
- Programming examples (emergency stop, protective door, safety-related shutdown, passivation, special programming features)
- Deeper understanding of contents through practical exercises on a SIMATIC S7-1500 F-CPU

### Prerequisites

Basic knowledge of SIMATIC S7 according to the courses TIA-SERV2 or TIA-PRO2

Additionally an online entrance test is available for you. So you may assure that the course of your choice fits to your competences.

### Note

In this course you will work with the SIMATIC STEP 7 software based on TIA Portal.

Documentation in English.

Register in the calendar one week before the training starts.

### Type

Face-to-face training

### Duration

3 days

### Language

no

### Fee

NOK 18 500,-