



Drilbert Engineering Inc.
70 E. Evangeline Oaks Circle
The Woodlands, TX 77384

"Technical Training for the drilling industry"

Course Description

Well Planning and Drilling Optimization Course

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 spreadsheets 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

