

Training - Exploration and Production Overview



DCOUVEP-EN-P



Face-to-face only



5 days

This training aims to give a complete overview of the main activities of Exploration & Production through its global process, by going through the key stages of the valorization of a hydrocarbon field. You will discover the fundamentals and vocabulary of Exploration & Production techniques: geosciences, reservoir engineering (enhanced recovery, unconventional resources, CO2 capture and storage), drilling, completion, production, projects, decision-making process, economic aspects and patrimonial contracts

Level

Awareness

Public

All professionals in contact with the oil industry: directors, ministries, executives, technicians, support trades... wishing to acquire the basic knowledge of oil exploration & production techniques and the associated vocabulary in order to interact effectively with specialists in different disciplines

Objectives

Attendees will be able to implement the following skills:

- Explain the various phases of Oil & Gas development projects
- Identify the contribution of all experts and technologies involved through a field development project
- Understand the E&P value chain from prospect to market and associated contractual framework
- Describe techniques involved in field development in order to efficiently interact with technical teams

Pedagogical & technical resources

- Highly interactive course delivered by experts of the E&P industry
- Numerous examples and feedbacks from the industry. Numerous videos and animations

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsible

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

INTRODUCTION TO THE OIL & GAS INDUSTRY

0.25 day

Introduction to the energy business: energy resources; energy demand and supply.

Scope of the Oil & Gas industry:

- Context: producer and consumer countries; national/ independent/ international oil companies; services companies; international organizations.

Risks related to the Oil & Gas industry.

GEOSCIENCES & RESERVOIR ENGINEERING

1.25 days

Introduction to petroleum geology:

- Geodynamics of the earth. Sedimentary basins. Structural deformations (folds & faults).
- Clastic and carbonate depositional environments and reservoirs.
- Elements and processes of the petroleum system (source, reservoir, seal, traps).

Subsurface models, inputs data and concepts:

- Seismic data gathering, processing and interpretation.
- Well data acquisition and analysis.
- Formation evaluation and sampling (logs and cores).

Reservoir characterization and modeling:

- Data integration; introduction to reservoir modeling.
- Management of subsurface uncertainties.
- Volumetrics (in-place hydrocarbon estimation).

Subsurface Development Options: reservoir engineering:

- Field development planning.
- Drainage mechanisms: introduction to EOR and storage.
- Different types of reservoir effluents and their behavior.
- Unconventional resources:
- Introduction to unconventional developments.
- Non-conventional resources and their extraction techniques.
- Environmental aspects.

FIELD OPERATIONS & DEVELOPMENT

2.25 days

Drilling:

- Main functions of drilling rigs: lifting, rotating, pumping, power and safety.
- Types of drilling rigs.
- Well architecture.
- Well construction.
- Drilling equipment: bits, drilling string, drilling fluids...
- Drilling techniques: casing, cementing, directional drilling, well testing, instrumentation.
- Well control - BOPs (safety devices: wellheads in drilling).
- Sampling: measurements during drilling (LWD), coring, mud-logging and wireline, fluid sampling.
- Specificities of offshore equipment.

Well completion:

- Reservoir/wellbore interface; basics of well performance; stimulation; artificial lift techniques.
- Well equipment and well intervention.

Field architecture:

- Surface development options; study of various existing fields.
- Case of offshore developments.

Surface facilities:

- Well effluent gathering network.
- Oil, gas and water processing.
- Metering, storage and export.
- Oil & Gas transport through pipelines and tankers.
- Offshore installations: from shallow water to deep offshore technology.

HSE in field development:

- Main hazards in hydrocarbon exploration & production operations.
- Overview of safety engineering and environmental impact assessment studies throughout Oil & Gas project life cycle.

OIL & GAS FIELD DEVELOPMENT PROJECTS: DECISION MAKING PROCESS, ECONOMICS & LEGAL FRAMEWORK

1 day

Legal framework in E&P: oil contracts and principle of the oil rent sharing.

Project profitability evaluation:

- Oil & Gas project economics and financial performance indicators.
- Reserve evaluation. Impact of subsurface uncertainty on project economics.

Field development process:

- Decision making process: preliminary studies. Conceptual studies. Pre-project studies.
- Execution phases: basic engineering or FEED. Detailed engineering. Procurement. Construction. Commissioning.

Technical service contracts.

Project control:

- Scheduling and planning control.
- Cost estimation and control.
- Decommissioning.

SERIOUS GAME: OIL FIELD DEVELOPMENT CYCLE

0.25 day

Sessions

Pau - From 02/16/2026 to 02/20/2026

4320 €/HT

Rueil-Malmaison - From 05/18/2026 to 05/22/2026

4320 €/HT

Pau - From 09/07/2026 to 09/11/2026

4320 €/HT

Rueil-Malmaison - From 11/30/2026 to 12/04/2026

4320 €/HT

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.

Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com