

Petroleum Economics and Risk Analysis

COURSE OVERVIEW

The course will provide a structured approach to defining and analyzing petroleum risks in the upstream business. It will introduce decision-making tools and the supporting software, using case study material taken from oil and gas field examples to ensure direct applicability of the techniques covered. The initial Petroleum Economics element of the course provides knowledge of the role of petroleum economics in decision-making for both exploration and production ventures. It gives participants the skills to perform economic evaluations using a selection of indicators derived from discounted cashflow forecast, to rank projects against alternatives, and investigate economic robustness. The objectives of the Risk Analysis section are achieved through the use of a case study taken from an offshore oil field development to identify, express, and analyze technical and commercial uncertainties. This element will ensure that participants are fully familiar with techniques such as Monte Carlo simulation, Decision Tree Analysis, Parametric Analysis, sensitivity analysis, and that they have the software skills to support the application of these methods. Participants will be working with Crystal Ball and Decision Tree analysis software

WHO SHOULD ATTEND?

This event is designed for all staff involved in the E&P business and includes a strong team-building component.

COURSE OUTCOMES

Delegates will gain knowledge and skills to:

- Petroleum Economics - the basis of project evaluation
- Development Economics
- Exploration Economics
- Incremental Economics
- Risk Analysis
- Combining uncertainties
- Tools for Quantifying Risk
- Technical Uncertainties and their Management
- Commercial Uncertainties and their Management
- Portfolio Management

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand:

- How to evaluate oil and gas projects using discounted cash flow models
- Techniques for ranking exploration and production ventures
- How to apply Monte Carlo simulation, Decision Trees, and sensitivity analysis
- Tools for identifying and managing technical and commercial risks
- How to assess economic robustness and project viability
- Portfolio strategies for balancing risk and return in upstream investments

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded



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