

# Safety Mgmt. Systems : Certification - TÜV Functional Safety Program IEC 61508 SIL



## Course Overview

**Course number:** SMS-4503

**Course length:** 5 days (includes TUV FS Exam)

**NOTE:** Honeywell employees will be charged a special fee for this course.

Currently, many companies are heavily involved with the implementation of the emerging international safety standards IEC 61508, IEC61511 and ISA 84.01.

In a summary, the following aspects need to be considered to comply with IEC 61508:

1. What are the potential hazardous events and their associated risks and what risk reduction is required to achieve an acceptable safe process installation?
2. How can it be established and confirmed that the chosen safeguarding measures/equipment realize the required risk reduction e.g. realize a specific safety integrity level (SIL)?
3. What activities need to be carried out to guarantee that this safety integrity level is maintained during the entire lifetime of the safeguarded process installation? IEC 61508 has specified detailed requirements on the application of electric/electronic/programmable electronic safety related systems (E/E/PE-SRS).
4. What documentation needs to be generated and controlled while the safety life cycle process is being executed?

## Course Benefits

Honeywell Safety Consultancy helps Safety Engineers in the process industry to adopt the IEC 61508, IEC 61511 and ISA 84.01 standards and implement its requirements in a structured manner.

All attendants (with 3-5 years experience in the field of Functional Safety), who complete the training and pass the exam successfully will receive a TÜV FS Eng certificate.

## Course Delivery Options

- In-Center Training
- Customer Site Training

## Who Should Take This Course?

- HSE managers
- HAZOP leaders
- Instrumentation engineers
- Process operations
- Maintenance and testing engineers

## Prerequisite/Skill Requirements

### Prerequisite Course(s)

- None

### Required Skills and/or Experience

- 3-5 years in the field of functional safety
- University Degree (Masters or Bachelors Engineering) or equivalent engineering level responsibilities status certified by employer
- Persons who do not have the minimum business experience may participate in the training as well as the exam. If they pass the exam successfully the TÜV FS Engineer certificate will be issued to them as soon as the necessary 3 years of business experience in the area of functional safety are achieved

### Desirable Skills and/or Experience

- None

## Course Topics

- Hazard and risk assessment methodologies
- Safety Requirements Specification / SIL Selection
- SIS design concepts
- Reliability Analysis techniques, FTA, RBD, FMEA, Markov
- SIS validation techniques
- SIS operation, maintenance and testing
- SIS-related Process Safety Management
- Safety Lifecycle Management
- Safety verification, validation, audits and assessments
- Introduction to ISA 84.01 and IEC 61511

## Additional Training

To increase your knowledge and skills, there are additional courses available from Automation College.

For more information and registration, visit

[www.automationcollege.com](http://www.automationcollege.com).