



London TDM

# Oil and Gas Industry Training Courses

**Course Venue:** United Arab Emirates - Dubai

**Course Date:** From 19 April 2026 To 23 April 2026

**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