

# Advanced Offshore and Marine Drilling Operations Training Course

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## Overview

Advanced Offshore and Marine Drilling Operations Training Course is a one-week course for offshore drilling, rig, subsea, marine-operations, wellsite, and assurance teams who leave with a Marine Drilling Operations Assurance File. Participants connect mobile offshore drilling unit selection, drilling and marine systems, station keeping, riser behavior, subsea well-control equipment, weather limits, logistics, and emergency interfaces. The course uses system maps, calculation sheets, operating envelopes, readiness checks, and decision records. Agile Leaders Training Center presents offshore and marine drilling operations.

## Who Should Attend

- Offshore drilling functions responsible for well execution, rig interfaces, and operating limits
- Rig-management functions responsible for unit capability, readiness, and marine coordination
- Subsea functions responsible for wellheads, risers, blowout preventers, and control systems
- Marine-operations functions responsible for station keeping, ballast, weather, and vessel interfaces
- Wellsite-supervision functions responsible for permits, simultaneous operations, deviations, and response
- Technical-assurance functions responsible for selection reviews, barrier evidence, and acceptance records

The course assumes participants interpret drilling programs, equipment schematics, metocean data, and operational risk controls at work, and it leaves out introductory drilling, detailed casing, fluid, and BHA design, accredited well-control instruction, rig inspection certification, and vessel-handling competence.

## Departments and Industries

The course supports departments and industries that select, operate, or assure offshore drilling units and marine interfaces.

- Offshore oil and gas exploration and well construction
- Geothermal and carbon-storage offshore well development
- Drilling contractors and mobile offshore drilling unit operators
- Subsea equipment, marine engineering, and offshore logistics services
- Technical assurance, well integrity, and operational risk functions

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## Learning Objectives

By the end of this course, participants will be able to:

- Compare jack-up, semisubmersible, and drillship operating capabilities
- Build drilling, marine, power, and utility system-interface maps
- Analyze mooring and dynamic-positioning operating envelopes
- Evaluate riser, heave-compensation, and subsea well-control limits
- Use metocean, logistics, readiness, and simultaneous-operations controls
- Diagnose deviations and prioritize disconnect or recovery actions

## Course Agenda

## Day 1: Select the Offshore Drilling Unit

- Well, Water-Depth, Metocean, and Campaign Requirement Register
- Jack-Up, Semisubmersible, and Drillship Capability Matrix
- Seabed, Air-Gap, Variable-Load, and Deck-Space Screening Sheet
- IMO MODU Code Unit, Stability, and Marine-Safety Review Map
- Unit Selection, Constraint, and Technical-Assurance Decision Record

## Day 2: Map Rig and Marine Systems

- Hoisting, Rotary, Circulation, and Pipe-Handling System Map
- Power Generation, Distribution, Redundancy, and Blackout-Recovery Matrix
- Ballast, Bilge, Deck, Crane, and Marine-Utility Interface Register
- Mud, Cement, Bulk, Fuel, Water, and Waste Logistics Flow Sheet
- Drilling Control, Alarm, Communication, and Permit Interface Diagram

## Day 3: Control Station Keeping and Riser Behavior

- IMCA M103 Dynamic-Positioning Capability and Operating Guidance Review
- Mooring Pattern, Anchor, Line-Tension, and Offset Assessment
- Wind, Wave, Current, Heading, and Watch-Circle Operating Envelope
- API Spec 16F Marine Drilling Riser Configuration and Load Map
- Riser Tension, Stroke, Heave-Compensation, and Flex-Joint Limit Sheet

## Day 4: Integrate Subsea and Offshore Execution

- Subsea Wellhead, Conductor, and Landing-Sequence Readiness Plan
- API Spec 16A Subsea BOP Stack and Drill-Through Equipment Matrix
- API Spec 16D BOP Control, Accumulator, and Response-Function Check
- Choke, Kill, Diverter, Riser-Margin, and Emergency-Disconnect Logic
- Weather Window, Supply Vessel, Helicopter, SIMOPS, and Contingency Board

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## Day 5: Practice Marine Drilling Decisions

- Suggested Exercise: Select a MODU for a Metocean and Well Scenario
- Suggested Exercise: Close a DP, Mooring, and Watch-Circle Envelope
- Suggested Exercise: Check Riser, Heave, and Subsea BOP Interfaces
- Suggested Exercise: Diagnose a Weather, Power, or Position-Loss Deviation
- Capstone Exercise: Complete the Marine Drilling Operations Assurance File

## Practical Exercises

The course uses suggested activities to turn unit, marine, subsea, and operational evidence into traceable offshore drilling decisions.

- Suggested activity: compare unit types against water depth, seabed, metocean, payload, deck, well, schedule, and logistics constraints.
- Suggested activity: map drilling, power, ballast, marine utility, control, and communication dependencies and identify single-interface vulnerabilities.
- Suggested activity: calculate station-keeping, riser, tensioner, heave, offset, weather, and disconnect operating limits.
- Suggested activity: reconcile alarms, position, power, weather, well status, and vessel movements to rank continuation, suspension, or disconnect actions.

## FAQs

### Who suits offshore and marine drilling operations training, and what does it assume?

Offshore and marine drilling operations training suits drilling engineers, rig leaders, subsea and marine engineers, wellsite supervisors, logistics teams, and assurance reviewers. It assumes working ability with drilling programs, system schematics, metocean data, and operational risk controls.

### How does marine drilling operations training differ from drilling-rig inspection training?

Marine drilling operations training integrates unit selection, system interfaces, station keeping, riser behavior, subsea well-control equipment, weather, logistics, and operating decisions. Rig inspection training centers on equipment condition, inspection methods, defect recognition, and acceptance evidence.

### How is a mobile offshore drilling unit selected?

Mobile offshore drilling unit selection compares water depth, seabed, metocean conditions, well design, payload, deck space, variable load, station keeping, riser needs, logistics, schedule, emergency capability, and assurance requirements.

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## What defines a marine drilling operating envelope?

A marine drilling operating envelope combines wind, wave, current, heading, position offset, mooring or dynamic-positioning capability, riser angle and stroke, tensioner limits, power redundancy, vessel activity, and well status.

## When should an offshore drilling team prepare to disconnect?

Disconnect readiness follows defined position, power, weather, riser, well-control, equipment, and response-time triggers. Teams verify barriers, control functions, sequence logic, communications, vessel clearance, recovery conditions, and decision authority before limits are exceeded.

## Conclusion

Participants take back a Marine Drilling Operations Assurance File linking unit selection, system interfaces, station keeping, riser limits, subsea controls, metocean criteria, logistics, readiness, and response decisions. It changes separate technical and marine records into one traceable operating basis. The file supports unit selection, execution readiness, deviation control, and post-operation learning.

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# Training Course Categories

- Quality and Operations Management Training Courses
- Secretarial and Administration Training Courses
- Shipping, Maritime and Ports Training Courses

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