

GEOGRAPHY AND PLANNING

SURP 881 /GIS in Urban Planning



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| Contact Time | During class and via email | |
| Format | Lectures and in-class exercises | |
| Class Assessment | Class participation and in-class work: 10% Assignments: 50% Final project: 40% | |

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 ArcMap 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 Overview
- Census Geography
- Geocoding
- Digitizing
- Attribute Selection
- Geoprocessing
- Geodatabases
- Spatial Analysis

COURSE READINGS

Students should focus on material presented in lectures and lab sessions. As the course proceeds, some course topics may be supplemented by web and print based resources provided by the instructor.