

MGP 452: STRUCTURAL GEOLOGY AND PALAEONTOLOGY LAB

Skills, employability and entrepreneurship: These subjects are good for students to learn not only to know the large-scale earth's features which favour water and mineral accumulations. Similarly, students who pay attention to this subject can become a structural geologist and paleontologists. They will be exposed to start their own entrepreneurship related to geo-hazards mitigation and fossil collection.

Structural Geology (Lab)

1. Introduction Determination of **strike and dip**, and thickness of strata by graphical and mathematical methods.
2. Measurement of **strike and dip by using compass clinometer/brunton compass in the field.**
3. Construction of the geological cross-sections to identify the order sequence of formation, pre/post igneous and structural events, and unconformities.
4. Construction of contour maps and tracing the outcrops with geological interpretations.
5. Stereonet, its projections, **structural calculations and practical applications.**
6. Interactive sessions of teaching to enhance students-teacher interactions through hands-on demonstrations and exercises in the recent advancement of the subject related to the curriculum.

Palaeontology (Lab)

1. **Invertebrate Fossils:** Identification and descriptive morphology of Coelenterata
2. Brachiopoda Mollusca, Arthropoda and Echinodermata.
3. **Plant Fossils:** Identification and descriptive morphology of plant fossils.
4. **Microfossils:** Descriptive morphology, classification and identification of microfossils.
5. Chronological ordering of invertebrate fossils, plant fossils and microfossils.
6. **Evolutionary trends in fossils.**
7. Reconstruction and identification of fossils aided by morphological parts.
8. Identification of microfossils and shells in the sediment samples collected by students.
9. Interactive sessions of teaching to enhance students-teacher interactions through hands-on demonstrations and exercises in the recent advancement of the subject related to the curriculum.