Training Course

Generalist Engineer

Cross‑Disciplinary Oil & Gas

Operations Fundamentals

Skills
International
for Training & Consulting

سكلز
الـدولـيـة
للـتـدريـب والإسـتـشـارات

Introduction

The oil and gas industry is a highly complex and interdisciplinary field requiring professionals to possess a broad understanding across multiple engineering domains. The "Generalist Engineer: Cross-Disciplinary Oil & Gas Operations Fundamentals" course is designed to equip engineers with a comprehensive knowledge base spanning exploration, drilling, production, processing, and transportation. Participants will gain insights into the technical, operational, and commercial aspects of oil and gas operations, helping them collaborate effectively across departments and drive integrated project success.

Course Objectives:

✓ Provide a foundational understanding of key oil and gas operations.

✓ Introduce core concepts from mechanical, chemical, petroleum, and civil engineering perspectives.

✓ Enhance cross-disciplinary collaboration and technical communication skills.

✓ Understand the lifecycle of oil and gas assets from exploration to decommissioning.

✓ Identify operational risks, safety practices, and environmental considerations.

✓ Support career growth into technical, operational, or project management roles.

Who Should Attend?

- ✓ Early-career engineers in oil and gas companies
- ✓ Cross-disciplinary team members involved in upstream, midstream, or downstream operations
- ✓ Technical professionals transitioning into the oil and gas industry
- ✓ Engineering graduates seeking a broad foundation in oil and gas fundamentals
- ✓ Project engineers and field operations personnel
- ✓ Anyone involved in multidisciplinary oil and gas projects or management

Training Methods:

- ✔ Online Video material.
- ✔ Presentation.
- ✔ Live Interactive sessions.
- ✔ Course presenter will make extensive use of all tools that will be needed for the virtual environment.
- ✔ Questions & Answers

Course Outline:

Day One

- Overview of the Oil and Gas Industry: Upstream, Midstream, Downstream
- Geological and Geophysical Concepts in Oil Exploration
- Reservoir Engineering Fundamentals
- Basics of Drilling Engineering and Well Design
- Drilling Operations and Rig Components

Day Two

- Well Completion and Production Techniques
- Surface Facilities and Gathering Systems
- Basics of Petroleum Production Engineering
- Introduction to Process Engineering in Oil and Gas
- Separation, Treatment, and Processing of Oil and Gas

Day Three

- Pipeline Engineering and Transportation Systems
- Mechanical Engineering Applications in Oilfield Equipment
- Chemical Engineering Role in Refining and Processing
- Civil and Structural Engineering for Oil and Gas Facilities
- Instrumentation and Automation in Oil and Gas Operations

Day Four

- Health, Safety, and Environmental (HSE) Principles

- Managing Operational Risks and Emergency Response

- Corrosion Control and Materials Selection

- Introduction to Offshore Operations and Marine Engineering

- Oil and Gas Project Management Fundamentals

Day Five

- Economics of Oil and Gas Operations: CAPEX and OPEX

- Regulatory Frameworks and Compliance in Oil and Gas

- Digital Transformation and Smart Fields

- Emerging Technologies: Renewable Integration and Carbon Capture

- Cross-Disciplinary Problem-Solving and Case Studies

Training Details

Course Duration	5 Days
Pre-Schedule	25 – 29 Jan 2026
Venue	Dubai – The H Hotel
Training Fees Per Person	KWD 1600 (One Thousand Six Hundred Only)
Course Fees Include	✓ Tuition documentation ✓ Curriculum and Training Handout ✓ Five star Lunch ✓ Completion Certificates