

Course Type	Course Code	Name of Course	L	T	P	Credit
DC	NGLC506	Methods of Structural Geology Practical	0	0	2	1

Course Objective

The primary objective of the course is to provide practical tools for different structural techniques used in industry / exploration organisations.

Learning Outcomes

Upon completion of the course, students will be able to:

- Learn about Structural Geological problems
- Learn interpretation of geological maps
- Learn projection of structural data in stereographic plots

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Subsurface Mapping: Preparation and interpretation of fence diagram, structure contour, and isopach / isochore maps	2	Determine structural geometry and interpret the geometry in soft-rock areas.
2	Structural analysis: Construction of profiles of cylindrical folds, analysis of areas of superposed folding.	7	Determine structural geometry and interpret the geometry in hard-rock areas.
3	Analysis of areas with faults: Depth to detachment, Balanced cross-section, Restoration of section	2	Identify the suitable sites for detailed exploration in areas of faulting.
4	Lineament and fracture Analysis	2	Analyse and interpret lineaments and fractures.
5	Practical examination	1	
	Total	14	

Reference Books:

1. Marshak, S and Mitra, G (1988) Basic Methods of Structural Geology. Prentice Hall.
2. Richard H. Groshong, Jr. (2006). 3-D Structural Geology: A Practical Guide to Quantitative Surface and Subsurface Map Interpretation. Springer-Verlag, Berlin.

Other References:

1. Roland, S.M., Duebendorfer, E.M. and Schiefelbein, I.M. (2007) Structural Analysis and Synthesis. Blackwell Publishing, Oxford