Geomatics Course Catalog

Course Title	*Course Description*	*Duration (Days)*
Working with 3D Analyst	This course will provide participants means to produce both surface and vector data in 3D model. It is designed for those who want to apply three-dimensional-visualization and analysis techniques to their spatial data. They will create realistic models by draping aerial photographs over surfaces and displaying ordinary 2-D features such as rivers, roads and buildings in 3 dimensions. They will also perform 3-D geographic analysis such as finding steepest path, determining inter-visibility between locations on surfaces and calculating volumes. *Objectives: After completion of the course, participants will be able to:* *1. Understand surfaces, shapes and models* *2. Create raster surfaces from points using interpolation, TIN surfaces from vector data.* *3. Create contour lines from raster and TINs.* *4. Understand and calculate slope, aspect, visibility, line of sight, viewshed, and 3D profile.* *5. Browse and display 3D Data through ArcCatalog and ArcScene* *6. Drape Image on 3D model using ArcScene.* *7. Reset the 3D visualization model through 3D analyst functions to exaggerate the terrain, extrude feature, set feature and raster base height* *8. Select features in 3D model using ArcScene.* *Pre-requisite: Working with Desktop ArcGIS* Course Outline: **Chapter 1: Arcgis 3D Analyst** 1.Introduction 2.Surfaces and surface models 3.Creating raster surfaces from point 4.What is interpolation? 5.Creating TIN surfaces from vector data 6.Understanding the shape of a surface 7.Slope and aspect in rasters and TINs 8.Why map contours? 9.Analyzing visibility 10.What is the viewshed? **Chapter 2: Arcgis 3D Analyst Exercises** 1.Browsing 3D Data Through Arccatalog 2.Wells and Plum Relationship 3.3D Point Features	2

Geomatics Course Catalog

Course Title	***Course Description***	***Duration (Days)***
	4.Selecting features by attribute 5.Create TIN 6.3D Profile	