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FM100-10D:
Financial Modelling and Petroleum Project Economics

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Training Description:

Many senior and middle managers do not utilise Excel to its maximum potential. Instead they use it as they would a calculator. If you fall into this category then this training course is for you. Having completed this intensive training course, you will have the requisite tools to utilise Excel to its fullest and be better equipped to challenge decisions. In addition, if you work in the upstream or downstream and your career progression is being restricted by outdated knowledge of modelling techniques then this Financial Modelling and Petroleum Project Economics training course will help you move your career forward.

The course will highpoint:

- A course which takes participants from Excel basics to the most advanced use of Excel
- Real world approach to the discipline
- Numerous examples based around the oil and gas industry
- Dual approach that not only develops modelling skills but also financial management skills

The training course is split into two modules. Each module is structured and can be taken as a stand-alone course; however, participants will maximise their benefits by taking Module 1 and 2 back-to-back as a two-weeks course.

MODULE I - Oil and Gas Financial Modelling - A Practical Approach
MODULE II - Petroleum Project Economics & Risk Analysis

Training Objectives:

By the end of the training, participants will be able to lean on:

- ✓ How to improve the quality of the quantitative analysis of my corporate presentations
- ✓ How to model and advise on hedging price changes in the oil and gas industry
- ✓ How to model investment appraisal techniques and utilise decision trees to model the option to abandon

Personal Impact:

- ✓ Have advanced ability in financial modelling using Excel
- ✓ Have a larger skills set when contributing to corporate decisions
- ✓ The ability to question important decisions formed using financial modelling

Organisational Impact:

- ✓ Providing your staff with the opportunities to develop high level financial management techniques appropriate to the Oil and Gas industry
- ✓ Updating their quantitative techniques to enable them to make better informed decisions
- ✓ Transforming their Excel skills so that the leave with advanced knowledge of Excel for financial modelling

Training Designed for:

This course is intended for Oil & Gas Field Engineers, Oil & Gas Managers, Oil & Gas Auditors, Oil & Gas Planners, Financial Analysts, Decision-makers and Financial Modelers in the up-stream and down-stream Oil and Gas industry, High level Managers integral to the decision-making process who wish to develop their financial modeling skills.

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Training Program:

DAY ONE:

MODULE I - Oil and Gas Financial Modelling - A Practical Approach

- PRE-TEST
- An Introduction to the Excel Environment, with Oil and Gas based Examples
  - A quick-start tutorial for Excel, Describing data sets using statistics
  - Representing data sets graphically, Understanding the concept of normal distribution
  - Trend analysis using Excel, Time series analysis
  - Case studies

DAY TWO:

- Statistical Analysis (Applied to the Oil and Gas Industry) Using Excel
  - Use of Excel functions for statistical analysis
  - Descriptive statistics, Mean, Median, Standard deviation, Skewness and Kurtosis
  - Use of scatter diagrams, frequency and Histogram distribution
  - Regression techniques to calculate cost of equity financing
  - Analysis of equity returns of Oil and Gas industry companies
  - Case studies

DAY THREE:

- Investment Appraisal Using Excel
  - Investment appraisal using NPV, IRR and payback as applied to the Oil and Gas industry
  - Use of Excel functions for investment appraisal: IRR, PV and NPV
  - Modified Internal Rate of Return (MIRR), Use of scenario analysis and stress testing
  - Predicting financial distress
  - Case studies

DAY FOUR:

- Financial Analysis in the Up and Down Stream Oil and Gas Industry
  - Introduction to financial statements, Ratio analysis applied to the Oil and Gas Industry
  - Ratios as a system – pyramids of ratios, Financial modelling
  - Cash flow forecasts using Excel
  - Case studies

DAY FIVE:

- Oil Product Spreads
  - Examining the relationship between energy products
  - Differences between data sets, Correlation analysis
  - Confidence intervals, Analysis of Variance (ANOVA)
  - Case studies

MODULE II - Petroleum Project Economics & Risk Analysis

DAY SIX:

- Cashflow Analysis
  - Familiarization with Economic terms, Setting up Cashflow Calculation
  - Depreciation Methods, Loss Carry Forwards, Inflation

- Nominal & Real Cashflow

DAY SEVEN:

❖ Economic Indicators
- Economic Indicators Definitions
- Present Value Concept, Discount Factor
- Net Present Value, Internal Rate of Return
- Effect of Project Delay, Payback Period
- Profit / Investment Ratio, Incremental Projects

DAY EIGHT:

❖ Risks and Uncertainties
- Risk & Uncertainty, Expected Value Concept
- Decision Tree Analysis, Farm-out Decision
- Probability Analysis, Sensitivity Analysis
- Probability Distribution, Monte Carlo Simulation

DAY NINE:

❖ Setting up Spreadsheet Calculation
- Introduction to Spreadsheet Calculation
- Simple Cashflow using Excel, NPV Calculations
- Application of Economic Indicators
- Class Discussion

DAY TEN:

❖ Setting-up Oil Field Development Model
- Group Activities
- Setting up an Integrated Economic Model of a Typical Oil Field Development
- Project Sensitivity Analysis for the Selected Model
- Introduction to Russell Field Model

❖ Course Conclusion

❖ POST-TEST and EVALUATION

Training Requirements:

"**Hands-on practical sessions, equipment** and **software** will be applied during the course if required and as per the client's request."

Please note that the above topics can be amended as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

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Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department