

Optimization of Oil and Gas Facilities Design and Operations

Oil & Gas Engineering
Kigali (Rwanda)
27 - 31 Jan 2025

UK Training

PARTNER



Optimization of Oil and Gas Facilities Design and Operations

Ref: 321371_139198 **Date:** 27 - 31 Jan 2025 **Location:** Kigali (Rwanda) **Fees:** 3300 Euro

Introduction

Developing new oil and gas fields and operating existing ones are ever increasing in costs and challenges. New oil and gas fields require careful long-term planning to be flexible over longer periods of operations and wider production ranges to minimize any required modifications of facilities, which can result in staggering capital costs requirement and lengthy shutdowns.

On the other hand, many existing fields are getting depleted and becoming harder to produce. To name a few challenges faced - higher water rates to handle, increased need of artificial lift systems, old systems becoming obsolete with new technologies are emerging and new stricter environmental standards are forced. This makes it imperative to consider systematic periodic reviews of the existing facilities, addressing both their design and operational modes and methods. This will reduce costs of implementing modifications on the existing facilities set-up or utilized operational methods.

This Optimization of Oil and Gas Facilities Design and Operations training course is focused on recent methodologies to evaluate various upstream, midstream, and downstream facilities operation and design. The training course is enriched with real field cases, providing a step-by-step approach to assess a given field's existing facilities. It is also aimed for value engineering and optimizing the proposed design of new increments and field developments.

Course Objectives of Optimization of Oil and Gas Facilities Design and Operations

- Compare alternatives from operational and economical perspectives
- Assess processing facilities and their capacities
- Understand midstream operations and its components
- Develop integrated oil and gas production and water injection systems
- Pinpoint bottlenecks and propose remedial modifications

Optimization of Oil and Gas Facilities Design and Operations Course Outlines

Day 1

Oil & Gas Infrastructure

UK Training

PARTNER



- Field processing facilities
- Water injection
- Power generations, supply, and field electrification
- Refining facilities
- Lifecycle costs analysis

Day 2

Oil & Gas Equipment and Processes

- Flowlines
- Crude Separation
- Oil Desalting
- Gas handling and compression
- Oil pumping

Day 3

Water Injection

- Seawater sourcing, treatment, and transportation
- Aquifer water
- Supply lines, injection pumps and lines
- Produced water handling and reinjection
- Pumps selection types and sizing

Day 4

Midstream Transportation

- Pumps station types
- Power sourcing and generation
- Infrastructure requirement
- Optimizing number, location, and size with the transportation lines' sizes
- Monitoring and control

Day 5

Gas Operations

- Determining gas rate and specification
- Calculating the gas energy value
- Defining options: to flare, process, use at location, or sell directly to grid
- Assessing the processing requirement
- Evaluating economics

UK Training

PARTNER



Blackbird training cities

Accra1 (Ghana)

Amman (Jordan)

Amsterdam (Netherlands)

Annecy (France)

Baku (Azerbaijan)

Bali (Indonesia)

Bangkok (Thailand)

Bangkok (Thailand)

Barcelona (Spain)

Batumi (Georgia)

Beijing (China)

Beirut (Lebanon)

Berlin (Germany)

Birmingham (UK)

Bordeaux (France)

Boston,Massachusetts (USA)

Brussels (Belgium)

Cairo (Egypt)

Cape Town (South Africa)

Casablanca (Morocco)

Cascais (Portugal)

Copenhagen (Denmark)

Doha (Qatar)

Dubai (UAE)

Düsseldorf (Germany)

UK Training
PARTNER



Blackbird Training Category



Human Resources



Audit & Quality Assurance



Finance, Accounting, Budgeting



Marketing, Sales, Customer Service



Secretary & Admin



Law and Contract Management



Project Management



IT & IT Engineering



Supply Chain & Logistics



Management & Leadership



Professional Skills



Oil & Gas Engineering



Health & Safety



Telecom Engineering



Hospital Management



Customs & Safety



Aviation



C-Suite Training



Agile and Refinement



Blackbird training Clients



UK Training
PARTNER



BLACKBIRD
FOR TRAINING

LONDON TRAINING PROVIDER



www.blackbird-training.com



training@blackbird-training.com



+44 7480 775526 / +44 7401 177335