

aractech

Global Learning for Operational Leaders



PROJECT MANAGEMENT | PM-015

Advanced Project Economics, Risk & Decision Analysis

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Course content

Why Attend

INTRODUCTION

The three biggest planning challenges are predicting costs, assessing profitability, and risk management.

Course Methodology

Course Objectives

- Learn how to handle uncertainty in projects
- Understand different economic terms
- Understand the expected value concept and learn its impact on decision tree analysis
- Learn expected theory concepts and attitudes towards risk, risk aversion and risk premium
- Acquire spreadsheet skills including simulation software @RISK
- Carry out cashflow analysis for project and use common economic indicators to evaluate between competing alternatives

Target Audience

Course outline

Detailed course outline

Module-by-module outline for Advanced Project Economics, Risk & Decision Analysis.

Module 1 - Development Economics

- A brief history of energy usage
- Principles of development economics
- Understanding of economic terms
- Inflation and its impact on nominal & real cashflows
- Project financing

Module 2 - Uncertainty in Investments

- Handling uncertainty in capital projects
- Understanding probability concepts
- The expected value concept: features and pitfalls
- Expected Monetary Value (EMV)
- Expected Profitability Index (EPI)
- Expected Opportunity Loss (EOL)

Module 3 - Risks and Uncertainties

- Risk & uncertainty
- Risk aversion and risk premium
- Exploration project threats and opportunities
- Economic decision criteria
- Decision tree analysis
- Probability distribution

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Module 4 - Setting-up Spreadsheet Calculations Using Excel

- Spreadsheet Calculations
- Cashflow analysis
- Sensitivity analysis calculations
- Tornado diagrams
- Introduction to Monte Carlo simulations using @Risk

Module 5 - Practical Use of the @Risk add-on

- Developing an integrated economic model
- Developing and using an @Risk Model Analysis
- Project sensitivity analysis utilizing data from @Risk Model
- Training course final review and close

Seminar dates

Available seminar dates

Live dates and pricing for Advanced Project Economics, Risk & Decision Analysis generated from the course details page.

Date	Location	Format	Fee
15 - 19 June 2026	Barcelona	Classroom	€2,695
20 - 24 July 2026	Paris	Classroom	€3,150
3 - 7 August 2026	Frankfurt	Classroom	€2,275
7 - 11 September 2026	Barcelona	Classroom	€2,695
12 - 16 October 2026	Barcelona	Classroom	€2,695
9 - 13 November 2026	Rome	Classroom	€2,975
14 - 18 December 2026	Munich	Classroom	€2,415

Live online option

Online delivery is available at €1,250.