

Unmanned Offshore Platforms and Remote Operations Training Course

25 – 29 April 2027
Johannesburg

AGILE LEADERS
Training Center

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Overview

Unmanned Offshore Platforms and Remote Operations Training Course is a one-week advanced course for offshore engineering, operations, automation, reliability, and project teams who leave with an Unmanned Offshore Platform and Remote Operations Engineering Basis. Participants connect unmanned operating philosophy, minimum-facility design, remote monitoring and control, telecommunications, protective functions, condition monitoring, intervention logistics, cybersecurity, human factors, emergency response, availability, and lifecycle assurance. Agile Leaders Training Center presents this course on unmanned offshore platforms and remote operations.

Who Should Attend

- Functions responsible for offshore facility design philosophy and operating concepts
- Teams responsible for remote monitoring, control, automation, and telecommunications
- Personnel responsible for technical safety, barriers, shutdowns, and emergency response
- Groups responsible for reliability, condition monitoring, inspection, and maintenance campaigns
- Project leaders responsible for unmanned-facility integration and lifecycle assurance

The course assumes participants work with offshore facilities, control systems, reliability evidence, or operating risk; it leaves out structural analysis and routine supervision of staffed platforms.

Departments and Industries

The course supports departments and industries that engineer, operate, assure, or maintain remotely operated assets.

- Offshore facilities and production engineering departments
- Automation, control, telecommunications, and operational technology teams
- Reliability, inspection, maintenance, and integrity functions
- Oil, gas, and offshore energy organizations
- Marine services, logistics, and intervention contractors
- Industrial remote-operations and asset-management organizations

Learning Objectives

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

- Analyze unmanned operating scenarios and facility functions
- Build remote control and telecommunications architectures
- Evaluate autonomous, fail-safe, barrier, and shutdown functions
- Diagnose degradation using alarms and condition evidence
- Prioritize inspection, maintenance, logistics, and intervention decisions
- Build availability and lifecycle assurance cases

Course Agenda

Day 1: Frame the Unmanned Operating Concept

- Unmanned Facility Design Philosophy Canvas
- Normally Unattended Installation Operating Scenario Map
- Minimum-Facility Function Allocation Matrix
- Remote Operations Stakeholder and Responsibility Model
- Unmanned Platform Design Basis and Assumption Register

Day 2: Engineer Remote Control and Connectivity

- Remote Monitoring and Control Architecture
- Offshore Telecommunications Availability Model
- Control Center to Platform Data Flow Map
- Autonomous and Fail-Safe Function Allocation
- Remote Operations Cybersecurity Zone and Conduit Diagram

Day 3: Protect the Facility and Diagnose Degradation

- Barrier and Shutdown Function Matrix
- Alarm and Abnormal Situation Response Model
- Condition Monitoring and Diagnostic Coverage Map
- Remote Verification and Surveillance Plan
- Loss-of-Communication Degraded Mode Logic

Day 4: Assure Maintenance, Logistics, and Lifecycle Performance

- Risk-Based Inspection and Maintenance Strategy
- Intervention and Mobilization Decision Matrix
- Spares, Logistics, and Weather-Window Readiness Plan
- System Availability and Reliability Block Model
- Lifecycle Assurance and Obsolescence Register

Day 5: Practice Unmanned Offshore Engineering

- Suggested Exercise: Define an Unmanned Operating Scenario
- Suggested Exercise: Review Remote Control Architecture
- Suggested Exercise: Test a Loss-of-Communication Case
- Suggested Exercise: Select an Intervention Strategy
- Capstone Exercise: Present an Unmanned Offshore Platform and Remote Operations Engineering Basis

Practical Exercises

The course uses suggested activities to convert operating scenarios and technical evidence into defensible unmanned-facility decisions.

- Suggested activity: allocate local, remote, autonomous, and fail-safe functions for a production scenario.
- Suggested activity: map control, telecommunications, cybersecurity, alarm, and degraded-mode dependencies.
- Suggested activity: prioritize condition-monitoring coverage, inspection tasks, maintenance campaigns, and intervention logistics.
- Suggested activity: present availability assumptions, emergency response, responsibilities, and lifecycle actions in an engineering basis.

FAQs

Who suits unmanned offshore platforms and remote operations training, and what does it assume?

Offshore facilities, operations, automation, control, reliability, integrity, and project functions suit the training. It assumes experience with offshore assets, control systems, maintenance evidence, or operating risk.

How does unmanned offshore operations engineering differ from platform supervision training?

Unmanned offshore operations engineering designs the operating concept, remote architecture, protective functions, intervention model, and assurance case. Platform supervision training focuses on directing activities and personnel on a staffed facility.

What makes a normally unattended offshore facility reliable?

Reliability depends on simplified functions, diagnostic coverage, dependable communications, autonomous and fail-safe behavior, maintainability, spares, intervention readiness, and explicit degraded operating modes.

How should remote offshore operations handle loss of communications?

Remote offshore operations should define detection, automatic protective actions, safe-state logic, local autonomy, alarm handling, restoration criteria, decision authority, and intervention triggers before communications are lost.

How do maintenance campaigns support unmanned offshore platforms?

Maintenance campaigns combine condition evidence, task bundling, access methods, weather windows, spares, specialist resources, temporary manning controls, evacuation arrangements, and return-to-unmanned acceptance criteria.

Conclusion

Participants take an Unmanned Offshore Platform and Remote Operations Engineering Basis back to their organization. It connects operating scenarios, function allocation, control and telecom architecture, protective systems, diagnostics, intervention logistics, cybersecurity, human factors, emergency response, and availability. Teams can use it to challenge assumptions, assign ownership, and prioritize lifecycle assurance actions.