ADVANCED PROJECT RISK MANAGEMENT



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Introduction

Advanced Project Risk Management examines how project teams identify threats early, quantify them honestly, and turn risk insight into delivery decisions. This Training Course covers risk governance, identification, quantitative analysis, response design, and monitoring. Participants study the PMBOK Guide risk management processes, ISO 31000 risk management principles and guidelines, the COSO Enterprise Risk Management framework, the Risk Management Professional body of knowledge from PMI, the risk breakdown structure, probability and impact matrices, the risk register with owners and triggers, Monte Carlo schedule and cost simulation, Expected Monetary Value, decision tree analysis, sensitivity and tornado diagrams, the Delphi technique and probability-impact scoring, opportunity management, contingency and management reserve derivation, risk appetite and tolerance statements, bow-tie analysis, and Statistical Process Control with control charts and run rules for risk indicator monitoring. Furthermore, the programme connects analysis to decisions through risk workshops, Monte Carlo labs, and response planning simulations. As a result, delegates leave able to quantify risk rather than simply list it.

Advanced Project Risk Management Course Objectives

- Define project risk, issue, and opportunity and their differences.
- Apply ISO 31000 principles and the COSO ERM framework.
- Apply PMBOK Guide risk management processes end to end.
- Build a risk breakdown structure and risk register with owners.
- Use qualitative techniques: probability-impact, Delphi, and bow-tie.
- Apply quantitative techniques: Monte Carlo and decision trees.
- Calculate Expected Monetary Value and derive contingency reserves.
- Design threat responses across avoid, transfer, mitigate, and accept.
- Design opportunity responses across exploit, share, enhance, and accept.

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- Monitor risk exposure and report to governance bodies.

Course Methodology

- Interactive workshops using real risk registers and project data.
- Risk identification and risk breakdown structure labs.
- Monte Carlo simulation and decision tree exercises.
- Response planning and reserve derivation workshops.
- Risk review and escalation simulations.
- Action planning that converts each session into a workplace commitment.

Who Should Take This Course

- Project and programme managers.
- Risk managers and risk officers on projects.
- Project control and planning engineers.
- Cost engineers and estimators.
- PMO analysts and assurance professionals.
- Contract and claims specialists.
- Team leads accountable for risk ownership.

Advanced Project Risk Management Course Outlines

Day 1: Risk Governance and Frameworks

- Risk, issue, and opportunity defined and differentiated.
- ISO 31000 principles, framework, and process.
- The COSO Enterprise Risk Management framework.

- PMBOK Guide risk management processes end to end.
- Risk appetite, tolerance, and threshold statements.
- Common failures: risk registers as documents, no owner, no triggers.
- Building the risk governance framework pack.

Day 2: Identification and Qualitative Analysis

- Identification techniques: brainstorming, Delphi, and interviews.
- The risk breakdown structure and cause-effect taxonomy.
- Assumptions and constraints analysis.
- Probability and impact matrices and scoring scales.
- Bow-tie analysis for high-consequence risks.
- Risk register structure with owners, triggers, and due dates.
- Building the identification and qualitative pack.

Day 3: Quantitative Analysis and Modelling

- Quantitative versus qualitative analysis when to use each.
- Monte Carlo schedule simulation and output interpretation.
- Monte Carlo cost simulation and confidence levels.
- Expected Monetary Value and decision tree analysis.
- Sensitivity analysis and tornado diagrams.
- Correlation and common-cause modelling cautions.
- Building the quantitative analysis pack.

Day 4: Response Planning and Reserves

- Threat responses: avoid, transfer, mitigate, and accept.

- Opportunity responses: exploit, share, enhance, and accept.
- Contingency reserve derivation from simulation outputs.
- Management reserve and governance approval.
- Secondary and residual risk assessment.
- Response owners, action plans, and cost integration.
- Building the response and reserve pack.

Day 5: Monitoring, Reporting, and Risk Culture

- Risk monitoring cadence and review design.
- Risk indicators and early warning measures.
- Statistical Process Control with control charts and run rules.
- Risk reporting to boards and steering committees.
- Escalation triggers and decision rules.
- Building a healthy risk culture and lessons learned.
- Personal action plan and continuous improvement.

Conclusion

By successfully completing Advanced Project Risk Management, participants will have acquired a practical command of risk frameworks, identification and classification, quantitative modelling, response design, reserve derivation, and monitoring governance. They will know how to build a risk register that names owners and triggers, quantify exposure with simulation rather than scoring alone, and derive contingency from evidence rather than instinct. In addition, the course prepares delegates to report risk exposure honestly and to escalate before a threat becomes an issue. As a result, they return to work ready to manage project risk as a decision discipline. Gentex Training Center delivers this Training Course with a practical, standards-based approach.

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FAQs for the Advanced Project Risk Management course

Q1 What is the "Advanced Project Risk Management" course about?

It is a five-day programme on identifying project threats early, quantifying them honestly, and turning risk insight into delivery decisions. It covers ISO 31000, the COSO ERM framework, the PMBOK Guide risk processes, risk breakdown structures, probability-impact analysis, bow-tie analysis, Monte Carlo simulation, decision trees, contingency derivation, and risk monitoring.

Q2 What are the key benefits of the "Advanced Project Risk Management" course?

Participants gain the ability to build a risk register that names owners and triggers, quantify exposure with simulation rather than scoring alone, and derive contingency from evidence rather than instinct. They also learn to report risk exposure honestly and to escalate before a threat becomes an issue.

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Q3 What skills will I gain from the "Advanced Project Risk Management" course?

Risk governance with ISO 31000 principle and framework application, COSO ERM alignment, PMBOK risk process application, and risk appetite and tolerance statement design, identification and qualitative analysis with brainstorming, Delphi and interview technique, risk breakdown structure construction, assumptions and constraints analysis, probability and impact matrix design, bow-tie analysis, and risk register structuring with owners and triggers, quantitative analysis with Monte Carlo schedule and cost simulation, output interpretation, confidence level reading, Expected Monetary Value calculation, decision tree analysis, sensitivity analysis and tornado diagram production, and correlation modelling caution, and response and monitoring with threat response design across avoid, transfer, mitigate and accept, opportunity response design across exploit, share, enhance and accept, contingency reserve derivation from simulation, management reserve governance, secondary and residual risk assessment, response owner assignment, risk indicator design, control chart application, run rule interpretation, risk reporting design, escalation trigger design, and risk culture development.

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Q4 What tools, methods, or standards are covered in the "Advanced Project Risk Management" course?

The course covers risk, issue and opportunity defined and differentiated, ISO 31000 principles, framework and process, the COSO Enterprise Risk Management framework, PMBOK Guide risk management processes end to end, risk appetite, tolerance and threshold statements, common failures across risk registers as documents, no owner and no triggers, identification techniques across brainstorming, Delphi and interviews, the risk breakdown structure and cause-effect taxonomy, assumptions and constraints analysis, probability and impact matrices and scoring scales, bow-tie analysis for high-consequence risks, risk register structure with owners, triggers and due dates, quantitative versus qualitative analysis selection, Monte Carlo schedule simulation and output interpretation, Monte Carlo cost simulation and confidence levels, Expected Monetary Value and decision tree analysis, sensitivity analysis and tornado diagrams, correlation and common-cause modelling cautions, threat responses across avoid, transfer, mitigate and accept, opportunity responses across exploit, share, enhance and accept, contingency reserve derivation from simulation outputs, management reserve and governance approval, secondary and residual risk assessment, response owners, action plans and cost integration, risk monitoring cadence and review design, risk indicators and early warning measures, Statistical Process Control with control charts and run rules, risk reporting to boards and steering committees, escalation triggers and decision rules, and building a healthy risk culture and lessons learned.

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Q5 How is the "Advanced Project Risk Management" course applied in real-world practice?

Delegates apply it through risk governance frameworks, risk management plans, risk appetite statements, tolerance and threshold definitions, risk breakdown structures, risk identification workshop records, brainstorming outputs, Delphi questionnaires, interview notes, assumptions logs, constraints registers, probability and impact matrices, risk scoring scales, bow-tie diagrams, risk registers with owners and triggers, risk response plans, risk owner assignments, action plans, Monte Carlo schedule simulations, Monte Carlo cost simulations, confidence level analyses, Expected Monetary Value calculations, decision trees, sensitivity analyses, tornado diagrams, correlation models, contingency reserve derivations, reserve drawdown records, management reserve requests, secondary risk assessments, residual risk records, risk indicators, early warning dashboards, control charts, run rule assessments, risk review calendars, review agendas, risk reports, board risk papers, steering committee updates, escalation matrices, decision logs, action registers, risk culture assessments, lessons learned registers, and risk management improvement plans. They also use it to chair risk review workshops and to present risk exposure to sponsors, boards, and steering committees.