MANGALORE UNIVERSITY

DEPARTMENT OF MARINE GEOLOGY

MGP 404: MINERALOGY & GEOCHEMISTRY (Lab)

Course Outcome:

CO1: A megascopic study of important rock forming minerals are achieved.

CO2: Able to determine the physical and chemical properties of natural water and helps to know the chemistry of sediments and water.

CO3: Practical knowledge/hands on experience will help students to perform field work and geologic investigations where they work.

Mineralogy (Lab)

1. Megascopic study of important rock forming minerals.
2. Crystallography: Crystal systems and angular relationships.
3. Calculation of mineral formula from chemical data of olivine, garnet, pyroxene and amphibole.
4. Identification of mineral samples collected by students during field work.

Geochemistry (Lab)

1. Introduction to principals of geochemical analyses.
2. Determinations of moisture content, porosity, and density of sediment samples.
3. Determination of chlorosity and estimation of salinity of water.
4. Measurements of hardness, calcium and magnesium carbonates.
5. Estimation of dissolved oxygen in natural waters. Importance of oxygen saturation and consumption.
6. Determination of carbon dioxide, acidity/alkalinity of natural water samples. Estimation of partial pressure of carbon dioxide in water samples.
7. Standards of determining the water quality: WHO, EPA and Indian standards.
8. Geochemical analysis of samples collected by students.