Datastat Research
Building Capacity in Training and Research

DATASTAT TRAINING IN

OFFICIAL COURSE PROSPECTUS

Center for Advanced Research & Professional Development

Nairobi Training Center • Global Virtual Academy • Corporate On-Site

MINERAL & MINING ENGINEERING

Risk Management in Mining Projects Training Course

Comprehensive Course Syllabus, Practical Modules & Upcoming Schedules

PROGRAM SPECIFICATIONS & HIGHLIGHTS

DURATION
5 Days Practical Hands-on

DELIVERY MODES
In-Person Class & Live Virtual

CERTIFICATION
Accredited Certificate of Completion

INTAKES / DATES
Multiple Cohort Schedules Included

PREPARED FOR:

Valued Participant

Email: training@datastatresearch.org | Issued: November 22, 2026

Academic & Professional Training Year: 2026

DATASTAT TRAINING INSTITUTE

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Risk Management in Mining Projects Training Course

Mineral & Mining Engineering • 5 Days Intensive • Accredited Certification

Course Overview

Risk Management in Mining Projects Training Course equips professionals with advanced risk identification, quantitative risk analysis, predictive risk modeling, and mitigation strategies, aligned with global best practices such as ISO 31000, enterprise risk management (ERM), and project risk governance frameworks.

Upcoming Training Schedules

Confirmed cohort intakes and venues. Both physical in-person classroom and live virtual online seats are available.

TRAINING DATES	LOCATION / VENUE	FORMAT / DURATION	INVESTMENT (FEE)
1 Jun 2026 – 5 Jun 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Cape Town	Classroom / 5d	**$4,500 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Addis Ababa	Classroom / 5d	**$3,000 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Singapore	Classroom / 5d	**$5,000 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Istanbul	Classroom / 5d	**$5,000 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Bangkok	Classroom / 5d	**$5,000 USD / KES 110,000**
1 Jun 2026 – 5 Jun 2026	Accra	Classroom / 5d	**$4,000 USD / KES 110,000**
8 Jun 2026 – 12 Jun 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
8 Jun 2026 – 12 Jun 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 110,000**
8 Jun 2026 – 12 Jun 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 110,000**

* Corporate discounts and customized cohort scheduling are available for teams of 3 or more participants.

Course Curriculum & Modules

Risk Management in Mining Projects Training Course

Introduction

In today’s high-risk, capital-intensive mining environment, effective risk management in mining projects is a critical success factor for sustainable operations and long-term profitability. Mining projects face complex uncertainties including geological variability, commodity price volatility, environmental compliance, ESG risks, safety hazards, and geopolitical instability. Risk Management in Mining Projects Training Course equips professionals with advanced risk identification, quantitative risk analysis, predictive risk modeling, and mitigation strategies, aligned with global best practices such as ISO 31000, enterprise risk management (ERM), and project risk governance frameworks. Participants will gain actionable insights into risk-based decision-making, digital risk analytics, and resilience planning across the mining value chain.

With the rise of digital transformation, AI-driven risk analytics, and sustainability-focused mining, organizations must adopt proactive, data-driven risk management approaches. This course integrates real-world case studies, scenario analysis, and risk simulation techniques to enhance operational resilience and project success rates. By focusing on integrated risk frameworks, stakeholder risk communication, and crisis management planning, the program empowers professionals to effectively manage technical, financial, environmental, and social risks in mining projects, ensuring compliance, safety, and strategic alignment.

Course Duration

5 days

Course Objectives

- Develop advanced risk identification frameworks for mining projects
- Apply quantitative risk analysis & probabilistic modeling techniques
- Implement ISO 31000-based enterprise risk management (ERM) systems
- Enhance risk-based decision-making using data analytics & AI tools
- Understand geotechnical, operational, and environmental risk factors
- Strengthen ESG risk management & sustainability compliance strategies
- Conduct financial risk modeling & cost uncertainty analysis
- Design risk mitigation & contingency planning frameworks
- Utilize Monte Carlo simulation for mining risk forecasting
- Improve stakeholder risk communication & reporting mechanisms
- Manage health, safety & environmental (HSE) risks effectively
- Integrate digital risk management systems & real-time monitoring tools
- Build resilient mining project strategies under uncertainty

Target Audience

- Mining Engineers & Project Managers
- Risk Management Professionals
- Geologists & Resource Analysts
- Health, Safety & Environment (HSE) Officers
- Operations & Production Managers
- Financial Analysts in Mining Sector
- ESG & Sustainability Professionals
- Government Regulators & Policy Makers

Course Modules

Module 1: Fundamentals of Risk Management in Mining

- Principles of risk management frameworks (ISO 31000)
- Types of risks in mining
- Risk lifecycle in mining projects
- Risk registers & classification systems
- Risk governance structures
- Case Study: Risk identification failure in a major open-pit mine expansion

Module 2: Risk Identification & Assessment Techniques

- Hazard identification (HAZID) methods
- Risk breakdown structures (RBS)
- Qualitative vs quantitative risk assessment
- Probability-impact matrix development
- Risk prioritization strategies
- Case Study: Identifying geological uncertainty in deep mining operations

Module 3: Quantitative Risk Analysis & Modeling

- Monte Carlo simulation in mining projects
- Sensitivity & scenario analysis
- Probabilistic cost estimation
- Risk-adjusted project valuation
- Data-driven risk modeling tools
- Case Study: Cost overrun analysis using simulation in a gold mining project

Module 4: Financial & Economic Risk Management

- Commodity price volatility risks
- Capital budgeting under uncertainty
- Financial hedging strategies

- Investment risk analysis
- Funding & credit risks
- Case Study: Managing price risk in copper mining operations

Module 5: Operational & Technical Risk Management

- Equipment failure & maintenance risks
- Production variability & process risks
- Supply chain disruptions
- Technology adoption risks
- Automation & digital mining risks
- Case Study: Operational downtime in a mechanized underground mine

Module 6: Environmental & ESG Risk Management

- Environmental impact risks & compliance
- Climate change risks in mining
- Social license to operate (SLO)
- ESG reporting frameworks
- Community & stakeholder risks
- Case Study: Environmental compliance failure and penalties in mining

Module 7: Health, Safety & Crisis Risk Management

- Occupational health & safety risks
- Emergency response planning
- Incident investigation & root cause analysis
- Crisis management frameworks
- Safety culture development
- Case Study: Major mining accident and safety system failures

Module 8: Risk Mitigation, Monitoring & Governance

- Risk mitigation strategies & controls
- Key risk indicators (KRIs)
- Digital risk dashboards & monitoring
- Risk audits & continuous improvement
- Governance & compliance frameworks
- Case Study: Implementing integrated risk monitoring in a large mining project

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@datastatresearch.org or call +254724527104

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 DATASTAT CONSULTANCY LTD account, as indicated in the invoice so as to enable us prepare better for you.

Certification & Learning Methodology

- Hands-on practical delivery with real-world datasets, case studies, and lab exercises.
- Post-training mentorship, access to class resources, and customized follow-up support.
- Participants who successfully complete the course receive an accredited Datastat Certificate of Completion.

How to Enroll & Reserve Your Seat

1. Online Registration: Visit https://datastatresearch.org/courses/risk-management-in-mining-projects-training-course to register online.
2. Email Booking: Send participant details to training@datastatresearch.org for official invoice & reservation.
3. Support & Assistance: Inquire via phone +254 724 527 104 | +254 734 969 612.