

## ASME B31.4 & B31.8 Pipeline Codes for Liquid & Gas Services

### Course general description:

This course offers intensive knowledge and experience in Liquid & Gas services pipeline application fields specially in petroleum and petrochemical, considering all construction aspects such as materials, design, manufacturing, and testing. Focusing on explaining the most important code paragraphs and its applications.

The course presents the required practical code knowledge needed in daily work activities in engineering and production companies.

### Audience:

Piping engineers, pipeline engineer, construction engineers, maintenance engineers, production engineers, process engineers, mechanical engineers.

### Course objectives:

At the end of this course the participant should be able to,

- Comprehends the code structure and organization
- Recognize and applies code paragraphs used the daily work activities
- Locate and selected the suitable code paragraph to specific situation
- Solve different engineering issues in accordance with code provisions

### Course Level

#### Fundamental level

**Fundamental:** covers concepts and skills in the topic being studied (Usually 0-3 years in the field)

**Intermediate:** Individuals with some engineering experience will learn to apply their existing engineering knowledge and skills to problems (Usually 3-5 years in the field)

**Advanced:** Participants analyze and critique information about complex problems or newly emerging areas, includes mastery of skills, evaluation, management, and supervision. (Usually over 5-10 years in the field)

### Participant evaluations

	Points	Frequent
Exercise sheets	60	one exercise sheet per week for online instructor led method. one exercise sheet per two days for live interactive instruction method
Case study/ final exam	40	Final course integrated case study will be submitted at the end of the course and/or final exam (MCQ)

- The above plan can be modified as required

### Course duration:

5 days

### Course location:

Cairo-Dubai-Istanbul

Course equivalent ASME standard PDH = 25 Hr.

5 DAYS for live interactive instruction method OR		
8 lectures, twice per week for online instructor led method		
5 hours	<ul style="list-style-type: none"><li>• Pipeline Components</li></ul>	Delivery Method:

	<ul style="list-style-type: none"> <li>• Pigging system</li> <li>• Introduction to ASME B31.4 &amp; 8</li> </ul>	Presentation Discussion Exercise sheets Case study Final exam
5 hours	<ul style="list-style-type: none"> <li>• API 5L line pipe specification</li> <li>• Line pipe Manufacturing Considerations</li> </ul>	
5 hours	<ul style="list-style-type: none"> <li>• Pipeline Design Considerations</li> <li>• Design requirements</li> </ul>	
5 hours	<ul style="list-style-type: none"> <li>• Pressure design</li> <li>• Fabrication requirements</li> </ul>	
5 hours	<ul style="list-style-type: none"> <li>• Operation Considerations (Smart pigging)</li> <li>• Inspection &amp; Testing</li> </ul>	
5 hours	<ul style="list-style-type: none"> <li>• Discussion and case study demonstrating engineering deliverables on recent project</li> </ul>	

**Notes:**

- The course is developed and accredited by ASME certified regional instructor based on ASME international training policy
- The Course is equivalent to ASME standard PDH = 25 Hr.
- The course is a part of ASME professional program “specialization diploma in piping and pressure vessels”
- The Course category (A)

**Methodology:**

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

**Course code: (TEME008)**