

Risk Analysis for Development Applications

0.8 CEUs (Continuing Education Units) awarded for this 1-day course.

Instructors

James Gouveia, Rose & Associates, LLP

Mark McLane, Rose & Associates, LLP

Intended Audience

Petroleum engineers, geologists, geophysicists, managers and others involved with the design or implementation of risk analysis systems in the development environment.

Description

Introductory course about the application of systematic risk analysis to identify, quantify and manage the risks and uncertainties involved with modern petroleum field development and production. The instructors, both petroleum engineers, are experienced practitioners and educators with broad and diverse expertise in all facets of E&P project characterization and risk analysis.

Topics Covered

- ◆ Introduction to probability and statistics as the language of uncertainty, including a discussion of the different types of distributions and how to apply them
- ◆ Discussion of the impact of dependencies of variables and how to model them
- ◆ Exercises focused on developing better estimating skills with an emphasis on estimating in ranges, rather than single values
- ◆ Tools and techniques for identifying which variables have the greatest impact on overall project value
- ◆ Probabilistic reserve estimating using: analog analysis, volumetric analysis, material balance, decline curves and reservoir simulation
- ◆ Developing credible probabilistic production forecasts
- ◆ Geologic, non-geologic and commercial chance of success
- ◆ Building economic models from base case through multiple scenarios
- ◆ Introduction to portfolio rollup principles and portfolio management
- ◆ Systematic performance tracking to calibrate estimates and improve predictability

About the Instructors

James (Jim) Gouveia, P.Eng., is a Partner in the international consulting firm of Rose & Associates, LLP (R&A). R&A provides risk analysis education, software and consulting services for more than 40 companies worldwide.

He is a registered Professional Engineer with a diverse technical, business and operations background in the petroleum industry. He joined Rose & Associates in March 2002 after 18 years with Amoco, where his last role was Director of Risk Management, and 3 years with BP Canada where he initiated and managed BP's foray back into unconventional resources in Canada. He has co-authored and presented several papers, most recently on improving E&P performance at the Exploration Management Forum in Calgary. He has taught courses for the Dallas Section of SPEE, and the CSPG. He holds a BaSc in Chemical Engineering from the University of Toronto.

Mark A. McLane is a Partner in the international consulting firm of Rose & Associates, LLP (R&A). R&A provides risk analysis education, software and consulting services for more than 40 companies worldwide. He is a Distinguished Lecturer of the Society of Petroleum Engineers on the topic of "Reserve Overbooking – An Issue of Professional Ethics."

He has a diverse technical and business background spanning 25 years in the petroleum industry. He joined Rose & Associates in January 2000 after three years with Pioneer Natural Resources and 17 Years with Exxon Company, U.S.A. He has co-authored several technical papers and served on the Professional Ethics/Registration Panel at the 2003 SPE ATCE in Denver, Colorado. He has taught courses for the Gulf Coast Section of SPE, AAPG and the Houston Geological Society. He holds a BSc with Honors in Petroleum Engineering from The University of Texas at Austin.