Oil and Gas Investment Economics and Risk Evaluation

Focus on: The Manager ☐ The Specialist ☑ Spotlight Programme ☐ Hands-on Skills ☑

Course Overview

This Oil and Gas Investment Economics and Risk Evaluation course provides practical expertise in applying economic evaluation techniques in the Oil & Gas industry. It enables professionals to assess petroleum projects, identify the most viable investment options, and analyze economic indicators through sensitivity analysis. By forecasting profit, production, costs, and cash flow, analysts can make informed decisions for optimal outcomes. A solid grasp of economic indicators, risk, and uncertainty, along with knowledge of financial structures such as tax regimes and production-sharing contracts, improves the accuracy and value of economic assessments, ensuring sound investment evaluations in the petroleum sector.

Course Objectives		This Course is Ideal For:	
1	Understand key economic terms used in the Oil & Gas industry.	✓	Process Engineers
2	Develop economic models for various petroleum fiscal regimes.	✓	Oil & Gas Managers
3	Perform cash flow analysis and determine economic indicators.	✓	Oil & Gas Auditors
4	Assess and quantify risks and uncertainties in investments.	✓	Oil & Gas Planners
5	Conduct comprehensive economic evaluations, including risk and sensitivity analysis.	✓	Financial Analysts
6	Support informed decision-making for petroleum project investments.	✓	Project Management Professionals

Course Content

Day	Theme	Coverage
1	**Project Cashflow Analysis**	• Familiarization with Economic Terms • Inflation / Nominal & Real Cashflow • Project Financing • Setting up Cashflow Calculation • Depreciation Methods • Sunk Costs & Loss Carry Forwards
2	**KPI's in Project Appraisal**	• Economic Indicators Definitions • Discount Factors used in Industry • Present Value Concept in Project appraisal • Effect of Incremental Projects &Project Delay

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		• Payback Period and Maximum Exposure • Investment Efficiency Indicators - Profit / Investment Ratio
3	**Concept of Risk and Opportunity**	• Expected Value Concept • Risk & Uncertainty • Sensitivity Analysis • Probability Analysis & Probability Distribution • Decision Tree Analysis vs' Monte Carlo Simulation • Farm-out Decision
4	**Excel in Decision Making**	• Introduction to Excel in Project Economics • Cashflow using Excel • KPI Calculations Application • Group Exercises • Discussion
5	**Putting it to Practice**	• Developing a Comprehensive Economic Model for a Standard Oil Field Development • Conducting Sensitivity Analysis on the Chosen Economic Model • Overview of the Economic Model • Concluding Observations and Summary

Course Assessment

Participants will be assessed on:

- Participation in sessions
- Completion of exercises & case studies
- Performance in assessments

Certification

Upon successful completion of the course, participants will receive a **Certificate of Successful Completion**, along with a **Transcript of Marks** showing the performance by grade in each element of assessment and overall.

Course Instructor

With BSc and PhD degrees from the UK, and with over 30 years of refinery technology, operations, and management expertise for several famous-name oil companies, this speaker is now an internationally-famous chemical engineering consultant.
As a Chartered Chemist, a Member of the Royal Society of Chemistry and a Member of the American Institute of Chemical Engineers, he holds honorary appointments at a number of European universities and conducts cutting-edge research into vacuum distillation, gas recovery, absorption and pyrolysis.