Mining Project Economics Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Mining Project Economics Training Course provides deep insights into how mining projects are evaluated from exploration through development and production, using modern tools such as NPV modeling, IRR optimization, cash flow forecasting, and commodity price forecasting techniques. It is tailored for engineers, geologists, financial analysts, and decision-makers seeking to master data-driven mining investment decisions and capital allocation strategies in a highly volatile global resources market.

In today’s competitive mining industry, success depends on the ability to interpret project economics, manage CAPEX and OPEX efficiently, assess ESG risks, and optimize mine life profitability. This training bridges the gap between technical mining knowledge and financial decision-making by integrating real-world case studies, scenario modeling, and strategic mine planning economics. Participants will gain practical expertise in valuation techniques, economic cutoff grades, sensitivity analysis, and strategic resource development planning, enabling them to drive profitable and sustainable mining investments.

Programme Curriculum

Mining Project Economics Training Course

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Course Objectives

1. Master Mining Project Valuation Techniques
2. Understand CAPEX and OPEX Optimization Strategies
3. Apply Discounted Cash Flow (DCF) Analysis in Mining
4. Develop expertise in NPV, IRR, and Payback Period Calculations
5. Evaluate Commodity Price Volatility and Market Risk
6. Conduct Mining Feasibility Studies (Pre, PFS, BFS)
7. Improve Mine Life Cycle Cost Analysis
8. Apply Risk and Sensitivity Analysis in Mining Projects
9. Understand Ore Reserve Economic Evaluation
10. Learn Strategic Mine Planning and Scheduling Economics
11. Assess ESG (Environmental, Social, Governance) Mining Risks
12. Optimize Project Financing and Investment Decision Models
13. Enhance Decision-Making in Mineral Resource Development

Target Audience

1. Mining Engineers and Mining Managers
2. Geologists and Exploration Professionals
3. Financial Analysts in the Mining Sector
4. Project Managers and Operations Managers
5. Investment Analysts and Mining Investors
6. Government Mining and Regulatory Officials
7. Metallurgists and Process Engineers
8. MBA/Finance Students specializing in Natural Resources

Course Modules

Module 1: Fundamentals of Mining Economics

- Overview of mining economic systems
- Resource vs reserve classification impact
- Time value of money in mining
- Cost structures in mining operations
- Introduction to project lifecycle economics
- **Case Study:** Gold mining project lifecycle valuation in a declining-grade ore body

Module 2: Capital and Operating Cost Analysis (CAPEX & OPEX)

- Capital budgeting for mining projects
- Direct and indirect cost breakdown
- Operating cost optimization techniques
- Equipment lifecycle costing

- Cost escalation modeling
- **Case Study:** Copper mine CAPEX overrun analysis and mitigation strategy

Module 3: Cash Flow Modeling and Financial Forecasting

- Mine cash flow structuring
- Revenue forecasting techniques
- Depreciation and tax modeling
- Inflation and currency effects
- Scenario-based forecasting
- **Case Study:** Iron ore mine multi-scenario cash flow simulation

Module 4: Investment Appraisal Techniques

- Net Present Value (NPV) analysis
- Internal Rate of Return (IRR) evaluation
- Payback period optimization
- Profitability index assessment
- Decision tree analysis
- **Case Study:** Lithium project investment decision under price uncertainty

Module 5: Commodity Markets and Price Risk Analysis

- Commodity cycles and forecasting
- Hedging strategies in mining
- Supply-demand dynamics
- Exchange rate impact
- Volatility modeling
- **Case Study:** Gold price shock impact on project feasibility

Module 6: Mine Feasibility Studies (Scoping to BFS)

- Scoping study fundamentals
- Pre-feasibility vs feasibility differences
- Technical-economic integration
- Ore body modeling impacts
- Bankable feasibility structure
- **Case Study:** Nickel project feasibility revision due to grade variability

Module 7: Risk, Sensitivity and Uncertainty Analysis

- Sensitivity analysis in mining models
- Monte Carlo simulation basics
- Geological uncertainty impact
- Political and regulatory risks
- Risk mitigation strategies
- **Case Study:** Uranium mining project risk simulation under regulatory uncertainty

Module 8: Strategic Mine Planning Economics

- Cut-off grade optimization
- Production scheduling economics

- Mine design and profitability linkage
- Resource depletion strategies
- Long-term sustainability planning
- **Case Study:** Open-pit coal mine optimization for maximum NPV

Training Methodology

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price

23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com