

# Optimization of Oil and Gas Facilities Design and Operations

*Amman (Jordan)*

*9 - 13 March 2025*

UK Traininig

# PARTNER



# Optimization of Oil and Gas Facilities Design and Operations

Code: OG28 From: 9 - 13 March 2025 City: Amman (Jordan) Fees: 4000 Pound

## 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

- 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 .

## Course Outlines

### Day 1

#### Oil & Gas Infrastructure

- 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.





# Blackbird Training Cities

## Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Annecy (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)  
(Netherlands)



Podgorica (Montenegro)



Batumi (Georgia)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



# Blackbird Training Cities

## USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

## Africa



Baku (Azerbaijan)  
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney (Australia)



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City (Kuwait)



Pulau Ujong (Singapore)



Jakarta (Indonesia)



Amman (Jordan)



Beirut (Lebanon)





## Blackbird Training Cities

### Asia



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



## Blackbird Training Clients



UK Training  
**PARTNER**



## Blackbird Training Categories

### Management & Admin

Professional Skills  
Finance, Accounting, Budgeting  
Media & Public Relations  
Project Management  
Human Resources  
Audit & Quality Assurance  
Marketing, Sales, Customer Service  
Secretary & Admin  
Supply Chain & Logistics  
Management & Leadership  
Agile and Elevation

### Technical Courses

Hospital Management  
Public Sector  
Special Workshops  
Oil & Gas Engineering  
Telecom Engineering  
IT & IT Engineering  
Health & Safety  
Law and Contract Management  
Customs & Safety  
Aviation  
C-Suite Training



**BLACKBIRD**  
FOR TRAINING



International House 185 Tower Bridge  
Road London SE1 2UF United Kingdom



+44 7401 1773 35  
+44 7480 775526



Sales@blackbird-training.com



www.blackbird-training.com

UK Training

**PARTNER**

