Advanced Risk Assessment Techniques for Industry Experts

29 November – 3 December 2026
Cairo (Egypt)



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Ref: 323009_221770 **Date:** 29 November – 3 December 2026 **Location:** Cairo (Egypt) **Fees:** 4900 GBP

Course Description

This intensive 1-week course equips industry professionals with advanced risk assessment techniques essential for modern industrial operations. Participants will gain in-depth knowledge of sophisticated hazard identification methods, quantitative risk analysis tools, and effective mitigation strategies. The course combines theoretical concepts with practical applications to enhance risk management capabilities.

Learning Objectives

- Master advanced hazard identification and analysis techniques
- Apply quantitative risk assessment methods to complex scenarios
- Develop comprehensive risk mitigation and management strategies
- Integrate human factors and safety culture into risk assessments
- Utilize cutting-edge software tools for risk modeling and analysis

Course Modules

Day 1: Advanced Hazard Identification

- HAZOP studies and variations
- Failure Mode and Effects Analysis FMEA
- Bow-tie analysis
- Event tree analysis

Day 2: Quantitative Risk Assessment

- Fault tree analysis
- Probabilistic risk assessment
- Consequence modeling
- Risk matrices and decision-making

Day 3: Risk Mitigation Strategies

- Hierarchy of controls
- Inherently safer design principles
- LOPA Layers of Protection Analysis
- Risk-based inspection and maintenance



Day 4: Human Factors and Safety Culture

- Human reliability analysis
- Behavioral safety programs
- Safety culture assessments
- Integrating human factors into risk assessments

Day 5: Advanced Risk Assessment Tools and Integration

- Risk assessment software applications
- Dynamic risk assessment techniques
- Integrating risk assessments into management systems
- Case studies and practical exercises

Practical Wins for Participants

- Ability to conduct comprehensive risk assessments using advanced techniques
- Skills to quantify and prioritize risks for informed decision-making
- Strategies to develop and implement effective risk mitigation measures
- Expertise in integrating human factors and safety culture into risk management

