



## FS 142 | Functional Safety Technician (TÜV Rheinland)

# TrainingFacts

### **Safety Instrumented Systems (SIS) Training as a part of the TÜV Rheinland Functional Safety Program**

This course is designed for people working in industrial plants with potential hazards and deal with safety-related systems during the active and dangerous operating phase of a plant, e.g., plant operators, instrumentation and control technicians, maintenance staff or persons responsible for operation and maintenance.

As a recognized partner of the TÜV Rheinland Functional Safety Program, HIMA offers the "FS Technician" training to help you establish your credentials. The course is intended for technicians and engineers like you who manage, plan, operate, maintain, repair, test or modify existing safety systems in industrial plants.

International standards such as IEC 61508 and IEC 61511 require that persons involved in the lifecycle phases of a safety system - whether planning, installation, commissioning, testing, maintenance or modification - must provide evidence of their competence.

You will obtain valuable knowledge and skills related to safety technology and safety functions within the overall context of your plant's Functional Safety, which will support you in assessing and implementing your daily tasks more effectively. You will learn key concepts and gain insights from the entire spectrum of Functional Safety topics.

The training is also suitable for system engineers, plant engineers and operational management who want to get a good and basic knowledge on Functional Safety. The hands-on approach is ideal for developing a deep understanding and helps satisfy the requirements for the "FS Engineer" (TÜV Rheinland) training, which is also offered by HIMA.

In this course, you will learn:

- Why and how to use Functional Safety Management.
- How the protective measures required for your plant are determined based on the risk and hazard assessment.
- How to effectively specify the requisite Safety Instrumented Systems (SIS).
- Which Functional Safety concepts relating to hardware and software are utilized when designing a compliant SIS.
- Simple security techniques that can be employed to protect your plant against external attacks.

The course focuses on the lifecycle phases "Operation and Maintenance" and "Modification" with these specific topics:

- People as a safety factor
- Procedures
- Training
- Bypass
- Repair and spare parts
- Functional testing (proof testing)
- Visual inspection
- Maintenance
- SIS performance evaluation
- Data collection
- Revalidation of the hazard and risk analysis
- Modification and inventory protection

### Participation requirements

Prerequisites for admission to the TÜV Rheinland Functional Safety Program:

1. Vocational Certificate in a relevant engineering discipline or equivalent experience and responsibilities as certified by employer.
2. At least 2 years of experience in the field of Functional Safety, e.g., plant operators, instrumentation and control technicians, maintenance staff or persons responsible for operation and maintenance.

### Certificate

A test at the end of the course will determine your level of knowledge.

After successfully completing the test, you will receive the certificate "FS Technician" (TÜV Rheinland).

**Duration:** 3 days, beginning Tuesday, 09:00, ending Thursday 17:00.

2 hours exam on Thursday

**Number of participants:** minimum 6, maximum 20

**Registration:** <https://www.hima.com/en/products-services/seminars/>

**Pricing 2021:** For a quotation, please contact our Training Center

### Dates in 2021

Dates	Location	Country	Language
23.08-25.08.2021	Perth	Australia	English
09.11-11.11.2021	Singapore	Singapore	English