Training - Offshore Field Development - Pipelines and Flow Assurance

OFFSH-EN-P | Face-to-face only | 5 days

This course provides a deep understanding of offshore technology and techniques, with a particular emphasis on issues of flow assurance

Level

Knowledge

Public

Engineers and technicians involved in designing, constructing or operating Oil & Gas offshore production facilities

Objectives

Attendees will be able to implement the following skills:

- Understand the technology and design of offshore production facilities
- Grasp the architecture of offshore field developments, from shallow water to deep offshore
- Understand pipelines technology, laying techniques and main operational problems
- Learn the techniques used to prevent main problems of flow assurance

Pedagogical & technical resources

- Highly interactive training by industry-specialist lecturers
- Numerous case studies from the offshore industry

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

Responsable

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

OVERVIEW OF OFFSHORE DEVELOPMENTS — 0.25 day

Constraints specific to offshore production.
Present performances and future perspectives. Technological barriers.

FIXED & FLOATING PRODUCTION STRUCTURES — 0.25 day

© IFPTraining

Offshore production structures: jacket, semi-submersible, SPAR, TLP, FPSO...
Selection criteria. Limitations.
Terminology: shallow water, deep offshore, ultra-deep offshore.

CONSTRUCTION & INSTALLATION OF PLATFORMS — 0.5 day

Platform technology. Platform installation techniques.
Examples of shallow water developments.

DEEP OFFSHORE DEVELOPMENTS — 0.5 day

Typical subsea architecture: subsea wellheads, well jumpers, production manifolds, production lines, production risers, preservation lines, umbilicals.
Role and technology of each piece of equipment.
Examples of deep offshore developments.

FPSO/FSO TECHNOLOGY — 0.5 day

Technology of floating (production), storage and offloading vessels.
Ballast tanks. Atmosphere control.
Oil, methanol... Storage tanks. Blanketing system.
Storage tanks start-up procedures. Incidents.
Technology and operation of FSO/FPSO offloading (tanker loading) buoy.

OPERATION OF TERMINALS — 0.25 day

Technology of tankers and loading/offloading equipment.
Marine operations of reception and exports.
Terminal constraints: storage capacity, scheduling.

NEW DEEP WATER TECHNOLOGIES — 0.25 day

Overview of new deep-water technologies that are in R&D or pilot stages.

FLOW ASSURANCE 1/2: PREVENTION OF DEPOSITS IN FLOWLINES — 0.5 day

Main flow assurance problems: hydrates, paraffins, sulfates, sand, salt, naphtenates...
Main technical solutions and preservation operations. Intervention techniques.

FLOW ASSURANCE 2/2: MONITORING OF MULTI-PHASE FLOW THROUGH FLOWLINES — 1 day

Multi-phase flow patterns. Application to Oil & Gas upstream activities.
Gas dominated systems: dry versus wet scheme, flowline and slug catcher design.
Oil dominated systems: hydrodynamic slug flow, examples.

PIPELINES: TECHNOLOGY, LAYING & OPERATION — 1 day

Technology of pipelines: standards, material grades, insulation techniques.
Pipeline laying techniques (offshore and shore approach). Illustrations.
Pipeline operation and maintenance:

- Main flow assurance problems. Main available technical solutions.
- Pipe corrosion monitoring and prevention. Cathodic protection.
- Pipeline maintenance/maintenance management.

Sessions

© IFPTraining

Rueil-Malmaison - From 10/12/2026 to 10/16/2026 **4360 €/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

© IFPTraining