

€ TRAINING

Piping Mastery Using ASME B31 Standards



16 - 20 March 2025
Cairo (Egypt)



Piping Mastery Using ASME B31 Standards

REF: KJ1063 DATE: 16 - 20 March 2025 Venue: Cairo (Egypt) - Fee: 4465 Euro

Introduction:

This program is designed to prepare participants for the certification exam only.

The ASME B31 standards represent the benchmark for safe and efficient piping system design, installation, and maintenance across diverse industries. This training program is designed to provide participants with in-depth knowledge of these standards, equipping them with the expertise to ensure compliance, optimize performance, and uphold safety in piping systems. Participants will obtain an in-depth understanding of the ASME B31 code rules and API standards and their technical basis.

Program Objectives:

By the end of this program, participants will be able to:

- Identify the scope and applications of ASME B31 standards in piping systems.
- Adhere to the standards for designing, analyzing, and maintaining piping systems to ensure their safety and effectiveness.
- Evaluate compliance with regulatory and industry requirements.
- Address common challenges in piping system operations and maintenance.
- Prepare thoroughly for the ASME B31 certification exam.

Targeted Audience:

- Piping and mechanical engineers.
- Maintenance and operations professionals.
- Quality assurance and compliance officers.
- Project managers involved in piping system projects.
- Professionals preparing for ASME B31 certification.

Program Outline:

Unit 1:

Introduction to ASME B31 Standards:

- Overview of the ASME B31 code series and its significance.
- Scope and applications of ASME B31.1, B31.3, and other relevant codes.
- Key principles and terminologies in piping system standards.
- The relationship between ASME B31 and other industry regulations.
- Importance of compliance in ensuring safety and reliability.

Unit 2:

Piping System Design and Analysis:

- Fundamentals of piping system design using ASME B31.
- Criteria for material selection and stress analysis.
- Design considerations for pressure, temperature, and load variations.
- Ensuring flexibility and integrity in piping layouts.
- Tools and software for piping design and compliance verification.

Unit 3:

Inspection, Testing, and Maintenance:

- Inspection requirements as per ASME B31 standards.
- Non-destructive testing NDT methods for piping systems.
- Ensuring compliance during construction and installation.
- The role of routine maintenance practices for optimal performance.
- Addressing corrosion, wear, and other operational challenges.

Unit 4:

Risk Assessment and Regulatory Compliance:

- Identifying risks associated with piping systems.
- Implementing risk-based approaches for system safety.
- Ensuring alignment with local and international regulations.
- Documentation and reporting requirements under ASME B31.



- Strategies for audit readiness and continuous improvement.

Unit 5:

Certification Exam Preparation:

- Understanding ASME B31 certification requirements and exam format.
- Reviewing key topics and concepts covered in the exam.
- Sample exam questions and their potential answers.
- Resources and materials for further study.

Note: This program is designed to prepare participants for the certification exam only.