



Safety Instrumented Systems (SIS) Training for Oil and Gas

Barcelona (Spain) -

02-11-2026

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Course code: SC217 From: 02-11-2026 Venue: Barcelona (Spain) - Course Fees: 5000 £

Introduction

Safety Instrumented Systems (SIS) play a critical role in the oil and gas industry by safeguarding personnel, assets, and the environment. This training program is designed to provide participants with a deep understanding of SIS principles and practices. Participants will learn to design, implement, and maintain effective SIS, contributing to enhanced safety and compliance within their organizations.

Course Objectives of Safety Instrumented Systems

Upon completing this program, participants will be able to:

- Understand the importance of Safety Instrumented Systems (SIS) in oil and gas operations.
- Identify and explain key components of SIS.
- Design, implement, and maintain SIS effectively.
- Comprehend the role of SIS in risk reduction and process safety.
- Ensure compliance with industry standards and regulations related to SIS.
- Troubleshoot and address common SIS issues.

Course Methodology of Safety Instrumented Systems

This program will employ a combination of engaging learning methods, including:

- Lectures and Expert Insights: Leading industry experts will share their insights and best practices.
- Case Studies: Analyze real-world talent acquisition challenges and solutions.
- Group Discussions: Engage in meaningful discussions and share experiences with peers.
- Role-Playing and Simulations: Practice scenarios to enhance skills.

Organizational Impact of Safety Instrumented Systems

This training program will have a positive impact on organizations by:

- Improved safety measures through effective SIS implementation.
- Reduced risks associated with process-related incidents.
- Enhanced compliance with safety standards and regulations.
- Greater confidence in handling SIS-related tasks.
- Increased operational reliability and uptime.

Personal Impact of Safety Instrumented Systems

Participants will experience personal growth and development, including:

- In-depth knowledge and expertise in Safety Instrumented Systems.
- Enhanced ability to contribute to process safety within the organization.
- Improved career prospects in safety and instrumentation roles.

- Increased confidence in designing, implementing, and maintaining SIS.
- Greater awareness of safety best practices in the oil and gas sector.

Who Should Attend

This training program is ideal for:

- Safety Engineers and Managers
- Instrumentation and Control Engineers
- Process Engineers
- Maintenance Personnel
- HSE (Health, Safety, and Environment) Professionals
- Anyone involved in safety-related roles within the oil and gas industry.

Course Outline

Day 1

Introduction to Safety Instrumented Systems (SIS)

- Importance of SIS in Oil and Gas
- SIS Components and Architecture
- SIS Standards and Regulations

Day 2

SIS Design and Implementation

- Hazard and Risk Assessment
- SIS Lifecycle Phases
- SIL (Safety Integrity Level) Determination

Day 3

SIS Implementation and Testing

- SIS Design and Configuration
- SIS Testing and Verification
- Documentation and Records

Day 4

SIS Maintenance and Management

- SIS Maintenance Strategies
- Management of Change (MOC) for SIS
- SIS Auditing and Compliance

Day 5

SIS Troubleshooting and Case Studies

- Common SIS Issues and Solutions
- Real-world SIS Case Studies
- Course Review