Global Horizon
TRAINING CENTER

Training Course:
Advanced Oil and Gas Project Economics, Risk and Decision Analysis

23 - 27 November 2026
Kuala Lumpur (Malaysia)

Training Course:
Advanced Oil and Gas Project Economics, Risk and Decision Analysis

Training Course code: EN234854 From: 23 - 27 November 2026 Venue: Kuala Lumpur (Malaysia) - Training Course Fees: 6825 Euro

INTRODUCTION

The petroleum industry is one of the most important, highly capital-intensive, and risky businesses. Global exploration and production spending in 2013 was $644 billion, up 7% from $604 billion the year before. In 2014, the exploration budget reached $654 billion but this fell to $521 billion in 2015 and in the following year, 2016, there was a further decline of 27%. This year's global exploration and production spending is expected to increase by 7%. The upstream sector's profit margins are under real pressure from many factors such as higher costs of developing new reserves, less oil, and gas found per foot of exploration drilling, rising inflation, global oversupply, and price volatility. Competition for investments, acreage/concessions, aging of existing reservoirs, and the unconventional oil and gas revolution all contribute to business risk and uncertainty. Petroleum industry projects are by their very nature risky, the challenge however is in assessing, managing, and mitigating this risk proactively. The three biggest planning challenges are predicting costs, assessing profitability, and risk management. All these tasks occur in the early stages of capital planning and failure to adequately evaluate these elements can lead to heavy losses.

This training course will highlight:

- Identification of the stages required in the risk analysis process, i.e., preparing, modeling, and running risk analysis
- Development of the risk model, assessing probabilities to various variables, risk analysis and exploring the impact of uncertain variables
- Enable the participants to create reports such as tornadoes diagrams, scatter plots, and cumulative probability functions, using Excel
- Application of decision trees and Monte Carlo-based simulations to generate profitability indicators
- Enable the participants to develop probabilistic cashflow reports along with probabilistic profitability indicators for decision-making

Training program objectives:

- Learn how to handle uncertainty in petroleum projects
- Understand different economic terms used in the oil & gas industry
- Understand the expected value concept and learn its impact on decision tree analysis
- Learn expected theory concepts and attitudes toward risk, risk aversion, and risk premium
- Acquire spreadsheet skills including simulation software RISK

- Carry out cashflow analysis, for a petroleum-related project and use common economic indicators to evaluate between competing alternatives
- Carry out a comprehensive economic study evaluating petroleum-related projects using risk and sensitivity analysis using spreadsheets

This Training program is for :

- Planning Managers
- Oil & Gas Engineers
- Project Managers
- Analysts
- Commercial Managers
- Economists
- Government Officials
- Geologists
- Business Advisors
- Asset Managers
- E&P Managers
- Product Managers
- Project Management Professionals

DAY 1

Development Economics

- A brief history of energy usage
- Principles of development economics
- Understanding of economic terms
- Inflation and its impact on nominal & real cashflows
- Project financing

DAY 2

Uncertainty in Investments

- Handling uncertainty in capital projects
- Understanding probability concepts
- The expected value concept: features and pitfalls
    - Expected Monetary Value EMV
    - Expected Profitability Index EPI
    - Expected Opportunity Loss EOL

DAY 3

Risks and Uncertainties

- Risk & uncertainty
- Risk aversion and risk premium
- Exploration of project threats and opportunities
- Economic decision criteria
- Decision tree analysis
- Probability distribution
- Monte Carlo simulation

DAY 4

Setting-up Spreadsheet Calculations Using Excel

- Spreadsheet Calculations
    - Cashflow analysis
    - Sensitivity analysis calculations
    - Tornado diagrams
- Introduction to Monte Carlo simulations using Risk
- Setting up an oil field project

DAY 5

Practical Use of the Risk add-on: Oil Field Development Model

- Developing an integrated economic model of an oil field development
- Developing and using a Risk Model Analysis
- Project sensitivity analysis utilizing data from the Risk Model
- Training course final review and close

Registration form on the Training Course: Advanced Oil and Gas Project Economics, Risk and Decision Analysis

Training Course code: EN234854 From: 23 - 27 November 2026 Venue: Kuala Lumpur (Malaysia) - Training Course Fees: 6825 Euro

Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
Telephone / Mobile: .....
Personal E-Mail: .....
Official E-Mail: .....

Company Information

Company Name: .....
Address: .....
City / Country: .....

Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
Telephone / Mobile: .....
Personal E-Mail: .....
Official E-Mail: .....

Payment Method

☐ Please find enclosed a cheque made payable to Global Horizon

☐ Please invoice me

☐ Please invoice my company

Easy Ways To Register

Telephone: +201095004484 to provisionally reserve your place.	Fax your completed registration form to: +20233379764	E-mail to us : info@gh4t.com or training@gh4t.com	Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt.