

Piping & Pipeline Design & Construction in Petroleum & Petrochemical Plants

Course general description:

This course offers the basics and fundamental knowledge and experience in piping components and its specialties considering all construction aspects such as materials, design, manufacturing, and testing. The course presents the required practical information needed in daily work activities in engineering and production companies such as material serviceability, end preparation suitability, supplementary requirements and purchasing techniques.

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,

- Distinguish between different types of Equipment
- Distinguish between different types of PV Components
- Distinguish between different types of PV internals & accessories
- Select and specify the suitable piping item
- Read and review PV datasheet, calculation and fabrication DWGs
- Use PV elite software for PV design as a beginner

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:

Five days

Course location:

Dubai

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

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5 hours	<ul style="list-style-type: none"> • PV L1 (Equipment classification) • PV L2 (PV Components) • PV L3 (PV internals & accessories) 	Delivery Method: Presentation Discussion Exercise sheets Case study Final exam
5 hours	<ul style="list-style-type: none"> • PVD L1 (Pressure Design) • PVD L2 (Opening Design) • PVD L3 (Support Design) • PVD L4 (Design against Loads) 	
5 hours	<ul style="list-style-type: none"> • ED L3 A.(PV Design basis & Purchasing Doc.) • ED L3 B.(PV Design DWG.) 	
5 hours	<ul style="list-style-type: none"> • ED L3 C. (PV Design Calculation.) • ED L3 D.(PV Fabrication Procedures & reports) 	
5 hours	<ul style="list-style-type: none"> • Introduction to PV Elite program • Discussion and case study demonstrating engineering deliverables on recent project 	

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 (C)

Methodology:

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

Course code: (TEME005)