

## FS 132 | Functional Safety Engineer (TÜV Rheinland)

## TrainingFacts

### Live Online Training

### Safety Instrumented Systems (SIS) Training of the TÜV Rheinland Functional Safety Program

International standards as IEC 61508 and IEC 61511 require your ability to demonstrate competency for all steps of the Safety Lifecycle, where you are involved.

HIMA is an accepted course provider of the TÜV Rheinland Functional Safety Program. This training will provide you with valuable skills and knowledge which can be used in your daily activities.

The course has been developed to provide an overview of current industry standards, functional safety concepts and current tools used to determine safety integrity levels (SIL), while applying industry recognized techniques and methodologies.

#### Participant requirements

A minimum of 3 years of experience in the field of Functional Safety  
University degree or equivalent engineer level responsibilities status as certified by employer

#### Certificate

The successful completion of the final exam will provide you with a "FS Engineer (TÜV Rheinland)" certificate.

**Duration:** 3,5 days,  
beginning / ending will be announced

**Number of participants:** minimum 2, maximum 16 participants

**Registration:** <http://academy.hima.com>

**Contact:** [training@hima.com](mailto:training@hima.com)

### Course Content

- Introduction to Functional Safety, standards, basic terms and definitions
- Functional Safety Management (Safety Lifecycle, competence, independence, verification, validation, modification, ...)
- Hazard & Risk Analysis
- Safety Requirement Specification (SRS)
- Safety Instrumented Systems (SIS) hardware design (SFF, HFT, architectures, choice of equipment, prior use, certified modules, PFDavg)
- Software design (specification, design, testing, ...)
- SIS Security
- Operation and Maintenance (repair, proof test, bypasses, ...)

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**This fact sheets provides additional information about FSE online course and online exam:**

### **Agenda:**

**4 days course, 6 hours per day theoretical lessons via MS-Teams + Homework exercises**

(detailed information, including precise date and times participants receive via E-Mail)

**Exam on extra day, usually the following week.**

### **Course:**

Course will be executed via **MS-Teams**

All documentation provided as **PDF files** (second screen, widescreen or printout recommended)

**PC/laptop with camera & micro must be available**

Homework exercises must be executed and sent back to the trainer

### **Exam:**

Participant must install a third party software (**Safe Exam Browser - SEB**) on his laptop or PC

Administrator rights on laptop/PC required.

According link and further instructions about SEB will be provided via E-Mail.

Participant will receive a link to the online exam and must enter 60 multiple choice questions and 23 open questions on his PC

(Safe Exam Browser ensures, that only the exam can be executed and blocks all other computer functionalities)

During exam a permanent **camera surveillance** of the workspace must be installed (e.g. via Smartphone or another laptop)

(trainer must be able to see the participant executing the exam without any books, documents or devices on its table)