

## Online-Training - Programming Fail-Safe Controllers with STEP 7 Safety in TIA Portal (TIA-SAFETY)

### Short Description

In this online training, you will learn about configuring, programming, commissioning, diagnosing and troubleshooting fail-safe SIMATIC controllers and fail-safe, distributed ET 200 systems. In our virtual exercise environment VE Lab you will put your theoretical knowledge to use with the STEP 7 Safety software in TIA Portal.

### Objectives

After attending the course, you can do the following:

- Commissioning fail-safe SIMATIC controllers
- Programming of safety-related programs in the languages FBD and LAD
- Diagnosing and troubleshooting of safety-related systems and programs

You will deepen your theoretical knowledge through numerous practice-oriented exercises in our virtual exercise environment (VE Lab).

### Target Group

- Programmers
- Commissioning engineers
- Engineering personnel

### Content

- Overview and guidelines
- Product overview and operating principle Safety Integrated
- Configuring of the fail-safe components with STEP 7 Safety in TIA Portal
- Programming of a safety program
- Programming tips according to [Programming Guideline Safety for SIMATIC S7-1200/1500](#)
- Diagnostics facilities (CPU diagnostics, I/O diagnostics, advanced diagnostics)

### Prerequisites

- Basic knowledge of SIMATIC S7 according to the course [TIA-PRO1](#) or [TIA-SERV1](#).
- [Technical requirements](#)

So you may assure that the course of your choice fits to your competences an [online entrance test](#) is available for you.

### Note

In this course you will work with the SIMATIC STEP 7 Safety software in TIA Portal.

Additionally you have the opportunity to take an examination and receive certification on a separate date. You'll find further information and the registration at [CPT-TIASAF](#).

### Type

Online-Training

### Duration

3 days

### Language

en