

This course can be adapted to virtual classroom mode

## Subsea Activities

### Application to Oil & Gas Upstream Projects

9 days

OFF-EN-A

#### Overview

##### LEVEL

Skilled

##### PURPOSE

This course provides technical knowledge on Oil & Gas subsea production systems.

##### LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:

- select the technology with the right criteria for the different equipment used for subsea production systems,
- select through typical subsea architecture and in particular in deep offshore,
- check installation techniques (with ROV, etc.),
- manage main problems of flow assurance and prevention techniques.

##### WAYS AND MEANS

Lectures carry numerous examples from ongoing upstream projects.  
Each step of the course is illustrated by numerous examples taken from actual Oil & Gas construction activities.

##### LEARNING ASSESSMENT

Assessment by test at the end of the course.

##### PREREQUISITES

In order to be able to follow this training, trainees are asked to fulfill at least one of the criteria below:

- either a proven experience in the design or the conception of pipelines of at least 1 year,
- or to have a proven experience of deep offshore projects of at least 1 year,
- or to be evolving towards a conception position or subsea pipeline design or deep offshore projects.

##### MORE INFO

The modules are independent and may be done separately. Please refer to the training description for more details.  
This training may be validated once both modules have been completed.

#### Agenda

##### MODULE 1: SUBSEA PRODUCTION SYSTEMS

5 d

Subsea components and field architecture.  
Subsea construction and intervention.  
Inspection, maintenance and repair.  
Operation from production platforms.

##### MODULE 2: SUBSEA PIPELINES

4 d

Pipeline operation: main constraints.

Design of rigid pipelines and risers.

Flexible pipelines design.

Offshore pipeline construction.

Shore approach construction.

Trenching and protection.

Subsea tie-in methods.

Precommissioning and pigging.

Pipeline integrity.

Workshop.