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COURSE BROCHURE

Refinery Margin and Crude Slate Spreadsheet Modelling Training Course

17 – 21 January 2027
Muscat

Refinery Margin and Crude Slate Spreadsheet Modelling Training Course

Ref: 2141_78954 **Date:** 17 – 21 January 2027 **Location:** Muscat **Fees:** 6500 GBP

Refinery Margin and Crude Slate Spreadsheet Modelling is a 1-week training course for refinery planners, economists and finance analysts who build a refinery margin decision model linking crude purchases, unit yields and product netbacks. Volatile crack spreads, shifting crude differentials and tighter capital budgets make transparent margin arithmetic essential for every refining organisation. Jupiter Prime Training delivers this course for teams that turn crude choices into defensible numbers.

Why Refinery Margin and Crude Slate Spreadsheet Modelling Matters Now

Three forces shape refinery economics today: product demand moving between gasoline, middle distillates and petrochemical feedstocks; wider price gaps between light sweet and heavy sour crudes; and investors asking for clearer returns on every unit revamp. Refineries that model these drivers well buy the right cargoes and defend capital requests; those that model them badly approve projects on optimistic assumptions. The course rests on established methods: gross and net refining margin, discounted cash flow, net present value NPV and internal rate of return IRR.

Who Gains Most from Refinery Margin and Crude Slate Spreadsheet Modelling

- Planners responsible for monthly crude selection and unit run plans
- Economists who forecast crack spreads and product price sets
- Finance analysts who report refinery margin and operating cost variances
- Supply and trading staff who evaluate cargo offers and crude differentials
- Project evaluators who prepare capital cases for unit upgrades and revamps

Refinery economics groups gain most when planners, economists and finance analysts attend together and leave sharing one model structure.

Refinery Margin and Crude Slate Spreadsheet Modelling Capabilities

Participants move from reading a crack spread to building linked worksheets that price a crude slate, cost its processing and test a capital case.

- Calculate gross and net refining margin from yields and netbacks — monthly margin reporting
- Build crude assay and yield worksheets for candidate cargoes — crude purchase decisions
- Assess crack spread exposure across product groups — hedging and sales planning
- Weigh fixed and variable operating cost drivers per barrel — cost reduction priorities
- Test unit revamp cases with NPV, IRR and payback — capital approval boards
- Communicate sensitivity and breakeven results in plain charts — refinery leadership

Key Refinery Margin and Crude Slate Spreadsheet Modelling Terms

- Crack spread — the price difference between a basket of refined products and the crude oil used to make them.
- Crude slate — the mix of crude grades a refinery processes over a given planning period.
- Netback — the value a refinery realises for a product after deducting freight, handling and selling costs.
- Crude assay — laboratory data describing a crude grade's density, sulphur and distillation yields by cut.
- Gross refining margin — product revenue minus crude and feedstock cost, before operating expenses are deducted.
- Breakeven crude differential — the discount at which a candidate crude delivers the same margin as the reference grade.

Refinery Margin and Crude Slate Spreadsheet Modelling Day by Day

Day 1: Refining Economics and Margin Drivers

- Refinery Value Chain From Cargo To Product Sales — Margin Accountability
- Gross Versus Net Refining Margin Definitions — Performance Reporting Choices
- Simple 3-2-1 And Regional Crack Spread Baskets — Market Exposure Reading
- Product Price Sets And Netback Calculation — Realised Revenue Estimates
- Spreadsheet Model Architecture With Inputs, Calculations, Outputs — Model Audit Trail

Day 2: Crude Slate Economics and Yield Modelling

- Crude Assay Interpretation By Distillation Cut — Cargo Screening Decisions
- Linear Yield Vectors For Atmospheric And Vacuum Units — Product Output Forecasts
- Sulphur And Density Penalties In Crude Valuation — Discount Negotiation
- Breakeven Differential Worksheets For Candidate Grades — Purchase Approval
- Blended Slate Yields And Unit Capacity Limits — Monthly Run Plans

Day 3: Operating Cost and Unit Margin Models

- Fixed And Variable Cost Per Barrel Build-Up — Cost Reduction Targets
- Fuel, Steam And Hydrogen Cost Allocation To Units — Unit Profitability Ranking
- Catalyst And Chemicals Consumption Modelling — Turnaround Budget Inputs
- Conversion Unit Severity Versus Margin Trade-Off — Operating Mode Selection
- Monthly Margin Variance Bridge — Explaining Results To Leadership

Day 4: Capital Project Models and Sensitivity Analysis

- Discounted Cash Flow Structure For Unit Revamps — Capital Request Evidence
- NPV, IRR And Payback Calculations — Project Ranking Boards
- One-Way Sensitivity And Tornado Charts — Key Assumption Ranking
- Price Scenario Sets For Crack Spread Cycles — Downside Resilience Testing
- Monte Carlo Ranges On Margin Inputs — Probability Of Project Return

Day 5: Practising the Refinery Margin Decision Model

- Linking Yield, Cost And Price Worksheets — Single Integrated Margin View
- Crude Cargo Comparison Using Breakeven Differentials — Live Purchase Case
- Revamp Case Stress Test With Sensitivity Outputs — Board-Ready Recommendation
- Model Checking, Error Traps And Version Control — Reviewer Confidence
- Completed Refinery Margin Decision Model — Presentation To Peer Panel

Applying Refinery Margin and Crude Slate Spreadsheet Modelling After the Course

- Lead a breakeven differential review of the next three crude cargo offers using the yield worksheets built on Day 2.
- Run a monthly margin variance bridge for one conversion unit for the planning meeting.

Refinery Margin and Crude Slate Spreadsheet Modelling Questions FAQ

What is Refinery Margin and Crude Slate Spreadsheet Modelling and why does it matter now?

It is the practice of pricing crude choices, unit yields and operating costs in linked worksheets to explain refinery margin. With volatile crack spreads and wide crude differentials, transparent models help you buy the right cargoes and defend capital cases.

Which roles gain most from Refinery Margin and Crude Slate Spreadsheet Modelling?

Refinery planners, economists and finance analysts gain most. Supply staff and project evaluators also benefit.

How does Refinery Margin and Crude Slate Spreadsheet Modelling differ from a general energy financial modelling course?

It focuses on refining arithmetic rather than generation or upstream project finance. You work with crude assays, yield vectors, crack spreads and unit operating costs.

What do you bring back from Refinery Margin and Crude Slate Spreadsheet Modelling?

You bring back a working spreadsheet model that links crude yields, operating costs and product prices. It includes breakeven checks and a sensitivity-tested capital case.

Refinery Margin and Crude Slate Spreadsheet Modelling: The Way Forward

The refinery margin decision model first informs which crude cargo to buy next month, measured against its breakeven differential. Planners use it for run plans, economists for price scenarios and finance analysts for variance reporting. After first use, revisit the price set and cost allocation against actual crude differentials.