

Oil and Gas Risk Management: Economics, Financials and Portfolio

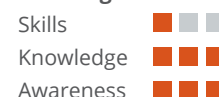
Designed for:

The course is designed for staff working in geoscience, engineering, finance, or commercial departments of oil and gas companies, or companies which supply finance or services to the oil and gas industry. The focus on critical capital investment decisions will be relevant to managers of all disciplines.

Duration (days)



Learning Level:

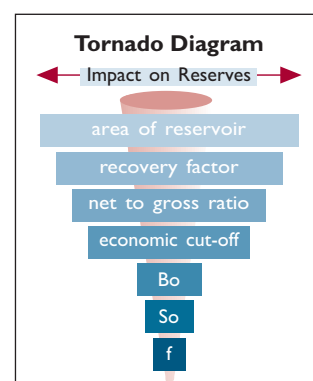
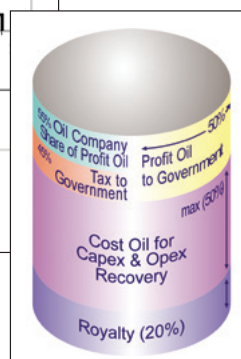
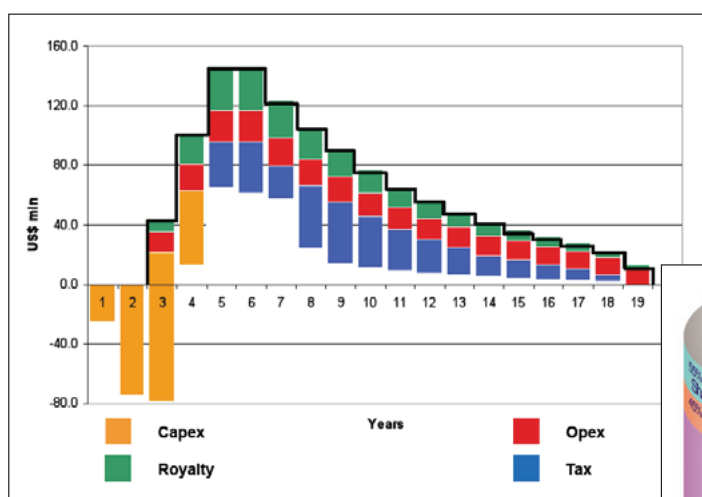


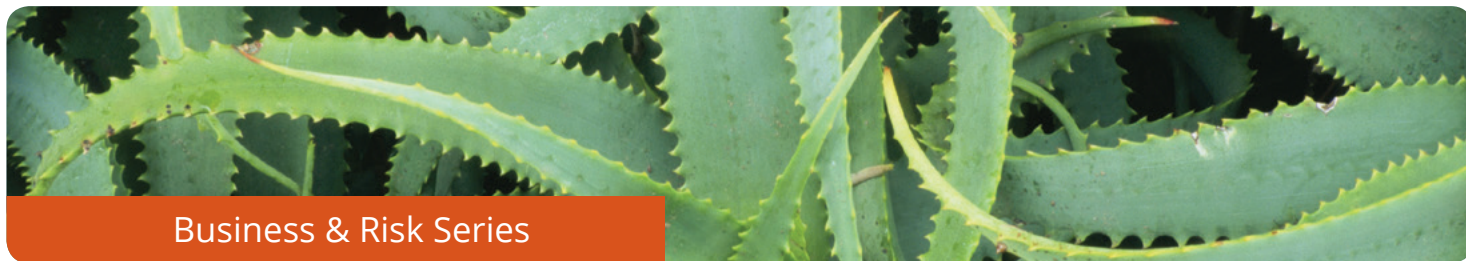
The course will provide a structured approach to defining and analysing petroleum risks in the upstream business.

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 covers 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 resilience. Taxation/Contracts and Corporate Financials receive particular emphasis.

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 analyse technical and commercial uncertainties. This allows continuity between the various subjects covered. This element will ensure that participants are fully familiar with techniques such as Monte Carlo simulation, Decision Tree Analysis, sensitivity analysis, and that they have the software skills to support the application of these methods. Participants will be working with commercial simulation and Decision Tree analysis software. Broader issues such as Portfolio Management are also introduced.





Oil and Gas Risk Management: Economics, Financials and Portfolio continued

Course Content:

Petroleum Economics - the basis of project evaluation

Introduction

Development Economics

- Constructing a project cashflow
- Profitability indicators
- Taxation/Contract concepts
- Corporate Financial drivers
- Inflation and types of money
- Project ranking and screening
- Sensitivity analysis

Exploration Economics

- Probability and expectation curves
- Expected monetary value (EMV)
- Introduction to Decision Tree analysis

Incremental Economics

- Typical incremental projects during the field life cycle
- Evaluating of incremental projects and risking

Risk Analysis

- Defining risk and uncertainty
- Identifying uncertainties in the E&P business
- Expressing uncertainty – probability distributions

Combining uncertainties

- Dependant and independent variables, distribution types
- The Monte Carlo method using commercial simulation software

Tools for Quantifying Risk

- Sensitivity analysis
- Decision Tree analysis using commercial software
- Simulation

Technical Uncertainties and their Management

- Exploration
- Appraisal and feasibility studies
- Development planning
- Production

Commercial Uncertainties and their Management

- Market factors
- Human factors

Portfolio Management

- Overview
- Utility Theory inspiration
- The efficient frontier with respect to risk and value
- Impact of diversification on total portfolio risk
- Strategy and Political factors

Course Duration:

Duration is 5 days.

Courses available from this series:

Strategy & Performance Management
 Petroleum Economics
 Oil and Gas Business Decisions
 Risk Analysis
 Petroleum Economics and Risk Analysis
 Oil and Gas Risk Management
 E&P Business Simulation (Panacea)
 Asset Trading Game
 Petroleum Risk and Portfolio Management

Course Tutor



David Palmer BA (Hons) Economics

Main Series tutoring: Business & Risk

Industry experience: over 25 years, commercial, economics

Career background: BP, Britoil, AGR and TRACS

Personal: Commercial Manager, Senior Business Analyst, Learning and Development Manager

TRACS Contact



Maggie Murison

Main Series tutoring: Open Air

Industry experience: 25 years

Career background: TRACS Training, AGR, Peckhams Ltd, Kings Foods, KLM Airlines

Personal: Open Air events lead & course coordinator, HSE certified for field events

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Contact

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