DEPARTMENT OF
GEOGRAPHY AND PLANNING

SURP 881 – GIS in Urban Planning

Format	Lecture and lab
Class Assessment	Participation in discussions and in-class lab work: 10% Evaluation of assignments: 60% Final project demonstrating an understanding of the course: 30%

COURSE OVERVIEW

This graduate-level course introduces students to Geographic Information Systems (GIS) and their use in the field of urban planning. The course features hands-on use of the software for creating, displaying, manipulating and analyzing spatial data. Lab sessions use ArcGIS Pro by ESRI on the Windows operating system. Although students will not be GIS experts by the end of the course, they will have gained the necessary skills and knowledge to create maps and perform analysis which can be used in a variety of planning settings. Class will consist of a mixture of lectures on the principles of GIS, demonstrations of GIS processes, and in-class exercises.

LEARNING OUTCOMES

- To understand the role of GIS in urban planning
- To apply basic concepts of GIS to create maps and analyze data

COURSE TOPICS

- Overview of GIS
- GIS Basics
- Map Design and Types
- Census Geography
- Geocoding
- Digitizing
- Attribute Selection
- Geoprocessing
- Geodatabases
- Spatial Analysis

COURSE READINGS

There is no required textbook for this class. Students should focus on material presented in class. For students looking to further enhance their skills, tutorials for ArcGIS Pro are available online on ESRI's website.