

Introduction to Geographic Information Systems (GIS) Workshop Agenda

Description: This course is an introduction to the concepts and application of Geographic Information Systems. The course presents conceptual and practical discussions of the analysis of spatial information with the addition of exercises using the ESRI ArcGIS suite of applications. The class is designed to provide a basic introduction to GIS including spatial data structures and sources, spatial tools, spatial data display and query, map generation, and basic spatial analysis using ArcGIS software.

Course Format: Approximately 50% lecture and 50% lab exercise.

Day 1

- Welcome & Logistics
- **Lecture 1:** Introduction to GIS
- Lab: Getting Started with ArcGIS
- **Lecture 2:** Spatial Data
- Lab : Exploring Spatial Data
- Lunch (1 hr)
- **Lecture 3:** Coordinate Systems and Map Projections
- Lab 3: Understanding Spatial Referencing
- **Lecture 4:** Data Acquisition
- Lab 4: Creating and Editing Spatial Data

Day 2

- **Lecture 5:** Tabular Database Management
- Lab: Working with Attribute
- **Lecture 6:** Spatial Analysis
- Lab: Working with Geoprocessing
- Lunch (1 hr)
- **Lecture 7:** Spatial Modeling
- Lab: Creating a Geoprocessing Model
- **Lecture 8:** Cartographic Display
- Lab: Designing Maps with ArcGIS