

The Basics of Production and Exploration

The Crucial Techno-Commercial Overview for Novice Engineers and Non-Technical Workers in the Petroleum and Gas Sector

Introduction

The effects of fossil fuels on the modern world and our growing reliance on them have led to a never-ending search for new sources of supply and methods of production. Oil that was formerly easily found is now a thing of the past, and in order to acquire supplies, one must travel the globe both offshore and to deeper depths.

The multidisciplinary nature of petroleum exploration, technology, and production operations in the upstream oil and gas industry is examined in this fascinating Course N Carry The Basics of Production and Exploration training course.

Included in this Course N Carry training programme will be:

- Gain an appreciation and comprehension of the sources of oil and gas, as well as the fundamentals of geology as they relate to oil and gas reservoirs.
- Recognise the field life cycle, or the exploration activities from project conception to execution and production.
- Recognise that the oil and gas sector is dynamic and has numerous dimensions. You should also be aware of and mindful of the expectations of important stakeholders.
- Learn the principles of primary and enhanced recovery operations as well as drilling, well completions, and production operations.
- Understand the jargon used in the oil and gas sector and the distinctions between development, appraisal, and exploratory wells.

Objectives

- Recognise and comprehend fundamental geology and how it relates to the discovery and creation of petroleum
- Recognise and comprehend the main forces at play during the exploratory process.
- Determine who the participants in the energy supply chain are.
- Examine the current state of the global oil and gas sector and get knowledge of the many kinds of oil firms.
- Recognise the potential and challenges presented by the various fiscal and production sharing agreements.

Training Methodology

The Course N Carry The Basics of Production and Exploration training course offers the delegates numerous opportunity to express their opinions and ideas through an engaging, hands-on learning experience. In order to guarantee that the ideas covered in the training course are fully grasped, the instructor will provide a helpful environment.

To guarantee that the knowledge offered is understood, comprehended, and retained to the fullest, this Course N Carry training course will make use of a range of tried-and-true adult learning strategies. This comprises:

- PowerPoint talks and talks
- Short films will be used to illustrate certain concepts and connect the curriculum to real-world situations.
- Training course exercises will improve daily improvement.
- Case studies will be added to the training programme.
- Participants will be urged to take part in extremely interactive discussions to advance their opinion and ideas

Organizational impacts

Teaching the principles of Interactive Economics to your employees can help drive organizational growth and seamless operations:

- A short course that equips employees with skills for the real world
- Employees receive enhanced and economically driven decision-making skills
- Helps create better marketing strategies for higher sales
- Provides a competitive advantage by helping make calculated risks

Personal Impact

Enrolling in this course can benefit you in the following ways:

- Gain a deep understanding of the relation between human behavior and finances
- Learn modern techniques to estimate market demand and prediction
- Attain leadership, adaptability, and decision-making skills
- Analyze and understand successful market strategies

Who should attend?

A wide range of professionals can benefit from this Course N Carry training course, but the following are particularly noteworthy:

- Non-Technical Professionals and New Engineers
- Professionals in Technical Support
- Non-Technical Businesspeople and Investors
- Professionals in Purchasing and Accounting
- Professionals in Economics, Law, Finance, and Human Resources

- Professionals in management and administration that want to learn more about the upstream petroleum sector in general

Course Outline

Day 1

Overview: The Life Cycle of Oil Production and the History of Oil and Gas

- The Function of Gas and Oil in Society
- International Supply of Oil and Gas Worldwide Production, Reserves, and Trade
- The Origins and Character of Oil and Fossil Fuel Reserves
- Foundations of Petroleum Chemistry

Day 2

Geology of Petroleum

- Fundamentals of Petroleum Geology: Where Are Fossils Found?
- Temporal Geology
- Rock Types and Sedimentary Basins Investigation Tasks
- Geophysical Techniques: 2D, 3D, and 4D Seismic Surveying Gravity and Magnetic

Day 3

Recognise the Various Roles in Oil Operations

- Engineering and Drilling Operations Description of the Reservoir and Type of Wells
- Reservoir Fluids and Produced Water; Oil and Water Separation.
- Volumetric Estimation; Field Evaluation; and Well Stimulation and Finish

Day 4

Reservoir and Well Dynamic Behaviour Recovery

- Production Estimation Mechanisms Driven by the Reservoir
- Enhanced and Secondary Oil Recovery
- Non-Traditional Petroleum Resources

• Tar Sands, Shale Gas, and Tight Oil Hydraulic Fracturing

Day 5

Geopolitics, Fiscal Regimes, IOCs and NOCs Hydrocarbon Ownership: Contracts, Joint Ventures, and Concessions

- Global Energy Supply and Demand: The Price of Oil and Gas
- The Future Peak Oil Industry, OPEC, the International Energy Agency, Carbon Capture Safety, and the Environment