Applied Stratigraphic Concepts for Reservoir Characterization

Course Price

£3050

Course Description

This course will explore the concepts, methods and applications of facies models and stratigraphic principles in reservoir characterization used in the energy industry. Throughout the course, we will emphasize integration across disciplines and scales, focusing on reducing stratigraphic uncertainty in delineating both clastic and carbonate reservoirs. Facies architecture of the various depositional environments will be addressed through numerous examples, case studies and exercises from field analogs, core description, well-log correlation and seismic stratigraphy.

Course Objectives

At the end of this course, participants will develop basic skills in:

- Recognizing and distinguishing clastic and carbonate depositional systems using cores, well-logs, seismic data
- Developing sequence stratigraphic concepts to predict facies variations within clastic and carbonate depositional systems.
- Understanding the range of reservoir architectures and internal heterogeneities that occur in sedimentary deposits.
- Reducing reservoir uncertainties through integrated reservoir characterization approaches.
- Establishing stratigraphic workflows for exploration-to-development scale projects.
- This class provides a broad overview of depositional architectures formed in different depositional systems.

Who Should Attend

This course invites both new-hires and experienced geoscientists, including Earth Modelers and Reservoir Engineers to an exciting learning opportunity in reservoir characterization utilizing stratigraphic knowledge.

Course Content
Day 1
Basic Concepts
• Review Sequence Stratigraphic Concepts
• Concept of Facies Models

Day 2
Non-Marine Depositional Systems
• Aeolian Reservoirs
• Fluvial Reservoirs
• Shoreline & Shallow Marine Depositional Systems
• Shoreface Reservoirs
• Delta Classification
• River-Dominated vs. Wave-dominated Deltas

Day 3
Shoreline & Depositional Systems (cont.)
• Estuaries and Tidal Systems
• Shallow Water Hierarchy

Day 4
Introduction Deep Water Reservoirs
• Deep Water Systems
• Turbidites
• Canyons & Deepwater Channels
• Leveses, Lobes and Splays
• Deepwater Hierarchy

Day 5
Introduction to Carbonate Reservoirs
• Carbonate Classification Schemes
• Dunham Classification
• Folk Classification
• Carbonate Sequence Stratigraphy
• Carbonate Depositional Settings
• Wrap up

CPD Unit

Continuing Professional Development

35 HOURS CPD