



Mining for Non-Miners: Mine Life Cycle, Economics and Mining Finance



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Introduction:

Mining for Non-Miners addresses a common gap: finance, legal and procurement staff sign off budgets, contracts and funding for mines without understanding how ore is found, defined, extracted and sold. Misread resource statements, unexplained cost overruns and poorly framed offtake or royalty terms follow. This Core Concept course explains the mine life cycle, resource and reserve reporting, mining and processing methods, cut-off grade, cost structure, metal prices, valuation and mining finance in business language. Participants prepare a Mining Project Briefing Pack that summarises an operation's geology, plan, economics and funding.

Course Objectives:

- Explain each stage of the mine life cycle from exploration and feasibility through construction, production and closure, and the business decisions taken at each gate
- Interpret a public resource and reserve statement, distinguishing Inferred, Indicated and Measured resources from Probable and Proved reserves
- Compare open-pit and underground mining and the main mineral processing routes, and relate each choice to cost, recovery and risk
- Read a mine plan, cut-off grade policy and cost breakdown and question the capex, opex and unit cost figures that finance teams receive
- Assess how metal prices, offtake and concentrate sales terms, NPV and sensitivity results shape the value of a mining project
- Evaluate equity, project debt, streaming and royalty funding options together with ESG and social licence expectations placed on mining companies

Target Audience:

- Finance and accounting staff who budget, report on or review mining operations and projects
 - Legal and contracts staff who draft or review mining, offtake, royalty and funding agreements
 - Procurement and supply staff who buy equipment, consumables and services for mine sites
 - Commercial and business development staff who evaluate mining assets and partnerships
 - Credit, investment and banking staff who assess mining companies and projects for funding
 - Newly appointed staff in mining companies without a geology or engineering background
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Course Outline:

Day 1: Mining Industry Landscape and the Mine Life Cycle

- Mining Value Chain Map: Exploration, Development, Extraction, Processing and Sale
- Mine Life Cycle Gates: Exploration, Scoping, Pre-Feasibility, Feasibility and Construction
- Commodity Groups: Base Metals, Precious Metals, Bulk Minerals and Industrial Minerals
- Mining Company Types: Junior Explorers, Mid-Tier Producers and Major Diversified Miners
- Mining Glossary for Non-Miners: Ore, Grade, Tonnage, Waste and Recovery

Day 2: Geology, Resource Estimation and Public Reporting Codes

- Ore Deposit Formation and Exploration Methods: Mapping, Geophysics and Drilling
- Sampling, Assaying and Block Model Basics for Grade and Tonnage Estimation
- Inferred, Indicated and Measured Mineral Resource Categories
- Probable and Proved Ore Reserves and the Conversion by Modifying Factors
- JORC Code, NI 43-101 and the CRIRSCO Template: the Competent Person Role

Day 3: Mining Methods, Mineral Processing and Mine Planning

- Open-Pit Mining: Benches, Haul Ramps, Pit Shells and Stripping Ratio
- Underground Mining Methods: Room and Pillar, Sublevel Stoping and Block Caving
- Mineral Processing Flowsheet: Crushing, Grinding, Flotation, Leaching and Smelting
- Cut-Off Grade Policy and Its Link to Metal Prices and Operating Costs
- Life-of-Mine Plan and Production Schedule Reading for Non-Engineers

Day 4: Mining Costs, Metal Markets, Valuation and Mining Finance

- Mining Capex and Opex Structure: Pre-Production, Sustaining and Unit Cost per Tonne
- Commodity Price Drivers, Price Decks and Offtake and Concentrate Sales Terms
- Mining Project Valuation Concepts: NPV, IRR, Payback and Price Sensitivity
- Mining Finance Options: Equity Raising, Project Debt, Streaming and Royalty Agreements
- ESG, Social Licence to Operate and Mine Closure Provisions at Overview Level

Day 5: Mining Case Studies and the Mining Project Briefing Pack

- Copper Project Case: Reading a Resource Statement and Feasibility Summary
 - Gold Mine Case: Cost Overrun and Cut-Off Grade Change Review
 - Funding Case: Comparing an Equity Raise, a Stream and a Royalty Offer
 - Mining Project Briefing Pack Drafting: Geology, Plan, Economics and Funding
 - Briefing Pack Presentation and Peer Challenge from Finance and Legal Views
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Skills You Will Gain:

- Mine Life Cycle Literacy
- Resource Statement Interpretation
- Mining Method Comparison
- Cut-Off Grade Understanding
- Mining Cost Analysis
- Commodity Market Awareness
- Mining Funding Evaluation
- Social Licence Awareness

Why Attend This Course:

- Return with a Mining Project Briefing Pack that summarises a real operation's geology, plan, economics and funding for colleagues
- Hold informed conversations with geologists, mining engineers and metallurgists without needing a technical degree
- Spot the questions to ask when a budget, feasibility summary or funding proposal lands on your desk
- Compare perspectives with finance, legal, procurement and banking peers working across different commodities and mining companies

Conclusion:

Understanding how a mine creates value helps every business function support better decisions. The course moves from the mining value chain and life cycle, through geology and resource and reserve reporting, to mining methods, processing, cut-off grade and mine planning, then to costs, metal markets, valuation concepts and mining finance with an overview of ESG and closure. The final day applies these ideas to copper, gold and funding cases and produces a Mining Project Briefing Pack for use at work.
