

FINANCIAL MODELLING AND PETROLEUM PROJECT ECONOMICS

"Master the Financial Tools and Economic Techniques that Drive Profitable Decisions in the Oil and Gas Industry"

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

The oil and gas industry is one of the most capital-intensive sectors, where sound financial decisions are crucial for project success. Understanding the economic feasibility of petroleum projects requires a strong grasp of financial modelling, cost estimation, risk assessment, and project evaluation techniques.

The Financial Modelling and Petroleum Project Economics course provides participants with comprehensive knowledge and practical tools to analyze, model, and evaluate oil and gas investments effectively. It bridges the gap between engineering and finance by teaching how to construct robust financial models, interpret economic indicators, and make informed investment decisions in exploration, production, refining, and downstream operations.

Participants will gain practical experience in building Excel-based financial models, conducting sensitivity and scenario analyses, and understanding key performance measures such as NPV, IRR, payback period, and profitability index. The course also covers fiscal regimes, production sharing contracts, and cash flow forecasting specific to the petroleum sector.

By the end of the training, participants will be able to evaluate complex projects confidently, optimize investment decisions, and contribute to the financial sustainability of their organizations in an increasingly competitive market.

Objectives

By completing this course, participants will be able to:

- Develop comprehensive financial models for petroleum projects using Excel.
- Understand the economic principles governing exploration and production investments.
- Evaluate project feasibility using NPV, IRR, DCF, and other financial metrics.
- Analyze risks and uncertainties through sensitivity and scenario analysis.
- Apply cost estimation, forecasting, and budgeting techniques for oil and gas operations.
- Interpret fiscal regimes, royalties, and taxation structures in petroleum contracts.
- Assess production sharing agreements and their impact on project economics.
- Integrate technical data into economic evaluation models.
- Present financial results and recommendations for investment decision-making.

Why Attend

In today's volatile energy market, professionals must possess the analytical and financial skills to evaluate investment opportunities accurately. This course provides you with the knowledge and hands-on experience to create realistic and dynamic financial models, empowering you to make informed and data-driven decisions.

Whether you are an engineer needing financial literacy, a finance professional working with petroleum assets, or a project manager seeking to justify investments, this training equips you with the essential tools to analyze project viability and profitability with confidence.

Attending this course ensures that you can interpret financial results effectively, communicate with investors and stakeholders, and contribute strategically to your company's growth and value creation.

Target Audience

This course is designed for professionals involved in the financial and technical evaluation of petroleum projects, including:

- Petroleum and Reservoir Engineers
- Project Managers and Coordinators
- Financial Analysts and Economists
- Business Development and Investment Managers
- Planning and Strategy Professionals
- Accountants and Budget Officers in Oil and Gas Firms
- Government and Regulatory Professionals involved in petroleum fiscal policy
- Anyone responsible for financial decision-making in exploration and production projects

Individual Benefits

- Gain in-depth knowledge of financial modelling for oil and gas projects.
- Strengthen decision-making skills through economic and risk analysis.
- Learn to link technical assumptions with financial projections.
- Improve ability to justify investments and evaluate financial performance.
- Acquire advanced Excel techniques for petroleum financial models.
- Build confidence in communicating complex financial results to management.

Organizational Benefits

- Enable data-driven investment decisions based on accurate financial models.
- Improve financial transparency and forecasting for petroleum operations.
- Strengthen project feasibility evaluations and budget planning.
- Reduce risk through structured sensitivity and scenario analyses.
- Enhance collaboration between engineering and finance departments.
- Support strategic growth and profitability through informed decision-making.

Instructional Methodology

The course combines interactive lectures, real-world case studies, and hands-on exercises to ensure participants master both conceptual and practical skills. The methodology includes:

- Step-by-step financial model development in Microsoft Excel.
- Group exercises in cash flow forecasting and project evaluation.
- Case studies from actual oil and gas projects.
- Scenario-based simulations to analyze investment risks.
- Instructor-led demonstrations and one-on-one feedback.
- Interactive discussions to link financial theory with field applications.

MAWA EVENTS

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Course Outline

Module 1: Introduction to Petroleum Project Economics

- Overview of petroleum project life cycle
- Key economic concepts and financial indicators
- Understanding CAPEX, OPEX, and cash flow structures
- The role of economics in project decision-making

Module 2: Fundamentals of Financial Modelling

- Introduction to Excel for financial analysis
- Building a project cash flow model from scratch
- Linking assumptions, calculations, and outputs
- Structuring and formatting professional models

Module 3: Economic Evaluation Techniques

- Discounted Cash Flow (DCF) analysis
- Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period
- Profitability Index and Break-Even Analysis
- Comparing alternative investment opportunities

Module 4: Risk and Uncertainty Analysis

- Identifying key project risks and uncertainties
- Conducting sensitivity and scenario analyses
- Using Monte Carlo simulations (conceptual overview)
- Decision-making under uncertainty

Module 5: Fiscal Systems and Petroleum Contracts

- Royalty and tax systems
- Production Sharing Contracts (PSC) and Joint Ventures
- Government take vs. contractor take analysis
- Impact of fiscal terms on project profitability

Module 6: Cost Estimation and Budgeting

- CAPEX and OPEX estimation techniques
- Operating cost structures in exploration and production
- Budget preparation and cost control mechanisms

Module 7: Forecasting and Production Profiles

- Decline curve analysis and production forecasting
- Linking production data to cash flow projections
- Price forecasting and revenue modelling

Module 8: Advanced Financial Modelling Practices

- Building dynamic models with Excel functions and tools
- Data validation, sensitivity buttons, and model automation
- Stress testing and scenario comparison
- Common modelling errors and how to avoid them

Module 9: Valuation and Decision-Making

- Project valuation techniques and benchmarks
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Economic decision rules for project selection

- Portfolio management and capital allocation

Module 10: Case Studies and Model Presentation

- Case study: Evaluating an upstream oil project
- Presenting financial results to management and stakeholders
- Developing a financial model report and recommendations

Certification

Upon successful completion of the course, participants will be awarded a Certificate in Financial Modelling and Petroleum Project Economics. This certification recognizes their ability to design, interpret, and apply financial models for petroleum projects, evaluate investment opportunities, and support strategic financial decisions in the oil and gas industry. It demonstrates professional competency in bridging technical and financial disciplines to drive profitable and sustainable outcomes.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

In-House / Customized Training

Interested in running this course for your team?

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