

## **EGE 5191. Lab 1: Structural Geology and Geological Field Mapping (3 credits)**

### **Unit- 1**

Preparation and interpretation of geological maps and sections. Structural problems. Recording and plotting of field data. Study of deformation structures in hand specimen. Study of dip isogons from fold profiles.

### **Unit- 2**

Stereographic projection in structural analysis. Application of stereographic projection in solving structural problems. Beta diagram and Pi diagram. Solving problems relating to faults and shear zones.

### **Unit- 3**

Topo sheets: Map scales, features in toposheet, finding the coordinates of points. Surveying - Chain Survey- Plane Table Survey – Leveling- Dumpy Level surveying, Total Station and GPS surveys. Geological field visit and mapping of litho-units in igneous, metamorphic and sedimentary terrains. Identification and Mapping of Faults, folds, foliations, cleavages, lineations, joints and shear zones.

### **References**

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