Training Course on Marine and Offshore Vessel Operations for Oil and Gas

Professional Development Training Course Outline

Category	Oil and Gas	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The global oil and gas (O&G) sector relies heavily on efficient, safe, and sustainable marine and offshore vessel operations. With increasing regulatory scrutiny, technological advancements, and heightened demand for skilled personnel, it is critical for maritime and offshore professionals to master key operational, safety, and compliance competencies. Training Course on Marine & Offshore Vessel Operations for Oil & Gas (O&G) is designed to empower industry professionals with practical, hands-on knowledge and best practices to optimize marine logistics, enhance vessel performance, and ensure environmental and personnel safety.

This industry-driven program leverages real-world case studies, expert-led modules, and scenario-based learning to provide a 360-degree understanding of marine vessel management, offshore logistics, risk assessment, and emergency response. Participants will gain in-depth insights into dynamic positioning, subsea operations, FPSO systems, and industry-specific regulatory frameworks such as MARPOL, SOLAS, and ISM Code—crucial for success in the high-stakes offshore oil and gas environment.

Programme Curriculum

Training Course on Marine & Offshore Vessel Operations for Oil & Gas (O&G)

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Course Objectives

1. Understand core principles of offshore vessel operations in the oil and gas industry.
2. Apply best practices in marine logistics and vessel movement planning.
3. Interpret and comply with IMO regulations, SOLAS, and MARPOL standards.
4. Analyze offshore support vessels (OSVs), DP vessels, and FPSO systems.
5. Conduct effective risk assessments and implement hazard control procedures.
6. Evaluate vessel maintenance planning and asset lifecycle management.
7. Apply emergency response and oil spill contingency planning strategies.
8. Master dynamic positioning operations and anchor handling techniques.
9. Implement safety management systems based on ISM Code.
10. Optimize fuel efficiency and environmental compliance.
11. Understand subsea operations, including ROVs and diving support.
12. Interpret chartering, marine insurance, and logistics contracts.
13. Leverage digital tools and data analytics for marine operations optimization.

Target Audience

1. Marine Engineers
2. Offshore Operations Managers
3. Safety Officers in O&G
4. Maritime Logistics Coordinators
5. Marine Surveyors
6. Port and Terminal Managers
7. Offshore Installation Managers (OIMs)
8. Naval Architects and Technical Superintendents

Course Duration: 10 days

Training Modules

Module 1: Introduction to Marine & Offshore Vessel Types

- Classification of vessels: OSVs, DP vessels, FPSOs, and AHTS
- Role of vessels in oil & gas offshore operations
- Basic onboard systems and functions
- Overview of international marine regulatory bodies
- Vessel selection for offshore support operations
- **Case Study**: Fleet optimization strategy for a West African oil field

Module 2: Offshore Vessel Navigation & Positioning

- Navigational systems and chart interpretation
- Use of GPS, AIS, and radar systems
- Dynamic positioning (DP1, DP2, DP3) explained
- Anchor handling and mooring techniques
- Collision avoidance and navigation in congested zones
- **Case Study**: DP system failure response in the Gulf of Mexico

Module 3: IMO, SOLAS, MARPOL, and ISM Code Compliance

- Key marine compliance frameworks
- Safety of Life at Sea (SOLAS) regulations
- Pollution prevention under MARPOL
- ISM Code and SMS implementation
- Environmental risk mitigation
- **Case Study**: MARPOL violation incident and its legal consequences

Module 4: Offshore Logistics & Marine Supply Chain

- Offshore logistics lifecycle
- Cargo planning and load-out procedures
- Helicopter and marine crew transport logistics
- Supply vessel scheduling and optimization
- Inventory and material tracking systems
- **Case Study**: Cost overrun in offshore supply chain—lessons learned

Module 5: Vessel Maintenance & Asset Integrity

- Planned maintenance systems (PMS)
- Condition monitoring tools
- Hull integrity inspections
- Lifecycle cost management
- Spare parts and procurement best practices
- **Case Study**: Hull failure incident in Arctic waters

Module 6: Emergency Response & Contingency Planning

- Firefighting and rescue drills onboard
- Oil spill containment and dispersal
- Abandon ship and survival protocols
- Coordination with coastal emergency services
- HAZMAT response and safety zones
- **Case Study**: Offshore blowout and coordinated emergency response

Module 7: Risk Assessment & HSE Offshore

- Offshore hazard identification (HAZID)
- Job Safety Analysis (JSA) procedures
- HSE management systems
- Risk matrix and controls implementation
- PPE and confined space entry safety
- **Case Study**: Near-miss analysis aboard a PSVs fleet

Module 8: Offshore Operations Planning & Mobilization

- Project planning for marine operations
- Site mobilization and demobilization logistics
- Weather routing and marine forecasts
- Crew planning and rostering
- Budgeting for offshore marine projects
- **Case Study**: Delayed mobilization and its impact on project timelines

Module 9: Dynamic Positioning & Anchor Handling

- DP control systems and operation

- Redundancy and power management
- Anchor winch operation and chain catenary
- Mooring analysis and simulation
- Training requirements for DP operators
- **Case Study**: Anchor drag incident during subsea installation

Module 10: FPSO Operations & Safety Protocols

- FPSO systems overview: topsides, turrets, and moorings
- Production, storage, and offloading procedures
- FPSO vessel safety protocols
- Crew operations and shift management
- Maintenance challenges in FPSOs
- **Case Study**: FPSO fire incident investigation and safety review

Module 11: Marine Environmental Management

- Ballast water management
- Waste handling and sewage discharge
- Oil-water separator (OWS) operation
- Marine ecosystem preservation initiatives
- Port state control inspections
- **Case Study**: Ballast water violation in Southeast Asia

Module 12: Subsea Operations & ROV/Diving Support

- Introduction to ROV and AUV technologies
- Diver safety and underwater procedures
- Subsea pipeline inspection
- Subsea intervention tools and winches
- Communication systems for subsea support
- **Case Study**: ROV failure and diver backup deployment in deepwater

Module 13: Maritime Contracts & Chartering

- Types of maritime contracts: T/C, B/B, Voyage
- Charter party clauses and disputes
- Demurrage and despatch concepts
- Marine insurance overview
- Contract risk assessment
- **Case Study**: Legal case study on charter party breach

Module 14: Marine Digitalization & Automation

- Vessel performance monitoring systems
- Digital twins and virtual simulation
- IoT and predictive analytics onboard
- Smart fleet management systems
- Cybersecurity on vessels
- **Case Study**: AI-enabled fleet management for cost savings

Module 15: Offshore Project Case Studies and Best Practices

- Real-world offshore project retrospectives
- Performance benchmarking
- Lessons learned across multiple geographies

- Crisis management and mitigation
- Innovation adoption in O&G marine operations
- **Case Study**: Integrated marine logistics in Brazil's pre-salt basin

Training Methodology

- Instructor-led classroom and virtual sessions
- Interactive group discussions and breakout workshops
- Multimedia presentations with real-life offshore footage
- Scenario-based learning and hands-on case study analysis
- Knowledge checks, quizzes, and final assessment
- Access to post-course support and resources

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

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