

GIS Workshop (Global/Physical Geography & Environmental Sciences)*

*Space is limited and thus registration is required, please contact c-maene@northwestern.edu

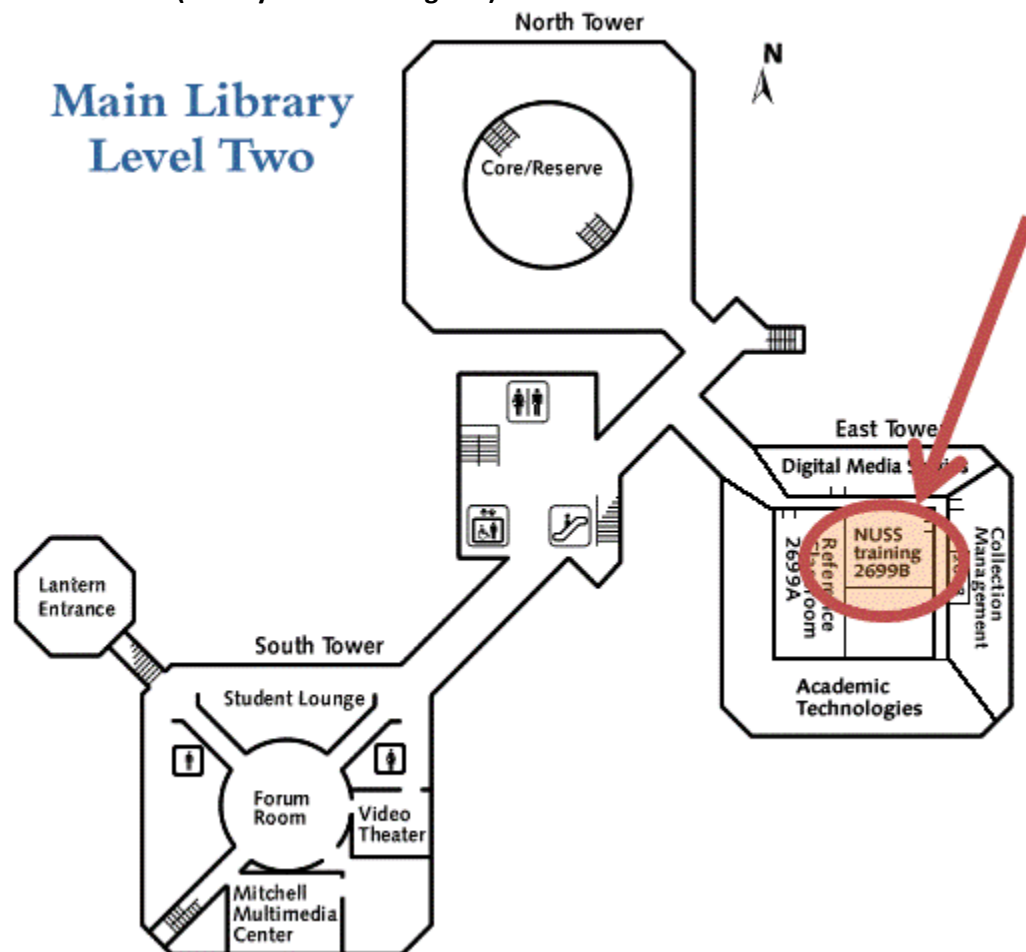
Dates: Friday, April 24 (9:00am-4:00pm) & Saturday, April 25 (9:00am-4:00pm), 2009

Location: Northwestern University Library

1970 Campus Drive, Evanston, 60208

<http://aquavite.northwestern.edu/maps/buildinglookup.cgi?lookupid=123>

Room# 2699B (Library Staff Training Lab)



Contact: Chieko Maene
Maps & State Documents Librarian
Government & Geographic Information and Data Services Department
University Library
(847) 491-3130
c-maene@northwestern.edu

Software: ArcGIS 9.3 with extensions (Spatial, 3D & Geostatistical Analysts)

Outline: (On the back)

Day 1: April 24, 2009 (Friday)

- 9:00 Welcome
- 9:10 Presentation: What is GIS
- 9:30 Basic GIS & Mapping Concepts
- “Geographic information” in GIS
 - GIS data: types, metadata
- Exercise 1: ArcCatalog
- Exercise 2: ArcMap
- Exercise 3: Geocoding addresses
- 11:30 Lunch (not provided)
- 12:45 Basic GIS & Mapping Concepts (cont.)
- Exercise 4: Geocoding places & Adding XY/Geog. Coordinates data
- Spatial reference systems
- Exercise 5: Map projections
- Exercise 6: Georeferencing image
- Exercise 7: Create new shapefiles
- Exercise 8: Layout (cartography basics)
- 2:15 Break
- 2:30 Basic GIS & Mapping Concepts (cont.)
- Selecting data in GIS
 - Geoprocessing
- Exercise 9: Selection & geoprocessing (Introduction to ArcToolbox)
- Thematic mapping methods – choropleth, dot density maps and symbols
- Exercise 10: Thematic mapping
- 4:00 Adjourn

Day 2: April 25, 2009 (Saturday)

- 9:00 Welcome
- 9:10 Advanced GIS analysis
- Digital Elevation Model (DEM)
- Exercise 11: Raster 1: Elevation analysis
- Exercise 12: 3D visualization with 3D Analyst
- 11:30 Lunch (not provided)
- 12:45 Advanced GIS analysis (cont.)
- Interpolation
- Exercise 13: Raster 2: Interpolation
- Exercise 14: Environmental analysis
- 2:45 Break
- 3:00 Advanced GIS analysis (cont.)
- Modeling with geoprocessing tools
- Exercise 15: Introduction to ModelBuilder
- 3:30 Finding geographic information/GIS data
- Who creates GIS data?
 - Data on the web and the library collection
- 4:00 Adjourn