

**Course: Mineralogy and economic resources- Grade: 2rd level- special
Biology**

Topics of Research Subjects

- 1) **The Cubic Crystal system, its crystallographic axes, axial angles, elements of symmetry, crystal forms and examples minerals that form in the cubic system.**
- 2) **The Tetragonal Crystal system, its crystallographic axes, axial angles, elements of symmetry, crystal forms and examples minerals that form in the tetragonal system.**
- 3) **The Orthorhombic Crystal system, its crystallographic axes, axial angles, elements of symmetry, crystal forms and examples minerals that form in the Orthorhombic system.**
- 4) **The hexagonal Crystal system, its crystallographic axes, axial angles, elements of symmetry, crystal forms and examples minerals that form in the hexagonal system.**
- 5- **Definition of a mineral and the optical properties of minerals (color, Luster, transparency, and streak.**
- 6- **Cohesive Properties of minerals (Hardness, Cleavage, Parting, Tenacity and Fracture).**
- 7- **Diagnostic properties of specific minerals (magnetism, Effervescence, Taste, Double refraction, Fluorescence).**
- 8) **Classification of minerals (mineral groups), silicates and non-silicates minerals.**
- 9) **Importance of minerals to society and description some of the Economic metallic ores in Egypt, including Iron, Manganese, titanium and chromium ores.**
- 10) **Economic geology, syngenetic, epigenetic, hypogene and endogene ore deposits, mineral resources and reserves, Impact of mineral extraction and processing.**

رئيس مجلس القسم

(أ.د. علاء محمد سالم)

القائم بالتدريس

(أ.د/ ناهد حسين الشبيني)



**Course: Mineralogy and economic resources- Grade: 2rd level- special
Biology**

- 1)
- 2)
- 3)
- 4)
- 5)