THE 10-DAY ADVANCED PROJECT ECONOMICS & RISK MANAGEMENT



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TRAINING CENTER

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Introduction

The 10-Day Advanced Project Economics & Risk Management Training Course joins rigorous project appraisal with the risk discipline that keeps a project viable. Participants learn to test a project's economics, then to identify, quantify and control what could break it across an extended programme. The coverage spans economic modelling, investment metrics, risk identification and registers, qualitative and quantitative risk analysis, Monte Carlo simulation, contingency setting, contract risk transfer and downside management. Furthermore, it addresses portfolio risk, governance and assurance. As a result, delegates can present a project case that shows both expected value and the range of realistic outcomes. Gentex Training Center delivers the programme through modelling workshops and applied project case work.

The 10-Day Advanced Project Economics & Risk Management Course Objectives

- Build project economic models in Microsoft Excel.
- Apply NPV, IRR, MIRR, XIRR and payback appraisal.
- Set hurdle rates using WACC and risk-adjusted discount rates.
- Identify and categorise project risks systematically.
- Build and maintain a project risk register with owners and ratings.
- Apply qualitative risk assessment using probability and impact scales.
- Quantify risk exposure using expected monetary value.
- Apply Monte Carlo simulation and probabilistic outcome modelling.
- Set contingency and risk allowances on an evidence basis.
- Apply contract risk transfer, mitigation and downside management.

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Course Methodology

The programme combines technical briefings with extended modelling workshops and applied project case studies. Participants build an economic model, construct a quantified risk register and run simulation analysis on a project. In addition, structured peer review and committee simulation sharpen judgement, and each day closes with an applied analytical task.

Who Should Take This Course

- Project economists, analysts and risk professionals.
- Corporate finance and capital planning specialists.
- Project managers and cost engineers with risk responsibility.
- Risk managers and quantitative analysts in project organisations.
- Contract, commercial and procurement professionals on capital projects.
- Auditors, advisers and consultants supporting project approval.

The 10-Day Advanced Project Economics & Risk Management Course Outlines

Day 1: Project Economics and Decision Frameworks

- Project economics purpose, stages and decision gateways.
- Cash flow construction and relevant cash flow rules.
- Real versus nominal terms, escalation and inflation.
- Discount rate selection and hurdle rate setting.
- WACC calculation and risk-adjusted discount rates.

- Economic modelling standards and model documentation.
- Workshop: building a project economic model framework.

Day 2: Investment Metrics and Capital Allocation

- NPV, IRR, MIRR, XIRR and payback calculation.
- Profitability index and capital efficiency measures.
- Capital rationing and multi-period allocation.
- Ranking mutually exclusive and independent projects.
- Post-investment review and benefits tracking.
- Common appraisal errors and misleading metrics.
- Workshop: appraising and ranking competing project proposals.

Day 3: Risk Identification and Risk Frameworks

- Risk management frameworks and standards.
- Risk breakdown structures and risk categorisation.
- Risk identification techniques and workshops.
- Opportunity management alongside threat management.
- Risk ownership, accountability and escalation paths.
- Risk appetite, tolerance and threshold setting.
- Workshop: building a risk breakdown structure for a project.

Day 4: Qualitative Risk Assessment and Registers

- Probability and impact assessment scales.
- Risk rating matrices and heat maps.
- Building a risk register with owners, responses and review dates.

- Risk proximity, velocity and velocity-adjusted rating.
- Risk interdependency and correlation identification.
- Register review cycles and escalation practice.
- Workshop: constructing a project risk register with ratings.

Day 5: Quantitative Risk Analysis and Expected Value

- Quantitative analysis methods and data collection.
- Expected monetary value and probability-weighted outcomes.
- Decision trees for staged and contingent decisions.
- Risk-adjusted cash flow and certainty equivalents.
- Confidence levels and percentile-based outcome ranges.
- Interpreting quantified output for decision makers.
- Workshop: quantifying project risk and expected value.

Day 6: Monte Carlo Simulation and Cost-Schedule Risk

- Distributions, correlations and dependency modelling.
- Monte Carlo simulation for cost and schedule outcomes.
- Confidence levels and probabilistic contingency setting.
- Tornado charts and critical driver identification.
- Schedule risk analysis and critical path sensitivity.
- Interpreting simulation output and avoiding misuse.
- Workshop: running Monte Carlo analysis on a project model.

Day 7: Contingency, Allowances and Optimism Bias

- Contingency and risk allowance design.

- Cost estimate classes and risk-based allowance setting.
- Optimism bias, strategic misrepresentation and reference class forecasting.
- Contingency drawdown and management reserve governance.
- Escalation and currency allowances.
- Assurance review of contingency and estimates.
- Workshop: setting contingency on an evidence basis.

Day 8: Contract Risk Transfer and Mitigation

- Risk allocation between client, contractor and insurer.
- Contract structures, indemnities and liability limits.
- Insurance, bonds, guarantees and surety arrangements.
- Mitigation planning, avoidance and reduction measures.
- Residual risk ownership and monitoring.
- Third-party and joint venture risk considerations.
- Workshop: designing a risk allocation and mitigation plan.

Day 9: Portfolio Risk, Downside and Scenario Planning

- Portfolio risk aggregation and correlation effects.
- Concentration, exposure limits and portfolio appetite.
- Downside scenarios, stress testing and break-even analysis.
- Scenario design for regulatory, market and cost shocks.
- Early warning indicators and trigger points.
- Risk-adjusted portfolio prioritisation.
- Workshop: running downside scenario analysis on a portfolio.

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Day 10: Governance, Assurance and Decision Presentation

- Risk governance structures and committee responsibilities.
- Assurance reviews, risk audits and control testing.
- Risk reporting frameworks and dashboard design.
- Integrated presentation of economics and risk to boards.
- Presenting a project case under challenge and defending assumptions.
- Learning from outcomes and feeding back into future appraisals.
- Workshop: presenting an integrated economics and risk case to a panel.

Conclusion

By successfully completing The 10-Day Advanced Project Economics & Risk Management Training Course, participants will have acquired the knowledge to appraise projects and manage their risk on one connected basis. They will understand economic modelling, investment metrics, risk identification and registers, quantitative analysis, Monte Carlo simulation, contingency setting, contract risk transfer and portfolio risk, and they will know how to present both expected return and downside exposure. As a result, delegates support approval decisions with balanced, quantified evidence. Gentex Training Center builds the programme around current project and risk practice.

FAQs for The 10-Day Advanced Project Economics & Risk Management course

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Q1 What is the "The 10-Day Advanced Project Economics & Risk Management" course about?

It connects project appraisal with risk management across ten days. You learn economic modelling, investment metrics, risk identification and registers, qualitative and quantitative risk analysis, Monte Carlo simulation, contingency setting, contract risk transfer and portfolio risk management.

Q2 What are the key benefits of the "The 10-Day Advanced Project Economics & Risk Management" course?

You gain an appraisal that shows the range of outcomes rather than a single-point forecast. You also improve risk identification and rating quality, quantify exposure with expected value and simulation, set contingency on evidence, allocate risk properly through contracts, and present project cases that withstand committee challenge.

Q3 What skills will I gain from the "The 10-Day Advanced Project Economics & Risk Management" course?

You will gain project economic modelling and investment appraisal, project risk identification, risk register development and qualitative assessment, quantitative risk analysis with expected monetary value, and Monte Carlo simulation, contingency setting, contract risk transfer and portfolio risk analysis.

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Q4 What tools, methods, or standards are covered in the "The 10-Day Advanced Project Economics & Risk Management" course?

The course covers discounted cash flow construction with real versus nominal treatment, WACC and risk-adjusted discount rate selection, NPV, IRR, MIRR, XIRR and payback appraisal, profitability index and capital efficiency measures, capital rationing and multi-period allocation, risk breakdown structures and risk categorisation, probability and impact risk rating scales with heat maps, risk registers with owners and response actions, risk proximity and velocity-adjusted rating, risk interdependency analysis, expected monetary value and probability-weighted outcome analysis, decision trees, risk-adjusted cash flow and certainty equivalents, Monte Carlo simulation with distribution and correlation modelling, confidence level and percentile-based contingency setting, tornado charts and critical driver identification, schedule risk analysis and critical path sensitivity, contingency and risk allowance design with management reserve governance, optimism bias and reference class forecasting, risk allocation and contract indemnity structures, insurance, bonds, guarantees and surety arrangements, mitigation planning and residual risk monitoring, portfolio risk aggregation and concentration limits, downside scenario and stress testing, early warning indicators and trigger points, and risk governance, assurance and reporting frameworks.

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Q5 How is the "The 10-Day Advanced Project Economics & Risk Management" course applied in real-world practice?

Graduates apply it to build and review project economic models, appraise and rank competing proposals, run risk identification workshops and maintain risk registers, quantify exposure with expected monetary value and decision trees, run Monte Carlo simulation on cost and schedule estimates, set contingency on a confidence-level basis, design contract risk allocation and insurance arrangements, aggregate portfolio risk and run downside scenarios, monitor early warning triggers, and present integrated economics and risk cases to boards and investment committees.