

# Fundamentals of Petroleum Production Systems

## COURSE OVERVIEW

The Fundamentals of Petroleum Production Systems course introduces participants to the processes, technologies, and principles involved in the production of oil and gas from subsurface reservoirs to surface facilities. It covers the integration of reservoir, wellbore, and surface equipment in the production system, along with an overview of flow assurance, artificial lift, well performance analysis, and production optimization. Through a balance of theory and practical examples, the course equips participants with a solid understanding of how hydrocarbons are efficiently and safely produced.

## WHO SHOULD ATTEND?

This course is designed for early-career petroleum engineers, production engineers, field operators, geoscientists, and technical professionals who are new to oil and gas production operations. It is also suitable for professionals from other disciplines seeking to gain foundational knowledge of petroleum production systems, including surface and subsurface integration.

## COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the components and functions of petroleum production systems.
- Explain the interaction between reservoir, wellbore, and surface facilities.
- Analyze well performance and identify methods for production optimization.
- Recognize different artificial lift methods and flow assurance challenges.
- Apply fundamental concepts to evaluate and troubleshoot production systems.

## KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Principles and technologies involved in petroleum production systems.
- Different well types, completion methods, and surface facilities.
- Properties and behaviour of production fluids and reservoirs.
- Mechanics of oil and gas separation and ways to optimize production.
- Safety, environmental, and regulatory requirements in production.
- Managing operational challenges, artificial lift, pipelines, and water treatment.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded