



Oil, Gas and Chemical

Basic Reservoir Engineering

Course Introduction

This 5-day BOOST training course will give the reservoir engineers a better understanding of reservoir engineering practices and limitations. The course is designed to provide a good idea of reservoir engineering processes, the required data, and the limitations on the engineering analysis and interpretations. This course also provides person who are already well trained in the other upstream petroleum industry technical disciplines with an understanding of the current state-of-the-art practices of reservoir engineering.

Target Audience

- Process design
- Unit Operator
- Environmental
- Process safety engineer
- Gasoline blender engineer
- Lab supervisor
- Supply chain engineer
- Distillates analyst
- Models engineer
- Chemical Operator
- Chemical Plant Operator
- Chemical Process Technician
- Control Room Supervisor
- Gas Plant Process Operator
- Gas Production Operator
- Gas Terminal Operations and Storage
- Gathering Pipeline engineer
- Oil Terminal / Storage engineer
- Pipeline Maintenance / Equipment / Compliance / Repair
- Pipeline Testing / Technician / Supervisor / Safety
- Plant Equipment Operator

- Plant Operations Technician
- Plant Shutdown
- Plant Supervisor
- Power Distribution
- Power Plant Manager
- Process Supervisor
- Refinery Operations Technician / Manager
- Terminal Operator / Manager
- Utilities Operator

Learning Objectives

- Know how to utilize the tools and techniques of the reservoir engineering.
- Learn how to apply the principles of reservoir engineering
- Know how to develop reservoir, well performance and asset management options
- Understand the fundamentals of fluid flow in porous media.
- Understand how the reservoirs are characterized by fluid type and drive mechanisms.
- Find out the basis for the reservoir fluid distribution.
- Have a full knowledge about oil and gas well performance and pressure build up analysis.
- Understand the theory of oil displacement and optimum reservoir performance.
- Learn how to calculate the in-place hydrocarbon with different methods (Volumetric and Material Balance).
- Know how to predict the recovery.

Course Outline

- 01 Day One

Introduction to rock properties

- Absolute and effective porosity
- Permeability.
- Fluid saturation
- Effective and Relative permeabilities
- Capillary pressure
- Rock Wettability

• 02 Day Two

Type of the reservoirs

- Oil reservoirs driving mechanisms
- Gas reservoir driving mechanisms
- Volumetric reserves estimation

• 03 Day Three

Fundamental of fluid flow in porous media

- Darcy's law
- Type of fluid in reservoir
- Type of the flow regimes
- Pressure distribution
- Well Testing, Diffusivity Equation, Radius of Investigation, Skin, Reservoir Pressure

• 04 Day Four

Phase behavior diagram

- Five reservoir fluids properties
- Black oil
- Volatile oil
- Retrograde gas condensate
- Wet gas
- Dray gas
- PVT sampling

- PVT laboratory report
 - Formation water properties
- **05 Day Five**

Material Balance calculation

- Recovery factor estimation
- Decline curve analysis
- Open discussion

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
Aug. 17, 2025	Aug. 21, 2025	5 days	4250.00 \$	Qatar - El Doha
June 16, 2025	June 20, 2025	5 days	4250.00 \$	UAE - Dubai
Oct. 13, 2025	Oct. 17, 2025	5 days	4250.00 \$	UAE - Abu Dhabi