

# aractech

Global Learning for Operational Leaders



AUDITING AND GOVERNANCE RISK AND COMPLIANCE | AGRC-002

## Advanced Project Economics, Risk & Decision Analysis

### Contact

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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.