



WELL PLANNING AND DRILLING OPTIMISATION COURSE

Course Duration	Location	Course Delivery
6 days	Lagos Nigeria	Class Room

Course Fee: \$3,200

Program Objectives

This 6-day course is designed to give the young drilling specialist a broad understanding of the entire well planning process. These topics include the design of; trajectory, casing and cementing programs, drill string, bits and hydraulics. The course is taught through the process of designing a sample well with simple spread sheets so that they understand the fundamental mechanics of each phase of the design process.

The goal of the course is to help the young drilling engineers understand the process of well design as whole, and to understand the mechanics behind the computer programs they use in well design. The students will be introduced to each of the above topics but not given an exhaustive course in any of them. The intent is for the engineer to see the project “a kilometer wide and a meter deep”. Later the student will need to explore each aspect of the well design process in greater depth in independent courses.

Course Prerequisites

This course is designed for Drilling Supervisors and Drilling Engineers with field experience. Students should bring a calculator and a laptop and be prepared for at least 1 hour of homework every night. Students will work in teams designing a sample well.

Course Outline

Day 1

- Introduction and pre-test
- Presentation of the team project
- Well Planning Overview
- Team building exercise
- Geology and completions
- Pressure and volume homework exercise



Day 2

Review homework

Trajectory design

Casing Design

Casing Design homework exercise

Day 3

Review Homework

Cementing Practices

Well Control

Team building exercise (jeopardy game)

Project design – casing program

Day 4

Drill String design

Bit selection

Bit hydraulics

Project design – drill string

Day 5

Project design – finalize well design

Prepare presentations

Team building exercise (jeopardy game)

Review

Day 6

Project presentation

Final exam