

Course Title: Surveying and Geo-informatics

Course Code: UE-270

Course Contents

Fundamentals of Geo-Informatics

Fundamentals of GIS, Components of GIS. Data models and structures. Coordinate System, Datum and map projection and their transformation.

Introduction To Engineering Surveying

Introduction basic surveying, Field data acquisition techniques, horizontal and vertical distance measuring, manual contouring and angle measurements.

Spatial Analysis and Remote Sensing (RS)

Spatial Analysis, Concept of Spatial layering in GIS, RS and its data acquisition method, RS applications for petroleum resource exploration.

Field and Computer Lab work

Conventional and modern equipment used in surveying, Introduction to Geo-informatics software, geodatabase development, geo-referencing, spatial data analyses and layout design.

Text book

1. A M Chandra, “Geoinformatics”, First Edition, New Age International, 2016.
2. W. Schofield, Mark Breach, Engineering Surveying, Sixth Edition, Butterworth-Heinemann, 2007.