GIS: Advanced

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Objectives

Learn advanced hands-on techniques in GIS. Topics include working with extensions such as Spatial Analyst and 3D Analyst. Learn how to work with raster data and work with ArcScene to build 3D scenes. Batch process data in ArcToolBox, create your own toolboxes, and automate workflows by building a model in Model Builder.

Prerequisite: 69306

Text Book


Additional Readings: desktop.arcgis.com

Course Outline

Day 1: Raster Analysis - Spatial Analyst, Density, Distance, Extraction
- Exercises
  - Create a mosaic dataset
  - Color balancing a mosaic dataset
  - Extract data by mask

Day 2: Raster Analysis - Map Algebra, Reclassify, Raster Overlay
- Exercises - 20a, 20b

Day 3: Raster Analysis - Practice
- Exercises
  - Cost Distance Analysis: Lessons 1 & 2

Class Hours

Tuesdays & Thursdays
6:00 pm – 8:00 pm
UNM CE South Building
Classroom: Lab C
1634 University Blvd NE
Albuquerque, NM 87131
Day 4: Terrain Analysis

- Exercises
  - Creating a 3D Scene,
  - Creating a TIN from contours
  - Draping features onto a TIN
  - Navigating Scenes

Day 5: Terrain Analysis

- Exercises - Using ArcGIS 3D Analyst for landform analysis

Day 6: Geodatabase Topology

- Exercises
  - Create and Validate Topology
  - Topology Error Correction

Day 7: Web GIS – Intro to ArcGIS Online

- Exercises
  - Add data to ArcGIS Online and Create a Web map
  - Customizing and Stylizing Data on ArcGIS Online

Day 8: Web GIS

- Exercises
  - Create a Web mapping application

References:
