MINING VALUATION AND FINANCIAL MODELING

Code	CreditHours
MinE-829	3

CourseDescription

Terms and definitions, mining life cycle, technical report, financial model, Production statistics, Financial statements, discounted cash flow, Sensitivity analysis, Output graphs, valuation methods

TextBook:

1. The Mining Valuation Handbook by Victor Rudenno.

ReferenceBook:

1. International Mineral Economics by Werner R. Gocht, Half Zantop, Roderick G. Eggert.

Prerequisites

Nil

ASSESSMENTSYSTEMFORTHEORY

Quizzes	10%
Assignments	10%
MidTerms	30%
ESE	50%

TeachingPlan

Week No	Topics	LearningOutcomes
1-2	Terms and definitions	CourseOutline,objectives,teachingplan,assessmentmethod, conceptsreview. Understand key mining terms and definitions used in the industry and in valuation
3	Mining life cycle	Understand the mining life cycle from start to finish for assets, projects, and operating mines
4-5	Technical report	Read and extract the important information from a mining technical report (feasibility study)
6	Financial model	Input key assumptions into a financial model that will drive revenue, expenses, and cash flow in the forecast

7-8	Production statistics	Calculate production statistics based on a detailed mine plan from the technical report
9	**MID TERM EXAM**	
10	Financial statements	Build financial statements based on the mine plan
11	Discounted cash flow	Perform a discounted cash flow DCF valuation of the mining asset in Excel
12	Sensitivity analysis	Build sensitivity analysis to test for different input assumptions
13	Output graphs	Output relevant graphs and charts to illustrate the investment opportunity
14-17	Valuation methods	Understand valuation methods such as Net Asset Value (NAV), P/NAV, P/CF, Total Acquisition Cost (TAC)
18	**END SEMESTER EXAM**	