



Oil, Gas and Chemical

Petroleum Engineering for Non-Specialists

Course Introduction

Petroleum engineering plays a critical role in the oil and gas industry, providing essential technology to ensure a consistent supply of crude oil and natural gas. This field encompasses both technical and non-technical activities. For non-technical staff, understanding the fundamentals of petroleum engineering can significantly enhance productivity.

This course is designed to offer non-technical personnel a comprehensive overview of petroleum engineering concepts and practices. It adopts a holistic approach, covering everything from initial oil exploration to methods for increasing oil production and maximizing recovery. Additionally, the course addresses the entire life cycle of an oil field and introduces basic petroleum economics. Participants will also explore current and future challenges facing the oil industry.

Participants will gain insights into the following key areas:

- Fundamentals of Petroleum Engineering
- Importance of Petroleum Engineering in the Oil Industry
- Main Components of Petroleum Engineering
- Petroleum Geology and Drilling Processes
- Basics of Reservoir Engineering
- Initial Hydrocarbon Quantities and Recovery Techniques
- Reservoir Life Cycle
- Production Optimization Strategies
- Essentials of Petroleum Economics
- Current and Emerging Challenges in the Oil Industry

Training Methodology:

The course employs a blend of technical presentations, interactive discussions, and practical examples supported by video materials. This approach ensures that participants will effectively apply their new knowledge.

Target Audience

- Non-Technical Staff in the Oil Industry
- Team Leaders and Managers in the Oil Industry
- New Hires in the Oil Industry
- Junior Petroleum Engineers
- Field/Production Engineers
- Facilities/Process Engineers
- Junior Development/Exploitation Engineers
- Geoscientists and Petrophysicists
- Technologists
- Individuals seeking a broader understanding of petroleum engineering

Learning Objectives

- Recognize the role of petroleum engineers within the oil industry.
- Understand the significance of petroleum engineering.
- Acquire knowledge of the main elements of petroleum engineering.
- Gain an overview of the oil field life cycle.
- Identify current and future challenges within the oil industry.

Course Outline

- **01 Day One**
 - **Introduction to Petroleum Engineering**
 - Definition and Importance of Petroleum
 - Locations of Oil and Gas Fields
 - Overview of Petroleum Engineering

- Roles and Responsibilities of Petroleum Engineers
- Key Aspects of Petroleum Engineering:
 - Exploration
 - Geology
 - Drilling
 - Reservoir Management
 - Production
 - Refining

• 02 Day Two

Core Elements of Petroleum Engineering

- Importance of Petroleum Geology
- Oil Trapping Mechanisms
- Rock and Fluid Properties
- Drilling Engineering Fundamentals
- The Drilling Process
- Well Completion Techniques

• 03 Day Three

Fundamentals of Reservoir Engineering

- Understanding Reservoirs
- Importance of Reservoir Engineering
- Types of Reservoirs
- Reservoir Life Cycle
- Concepts in Reservoir Simulation
- Field Development Planning

• 04 Day Four

Oil Recovery Methods

- Initial Oil in Place
- Recovery Factors
- Primary Recovery Techniques
- Secondary Recovery Methods
- Enhanced Oil Recovery (EOR) Techniques

• 05 Day Five

Production Optimization

- Evaluating Well Performance
- Nodal Analysis Approach

- Artificial Lift Technologies
- Concepts of Oil Economics
- Addressing Current and Future Challenges in the Oil Industry

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
June 15, 2025	June 19, 2025	5 days	4250.00 \$	KSA - Riyadh
Sept. 1, 2025	Sept. 5, 2025	5 days	5950.00 \$	switzerland - Geneva
Nov. 3, 2025	Nov. 7, 2025	5 days	4250.00 \$	UAE - Dubai
Jan. 5, 2025	Jan. 9, 2025	5 days	4250.00 \$	Qatar - El Doha