

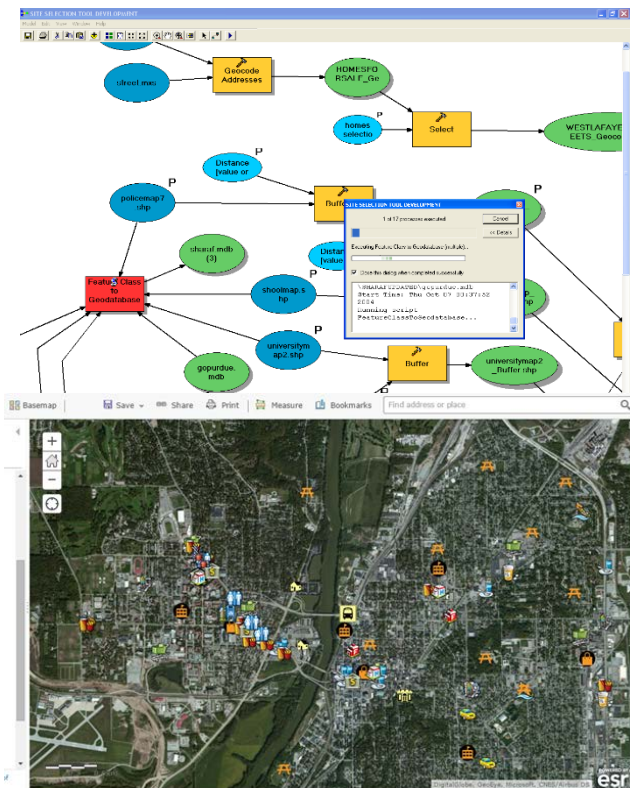
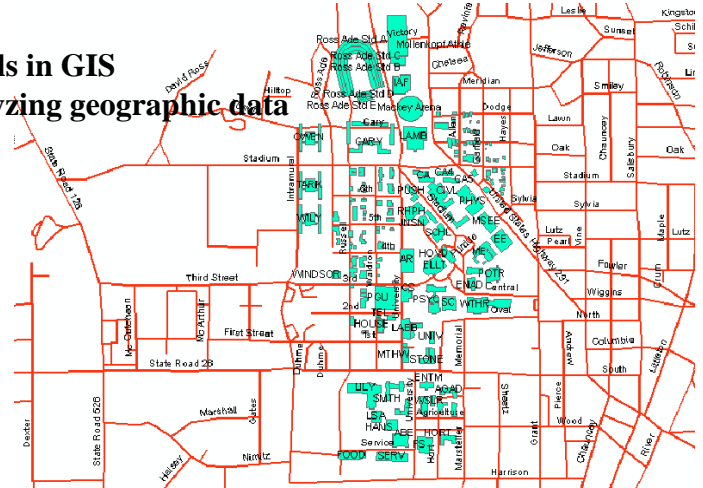
# 21019 - CE 59700-WNG, **GRAD 59000** (Co-list); Spring 2019 Geographic Information Systems

## Course objectives:

- introduce the principles, methods and skills in GIS
- enhance capabilities in handling and analyzing geographic data
- conduct GIS spatial analysis tasks
- design and create geographic database
- experience Internet mapping
- advanced skills with ArcGIS & extensions

## Course workload:

- ~6 assigned projects
- 1 self-selected term project
- Team work



## Topics:

- Terrain characteristics
- Point clouds handling and analysis
- Watershed and viewshed analyses
- Vector data model and topology
- Social media data analysis
- Network modeling and analysis
- Web GIS and Internet mapping
- Geospatial database
- Primer geostatistics and spatial statistics

## Tools to use:

- ArcGIS and ArcGIS Online
- ArcGIS extensions: Spatial Analyst; 3-D Analyst; Network Analyst; Geostatistical Analyst; Spatial Statistics; etc
- Model Builder and scripting
- Other open source GIS tools

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 Lecture: MWF:2:30 -3:20pm; Classroom: 2555 Seng-Liang Wang Hall**