



Advanced Risk Assessment and Evaluation Techniques Training Course

7 – 11 March 2027
Johannesburg

Advanced Risk Assessment and Evaluation Techniques Training Course

Ref: 1202_188766 **Date:** 7 – 11 March 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

Advanced Risk Assessment and Evaluation Techniques Training Course is a one-week course for experienced risk, assurance, and decision professionals who leave with a Complex Risk Evaluation Pack. The course applies advanced risk assessment techniques, bow-tie analysis, scenario analysis, probabilistic risk analysis, and uncertainty analysis to interconnected exposures. Participants compare qualitative and quantitative evidence, test assumptions, map dependencies, and translate findings into decision-ready priorities. Agile Leaders Training Center presents advanced risk assessment and evaluation techniques.

Who Should Attend

- Enterprise risk functions responsible for complex exposure assessment and prioritization
- Assurance functions responsible for challenging methods, evidence, and control effectiveness
- Strategy functions responsible for evaluating uncertainty around options and objectives
- Operational resilience functions responsible for scenarios, dependencies, and disruption consequences
- Technical analysis functions responsible for probabilistic models and sensitivity testing
- Executive reporting functions responsible for translating risk evidence into decisions

The course assumes participants already conduct risk assessments or review risk evidence at work and leaves out introductory risk terminology and basic spreadsheet instruction.

Departments and Industries

The course supports complex risk evaluation across:

- Enterprise risk, strategy, governance, and internal audit departments
- Banking, insurance, investment, and corporate finance organizations
- Energy, utilities, engineering, and infrastructure operations
- Technology, telecommunications, cybersecurity, and data functions
- Healthcare, pharmaceuticals, manufacturing, and supply-chain teams
- Public-sector planning, assurance, and service-continuity offices

Learning Objectives

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



- Apply technique-selection criteria to complex risk questions
- Build causal, bow-tie, scenario, and dependency models
- Analyze uncertainty with Bayesian and Monte Carlo reasoning
- Evaluate model assumptions, evidence quality, and control effects
- Compare sensitivity, aggregation, and prioritization results
- Prioritize risk responses through decision-ready reporting

Course Agenda

Day 1: Assessment Design and Evidence

- IEC 31010 Technique Selection Matrix
- Risk Question and Decision-Criteria Canvas
- Evidence Quality and Assumption Register
- Likelihood-Consequence Scale Calibration Method
- Risk Assessment Verification and Validation Checklist

Day 2: Causal and Scenario Evaluation

- Bow-Tie Cause-Control-Consequence Model
- Fault Tree and Event Tree Analysis Logic
- Root Cause and Control Effectiveness Map
- Severe-but-Plausible Scenario Design Method
- Scenario Consequence and Response Comparison Grid

Day 3: Probability and Uncertainty

- Bayesian Prior-to-Posterior Update Model
- Probability Distribution Selection Guide
- Monte Carlo Uncertainty Propagation Method
- Parameter and Model Uncertainty Log
- Probabilistic Output Interpretation Dashboard

Day 4: Dependencies and Decision Support

- Risk Interdependency Network Map
- Systemic Exposure and Cascade Pathway Analysis
- Sensitivity and Driver Ranking Method
- Risk Aggregation and Concentration Heatmap
- Multi-Criteria Risk Decision Matrix

Day 5: Integrated Evaluation Practice

- Exercise: Select Techniques for a Complex Risk Case
- Exercise: Build a Bow-Tie and Scenario Evidence Chain
- Exercise: Challenge a Probabilistic Model and Sensitivity Results
- Exercise: Prioritize Interdependent Risks and Responses
- Capstone Exercise: Complex Risk Evaluation Pack

Practical Exercises

The course uses suggested activities to connect analytical methods with accountable decisions:

- Suggested activity: select and justify complementary techniques for operational and strategic risk questions
- Suggested activity: model a technology outage and an infrastructure disruption through causal, scenario, and dependency views
- Suggested activity: test how assumptions and distributions change probabilistic results and priorities
- Suggested activity: assemble evidence, limitations, rankings, and response choices into a decision pack

FAQs

Who does advanced risk assessment techniques training suit, and what does it assume?

Advanced risk assessment techniques training suits experienced risk, assurance, strategy, resilience, and analytical professionals and assumes they already assess risks or review risk evidence.

How do advanced risk assessment techniques differ from an enterprise risk management course?

Advanced risk assessment techniques focus on selecting, applying, validating, and combining analytical methods, while enterprise risk management courses usually address governance, appetite, processes, and organization-wide coordination.

When should bow-tie analysis support complex risk evaluation?

Bow-tie analysis supports complex risk evaluation when teams need to connect causes, preventive controls, a central event, consequences, and recovery controls in one defensible causal view.

How does Monte Carlo simulation improve risk evaluation?

Monte Carlo simulation improves risk evaluation by propagating input uncertainty through repeated sampling, producing a distribution of possible outputs instead of relying on one point estimate.



Why does risk interdependency analysis matter?

Risk interdependency analysis matters because a change in one exposure, control, supplier, system, or process can amplify or transmit consequences across connected objectives.

Conclusion

Participants take back a Complex Risk Evaluation Pack containing a technique rationale, causal models, scenarios, probabilistic outputs, sensitivity findings, dependency maps, and decision priorities. The pack changes isolated scores into traceable evaluation evidence. It supports clearer challenge, comparison, escalation, and response decisions across complex exposures.