



NATIONAL UNIVERSITY OF ENGINEERING

COLLEGE OF GEOLOGICAL, MINING AND METALLURGICAL ENGINEERING

MINING ENGINEERING PROGRAM

GM824 – MINERALS AND METALS MARKETING

I. GENERAL INFORMATION

CODE	: GM824 Minerals and Metals Marketing.
SEMESTER	: 8
CREDITS	: 3
HOURS PER WEEK	: 4 (Theory–Practice)
PREREQUISITES	: MI634 Minerals Processing GM711 Geostatistics
CONDITION	: Compulsory
DEPARTMENT	: Mining Engineering

II. COURSE DESCRIPTION

The course prepares students for the understanding and analysis of the process of mineral marketing in national and world markets. Concepts, contracts and clauses in the process of marketing of concentrates and metals are analyzed, as well as their valuation considering the evolution of metal and commodity prices. Students consider the relation of the environment and the mineral marketing, as well as solve problems of application in mining engineering.

III. COURSE OUTCOMES

At the end of the course, students:

1. Understand concentrate characteristics and valuation for marketing.
2. Value ore concentrates and metals.
3. Analyze the production, consumption and valuation of metals.
4. Analyze and evaluate contracts and clauses required in the mineral marketing process.
5. Relate the environment with the mineral marketing.

IV. LEARNING UNITS

1. MINING AND METALLURGICAL PRODUCTION IN PERU

Position of the mining-metallurgy industry in Peru and the global context / Mineral processing technologies.

2. CHARACTERISTICS OF CONCENTRATES

Ore concentrate and its physical characteristics / Handling and transport of concentrates / Stages: Concentrator plant, transport, coastal and port deposit / Supervision and quality control in the handling of concentrates / Minerals in bulk and refined metals / Stages and control in the handling of concentrates / Quality control in mineral marketing.

3. CONTRACTS AND CLAUSES IN THE MINERAL MARKETING PROCESS

Contracts and common clauses in commercial contracts / Marketing processes of concentrates and metals.

4. VALUATION AND QUOTATION OF CONCENTRATES AND METALS

Valuation of concentrates and metals / Quote of metals and minerals / Metals: copper, silver, lead, zinc and gold / Illegal metals: arsenic, antimony and bismuth.

5. PRODUCTION, CONSUMPTION AND MINING – METALLURGICAL EXPORTATION

National and international mining–metallurgical production, consumption and exports / International markets / Metal prices in world markets / Stock exchange of minerals and metal companies.

6. ENVIRONMENT AND MINERAL MARKETING

General information. / The environmental impact in the minerals marketing. / Contingency plans.

V. PRACTICAL EXPERIENCES

Session 1: Ore concentrate, characteristics, contracts and clauses.

Session 2: Contracts and concentrates valuation.

Session 3: Concentrates valuation and quotation.

Session 4: International market, production and consumption.

Session 5: International market, mining - metallurgical exports.

Session 6: Refined valuation and the environmental situation in the mineral marketing process.

VI. METHODOLOGY

The course takes place in theory and practice sessions. In theory sessions, faculty presents the concepts, methods and regulations. In practice sessions, students analyze real-world problems related to metal and mineral marketing in national and international markets. At the end of the course the student present and defend a project. Student active participation is promoted.

VII. GRADING FORMULA

The Final Grade PF is calculated as follow:

$$PF = (EP + EF + PP) / 3$$

EP: Mid-term Exam

EF: Final Exam

PP: Average of 4 Practical Works

VIII. BIBLIOGRAPHY

1. CORDER, H.G. & TARRING, L.H.
Babylon to Birmingham.
2. LOVERING, T.S.
The Minerals.