

GEOG 4590 – Advanced GIS Programming includes lectures, demos, hands-on exercises, homework assignments, and a programming project. It is for those who work with ESRI's ArcGIS on a technical level and have knowledge in programming with Python. Based on the knowledge of Python, students will learn advanced labeling and field calculation with Python, ArcPy classes and functions, ArcPy mapping, data access, and spatial analysis modules, Python tools, toolboxes, add-ins, and raster processing in moving windows(neighborhoods). Students will develop skills to improve GIS productivity, implement customized GIS applications, and create new GIS tools using the Python programming language.