

**GEOG 4550 – Advanced GIS** is built on GEOG 3500 "Introduction to GIS". Some advanced GIS topics will be introduced through a combination of lectures, hands-on exercises, homework, and an individual project. The course objectives are to: (1) Understand vector and raster data models and conversions; (2) Develop skills in local, focal, and zonal raster data manipulation in ArcGIS; (3) Develop skills in spatial interpolation, surface analysis, hydrological modeling, 3-D analysis, and network analysis; (4) Learn how to design and implement a GIS project.