



Oil and Gas Production Value Chain for Non-Technical Personnel

Course Description

This training provides an introduction to Oil and Gas (O&G) industry for non-petroleum engineers or non-technical personnel.

This course will provide key knowledge of the entire petroleum value chain covering the exploration, appraisal, production and abandonment phases of the petroleum life cycle. The course is designed to easily understand the main concepts of seismic, geology, reservoir engineering, surface facilities, drilling and completion, field development planning, and economic evaluations.

The course will be supplemented by practical class examples, group exercises and interactive group discussion designed to consolidate and reinforce learning, identify and offering solutions to specific problems associated with the oil and gas industry value chain.

Who Should Attend?

This course is designed for non-petroleum engineers or non-technical personnel who are seeking to gain more knowledge in the oil and gas industry value chain.

What You Will Gain:

- Understanding the oil and gas industry value chain
- Acquiring vocabulary, key concepts, methodologies, techniques and tools used in petroleum engineering
- Understanding world energy sources
- Understanding the fundamentals of exploration, appraisal, production, and abandonment phases of the Petroleum Life Cycle
- Learning the conditions for petroleum systems
- Learning fundamentals of oil and gas contracts
- Understanding how to design a field development plan
- Understanding the drilling and completion process
- Understanding the formation evaluation methods
- Understanding fundamentals of petroleum geology and reservoir engineering
- Learning fundamentals of oil and gas surface production facilities
- Understanding basics concepts of oil and gas economics



Training Methodology

The training will combine lectures (30%) with workshop/ presentations (30%), interactive class exercises and case studies (20%), case studies and general discussions (20%).

Course Content

Day 1. Overview of the Petroleum Industry

- Oil and gas demand and supply
- Overview of Contract and Regulations for Petroleum Exploration and Production.
- Petroleum life cycle
- Petroleum system
- Overview exploration activities to find oil and gas

Day 2. Petroleum geology, and reservoir engineering

- Overview of petroleum geology
 - Type of rocks, sedimentary rocks, sandstones and carbonate rocks
 - Depositional environments
 - Stratigraphy
- Overview of reservoir engineering concepts
 - Fluid characterization
 - Overview of fluid flow in porous media
 - Natural drive mechanisms
 - Recovery factor

Day 3. Field development planning

- Field development planning concepts
- Uncertainties and decisions
- Development strategies
- Project management concepts related to FDP
- Introduction to oil and gas economic evaluations
- Decision making process for developing an oil or gas field
- Risk analysis and decision making

Day 4. Drilling and completion operations. Formation evaluation

- Type of drilling rigs
- Rig components
- Drilling process
- Drilling bits



YH PROVIDER
CONSULTING

- Overview of well completion operations
- Overview of formation evaluation
 - Coring
 - Logs
 - Formation tests

Day 5. Oil and Gas Surface facilities

- Overview of surface facility main equipment
- Separators
 - Type of separators
- Compressor
- Treatment plats
- Dehydrator
- Flare system
- Booster pumps
- Skim tanks
- HSE considerations