

# Drilling & Well Completion Technologies

## COURSE OVERVIEW

This course covers drilling and well completion principles. It focuses on engineering processes for safe, efficient wells. The training integrates geology, drilling mechanics, fluids, and techniques. Attendees address challenges like placement, pressure management, and reservoir access to maximize production and well integrity. Participants will learn pore pressure theory, wellbore stability, directional drilling, well control, and completion design.

## WHO SHOULD ATTEND?

This course is ideal for drilling engineers, well engineers, completion engineers, production engineers, and wellsite supervisors. It is also highly suitable for petroleum engineers, geoscientists, service company personnel, and technical professionals from operator companies seeking to deepen their knowledge of modern drilling practices, wellbore construction, and completion design for conventional and unconventional reservoirs.

## COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Apply fundamental principles of rock mechanics, pore pressure, and fracture gradient to well planning.
- Design key components of a drilling program, including casing, cementing, and drilling fluid systems.
- Evaluate and select appropriate drilling bottom-hole assemblies (BHAs) for directional and horizontal wells.
- Implement well control procedures and principles to maintain well integrity.
- Design and optimize well completion configurations for specific reservoir and production needs.
- Analyze and troubleshoot common drilling and completion challenges.
- Understand the critical elements of well economics, risk assessment, and performance monitoring.

## KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Fundamentals of drill-string design, bit selection, and hydraulics optimization.
- Advanced techniques in directional drilling, including MWD/LWD and rotary steerable systems.
- Well control methods and barrier philosophy (primary and secondary well control).
- Casing and cementing design for wellbore integrity and zonal isolation.
- Completion types including open-hole, cased-hole, sand control, and intelligent completions.
- The role of drilling fluids and completion fluids in wellbore stability and productivity.
- Key performance indicators and drilling data analysis for continuous improvement.

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