



Date Assigned: Wednesday, 10.02.13, 2:45pm (Week 6)

Date Due: Wednesday, 10.09.13, 12:00pm (Week 7)

Weighted Value: 10 points

Estimated Workload: 4 - 6 hours

OVERVIEW

This in-class geographic information systems (GIS) assignment using *ESRI ArcGIS v10.1* will be held at computer lab SELE 2049. The process used for this land use mapping exercise will also serve as the basis for *HW-7: Land Use Analysis* and each student's community land use map as part of their *Final Project: Community Profile*.

LEARNING OBJECTIVES

- To understand the concept and process of land use mapping, and the ability to create a land use map as part of a community profile using *ESRI ArcGIS*.
- To gain an understanding of mapping data files, functions and features, such as; data tables (.dbf) and shapefiles (.shp), symbology, labeling, attributes, layer properties, analysis (joins) and mapping elements.
- To be able to apply computer skills in mapping so as to be able to offer relevant, practical and professionally-competent analysis and deliverables.

ASSIGNMENT

Goal: Create a GIS-based land use map of the Village of Oak Park, IL, using *ESRI ArcGIS v10.1*.

Follow the step-by-step instructions provided by the UDVL authored tutorial, *GIS Tutorial for ArcGIS 10*, (available via the UDVL website at <http://www.uic.edu/cuppa/udv/education.html>).

Open the 'GISexercisefall2011v2.pdf' file to read the instructions for the tutorial. The tutorial was originally created (08.14.11) in PowerPoint, and is therefore in a slide format. All the needed data for the tutorial is in the 'data' folder.

This assignment consists of **only** the first tutorial exercise, *Making a Map for a Community* (slides 2-31). The second exercise, *GIS Analysis Example* (slides 32-45) is above and beyond the scope of this assignment, and is only included for students who may desire to advance their personal GIS skill set on their own.

ITEMS OF CONSIDERATION

Students are to bring to class a flash drive, to save their in-class work files for possible additional work and/or printing purposes.

You will need ArcGIS software version 10 or 10.1 to follow the tutorial instructions. If using CUPPA lab or other computers for additional work, students are to

verify whether the installed ArcGIS software is the same version, or compatible with, that of SELE 2049 computer lab's ArcGIS 10.1 software.

Pay close attention to the following instructions;

- Add **road labels** (font type, size, color) and lines (color, width) as per student's selection.
- Change **land use type colors** as follows;
 - red for commercial
 - brown for industrial
 - violet for institutional
 - orange for multi-family residential
 - green for open space
 - pale yellow for single family residential
 - gray for transportation/utility
 - "no color" for vacant.
- Add **map title**: what (land use), where (Oak Park, IL), when (2001).
- Add **map elements**, as follows:
 - **north arrow** (per student's selection)
 - **scale bars** (per student's selection)
 - **legend** (clean up).
- Add **assignment information**, as follows;
 - **student name**
 - **date of completion**
 - **assignment name** (HW-6: ESRI ArcGIS)
 - **class name** (UPP 502).
- Review **layout composition**.

DELIVERABLES

Students are to submit **two** color hard copies of their completed land use map of the Village of Oak Park, one of which will be returned with grade and review comments. No accompanying report document is required.

- *Format*: map.
- *Particulars*: 1-page, 8.5" x 11", hard copy of pdf document.

EVALUATION CRITERIA

- *Comprehension*: student demonstrated ability to follow step-by-step instructions for creating a GIS-based land use map.
- *Analysis*: student demonstrated ability create a land use map, by adding data, symbolizing layer properties, and adding map elements; and to perform basic mapping analysis using ArcGIS geoprocessing tools such as join.
- *Completeness*: deliverables were submitted in a complete and orderly manner.
- *Timeliness*: deliverables were submitted by due date.