



Essential Skills for Oil and Gas  
Professionals Management Course



# Essential Skills for Oil and Gas Professionals Management Course

## Introduction:

The oil and gas industry is undergoing the most significant changes that we have seen for two decades as a result of an increase in oil production and a simultaneous decrease in demand. Sustained low oil prices are changing the geopolitical landscape of the oil and gas business.

The shale oil and gas revolution has resulted in the need for new business models, with many mergers in the international oil companies both upstream and downstream of the oil and gas supply chain. With the global demand for petroleum products reaching record levels, so too is the complexity of issues facing the oil and gas industry.

## Engineering Roles in the Oil and Gas Industry:

Oil and gas engineering roles are crucial to the industry's function and innovation. From mechanical engineering oil and gas challenges to overseeing the safe extraction and production of petroleum products to oil and gas electrical engineer responsibilities, such as ensuring the integrity of electrical systems, engineers are inseparable from the industry's life cycle.

Whether it's a mechanical engineer in the oil and gas industry optimizing machinery, engineering in the oil and gas industry driving technical solutions, or an electrical engineer in the oil and gas industry implementing resilient power systems, their expertise underpins both operational success and technological progress within this dynamic field.

## Targeted Groups:

- Oil and Gas Professionals.
- Senior and Middle Managers.
- Accountants and Finance Professionals are responsible for financial accounting, treasury, internal audit, budget preparation, and management reporting.
- HR, Contracting and Procurement, and IT Professionals.
- Line managers with strategic planning and operational budgeting responsibility.
- New entrants are seeking the oil and gas industry.
- Professional Advisers and Business Consultants.

## Course Objectives:

At the end of this essential oil and gas management skills course, the participants will be able to:

- Build knowledge as to the nature and challenges facing the oil and gas industry.
- Understand the key players and commercial drivers.
- Examine the industry structure with specific emphasis on the complete value chain.
- Understand framing agreements, including joint ventures and production-sharing contracts.
- Examine the importance of effective project planning and execution, including risk management and earned value management analysis.

## **Targeted Competencies:**

This training essential oil and gas management skills course for professionals provides the critical skills to build a proactive knowledge base of the oil and gas industry, as well as the necessary competencies to meet the challenges it faces.

## **Oil and Gas Management Course Content:**

### **Unit 1: The Oil and Gas Industry Commercial Drivers - Overview:**

- Understand the nature of the oil and gas industry.
- Upstream, midstream, and downstream operations.
- Learn about exploration, evaluation production, and reserve estimates.
- Structures and business models - Lifting and production costs.
- Understand strategic challenges and opportunities facing the industry's key players.

### **Unit 2: Oil and Gas Exploration and Production Arrangements:**

- IOC's and NOC's fiscal agreements and contracting strategies for the oil and gas industries.
- Reward structures and options.
- Understand the critical role of oil and gas project management training in enhancing industry efficiency.
- Front-end loading - Hot spots and challenges.
- Capital project planning and execution.
- Implement a practical project control framework.

### **Unit 3: Oil and Gas Project Economics, Cost and Estimation:**

- Evaluate project opportunities.
- Understand the cash-flow analysis and time value of money.
- Learn about crucial profitability indicators NPV, IRR, UTC, and Payback.
- Calculate a discounted cash flow.
- What is a cost estimate, and what factors influence an estimate?
- Earn value management analysis for measuring project performance and reporting.

### **Unit 4: Risk Management Application:**

- What is risk management, and why is it essential?
- Risk management as applied to capital projects.
- Specify objectives and identify project uncertainties.
- Technical and non-technical risks.
- Risk register review and analysis.
- Stakeholder identification and mapping.

### **Unit 5: Oil and Gas Capstone:**

- Case study to understand The shale gas revolution in the United States.
- Impact of shale gas on the world oil and gas stage.
- Understand the geopolitics of oil and gas pricing.