



General Course

# **Petrophysical Properties Or Clastic Reservoir Characterization And Sequence Stratigraphy**

# Course Introduction

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## **petrophysical properties**

Understanding petrophysical properties, clastic reservoir characterization, and sequence stratigraphy is essential for optimizing hydrocarbon exploration and production. Accurate reservoir characterization helps in identifying reservoir quality, predicting performance, and enhancing recovery. Sequence stratigraphy provides insights into sedimentary environments, aiding in the interpretation of reservoir geometry and distribution. Developing skills in these areas is key to effective reservoir management and maximizing production efficiency.

## **Advanced aspects of petrophysical analysis**

This training program focuses on the fundamental and advanced aspects of petrophysical analysis, reservoir characterization, and sequence stratigraphy. Each day addresses a core topic, combining theoretical knowledge with practical case studies and exercises. The program aims to equip participants with the tools and techniques needed to analyze reservoir properties, interpret stratigraphic sequences, and apply findings to real-world reservoir challenges.

## **Training Course Methodology**

This course is designed to be interactive and participatory, and includes various learning tools to enable the participants to function effectively and efficiently. The course will use sessions, exercises, and case applications, and presentation about proven-by-practice methods, new insights and ideas about the topic and its effects in a corporate world.

# Target Audience

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- Geologists
- Geophysicists
- Petrophysicists

- Reservoir Engineers
- Exploration and Production Engineers
- Technical Managers in Oil and Gas

## Learning Objectives

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- Understand key petrophysical properties and their role in reservoir analysis.
- Learn methods for characterizing clastic reservoirs.
- Gain skills in interpreting sequence stratigraphy for better reservoir understanding.
- Apply data analysis techniques for accurate reservoir modeling.
- Solve real-world challenges using petrophysical and stratigraphic data.

## Course Outline

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### • 01 Day One

#### **Fundamentals of Petrophysical Properties**

- Introduction to petrophysics and its importance in reservoir analysis.
- Key petrophysical properties: porosity, permeability, and saturation.
- Techniques for measuring and interpreting core data.
- Well logging methods and interpretation basics.
- Understanding rock-fluid interactions in reservoirs.
- Evaluating reservoir quality and potential.
- Case studies on petrophysical property analysis.

### • 02 Day Two

#### **Clastic Reservoir Characterization Techniques**

- Types of clastic reservoirs and their characteristics.
- Core analysis and data integration.
- Well log interpretation for clastic reservoirs.

- Identifying reservoir heterogeneity and compartmentalization.
- Mapping reservoir distribution and quality.
- Applying seismic data for reservoir characterization.
- Practical exercises in reservoir property evaluation.

### • 03 Day Three

#### **Sequence Stratigraphy Fundamentals**

- Introduction to sequence stratigraphy and its significance.
- Key concepts: sequences, systems tracts, and bounding surfaces.
- Interpreting depositional environments and sedimentary processes.
- Using well logs and core data for stratigraphic analysis.
- Identifying key stratigraphic markers in clastic reservoirs.
- Practical applications of sequence stratigraphy in exploration.
- Case studies on stratigraphic interpretation.

### • 04 Day Four

#### **Advanced Reservoir Modeling and Analysis**

- Integrating petrophysical and stratigraphic data for modeling.
- Building static and dynamic reservoir models.
- Techniques for volumetric analysis and reservoir estimation.
- Uncertainty analysis and risk management in modeling.
- Using software tools for reservoir characterization.
- Practical exercises in reservoir model development.
- Case studies on advanced reservoir analysis.

### • 05 Day Five

#### **Application and Optimization Strategies**

- Strategies for optimizing reservoir development.
- Using characterization data to improve recovery methods.
- Managing production challenges through data interpretation.
- Evaluating project economics based on reservoir data.
- Future trends in reservoir characterization and stratigraphy.
- Best practices for sustainable reservoir management.

# Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 12, 2025	May 16, 2025	5 days	4250.00 \$	UAE - Dubai
Aug. 18, 2025	Aug. 22, 2025	5 days	4250.00 \$	UAE - Dubai
Nov. 2, 2025	Nov. 6, 2025	5 days	4250.00 \$	KSA - Riyadh