

Course No. 1592

Risk Management for Oil & Gas Projects Training Course

MANAGEMENT, LEADERSHIP & DIGITAL TRANSFORMATION
OIL & GAS

DURATION

5 Days

DELIVERY

Classroom



Course Overview

Oil and Gas projects involve complex technical, operational, financial, environmental, and contractual challenges that can significantly affect project cost, schedule, quality, safety, and overall business performance. Effective risk management is therefore essential for maintaining control throughout the project lifecycle.

This course provides a practical approach to risk management for Oil and Gas projects, covering risk identification, assessment, prioritization, response planning, monitoring, and control. It focuses on the specific risks associated with engineering, procurement, construction, commissioning, operations, contractors, supply chains, and project interfaces.

Participants will learn how to establish a structured project risk management process, evaluate threats and opportunities, develop effective risk response strategies, and use practical risk management tools to support better project decisions.

The course also emphasizes proactive risk management, enabling project teams to identify emerging risks early, strengthen project resilience, reduce potential losses, and improve the probability of achieving project objectives safely, on time, within budget, and to the required quality standards.

Objectives

- By the end of this course, participants will be able to:
- Understand the principles and importance of risk management in Oil and Gas projects.
- Establish a structured risk management process throughout the project lifecycle.
- Identify technical, commercial, financial, operational, HSE, contractual, and external project risks.
- Assess the probability and potential impact of identified risks.
- Prioritize project risks using appropriate assessment techniques.
- Develop practical risk response and mitigation strategies.
- Assign risk ownership and establish effective accountability.
- Integrate risk management with project planning, cost, schedule, procurement, and contracting.
- Monitor risk exposure and identify emerging risks throughout project execution.
- Develop and maintain effective project risk registers.
- Apply quantitative and qualitative risk analysis techniques.
- Improve decision-making through risk-based project management.

- Strengthen project resilience and reduce the impact of major project uncertainties.

Who Should Attend

This course is designed for Project Managers, Project Engineers, Project Controls Professionals, Risk Managers, Risk Engineers, Engineering Managers, Construction Managers, and professionals involved in the planning and execution of Oil and Gas projects.

It is also suitable for professionals working in Procurement, Contracts, Commercial Management, HSE, Engineering, Operations, Maintenance, Commissioning, Supply Chain, and Project Management Offices.

The course is particularly valuable for managers, engineers, specialists, and decision-makers responsible for identifying, assessing, controlling, or monitoring risks across Oil and Gas projects.

Learning Outcomes

- Upon successful completion of this course, participants will be able to:
- Establish an effective risk management framework for Oil and Gas projects.
- Identify risks across different project phases and disciplines.
- Develop comprehensive project risk registers.
- Assess risk probability, impact, severity, and exposure.
- Prioritize critical risks requiring immediate management attention.
- Apply qualitative and quantitative risk analysis techniques.
- Develop practical risk mitigation, avoidance, transfer, and acceptance strategies.
- Establish clear risk ownership and accountability.
- Integrate risk management with cost and schedule control.
- Assess risks associated with contractors, suppliers, procurement, and project interfaces.
- Monitor risk trends and identify emerging threats.
- Develop risk reporting and escalation mechanisms.
- Evaluate the effectiveness of risk responses and mitigation measures.
- Support management decisions using risk-based analysis.
- Targeted Competencies
- Project Risk Management.

- Oil and Gas Project Risk Assessment.
- Risk Identification and Classification.
- Qualitative Risk Analysis.
- Quantitative Risk Analysis.
- Risk Prioritization.
- Risk Response Planning.
- Risk Mitigation.
- Risk Register Management.
- Contractor and Supply Chain Risk.
- Cost and Schedule Risk Management.
- HSE and Operational Risk Awareness.
- Risk Monitoring and Reporting.
- Risk-Based Decision-Making.
- Project Resilience and Business Continuity.

Course Outline

DAY 01

Fundamentals of Risk Management in Oil and Gas Projects

- Understanding project risk and uncertainty.
- The role of risk management throughout the project lifecycle.
- Characteristics of risk in Oil and Gas projects.
- Strategic, technical, commercial, financial, operational, and external risks.
- Project risk management principles and framework.
- Establishing risk management objectives and responsibilities.
- Developing a project risk management structure.
- Risk management roles and accountability.
- Risk management across engineering, procurement, construction, and commissioning.

PRACTICAL EXERCISE

Developing an Oil and Gas project risk management framework.

DAY 02

Risk Identification and Assessment

- Systematic risk identification techniques.
- Developing risk categories and risk breakdown structures.
- Identifying engineering and technical risks.
- Identifying procurement and supply chain risks.
- Identifying construction and commissioning risks.
- Identifying cost and schedule risks.
- Identifying HSE and operational risks.
- Identifying contractual and commercial risks.
- Risk assessment using probability and impact.
- Risk scoring and prioritization.
- Developing and maintaining a project risk register.

PRACTICAL EXERCISE

Building and prioritizing a project risk register.

DAY 03

Risk Analysis and Response Planning

- Qualitative and quantitative risk analysis.
- Risk exposure and expected impact.
- Probability and impact assessment techniques.
- Scenario analysis and sensitivity analysis.
- Understanding contingency and management reserves.
- Developing risk response strategies.
- Risk avoidance, reduction, transfer, and acceptance.
- Developing mitigation and contingency actions.
- Assigning risk owners and response responsibilities.
- Evaluating the effectiveness of risk responses.

DAY 03 — CONTINUED

PRACTICAL EXERCISE

Developing risk response and mitigation plans.

DAY 04

Managing Project Cost, Schedule, Contract and Supply Chain Risks

- Integrating risk management with project controls.
- Identifying cost and schedule risks.
- Managing cost escalation and budget uncertainty.
- Managing schedule delays and critical path risks.
- Contractor and subcontractor risk management.
- Procurement and supplier risks.
- Long-lead equipment and material risks.
- Contractual and commercial risk exposure.
- Project interface and stakeholder risks.
- Change management and emerging project risks.

PRACTICAL EXERCISE

Developing an integrated cost, schedule, contract, and supply chain risk assessment.

DAY 05

Risk Monitoring, Reporting and Project Resilience

- Establishing an effective risk monitoring process.
- Tracking risk exposure throughout project execution.
- Identifying emerging and changing risks.
- Risk triggers, early warning indicators, and escalation mechanisms.
- Monitoring mitigation and contingency actions.
- Developing risk dashboards and management reports.

DAY 05 — CONTINUED

- Communicating critical risks to project leadership.
- Integrating risk information into project decision-making.
- Conducting risk reviews and updating risk registers.
- Building project resilience through proactive risk management.
- Lessons learned and continuous improvement.

PRACTICAL EXERCISE

Developing an Oil and Gas project risk monitoring and reporting framework.

Register or Request More Information

Course page: <https://quest-training.com/courses/risk-management-for-oil-gas-projects-training-course>

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