

## Safety in TIA PORTAL via Step 7 Safety Advanced (TIA-SAFETY)

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### Short Description

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In this course, you will learn about configuring, programming, commissioning, diagnosing and troubleshooting fail-safe SIMATIC controllers and fail-safe, distributed ET 200 systems. In practical exercises you will put your theoretical knowledge to use on a training system with the STEP 7 Safety software in TIA Portal.

### Objectives

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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

### Target Group

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Programmers  
Commissioning engineers  
Engineering personnel

### Content

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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](#)  
Fail-safe communication (CPU-CPU communication with couplers and I device)  
Diagnostics facilities (CPU diagnostics, I/O diagnostics, advanced diagnostics)

### Prerequisites

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Basic knowledge of SIMATIC S7 according to the course TIA-PRO1 or TIA-SERV1.  
So you may assure that the course of your choice fits to your competences an [online entrance test](#) is available for you.

### Note

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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

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Face-to-face training

### Duration

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3 days

### Language

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