

Introduction to the Oil & Gas Industry

Course Objectives

This wide-ranging and practical industry overview covers each key phase of the exploration and production industry. It offers oil and gas professionals the opportunity to gain a technical and commercial understanding of the industry fundamentals.

What Will You Learn?

- The scientific origins of oil and gas
- The commercial issues underpinning hydrocarbon exploration and development
- The role of government and its agencies
- Oil and gas terminology
- The technological process of exploration
- The technological process of drilling
- The technological process of production
- The challenges of decommissioning

Who Should Attend

This course is extremely popular with personnel from all sectors of the oil and gas industry – government agencies, authorities, operators, contractors and service companies. It is especially valuable for newcomers to the industry and non-technical personnel working in areas like HR, Finance, IT, Contracts and Administration who feel they could benefit from gaining a wider appreciation of the 'big picture'.

Course Content

Petroleum Geology – The Origins of Hydrocarbons

- The formation of petroleum
- Oil and gas reservoirs
- Reservoir rock and fluid properties

World Energy Supply and Demand

- Oil and gas supply and demand
- Classification of reserves
- Oil pricing and market issues
- Gas pricing
- Unconventional oil, gas and renewables

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Ownership and Exploitation of Reserves

- Licensing/Concessions
- Joint venture agreements
- Production Sharing Contracts

Exploration and Appraisal

- Geological and commercial factors necessary for successful exploration
- Seismic surveys

Drilling

- Drilling rigs
- Equipment and processes involved in drilling a well
- Completing a well and preparing it for production
- Horizontal drilling
- Well workover operations

Field Development

- Onshore/offshore developments
- Shallow/deep water developments
- Gas field developments
- Aspects of well and facilities design

Petroleum Economics

- Field development decision making
- Key economic indicators and their uses

Health, Safety and the Environment

- Safety
- The environment

Petroleum Production and Treatment

- Reservoir production mechanisms
- Artificial lift systems
- Well stimulation – fracturing, acidising and sand control
- Production and Treatment of Reservoir Fluids
- Processing the production from oil and gas fields

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Maintenance and Logistics

- Well and facility maintenance
- Reliability centered maintenance
- Corrosion and how it is controlled
- Transportation of personnel and materials

Decommissioning

- Possible decommissioning solutions
- Scope of decommissioning obligations

Future Issues and Challenges

- Meeting future energy demands
- Environmental sustainability
- Security of supply

Testimonials

"It was all perfect from the first communication with MDT to register, very helpful. The instructor is one of the best I have come across. Coming from an accounting background the course has added a lot to my knowledge on the technical side."

Tasneem Abdelgadir, Petronas

"Great introduction to the oil and gas industry that filled in the (vast) gaps in my knowledge. Great to be able to ask lots of questions and get answers."

Vince McCaughey Premier Oil

"One of the very few courses where I felt like "keep on going" with the course. Best part was the industry examples and stories to connect the theory. Very good energy over the two days."

Harit Famish, Maersk

"I came to the course with very little understanding of the industry whilst having to have very technical conversations with my clients. I have far greater confidence now in my knowledge, and this will have a large positive impact on my role."

Ashkan Kazeonian, TSC Inspection Systems

"I really enjoyed learning. It was amazing how much I learnt in just two days. The course was the perfect thing I needed, huge eye opener. I wish to attend a course on leadership and people management skills in the future. Thanks MDT!"

Victoria Minja, Ophir Energy