



Reservoir Engineering for Non-Reservoir Engineers

12 - 16 Jan 2025
Online



Reservoir Engineering for Non-Reservoir Engineers

Ref.: 15122_290216 **Date:** 12 - 16 Jan 2025 **Location:** Online **Fees:** 2500 **Euro**

Introduction:

Reservoir Engineering is a combination of science, engineering and art by which you could define recoverable reserves and predict future reservoir performance. It is of a great importance to the technical and economic evaluation of the oil and gas reserves and the selection of the optimum method of recovery. Without detailed evaluation of reservoir data, understanding reservoir behavior and applying good reservoir management techniques, significant quantities of oil and gas could be permanently lost beyond any recovery method.

This course is exceptionally useful if you want to develop a feel for hydrocarbon behavior in the reservoir and of various recovery methods. It will also provide you with specific and direct application of the process used in reservoir engineering and will provide you with an overview of the techniques used in solving reservoir engineering problems and maximizing recoverable reserves.

Targeted Groups:

Non-Reservoir Engineers who would like to obtain an overview of reservoir engineering.

Other Engineering Disciplines, Geologists, Geophysicists, Math. & Science Graduates, Operation Personnel and Technicians as well as recently graduated petroleum professionals.

Course Objectives:

At the end of this course, the participants will be able to:

- Understand different reservoir types, classification, properties, etc.
- Understand Critical properties of reservoir rocks and fluids and PVT relationships.
- Understand the fundamentals of fluid flow in porous media.
- Understand how reservoirs are characterized by fluid type and drive mechanisms.
- Understand the basis for reservoir fluid distribution.
- Obtain an overview about oil and gas well performance and transient test analysis.
- Understand the basics of primary, secondary and enhanced oil recovery methods.
- Obtain a general understanding of different methods to calculate oil and gas in place and hydrocarbons recovery.
- Understand reservoir drive mechanisms for both Oil and Gas reservoirs.
- Obtain an overview about reservoir simulation techniques.
- Understand how to Forecast future production rates from the decline curve analysis.
- Get a general feel for petroleum economics in reservoir development & risk analysis

Course Content:

Unit 1: Introduction to Exploration & Drilling:

- Global Energy Statistics
- Oil & Gas Industry
- Exploration and its methodologies
- Seismic Survey
- Well Drilling/Completion/Stimulation
- Well Logging
- Development Geology

Unit 2: Reservoir and its properties:

- Reservoir Engineering System
- The Reservoir
- Rock Properties
- Core Analysis
- Fluid Flow in Porous Media
- Reservoir Fluids and Their Distribution
- Fluid Properties
- PVT Analysis
- Phase Diagram

Unit 3: Reservoir Testing & Reserves Calculation:

- Fluid Distribution
- Well Testing
- Pressure Transient & Reservoir Damage
- Problem Well Analysis
- Reserves Calculation
- Material Balance Calculation
- Relative Permeability

Unit 4: Reservoir Performance:

- Decline Curve Analysis
- Driving Mechanisms
- Recovery Types
- Primary Recovery
- Secondary Recovery

Unit 5: Reservoir Management:

- Fractional Flow
- Enhanced Oil Recovery
- Reservoir Simulation
- Reservoir Management
- Economics of Reservoir Development



**Registration form on the :
Reservoir Engineering for Non-Reservoir Engineers**

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