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COURSE BROCHURE

Unmanned Offshore Platform Design and Operation Training Course

21 – 25 March 2027
Muscat

Unmanned Offshore Platform Design and Operation Training Course

Ref: 2945_111779 **Date:** 21 – 25 March 2027 **Location:** Muscat **Fees:** 6500 GBP

Unmanned Offshore Platform Design and Operation is a 1-week training course for facilities, operations and maintenance engineers, in which each participant drafts a remote operations concept for one platform. Operators are turning small wellhead and satellite platforms into normally unattended installations to cut helicopter flights, bed space and exposure of people to offshore hazards. Jupiter Prime Training runs this course on unmanned offshore platform design and operation.

Why Unmanned Offshore Platform Design and Operation Matters Now

Three pressures push operators towards unattended platforms. Marginal fields and tail-end assets only pay back when topsides weight, crew cost and logistics shrink. Workforce planners struggle to fill offshore rotations, while safety leaders want fewer people sitting on hydrocarbon inventory. Getting the concept right yields lighter jackets, longer intervals between visits and lower lifting cost; getting it wrong produces nuisance trips, stranded equipment and costly emergency call-outs. The course rests on hazard elimination at the design stage, failure-based maintenance planning and the operator's own visit-interval philosophy.

Who Gains Most from Unmanned Offshore Platform Design and Operation

- Facilities engineers shaping topsides layout and minimum equipment lists
- Operations engineers defining start-up, shutdown and remote intervention logic
- Maintenance engineers planning campaign visits and spares strategy
- Instrument and control engineers specifying sensing, telemetry and shutdown systems
- Marine and logistics coordinators arranging vessel access and walk-to-work transfers

Asset groups preparing a new satellite development or converting a manned platform gain most when facilities, operations and maintenance members attend together.

Unmanned Offshore Platform Design and Operation Capabilities

Participants strip a platform to essentials and keep it producing safely between visits.

- Specify a minimum facilities topsides scope and equipment list — for concept select decisions
- Design remote monitoring, control and shutdown architecture — for operations and safety sign-off
- Build a campaign maintenance calendar with visit intervals — for maintenance and marine planners
- Assess access options, including walk-to-work vessels and boat landings — for logistics budgets
- Calculate equipment redundancy and unattended reliability targets — for availability commitments
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Communicate an unattended operating philosophy and emergency response — for asset leadership and crews

Key Unmanned Offshore Platform Design and Operation Terms

- Normally unattended installation — a platform designed to run without a permanent crew, visited only for planned or corrective work.
- Minimum facilities platform — a stripped-back topsides carrying only essential wellheads and safety equipment.
- Visit interval — the planned period between crew visits, set by equipment reliability and consumable stocks.
- Walk-to-work — personnel transfer from a vessel to the platform over a motion-compensated gangway.
- Campaign maintenance — grouping inspection and repair tasks into short, intensive visits.
- Fail-safe design — arranging systems so any loss of power or signal drives the plant to a safe state.

Unmanned Offshore Platform Design and Operation Day by Day

Day 1: The Case for Unattended Platforms

- Manned, Unattended and Remotely Operated Platform Spectrum — Choosing the Operating Model
- Satellite Field and Host Tie-Back Concepts — Where Unmanned Platforms Fit Best
- Life-Cycle Cost Comparison of Crew and Logistics — Business Case Inputs
- Hazard Elimination at Concept Stage — Removing Hazards Instead of Managing Them
- Operating Philosophy Statement — Agreeing Visit Frequency and Autonomy Level

Day 2: Minimum Facilities Topsides Design

- Minimum Equipment List and Functional Requirements — Trimming Topsides Weight and Space
- Wellhead, Manifold and Simple Separation Layout — Keeping Process Scope Lean
- Power Options: Cable From Host, Solar, Batteries and Generators — Supply Resilience
- Chemical Injection and Consumable Storage Sizing — Endurance Between Visits
- Temporary Refuge, Escape and Lifesaving Provision — Protecting Visiting Crews

Day 3: Remote Monitoring, Control and Protection

- Sensor Coverage and Condition Monitoring Points — Detecting Faults Before Visits
- Telemetry Links: Fibre, Radio and Satellite Paths — Redundancy for Lost Communications
- Remote Start-Up, Shutdown and Well Choke Control — Defining Shore Operator Authority
- Fire and Gas Detection With Fail-Safe Shutdown Logic — Unattended Protection Layers
- Closed-Circuit Camera and Acoustic Monitoring — Eyes and Ears Without People

Day 4: Access, Maintenance Campaigns and Reliability

- Walk-to-Work Gangway, Boat Landing and Helideck Options — Access Cost and Weather Windows
- Campaign Maintenance Scoping and Task Bundling — Fewer, Fuller Visits Offshore
- Equipment Redundancy and Sparing Philosophy — Tolerating Failures Between Visits
- Failure Mode Review of Unattended Equipment — Setting Realistic Visit Intervals
- Emergency Call-Out Criteria and Response Vessel Cover — Limiting Unplanned Trips

Day 5: Practising the Remote Operations Concept

- Concept Selection Exercise for a Satellite Platform — Applying the Operating Model Choice
- Topsides Scope and Power Choice Review — Applying Minimum Facilities Decisions
- Monitoring and Shutdown Architecture Sketch — Applying Remote Protection Layers
- Visit Calendar and Access Plan Draft — Linking Reliability to Campaign Timing
- Completed Remote Operations Concept for One Platform — Basis for Concept Select

Applying Unmanned Offshore Platform Design and Operation After the Course

- Challenge the minimum equipment list of one satellite platform and flag removable items.
- Bundle repeat tasks from last year's trips to one platform into a campaign maintenance calendar.

Unmanned Offshore Platform Design and Operation Questions FAQ

What is unmanned offshore platform design and operation and why does it matter now?

It is the practice of designing small platforms to run without a resident crew and operating them from shore. It matters now because operators must develop smaller fields cheaply while reducing the number of people exposed offshore.

Which roles gain most from unmanned offshore platform design and operation?

Facilities, operations, maintenance and control engineers gain most, along with the marine coordinators who arrange access.

How does unmanned offshore platform design and operation differ from a remote surveillance centre course?

It covers the whole platform, not just the shore control room. You decide topsides scope, power, protection, access and maintenance campaigns, while a surveillance course concentrates on monitoring screens, alarms and shore-based routines.

What do you bring back from unmanned offshore platform design and operation?

You bring back a drafted concept for running one platform unattended. It sets out topsides scope, power, monitoring and shutdown logic, access method and a visit calendar that your asset group can test.

Unmanned Offshore Platform Design and Operation: The Way Forward

The remote operations concept first informs the concept select decision for a satellite or conversion project: how far to strip the topsides and how often crews must return. Facilities, operations and marine planners use it to align budgets and access contracts. After the first year of unattended running, revisit the visit interval against actual trip records and equipment failures.