MERCURY

Supply Chain Risk Management in Refining & Petrochemical Operations

3 – 7 January 2027
Cairo (Egypt)

Dubai - UAE: +971 4 450 5697
Istanbul - Türkiye: +90 539 599 1206
Amman - Jordan: +962 79 712 3347

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Ref: 121836_1078200 **Date:** 3 – 7 January 2027 **Location:** Cairo (Egypt) **Fees:** 3500 Euro

Introduction

The Supply Chain Risk Management in Refining & Petrochemical Operations course provides professionals with essential knowledge to understand, evaluate, and manage supply chain risks within complex energy environments. It focuses on identifying vulnerabilities across procurement, suppliers, logistics networks, and global market conditions. Participants will explore practical approaches to assess supply chain disruptions using structured risk assessment methods and analytical tools. The program examines risk mitigation strategies, supplier resilience practices, and contingency planning approaches to support operational continuity. It highlights governance requirements, risk monitoring systems, and stakeholder communication methods within refining and petrochemical operations. Participants will develop the ability to build stronger, more resilient supply chains aligned with organizational objectives.

Targeted Groups

This Supply Chain Risk Management in Refining & Petrochemical Operations training targets professionals seeking knowledge and skills:

- Supply chain managers handling industrial procurement activities.
- Procurement specialists managing supplier relationships.
- Refinery and petrochemical operations professionals.
- Risk management professionals supporting business continuity.
- Contract managers involved in supplier agreements.
- Logistics professionals managing supply chain flows.
- Project managers overseeing operational risks.
- Professionals responsible for procurement governance compliance.

Course Objectives

Participants will achieve the following objectives by completing the Supply Chain Risk Management in Refining & Petrochemical Operations course:

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- Understand supply chain risk management principles in refining operations.
- Identify major supplier, logistics, financial, and geopolitical risks.
- Analyze supply chain vulnerabilities using structured assessment tools.
- Apply risk matrices and heat maps for risk evaluation.
- Develop supplier risk profiles and dependency assessments.
- Create effective mitigation and contingency strategies.
- Understand supplier diversification and sourcing approaches.
- Monitor risk indicators and early warning signals.
- Improve supply chain resilience through governance practices.
- Communicate supply chain risks effectively to stakeholders.
- Align risk management with procurement governance requirements.
- Support operational continuity through proactive risk planning.

Targeted Competencies

Participants will gain the following competencies during the Supply Chain Risk Management in Refining & Petrochemical Operations program:

- Supply chain risk identification and classification skills.
- Supplier evaluation and dependency analysis capabilities.
- Risk assessment and prioritization techniques.
- Strategic sourcing and mitigation planning abilities.
- Supply chain resilience development knowledge.
- Early warning system monitoring skills.
- Risk reporting and stakeholder communication skills.
- Understanding of procurement governance practices.
- Geopolitical and trade risk evaluation capabilities.

Studying Scenarios

In this Supply Chain Risk Management in Refining & Petrochemical Operations training, participants develop skills through the following scenarios:

- Evaluating supplier disruption risks affecting refinery operations.
- Assessing geopolitical events impacting petrochemical supply chains.
- Developing contingency plans for critical suppliers.
- Reviewing logistics delays and material availability challenges.
- Creating risk registers for procurement activities.
- Analyzing sole-source supplier dependency situations.

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Course Content

Unit 1: Foundations of Supply Chain Risk Management

- Define supply chain risk management concepts and objectives.
- Understand the importance of resilient supply chains in refining.
- Identify major supply chain risk categories.
- Explore supplier, logistics, financial, and regulatory risks.
- Review international risk management frameworks and practices.
- Analyze supply chain disruption examples in energy industries.

Unit 2: Supply Chain Risk Identification and Assessment

- Understand methods for identifying supply chain vulnerabilities.
- Apply supplier mapping and spend analysis techniques.
- Evaluate supplier dependency and critical supplier exposure.
- Use likelihood-impact matrices for risk evaluation.
- Develop supply chain risk heat maps.
- Apply Failure Mode and Effects Analysis FMEA principles.
- Create structured supply chain risk registers.

Unit 3: Risk Mitigation and Supply Chain Resilience Strategies

- Understand supply chain risk response approaches.
- Apply risk avoidance, reduction, transfer, and acceptance methods.
- Develop supplier diversification strategies.
- Explore dual sourcing and multi-sourcing approaches.
- Understand safety stock planning for supply continuity.
- Evaluate contract clauses supporting risk protection.
- Develop supplier contingency management plans.

Unit 4: Monitoring, Reporting, and Supply Chain Governance

- Identify key risk indicators for supply chain monitoring.
- Establish early warning systems for disruptions.
- Monitor supplier performance and reliability levels.
- Understand supplier audit and evaluation processes.
- Develop risk reporting structures for management.
- Apply escalation procedures for critical risks.
- Integrate risk practices with procurement governance systems.

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Unit 5: Geopolitical, Category, and Supplier Risk Management

- Understand geopolitical factors affecting refinery supply chains.
- Evaluate sanctions, tariffs, and trade restriction impacts.
- Assess country risks and global supply disruptions.
- Analyze sole-source and monopoly supplier challenges.
- Develop mitigation plans for critical suppliers.
- Apply category risk assessment frameworks.
- Build localization and alternative supplier strategies.

Final Insights & Key Takeaways

The course enables professionals to strengthen supply chain resilience through effective risk identification, assessment, and mitigation practices. Participants will manage supplier challenges, geopolitical uncertainties, and operational disruptions within complex industrial environments.