
Arabian Institute For Training

Integrated Field Development Planning

INTRODUCTION

- Participants on this Integrated Field Development Planning training seminar will gain a good understanding of how multi-disciplinary, integrated teams within oil and gas companies collaborate to identify the best way to develop an oil or gas field.
- This Oil & Gas Technology training seminar highlights the roles of the wide range of scientific, technical, commercial and business disciplines that contribute to making complex decisions, involving very large investments, while dealing with large amounts of uncertainty.
- This Integrated Field Development Planning training seminar is designed to equip early- and mid-career professionals (geoscience, engineering and commercial) for working within integrated, multi-disciplinary teams on international development projects, and for future oil business leadership roles.

OBJECTIVES

By the end of this training seminar, participants will:

- Have an understanding of the work of the integrated field development planning team on international oil and gas projects
- Have practical skills and work tools that will be of direct use to them in their future project work
- Understand the background to the industry, and the underlying science of oil and gas formation
- Recognise the importance of effective early planning decisions (concept selection and ‘front-end loading’) in delivering successful projects

TRAINING METHODOLOGY

- Interactive presentations and tutorials
- Team and individual workshop exercises
- Onscreen worked examples
- Videos and posters
- Debates and discussions
- Guided self-study and research
- Quizzes
- Case studies
- While performing the workshop exercises, participants will gain experience in the use of modern (cloud) team collaboration information tools and strategies that are becoming key to professional development in this era of fast-evolving technology, fast-track projects, collaboration, joint decision making, and ‘information overload’.

WHO SHOULD ATTEND?

- This Integrated Field Development Planning training seminar is relevant to a wide range of disciplines, including: development engineering; facilities engineering; geoscience; reservoir engineering; planning; risk analysis, portfolio planning, decision support, commercial strategy; etc.

This training seminar is particularly suitable for upstream oil and gas professionals, from all disciplines, that want to:

- Gain an understanding of how their role fits into the 'bigger picture' of asset development, and the oil business in general
- Prepare for greater involvement and leadership roles in field development, strategic management and decision making
- Equip themselves for working within close-knit, value-focused, multi-disciplinary, fully-integrated asset development teams working on complex, large-scale projects
- Gain an understanding of the very broad scope of field development engineering, and the complexity and challenges of facilities engineering on mega projects

Course Outline

Field Development Planning – The Industry and the Team

- The industry context to field development planning. The upstream oil and gas industry from various key 'perspectives', such as the oil and gas asset lifecycle, the value chain, the industry players, and the place in society
- The role of the integrated professional team in development planning. Overview of the fundamental geoscience and engineering disciplines, which form the basis upon which decisions are made, including geophysics, petrophysics, reservoir engineering, well engineering and facilities engineering

Field Development Planning and Economics

- Field Development Planning. How the integrated, team, drawn from all disciplines (commercial, scientific and engineering) collaborate to identify the best way to develop a reservoir
- Petroleum Economics. The role of economics in the planning of oil and gas developments, in order to maximise value, including the use of cash flow analysis, time value of money and investment indicators
- Field Development Planning Workshop. Participants work individually, or in teams, on realistic field development planning, economics and decision making exercises

Decision Making in Field Development Planning

- Decision Analysis. How the integrated field development team make complex decisions, involving many different types of input parameters, in order to ensure that very large investments are made rationally and efficiently, using tools such as expected value, sensitivity analysis, decision trees and Monte Carlo simulation
- Field Development Planning Workshop. Participants work individually, or in teams, on realistic field development planning, economics and decision making exercises

Production Contracts and Petroleum Resources Management

- Production Contracts & Licences. The legal, fiscal and contractual conditions under which an oil company acquires the right to produce oil or gas, and the way that the revenue and wealth is shared with the host country
- Petroleum Resources Management. How quantities of oil and gas in the reservoir (reserves and resources) are calculated, classified and reported in a consistent manner for management, regulatory and investment and purposes
- Field Development Planning Workshop. Participants work individually, or in teams, on realistic field development planning, economics and decision making exercises

Safety and Environment within Field Development Planning

- Corporate Responsibility. How oil and gas projects are executed in a safe and sustainable manner, with due respect for the environment, and it a way that benefits the local communities in which activities take place, covering topics such as: safety, environmental impact and social licence to operate
- Field Development Planning Workshop. Participants work individually, or in teams, on realistic field development planning, economics and decision making exercises


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