

Functional safety for machinery technician CERTIFICATION

Référence du cours: BE-SAF-TUV0-FR

Durée: 2 jours (examen + 0.5 jour)

Lieu: Diegem (BE)

Prix: Voir calendrier

Course Purpose

The standards regarding functional safety and relevant laws and directives demand that people and organizations performing responsible (accountable) tasks during relevant life cycle phases of a machine must achieve and prove required competencies.

In this training, students will learn how the current standards dictate the selection, assembly, installation, validation, and maintenance of safety devices and components to reduce hazards from machinery and ensure the safety of people and the environment. Practical examples will demonstrate possibilities regarding machine protection.

This training will also cover safety topics, such as: redundancy, testing, distance calculations, assigning required level of risk reduction as PL, monitoring moveable guard positions, and fault avoidance for relevant life cycle phases.

After completing this course, students should understand and be able to use ISO 12100, IEC 60204-1 and other relevant machine functional safety standards.

Students who want Functional Safety for Machinery Technician Certification (TÜV Rheinland) must meet all eligibility requirements and pass the exam scheduled at the end of the second day.

Who Should Attend

Machine technicians, application engineers, safety specialists and those responsible for repairing and maintaining machine safety should attend this course.

Prerequisites

Required:

- Minimum of 1 year experience working on industrial machinery
- A completed and approved eligibility form to receive certification (see details in the next section)

Recommended

- Basic working knowledge of electrical and electronic control functions for machinery
- Awareness of basic safety principles

Certificate Eligibility Requirements

Requirements to receive the Functional Safety for Machinery Technician Certificate (TÜV Rheinland):

- Before taking the course, an eligibility form from TÜV Rheinland must be completed and approved, proving:
 - Minimum of 1 year experience working on industrial machinery
 - Documented education, high school diploma or global equivalent
 - or
 - Experience in machinery maintenance and operation verified by employer
- Attended complete two-day course
- Passing grade of 70% or higher on the exam

If all eligibility requirements are fulfilled, exam participants will receive individual notification of results and the Functional Safety for Machinery Technician certificate from TÜV Rheinland.

Exam

The Student Manual may be used during the exam

Course contents

Day 1

- Understanding the Functional Safety for Machinery Technician Certification (TÜV Rheinland)
- Defining Legal Guidelines and Standards
- Defining Risk Analysis and Processes (ISO 12100:2010)
- Defining Basic Electrical Safety Principles (IEC 60204-1)
- Defining Basic Safety Principles
- Defining Machine Guarding Principles

Day 2

- Identifying Safety Functions
- Identifying Safety Devices
- Identifying Circuits, Schematics, and Examples
- Defining New Standards Regarding Safety of Machinery
- Evaluating Machine Safety Using a Practical Example
- Exam (1 hour)