Crane Safety Training for Oil & Gas

Service Objectives

Designed around oil and gas plant operations, shutdown windows, and offshore logistics. Focused on translating standards into safe, repeatable practice.

- Classify lifts (routine, critical, engineered) and validate crane/load chart selection across crane types.
- Apply rigging geometry and centre-of-gravity calculations to prevent side loading and sling overload.
- Strengthen hazard identification under SIMOPS; set and control exclusion zones in congested process areas.
- Verify ground bearing pressure and crane configuration for desert subgrade, paved yards, mats, and offshore limits (API RP 2D).
- Embed roles, toolbox talks, and permit-to-work interfaces to prevent dropped objects, line-of-fire incidents, and loss of containment.
- Deliver measurable outcomes: higher-quality lift plans, fewer aborted lifts, and audit-ready documentation.

> Referenced standards and UAE context: ASME B30, BS 7121, API RP 2D; OSHAD (Abu Dhabi), Dubai Municipality, MOHRE; alignment with ISO 45001 management system expectations.

Who This Service Is For

- Lifting supervisors, crane operators, riggers, banksmen/signallers, maintenance planners, permit-to-work issuers, and HSE professionals.
- Project engineers, construction managers, turnaround/shutdown coordinators, and logistics leads.
- Upstream, midstream, and downstream teams across wellpads, refineries, LNG/GTL units, gas gathering stations, and offshore installations.
- EPC contractors, O&M providers, and turnaround service companies needing demonstrable lifting competence.
- Operations exposed to sector-specific hazards: H2S, hot surfaces, pressurised lines, live hydrocarbons, ignition sources, and corrosive marine atmospheres.
- Sites with challenging conditions: desert terrain with uncertain ground bearing capacity or offshore decks with dynamic loading.

Duration & Process Overview

- Operator & Rigger Fundamentals: 1–2 days. Supervisory/Critical Lift Planning: 2 days. Offshore (API RP 2D): 1–2 days. Refresher Workshop: 0.5–1 day.
- Delivery modes: on-site (yard/classroom), offshore/nearshore, and blended with virtual pre-learning and post-course reinforcement.

- Group sizes calibrated for interaction: typically 12–16 (operators/riggers), 10–14 (supervisory), 8–12 (offshore).
- English/Arabic options; agendas tailored post needs analysis to asset type and attending roles.

Methodology

Modular structure to upskill operators, riggers, supervisors, and HSE staff while maintaining a consistent risk-control framework.

Phase	Objective / What It Covers	Deliverable / Duration
Pre-training needs analysis	Gather site specifics (lift plans, rigging registers, equipment, plot plans) to tailor scenarios.	Customised agenda; pre-learning brief.
Lifting fundamentals	Load estimation; sling angle and COG; hardware selection/inspection; hand and radio signals (ASME B30, BS 7121).	Operator/Rigger track; 1–2 days (on-site/blended).
Oil & gas risk modules	SIMOPS coordination; working near live lines; hot work interfaces; H2S considerations; hazardous/classified areas.	Contextualised exercises and checklists.
Offshore crane operations	API RP 2D competencies; pedestal crane limits; deck management; weather windows; vessel/heave effects.	Offshore/nearshore delivery; 1–2 days.
Supervisory / critical lift planning	Engineered/critical lift workflows; ground bearing pressure calculations; crane setup; matting; vendor data review.	Supervisor track; 2 days; documentation templates.
Scenario-based casework	Refinery, gas plant, pipeline, and offshore scenarios; critique and improve real lift plans; stop/go decisions.	Improved lift planning quality; peer review outputs.
Assessment & certification	Written evaluations; practical rigging and signalling; plan reviews; scenario responses under site constraints.	Certificate of completion with learning outcomes.
Post-course reinforcement	Virtual workshops and coaching to embed improvements without disrupting operations.	Follow-up sessions; action items tracking.

This training equips teams to plan, supervise, and execute lifts safely in high-risk oil and gas environments, onshore and offshore, with documentation that meets client and authority audit expectations across the UAE.