MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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ADVANCED QUANTITATIVE RISK ASSESSMENT (QRA)

"Master the Tools and Techniques for Quantitative Risk Assessment to Mitigate Risks in Complex Projects"

Schedule

Date	Venue	Fees (Face-to-Face)
01 - 05 Jun 2026	London - UK	USD 3495 per delegate
13 - 17 Jul 2026	Dubai - UAE	USD 3495 per delegate
17 - 21 May 2026	Manama, Bahrain	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Quantitative Risk Assessment (QRA) is a powerful methodology for analyzing and managing risks in various sectors, particularly in complex projects. This course will provide participants with advanced tools and techniques to assess and mitigate risks quantitatively, helping organizations avoid critical failures and optimize their processes.

The training focuses on developing proficiency in conducting risk assessments, analyzing risk data, and applying advanced quantitative models. By the end of the course, participants will be equipped to implement QRA in real-world projects, ensuring risk management strategies are effective, reliable, and efficient

Objectives

By the end of this course, participants will be able to:

- Apply advanced QRA techniques to assess risks in complex projects
- Interpret and analyze risk data using quantitative models
- Develop and implement risk management strategies based on QRA findings
- Evaluate the effectiveness of existing risk controls and recommend improvements
- Utilize risk assessment tools and software to streamline the process

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Why Attend

- Gain advanced knowledge of Quantitative Risk Assessment (QRA) for large-scale projects
- Learn how to analyze and manage risks more effectively through quantitative methods
- Develop a deeper understanding of risk data analysis and how it informs decision-making
- Master the use of QRA tools to optimize risk management strategies
- Enhance your ability to manage complex projects and avoid costly errors

Target Audience

This program is designed for:

- Risk managers and analysts
- Project managers in high-risk industries
- Engineers and technical professionals involved in risk management
- Financial analysts responsible for risk assessment and mitigation
- Consultants working on risk-related projects

Individual Benefits

Key competencies that will be developed include:

- Expertise in quantitative risk modeling and analysis
- Skills in using risk assessment tools and software
- Ability to develop and implement effective risk management strategies
- Enhanced decision-making ability based on risk data analysis
- Improved competency in handling complex project risks

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- The ability to apply advanced QRA techniques to improve organizational risk management
- Stronger risk management frameworks based on quantitative data
- Enhanced capability to reduce project risks and optimize resources
- Better alignment of risk management strategies with organizational objectives
- Improved overall project performance and risk mitigation

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – In-depth analysis of advanced QRA methodologies and techniques
- Case Studies – Real-world examples of successful QRA implementation in high-risk industries
- Workshops – Hands-on sessions using QRA tools for risk assessment and data analysis
- Peer Exchange – Collaborative discussions on challenges and solutions in risk management
- Tools – Introduction to industry-standard risk assessment tools and software

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Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Introduction to Advanced QRA

- Module 1: Overview of Quantitative Risk Assessment (07:30 – 09:30)
- Introduction to QRA and its role in risk management
- Key principles and objectives of QRA
- Overview of advanced QRA techniques and models
- Module 2: Risk Identification and Data Gathering (09:45 – 11:15)
- Methods for identifying and categorizing risks
- Techniques for gathering and processing risk data
- Best practices for risk data collection
- Module 3: Basic Quantitative Risk Models (11:30 – 01:00)
- Introduction to Monte Carlo simulations
- Probability distributions and their role in QRA
- Basic risk modeling techniques and tools

Day 2: Risk Analysis and Data Interpretation

- Module 4: Advanced Risk Modeling Techniques (07:30 – 09:30)
- Understanding and applying advanced quantitative models
- Sensitivity analysis and its role in risk management
- Risk data analysis and interpretation techniques
- Module 5: Failure Modes and Effects Analysis (09:45 – 11:15)
- Introduction to Failure Modes and Effects Analysis (FMEA)
- How to integrate FMEA with QRA models
- Practical session on using FMEA for risk analysis
- Module 6: Risk Simulation and Sensitivity Analysis (11:30 – 01:00)
- Applying Monte Carlo simulations to complex risk scenarios
- Understanding risk variability and sensitivity analysis
- Hands-on session on running simulations

Day 3: Risk Mitigation Strategies

- Module 7: Developing Risk Mitigation Strategies (07:30 – 09:30)
- How to identify and assess mitigation strategies
- Developing risk mitigation plans based on QRA results
- Evaluating risk controls and their effectiveness
- Module 8: Optimizing Resource Allocation (09:45 – 11:15)
- Using QRA data to optimize project resources
- Strategies for balancing risk and resource allocation
- Hands-on workshop on resource optimization
- Module 9: Risk Control Measures and Monitoring (11:30 – 01:00)
- Implementing risk control measures in projects
- Ongoing monitoring and review of risk management strategies
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Tools and techniques for continuous risk monitoring

Day 4: Advanced QRA Tools and Techniques

- Module 10: Industry-Specific Risk Assessment Techniques (07:30 – 09:30)
- Advanced techniques for specific industries (e.g., construction, oil and gas)
- Case studies of industry-specific QRA applications
- Customizing QRA models for industry needs
- Module 11: Using QRA Software for Data Analysis (09:45 – 11:15)
- Overview of QRA software tools and platforms
- Practical session using industry-standard risk assessment software
- Hands-on experience with risk data analysis tools
- Module 12: Decision Making Based on QRA Results (11:30 – 01:00)
- How to use QRA findings to make informed decisions
- Decision-making frameworks for risk management
- Practical session on applying QRA results in decision making

Day 5: Closing and Future Trends in Risk Assessment

- Module 13: Advanced Topics in Risk Management (07:30 – 09:30)
- Emerging trends and techniques in quantitative risk assessment
- The future of QRA and its applications
- How technology is shaping the future of risk management
- Module 14: Group Project: Risk Assessment in Action (09:45 – 11:15)
- Group-based project: Conducting a full QRA for a given project scenario
- Applying advanced QRA techniques and models
- Presenting project findings and recommendations
- Module 15: Certification and Course Wrap-Up (11:30 – 01:00)
- Review of key takeaways
- Final Q&A session
- Certificate ceremony and course closure

Certification

Participants will receive a Certificate of Completion in Advanced Quantitative Risk Assessment (QRA), validating their expertise in conducting advanced risk assessments and implementing quantitative models for risk management in complex projects.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**