

## Learning Journey - Programming Fail-Safe SIMATIC Controllers (TIA-SAFETY-LJ)

### Breve descrizione

On this learning journey, you will learn to configure and program fail-safe SIMATIC Controllers with TIA Portal.

An optimal mix of guided live modules (online) and self-learning modules will provide you with all of the content imperative for your work and sustainable learning success. Various practical tasks in our virtual exercise environment throughout the Learning Journey help you to prepare for practical application. The Learning Journey provides curated on-demand content to support you in your own personal practice transfer.

[More information on Learning Journeys](#)

### Obiettivi

After this learning journey

- you have an overview of the Machinery Directive and relevant standards,
- select fail-safe hardware and configure it according to your functional safety requirements,
- create high-performance and resilient safety programs with STEP 7 Safety in TIA Portal,
- verify safety programs,
- put safety systems into operation and
- diagnose and trouble-shoot safety systems quickly and efficiently.

You will deepen your theoretical knowledge through numerous practice-oriented exercises in our exercise environment.

### Gruppo target

- Programmers
- Commissioning engineers
- Engineering personnel

### Contenuti del corso

This learning journey consists of:

- 9 live modules (3–4 hours each)
- 9 self-learning modules (approx. 10 hours)
- Curated on-demand content

A learning membership to work through the self-learning modules and access to on-demand content is included for 1 year.

The learning journey ends with the exam ["Siemens Certified Automation Engineer for SIMATIC Safety – Configuration and Programming"](#).

#### Topics

- 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 and error handling

### Prerequisiti partecipante

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

So you may assure that the course of your choice fits to your competences an [Online Assessment Test](#) is available for you.

### Nota

This learning journey roughly corresponds to the content and objectives of the learning events [TIA-SAFETY](#) and [CPT-TIASAF](#). Participation in the Learning Journey is personal and non-transferable.

### Tipologia

Percorso Formativo

### Durata

40 ore

### Lingua

en

