



London TDM

Oil and Gas Industry Training Courses

Course Venue: United Arab Emirates - Dubai

Course Date: From 02 November 2025 To 06 November 2025

Course Place: Downtown Dubai

Course Fees: 5,000 USD

Introduction

This 5-day course is designed to provide non-geologists with a comprehensive understanding of the basic concepts, principles, and techniques used in petroleum geology. Participants will gain insights into the exploration, extraction, and development processes of petroleum resources, enabling them to effectively contribute to multidisciplinary teams in the oil and gas industry.

Objectives

- Understand the basic principles of geology and how they apply to petroleum exploration.
- Identify and describe different types of rocks and structures relevant to petroleum geology.
- Comprehend the processes involved in the formation and accumulation of oil and gas.
- Learn the techniques used in the exploration and production of petroleum resources.
- Enhance communication and collaboration between geologists and non-geologists in the industry.

Course Outlines

Day 1: Fundamentals of Geology

- Introduction to Earth's Structure and Composition
- Geological Time Scale and History of the Earth
- Plate Tectonics and Petroleum Formation
- Types of Rocks: Igneous, Sedimentary, and Metamorphic
- Minerals and Their Role in Petroleum Geology

Day 2: Petroleum Generation and Migration

- Origin of Petroleum: Organic Matter and Maturation
- Source Rocks: Types and Characteristics
- Migration Pathways and Mechanisms
- Traps and Seals: Reservoir Formation
- Oil and Gas Accumulation Processes

Day 3: Exploration Techniques

- Geophysical Methods: Seismic Reflection and Refraction
- Geochemical Techniques in Exploration
- Remote Sensing and Data Interpretation
- Drilling Techniques and Well Logging
- Case Studies of Successful Exploration

Day 4: Reservoir Characterization and Production

- Reservoir Properties: Porosity and Permeability
- Reservoir Modeling and Simulation
- Enhanced Oil Recovery Techniques
- Well Completion and Production Techniques
- Case Studies on Reservoir Management

Day 5: Industry Applications and Future Trends

- Petroleum Economics and Risk Management
- Innovations in Drilling and Extraction Technologies
- Environmental Challenges and Solutions
- The Role of Geology in Sustainable Energy Development
- Future Trends in Petroleum Geology and the Energy Industry