



PCE228

Oil & Gas Industry Operations

Course Introduction:

This 5 days course will provide the participants with an integrated view of the oil & gas field production and related facilities. It will also present an overview/fundamental understanding of the wide range of oilfield production handling and treatment equipment. It will also provide the participants with an overall understanding of the fluid behavior inside the reservoir, through the downhole tubular and the processing facilities. It is exceptionally useful for those who would like to obtain an overview of the oil & gas business, industry components, production technology and different recovery methods.

The course will provide an overview of the oil & gas field operation processes and related surface facilities. The delegates will gain an improved knowledge about various aspects of the oil & gas industry operations.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- ✓ Provide the participants with an overview of global oil & gas related statistics
- ✓ Provide the participants with an overview of upstream, middle stream and downstream operations and related facilities
- ✓ Provide the participants with an understanding of various methods and techniques used throughout the Oil & Gas Industry to explore, drill, produce, treat and transport oil, gas and their products
- ✓ Provide the participants with an understanding of various field facilities from the reservoir to end users
- ✓ Understand oil & gas field operational problems and troubleshooting
- ✓ Understand various production and recovery techniques and methods
- ✓ Provide the participants with an understanding with regards to evaluating oil & gas reserves, artificial lift and enhancing recovery
- ✓ Get a general feel for conducting economic evaluation on field development projects and risk analysis

Who Should Attend?

This course is intended for all oil & gas field personnel, operations and maintenance technicians, and engineering trainees. It would also be of benefit to other support staff who have an interest in increasing their understanding of the oil & gas field operations

Course Outline:

Day 1:

OIL & GAS UPSTREAM DYNAMICS

- Global Energy Statistics: Reserves, Production, Transportation, Consumption
- Oil & Gas Industry Components, NOCs, INOCs and IOCs; Oil and Gas Storage, Gas Flaring, Petroleum Trade, Oil Price Volatility
- The Upstream Operations
 - Exploration and Seismic
 - Drilling Operation and Rig Components
 - Deviated and Horizontal Drilling
 - Well Testing, Completion and Production
 - Well Damage and Treatment

Day 2:

OIL & GAS PRODUCTION

- Rock and Fluid Properties
- Reserves Determination
- Reservoir Properties and Performance
- Production Methods and Facilities
- Artificial Lift Methods and Facilities
- Oil & Gas Recovery Methods
- New Frontiers: Shale Oil Tight Oil, Tight Gas, Heavy Oil
- Landscape Changes: Smart Technologies, Innovations, New Trends

Day 3:

OIL & GAS DOWNSTREAM

- The Downstream Operations
 - Wellheads, Manifolds
 - Separator components and Troubleshooting
 - Oil & Gas Treatment and Facilities
 - Oil Tank Types

Day 4:

OIL & GAS PROCESSING & REFINING

- Oil & Gas Rate Measurement
- Pipeline Pigs types
- Valve Types
- Oil & Gas Processing Methods and Facilities

- Pumps & Compressors Types
- Refinery Operations and Products

Day 5:

OIL & GAS FIELD DEVELOPMENT

- Field Safety
- Corrosion & Scale Control
- Oil & Gas Field Development Economic Evaluation
- What are the considerations in selecting proper technology, capital and operating costs for the project?
- Latest tools, techniques and practices

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per course location. This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee/Tea
08:20 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Coffee/Tea/Snacks)
13:30 - 15:00	Last Session

