

PETROLEUM PROJECT ECONOMICS & RISK ANALYSIS

"Evaluating Oil & Gas Investment Decisions Through Economic Modelling and Risk-Based Analysis"

Schedule

Date	Venue	Fees
12 - 13 Aug 2026	Doha, Qatar	USD 1995 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

In the high-stakes environment of petroleum projects, decision-makers must evaluate opportunities with a clear understanding of financial viability and associated risks. Oil and gas investments are capital-intensive, uncertain, and highly sensitive to market and technical factors, making robust economic analysis essential.

This intensive course provides participants with the tools to assess petroleum project economics, model cash flows, and quantify risks using industry-standard techniques. From net present value (NPV) and internal rate of return (IRR) to sensitivity analysis and probabilistic risk modeling, attendees will build practical skills to improve project evaluations and investment justifications.

Objectives

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

- Develop economic models for upstream and downstream petroleum projects
- Calculate key indicators including NPV, IRR, payback period, and profitability index
- Apply sensitivity, scenario, and break-even analyses
- Conduct risk analysis using probability distributions and decision trees
- Support capital allocation and project selection through economic evaluation

Why Attend

- Enhance decision-making through rigorous economic evaluation methods
- Understand how price, cost, volume, and timing affect project economics
- Identify, quantify, and mitigate financial and operational risks
- Support project financing, feasibility, and stakeholder approval processes
- Gain hands-on practice with industry-relevant financial models

Target Audience

This program is designed for:

- Project managers and engineers in the oil & gas industry
- Planning, finance, and commercial professionals in petroleum operations
- Reservoir and petroleum engineers
- Business analysts and investment evaluation teams
- Anyone involved in budgeting, financing, or risk review of oil and gas projects

Individual Benefits

Key competencies that will be developed include:

- Economic evaluation of petroleum projects under uncertainty
- Cash flow modeling and investment metrics analysis
- Identification and quantification of project risks
- Financial scenario modeling and decision tree analysis
- Confidence in communicating economic findings to stakeholders

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved capital allocation and project justification processes
- Enhanced risk management across the project portfolio
- Greater consistency in economic evaluation methods
- Reduced financial exposure through informed investment decisions
- Stronger support for stakeholder engagement and reporting

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Petroleum economics principles and evaluation frameworks
- Case Studies - Upstream and downstream project evaluation examples
- Workshops - Cash flow modeling, sensitivity testing, and Monte Carlo analysis
- Peer Exchange - Scenario discussions and benchmarking
- Tools - Excel-based financial templates, risk models, and decision trees

Course Outline

Training Hours: 7:30 AM - 3:30 PM Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

Day 1: Project Economics Essentials

- Module 1: Economic Fundamentals for Petroleum Projects (07:30 - 09:30) • Project cash flows, capital vs. operating costs, production profiles
- Module 2: Financial Metrics and Decision Criteria (09:45 - 11:15) • NPV, IRR, PI, payback period - uses and limitations
- Module 3: Cash Flow Modeling Techniques (11:30 - 01:00) • Discounting, inflation, taxes, royalties, depreciation
- Module 4: Workshop - Build a Cash Flow Model in Excel (02:00 - 03:30) • Model a sample upstream oilfield development

Day 2: Risk Analysis and Evaluation Techniques

- Module 1: Sensitivity and Scenario Analysis (07:30 - 09:30) • Impact of price, cost, volume, and schedule changes
- Module 2: Risk and Uncertainty Modeling (09:45 - 11:15) • Decision trees, probability distributions, Monte Carlo simulations
- Module 3: Project Evaluation and Portfolio Selection (11:30 - 01:00) • Comparing multiple projects and capital budgeting
- Module 4: Final Workshop - Risk-Adjusted Project Evaluation (02:00 - 03:30) • Evaluate investment under uncertainty using Excel tools

Certification

Participants will receive a Certificate of Completion in Petroleum Project Economics & Risk Analysis, validating their capability to evaluate oil and gas investments with financial rigor and risk-informed decision-making.

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