Geomatics Course Outline

Course Title	*Course Description*	*Duration (Days)*
ArcGIS Server Enterprise Administration for Oracle	ArcGIS Server includes ArcSDE technology that acts as the GIS gateway to spatial data stored in relational database management systems. This course prepares Oracle database administrators to implement an enterprise geodatabase. Participants will learn how to build an individual ArcSDE server & have the knowledge of ArcSDE architecture. They will learn how to configure Oracle to support ArcSDE, install & configure ArcSDE, identify & troubleshoot connection types and issues. The course covers managing storage settings for loading vector & raster data and teaches techniques for maintaining geodatabase performance in an editing environment. The course explains how ArcSDE interacts with Oracle databases and presents solid strategies for maintaining and managing an enterprise geodatabase. *Objective: After completion of the course, participants will be able to:* *1. Configure Oracle to support ArcSDE* *2. Install and configure ArcSDE* *3. Create multiple ArcSDE workspaces* *4. Customise storage for spatial data* *5. Configure, create, and monitor connections* *6. Implement data management strategies for vector and raster data* *7. Optimise ArcSDE* *8. Maintain performance of a multiuser geodatabase* *Pre-requisite: Working with Desktop ArcGIS* Chapter 1: Introduction to ArcSDE Enterprise Geodatabase • Defining the geodatabase • Geodatabase Elements • ArcGIS desktop geodatabase • Administering Multiuser geodatabase Chapter 2: Configuring Oracel for ArcSDE • Administering Oracle instance and database • Oracle Storage Overview • Startup modes • Shutting down Oracle • EM Database Control • ISQL Plus and SQL *Plus Chapter 3: Installing ArcSDE	3

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	• Installing ArcSDE • Post installation • Additional permissions • Geometry storage options • Giomgr process • Start and stop ArcSDE • Managing Multiple geodatabases within a DBMS Chapter 4: Undertaking ArcSDE Components • Repository • ArcSDE data dictionary • SDE packages • ArcSDE binary files • Configuration files • Server configuration files • Service configuration files • ArcSDE diagnostic files Chapter 5: Exploring ArcSDE Architecture and Connections • Exploring ArcSDE architecture and connections • Role of ArcSDE • Managing ArcSDE connection information Chapter 6: Managing Vector Storage • Managing storage • ArcSDE feature class • Registry • DBTUNE file format • Managing tablespace • Managing users Chapter 7: SQL Spatial Types • ESRI spatial type for Oracle • Understanding ST_Geometry • Oracle spatial architecture overview Chapter 8: ArcSDE Log Files • Understanding log files • Log files recommendations • Keyset table	

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	Chapter 9: Managing Raster Storage • Managing ArcSDE raster storage • Configuring Oracle for raster loading • Oracle GeoRaster architecture overview • SDO_GeoRaster storage Chapter 10: Geodatabase Editing • Overview of Geodatabase editing • Versioning • Delta table storage • Indexes and statistics • Replication	