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# Upstream Investment Appraisal Spreadsheet Modelling Training Course

22 – 26 November 2026
Manama

# Upstream Investment Appraisal Spreadsheet Modelling Training Course

**Ref:** 1370_51317 **Date:** 22 – 26 November 2026 **Location:** Manama **Fees:** 5500 GBP

Upstream investment appraisal spreadsheet modelling is a 1-week training course for planners, economists and finance staff in exploration and production companies who build the models behind field investment decisions, and it ends with a project appraisal spreadsheet ready for peer audit. Boards now ask for transparent, testable workbooks before approving wells or facilities, and a single formula error can mislead a whole portfolio. Jupiter Prime Training runs this course for the people who build those workbooks.

## Why Upstream Investment Appraisal Spreadsheet Modelling Matters Now

Three forces raise the stakes for appraisal spreadsheets: investment committees comparing a shrinking pool of capital across oil, gas and lower-carbon options; partners and lenders who audit every workbook before agreeing a final investment decision; and analysts who inherit legacy models nobody can explain. A company with clear, well-structured models compares projects fairly and spots value-destroying assumptions early; one with opaque workbooks approves the wrong project or delays the right one. The course links production profiles to resource categories in the Petroleum Resources Management System PRMS of the Society of Petroleum Engineers SPE, so modelled volumes reflect their maturity.

## Who Gains Most from Upstream Investment Appraisal Spreadsheet Modelling

- Planners who assemble production, capital and operating inputs for project proposals
- Economists who compute NPV, IRR and payback for investment committees
- Finance staff who check models for budgets, partner billing and lender reviews
- Commercial staff who test royalty, tax and production sharing terms
- Reservoir and facilities engineers who supply profiles and cost estimates

New ventures and asset planning groups gain most when the engineers who supply inputs and the analysts who build models attend together and agree one model standard.

## Upstream Investment Appraisal Spreadsheet Modelling Capabilities

Participants move from inherited workbooks to models they can build, explain and defend line by line in front of an investment committee.

- Design a model layout with separate inputs, calculations and outputs — model reviewers and auditors
- Calculate NPV, IRR, payback and profitability index for field projects — investment committees
- Apply royalty, tax and production sharing terms to project revenue — commercial negotiators
- Test assumptions with sensitivity tables, spider charts and scenario switches — portfolio planners

- Assess risk with expected value and simple Monte Carlo simulation — exploration decision boards
- Communicate results in a one-page investment summary — executives and partners

## Key Upstream Investment Appraisal Spreadsheet Modelling Terms

- Net present value — the sum of future project inflows and outflows discounted to today at a chosen rate.
- Internal rate of return — the discount rate at which a project's net present value equals zero.
- Fiscal regime — the set of royalties, taxes and production sharing rules that divide project revenue between state and investor.
- Government take — the share of project profit collected by the host state through all fiscal instruments.
- Sensitivity analysis — testing how outputs change when one input, such as oil price or capital cost, is varied.
- Expected monetary value — the probability-weighted average outcome of a decision across success and failure cases.

## Upstream Investment Appraisal Spreadsheet Modelling Day by Day

## Day 1: Investment Decisions in Exploration and Production

- Project Stage Gates — Exploration, Appraisal, Development and Late Life
- Production Profiles and PRMS Categories — Linking Volumes to Maturity
- Capital and Operating Cost Estimates — Accuracy Classes and Contingency
- Price and Cost Escalation Assumptions — Real Versus Nominal Terms
- Comparison Cases from Oil and Gas Projects — Why Appraisals Disagree

## Day 2: Building the Spreadsheet Structure

- Model Layout Standards — Inputs, Calculations, Outputs and Checks
- Timeline and Flag Techniques — Handling Start-Up and Abandonment Dates
- Revenue Build from Production and Price — Oil, Gas and Condensate Streams
- Depreciation and Abandonment Provisions — Timing of Deductions and Spend
- Error Checks and Model Audit Trails — Making Workbooks Reviewable

## Day 3: Fiscal Terms and Value Measures

- Royalty and Tax Systems — Calculating Government and Investor Shares
- Production Sharing Contract Mechanics — Cost Oil, Profit Oil and Ceilings
- Discounting and Net Present Value — Choosing the Discount Rate
- Internal Rate of Return and Payback — Strengths and Pitfalls
- Government Take and Investor Indicators — Comparing Fiscal Regimes

## Day 4: Sensitivity, Scenarios and Risk

- Data Tables and Spider Charts — Ranking Value Drivers
- Scenario Switches — Low, Base and High Cases in One Workbook
- Breakeven Price Calculation — Testing Project Resilience
- Expected Monetary Value and Decision Trees — Exploration Well Choices
- Monte Carlo Simulation Basics — Ranges for Reserves, Cost and Price

## Day 5: Practising the Project Appraisal Spreadsheet

- Inputs and Timeline for a Field Development Case — Applying Days 1 and 2
- Fiscal Calculations and Value Measures — Applying Day 3
- Sensitivity and Risk Outputs — Applying Day 4
- Peer Model Audit — Checking Logic, Links and Error Flags
- Project Appraisal Spreadsheet — Final Model and One-Page Investment Summary

## Applying Upstream Investment Appraisal Spreadsheet Modelling After the Course

- Audit one legacy appraisal workbook in your department against the layout and error check standards taught, and document the fixes.
- Add a scenario switch and spider chart to the next project proposal so the investment committee sees value drivers at a glance.

## Upstream Investment Appraisal Spreadsheet Modelling Questions FAQ

### What is upstream investment appraisal spreadsheet modelling and why does it matter now?

Upstream investment appraisal spreadsheet modelling is building transparent workbooks that value exploration and production projects. It matters now because committees, partners and lenders demand testable models before committing scarce capital to wells and facilities.

### Which roles gain most from upstream investment appraisal spreadsheet modelling training?

Planners, economists and finance staff in upstream companies gain most. Commercial staff and the engineers who supply production profiles and cost estimates also benefit, since their inputs drive every result the model produces.

### How does upstream investment appraisal spreadsheet modelling differ from a longer petroleum economics course?

Upstream investment appraisal spreadsheet modelling is a hands-on, one-week model-building course. Longer petroleum economics courses explore portfolio strategy and fiscal design in depth, while this course concentrates on structuring, calculating, testing and auditing a single project workbook.

## What do you bring back from upstream investment appraisal spreadsheet modelling training?

You bring back a project appraisal spreadsheet for a field development case. It contains structured inputs, fiscal calculations, NPV and IRR outputs, sensitivity and risk results, audit checks and a one-page investment summary.

## Upstream Investment Appraisal Spreadsheet Modelling: The Way Forward

The project appraisal spreadsheet first informs whether a development case is worth taking to the investment committee. Planners, economists and finance staff use it to compare options and answer partner questions. After its first use, revisit the scenario ranges and error checks, because committee challenges often reveal assumptions that deserve their own switch or flag.