

**Department:** Mining Engineering

**Division:** Mining Exploitation and Rock Mechanics

**Level and Major:** BSc, Mining Exploitation and Rock Mechanics

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**Course Title:** Basics of Economics

**Number of Credits:** 2

**Prerequisite:** Engineering Statistics and Probabilities

**Lecturer:** Dr. Majid Ataee Pour

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### **Course Goals and Objectives**

To get familiar with the principles of both Macro- and micro-economics with the emphasis on mineral economics

### **Course Topics**

- Introduction to Economics, Factors of production, Circular flow, Production possibility frontier, Economic growth
- Aspects of Command economy, Market economy and Combined economy
- Money: definition, roles, types and evolution stages
- Demand: theory, Schedule, curve and law, influencing factors, income effect, substitution effect
- Supply: theory, Schedule, curve and law, influencing factors
- Price: Equilibrium price, static and dynamic equilibrium
- Theory of producer supply, the law of diminishing returns, total, marginal and average production
- Elasticity: elasticity of demand, elastic, inelastic and unitary elastic types, elasticity and total revenue analysis
- Cost: fixed and variable costs, curves of total, marginal and average cost, breakeven point, Returns to scale
- Market types: competitive, monopolistic, oligopoly
- Macroeconomics: GDP (nominal, real and potential), GDP measurement approaches, Sections of Iran economy, role of mining
- Unemployment: labor force, frictional, structural and cyclical unemployment, Oakum's law, business cycles
- Inflation: Price indexes (CPI, PPI, GDP deflator), real and nominal income
- Time value of money, cash flow, DCF tables, net present value (NPV) of a mine project
- Mineral economics: periods in the growth of a country's mineral industries, specifications of mining investment

- Mineral economics: classification of mineral commodities, mining law, minerals trade, InCoTerms

### **Reading Resources**

- Salvatore, D and Diulio, E A, Principles of Economics, Schaums Outline Series