

A man wearing a white hard hat, safety glasses, and a grey jacket with an orange safety vest is working on a laptop. He is in an industrial setting, possibly an oil or gas refinery, with various pipes and structures visible in the background.

aractech

Global Learning for Operational Leaders

OIL AND GAS | OG-005

Petroleum Project Economics and Risk Analysis

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Course content

Why Attend

Petroleum projects require massive capital investment, long development cycles, and are highly exposed to market volatility, technical uncertainty, and geopolitical risks. Effective economic evaluation and risk analysis are essential for making sound investment decisions in the oil and gas industry. This course equips participants with the tools to evaluate project feasibility, assess financial returns, and manage risk across the project lifecycle. It is designed to help professionals improve investment decision-making, optimize capital allocation, and enhance project profitability.

Course Methodology

• This course combines petroleum economics theory with practical, industry-based case studies. Participants will work through real project valuation scenarios, risk modeling exercises, and investment decision simulations. Workshops will focus on cash flow modeling, sensitivity analysis, and risk assessment techniques. Interactive discussions and group exercises will reinforce understanding of upstream project economics and uncertainty management.

Course Objectives

- Understand fundamentals of petroleum project economics
- Evaluate upstream oil and gas project feasibility
- Apply investment appraisal techniques such as NPV, IRR, and payback period
- Analyze cost structures and cash flow models in petroleum projects
- Identify and assess technical, financial, and market risks
- Perform sensitivity and scenario analysis

Target Audience

- Petroleum Engineers and Project Engineers
- Finance and Investment Analysts in Oil & Gas
- Project Managers and Cost Engineers
- Reservoir and Production Engineers

Course outline

Detailed course outline

Day-by-day outline for Petroleum Project Economics and Risk Analysis.

Day 1 - Fundamentals of Petroleum Economics

- Overview of petroleum project lifecycle
- Structure of upstream oil and gas economics
- Cost classification (CAPEX and OPEX)
- Revenue streams in petroleum projects
- Time value of money in energy investments

Day 2 - Investment Appraisal Techniques

- Net Present Value (NPV) analysis
- Internal Rate of Return (IRR)
- Payback period and profitability index
- Cash flow modeling fundamentals
- Decision criteria for project selection

Day 3 - Cost Estimation and Financial Modeling

- Capital cost estimation methods
- Operating cost analysis
- Building petroleum project cash flow models
- Production profiles and decline curves
- Economic life of oil and gas assets

Course outline

Detailed course outline

Day-by-day outline for Petroleum Project Economics and Risk Analysis.

Day 4 - Risk and Uncertainty Analysis

- Types of risks in petroleum projects
- Technical, operational, and market risks
- Sensitivity analysis techniques
- Scenario planning and decision trees
- Monte Carlo simulation overview

Day 5 - Strategic Decision-Making and Case Studies

- Portfolio management in petroleum investments
- Risk-adjusted decision-making
- Break-even analysis and price volatility impact
- Case studies of real oil and gas projects
- Final project: full economic and risk evaluation exercise

Seminar dates

Available seminar dates

Live dates and pricing for Petroleum Project Economics and Risk Analysis generated from the course details page.

Date	Location	Format	Fee
1 - 5 June 2026	Paris	Classroom	€2,695
8 - 12 June 2026	Barcelona	Classroom	€3,080
6 - 10 July 2026	London	Classroom	€3,150
10 - 14 August 2026	Munich	Classroom	€2,940
14 - 18 September 2026	Amsterdam	Classroom	€2,940
5 - 9 October 2026	Istanbul	Classroom	€1,995
16 - 20 November 2026	London	Classroom	€2,975

Live online option

Online delivery is available at €1,250.