

Project Risk, Uncertainty, and Decision Analysis for Conventional Reservoirs (PRUDA)

Course Description

The premise of this 3-day course is that the sound estimation of key engineering, geotechnical, and economic parameters is essential for maximizing the profitability of oil and gas field development and operations. The focus is on using probabilistic techniques to quantify these parameters under uncertainty, resulting in greater understanding of the main drivers of project success and more accurate characterization and valuation.

The course 1) uses realistic games and exercises to illustrate the principles and mechanics of good estimating; (2) presents analytical procedures to identify, quantify and manage the uncertainty and risk associated with field development and production; and (3) identifies and corrects the flaws and unintended consequences of many procedures currently used for estimating field production. The application of these techniques increases the chance that realistic production and reserve targets will be established and attained.

Course Outline

1. Introduction
2. Probability, Distributions and Dependencies
3. Dealing with Uncertainty
4. Decision Tree Concepts
5. Bayesian Techniques
6. Petroleum EUR Uncertainty
7. Chance of Project and Geologic Success
8. Production Forecasting
9. Economic Valuation and Aggregation
10. Value of Information (perfect and imperfect)
11. Performance Tracking

Who Should Attend

This course is intended for geoscientists, engineers, planners, and commercial team members charged with creating value from conventional reservoir projects.

Recipients of Training

This course has been presented to multiple companies including Anadarko, Cenovus Energy, DONG, Dubai Petroleum, Hilcorp, Rice Energy, Sandridge, Sheridan Production and YPF Bolivia.