

SOC 4650/5650: Lab-13 - Landmarks on SLU's North Campus

Christopher Prener, Ph.D.

Spring 2019

Directions

Using data accessed from the course data release, create the following map of landmarks on SLU's North Campus. Your entire project folder system, including data and map output, should be uploaded to GitHub by **Monday, April 22nd** at 4:15pm.

Analysis Development

The goal of this section is to create a self contained project directory with all of the data, map documents, results, and documentation a project needs. Make sure to include all relevant directories and a README that traces the changes you make to all of your data. You will need to create a new File Geodatabase in your data/ directory as well for the feature classes you will create. **DO NOT COPY THE UNDERLYING ORTHOIMAGERY INTO YOUR GITHUB REPOSITORY - THE IMAGES ARE TOO LARGE FOR GITHUB!** You will need to store them elsewhere and add them to your project from that external location. Document this in your README.

Part 1: Digitizing SLU's Campus

1. Begin by opening up your Internet browser and pointing it to Google Maps. Find the main Saint Louis University Campus, which is roughly bounded by Vandeventer Avenue on the west, Lindell Boulevard on the North, Forest Park Avenue on the South, and Compton Avenue on the East.
2. In a new map document, add the three orthoimagery tiles from the STLOrtho.gdb geodatabase that overlap North Campus (053_079, 053_080, and 053_081) as well as the additional tile we downloaded in class (054-080). Also add the street centerlines shapefile from the example-data directory from this lecture's repository.
3. Make sure that the projected coordinate system for your data frame is set to "NAD 1983 StatePlane Missouri East FIPS 2401".

4. Create a new polygon feature class to represent SLU's main "North Campus". Set the coordinate system to the same projected coordinate system you selected in step 3. When prompted, add a text field named Name. Otherwise use the default options that populate each window.
5. Using the Google Maps definition of the campus boundaries as a reference and the street centerlines as a guide for snapping your vertices to, create a single polygon that represents the "Frost Campus".
6. Add two additional polygons, one on the north side of Lindell Boulevard in the block where the Wool Center is located, and one on the west side of Grand Boulevard just south of Forest Park Avenue where Reinert Hall is located.
7. Edit this layer's attribute table, entering names for each of the three polygons in the Name field you created.
8. Add the buildings feature class for Saint Louis City from the data/assignment-data directory in this lecture's repository, and geoprocess it so that you are left with a new feature class that contains only building footprints within your "North Campus" polygons.

Part 2: Digitizing Landmarks on SLU's North Campus

9. Create a new point feature class to represent landmarks on SLU's main "North Campus". Set the coordinate system to the same projected coordinate system you selected in step 3.
10. When prompted, add a text field named Landmark. Otherwise use the default options that populate each window.
11. Using the orthoimagery provided, identify ten statues, water features, and other prominent landmarks on campus that are not buildings.
12. Once you have identified these ten landmarks, enter landmark names (you can make these up as long as they are reasonable) in the Landmark field of this new feature class's attribute table. Use this new field to label your landmarks.
13. Remove the orthoimagery from your map document so that you only have the street centerlines, building footprints, and landmarks left on your map.
14. Export the map image as a pdf at 300dpi.