PetroSkills

Advanced Decision Analysis with Portfolio and Project Modeling - ADA

COURSE

About the Course

Quality forecasts and evaluations depend upon well-designed project and portfolio models that are based upon clear decision policy, sound professional judgments, and a good decision process. In this course participants learn to build good models. We use the familiar Microsoft Excel spreadsheet as the platform for project and risk assessment models. Add-in software provides Monte Carlo and decision tree capabilities. The course emphasis is on the evaluation concepts and techniques, rather than particular software programs.

"I liked learning about portfolio optimization, the Monte Carlo Simulation, and decision modeling." - Participant

"It was a great class! I would recommend this class to my colleagues." - EOR Reservoir Engineer, United States

Target Audience

Evaluation engineers, analysts, managers, planners, and economists. This course is intended for professionals involved with developing project evaluation, portfolio, and other forecasting and assessment models. Prior background in decision analysis is expected. Before registering, please visit http://www.decisionapplications.com/ada-pre-read/ to review a course prerequisites list and to take a short self-assessment quiz. You may login using 'ada' (no quotes) as the password.

You Will Learn

Participants will learn how to:

- Frame, build, and evaluate decision models and extract key insights
- Apply the exponential utility function for risk policy
- Design investment portfolio optimization models that include constraints, requirements, and typical interrelationships between projects
- Use decision tree software for value of imperfect information analysis
- Use Monte Carlo simulation software with optimization
- Develop quality Excel models for projects and portfolios

Course Content

- Decision Modeling: application of DA process for modeling; influence diagrams; sensitivity analysis; good modeling practices; real options overview
- Monte Carlo Simulation: multi-pay prospect risking (similar to play analysis); calculating probabilities and distributions with simulation; modeling and optimizing investment portfolios; valuing added control and flexibility; stopping rules; ways to model correlation
- Decision Tree Analysis: value of information review; sensitivity analysis; solving with utility for risk aversion
- Decision Policy: portfolio optimization to maximize value; efficient frontiers; multi-criteria decisions; risk policy as a utility function; expected utility and certain equivalent; insurance and hedging; optimizing working interests
- Implementation: eliciting a decision maker's or organization's preferences for trade-offs among objectives, time value, and risk attitude; decision analysis presentation agendas and formats; special topics from the instructor's own research and experience

Product Details

Categories: Upstream, Midstream, Business & Management

Disciplines: Petroleum Business

Levels: Specialized

Product Type: Course

Formats Available: In-Classroom

Instructors: PetroSkills Specialist Tim Nieman John Schuyler

In-Classroom Format

19 Aug '24 23 Aug '24 - | Course | In-Classroom (in London)	$5,685.00
9 Dec '24 13 Dec '24 - | Course | In-Classroom (in Houston)	$4,910.00