

SEM Course (Generic) – Syllabus

Module 1 (1 hr): *The Mineral Exploration Business Environment*

- The Mineral Exploration Business Cycle
- The Global Context for Mineral Exploration
- Exploration Expenditure Trends
- Discovery Cost Trends
- The Exploration Value Proposition

Module 2 (1.5 hr): *Key Concepts in Mineral Exploration Management*

- Exploration Search Space
- Base Rate & False Positives
- Opportunity Value – EMV
- LTOV
- The Significance of Technological Advances
- The need for “nimbleness” – understanding the Option Concept in Mineral Exploration
- Skill v Luck

Module 3 (1.5 hr): *What Matters at the Strategic Scale*

- Making Strategic Choices – the Search Space and CRM Contexts
 - Understanding Exploration Search Space
 - Critical Business Implications
 - Role of Technological Innovation
 - CRM Capability/Capacity and Search Space Definition
 - Value of Expanding CRM Capability
 - Early Definition of Showstoppers
- Fundamental Strategic Principles
 - Value of Exploration Systems
 - Buy vs Explore
 - The Greenfield / Brownfield Balance
 - The Essential Role of Partnering in Search Space Expansion
 - Principles Unique to Juniors

Module 4 (1 hour): *Developing an Effective Strategy*

- The Value Proposition
- Your Strategic Context
- Your Defined Search Space
- Mineral Exploration Business Realities
- Group Self (SWOT)-Analysis
- Company givens and expectations
- Planning for Time Realities
- Documenting & Communicating your Exploration Strategy
- Obtaining Management Approval

Module 5 (1 hr): Implementing the Strategy

- Portfolio Management and the value of a systems approach
- Best Practice Budget Allocation & DPP
- Early Economic Analysis
- Barriers to Project Advancement
- Project Review and Ranking
- Portfolio Scale Review, Measurement and Valuation

Module 6 (1.5 hr): Project Scale Exploration Processes

- Prospecting vs Systematic Exploration
- Effective versus successful Exploration
- The Assembly Line – Exploration as a linear sequence of stages
- Optimising sample spacing
- The 3D Jigsaw – Building the contextual geological framework
- The role of stratigraphic drilling
- Project-Scale Search-Space Analysis
- Unexplorable projects
- Recognising which anomalies are valid targets
- How to evaluate a project-scale opportunity
- Near-Miss or Target Killer – how do we decide?
- Managing exploration success

Module 7 (1 hr): Commercial Risk Management / Workshop

- The CRM Process -- Overview and Pitfalls
- Stakeholder Management
- Project CRM Planning
- Task #2 Workshop

Module 8 (1.5 hr): Deal-Making / Workshops

- Exploration Deal Drivers and Basic Legal Concepts
- Tenement Access
- Sharing Arrangements
- The Option Concept
- Data Access (CA's)
- Negotiating and Deal Pitfalls
- Sharing Arrangements Workshops (Back-ins and Earn-ins)

Module 9 (1 hour): Mineral Exploration Targeting – Part I

- Introduction & Overview
- Targeting Science
- The Business Interface
- Deposit Size-Frequency Distributions & Zipf's Law
- Targeting Under Cover

Module 10 (2.5 hours): Mineral Exploration Targeting – Part II

- Applying the Mineral Systems Concept

- Mineral Systems Framework 1
- Mineral Systems Framework 2
- The Importance of Deposit Clustering
- Building Target Models
- Applying Target Models
- Interaction with Data
- Target Ranking
- Regional and Global Scale Target Ranking

Module 11 (1.5 hours): *Managing the Exploration Group – Culture & People*

- Performance and Key Success Factors
- Creativity, Innovation, Pattern Recognition and Expertise
- Decision-Making under Uncertainty – Understanding the Heuristics
- Managing the Effects of Heuristics and Biases
- Building & Retaining a High-Quality Team