Summary
This course provides the opportunity to learn about hydrocarbon exploration via play fairway analysis in a frontier basin. Through a series of map-based exercises, teams of participants acquire a portfolio of leads; develop, evaluate, risk and rank prospects; bid on drilling locations; and calculate in-place and recoverable volumes.

Learning Outcomes

Participants will learn to:

1. Generate risk element maps and understand the processes needed to manage, manipulate, and apply risk element data.
2. Employ map-based risk components to evaluate play fairways at the regional and sub-regional level.
3. Apply the appropriate critical risk elements of a working petroleum system in the construction of play fairway maps.
4. Use individual risk element maps to develop a Final Overall Risk map for any hydrocarbon play.
5. Apply the elements of individual prospect construction, evaluation, and risking.

Duration and Training Method

This is a five-day classroom course that consists of lectures and exercises, in which participants are grouped into small teams for integrated activities using a range of exploration data.

Who Should Attend

Geoscientists who are fairly new to the petroleum industry and who require a basic understanding of how petroleum systems analysis can be used to construct play fairway maps for development of effective exploration strategies. Geotechnical assistants who are involved in exploration projects.

Petrophysicists, Engineers and Project Managers who would like to learn more about the evaluation of hydrocarbon prospects and working with geoscientists in developing exploration play concepts.

Prerequisites and Linking Courses

There are no prerequisites for this course, although a basic understanding of geology and mapping would be useful.

Related Basic Application level courses are N089 (Risk Analysis For Petroleum Exploration) and N014 (Petroleum Economics and Risk Analysis).

Course Content

- Introduction to Exploration Prospecting
- Case Study in Play Fairway Analysis
- Overview of Exploration Area
- Reservoir Definitions
- Source Rock Evaluations
Course Outline

- Regional Seals
- Introduction of Prospect Evaluation
- Gross Rock Volume: Area/Depth Plots
- So and Sw
- Formation Volume Factor (FVF)
- Recovery Factors