



**Faculty of Earth Sciences**



**Department of Mineral Resources & Rocks  
3rd & 4th Years Program**



**The Geological Society**  
*Accredited degree courses*

### ***GEOLOGY OF MINERAL DEPOSITS***

<b>Course Name</b>	<b>Course ID</b>	<b>Prerequisites</b>
<b><i>GEOLOGY OF MINERAL DEPOSITS</i></b>	<b><i>EMR 332</i></b>	<b><i>EMR 231 / EMR 241</i></b>

#### **Course Description**

Evolution of ideas on ore deposits. Concept of rock nature of ore. Affiliation of ore to mafic, ultramafic, felsic, and acidic rocks. Marine strata bound volcanic sulfide ores. High temperature metamorphic ore. Sedimentary, stratabound, and vein types ores. Ores affiliated to metamorphic rocks. Mineralization and its relation with earth tectonics. Introduction to mineral genesis. Laboratory identification of different ore minerals, their mineralogy, and associated gangue minerals. Field trip.

#### **Course Objectives**

1. Understand the evolution of ore deposits. Learn the affiliation of ore to various rocks. Identify ore minerals and different types of ore. Gain a basic knowledge of mineral genesis.
2. The student should be able to read certain geological maps of some important mines and describe the geology of the mine.

#### **General References for the Course:** (Books/Journals...etc.)

Students in this course can read from:

1. *Ore Geology and Industrial Minerals: An Introduction, 3rd Edition*, by Evans A.M.
2. *Ore Geology Review* (Journal)

### **List of URLs for this Course**

- <http://geology.about.com/od/mineralsresources/>
- <http://www.usgs.gov/>

### **Course Outcome**

The student is able to know the basics of mining industry, world examples from different types of ore deposits and their genesis, exploration guides.

1. Student can know the Important factors in the evaluation of a potential ore deposit.
2. Student can know the geologic and genesis of classical types of ore deposits.
3. Student can know the Time distribution of ore deposits.
4. Student can distinguish the mineralization in relation to plate tectonics.
5. Student can Explore the schemes for certain types of ore deposits.