School of City and Regional Planning
College of Architecture
Georgia Institute of Technology

CP 4510 / 6514: Introduction to Geographic Information Systems (G.I.S.)

Instructor: Sangwoo "Marty" Sung
Summer Semester 2011 (Full summer session 11 week) ● Monday ● 5:30-9:00 pm ● 3 credit hours
Architecture West Building Room 359
Contact: Center for GIS, Arch Annex 2nd Floor, R218, e-mail: swsung@gatech.edu

Course Objectives:

Geographic Information Systems (GIS) are used in numerous disciplines and can be helpful for a variety of applications. Therefore it is important for students to understand the basic principles of geospatial analysis and information can be used and utilized in a computer-based environment. The goals of this course are: (1) to provide students with a firm understanding of the basic principles of GIS and spatial analysis and (2) to give students a solid working knowledge of one of widely used GIS software package, ArcGIS 9.3.1

Course Procedure and Organization:

The course is structured to be a combination of lectures, lab exercises, and readings. The lectures and readings are designed to allow students to have basic knowledge of geographic data structures and geographic information systems. The lab session will provide students with hands-on experience using ArcGIS9.3. Students can learn the skills to make maps, perform spatial analyses using geo-processing tools, and provide informative analysis results based on logically sound analysis design and steps. Students will use T-Square actively to submit assignments, communicate with other participants and join the class discussions.

Required Texts (Tentative: either one of two books below will be required)

- Tim Ormsby et al. 2008. Getting to Know ArcGIS Desktop: Basics of ArcView, ArcEditor, and ArcInfo: 2nd Edition. Redlands, CA: ESRI Press.
- Meredith Price. 2008. Mastering ArcGIS NY: McGraw Hill.

Also recommended:

- Michael N. Demers. 2000. Fundamentals of Geographic information Systems. New York: John Wiley and sons, Inc.
- David Allen. 2009. GIS Tutorial II: Spatial Analysis Workbook. Redlands, CA: ESRI Press.

Course Requirements:

Students are expected to complete homework assignments, take exams and participate class discussions in order to improve their understanding and skills in ArcGIS software package.

1) Minor/Major Homework assignments: 50%
   Students are assigned minor and major homework assignments over the course of the semester. These assignments will utilize student's skills acquired through the lab exercise and tutorials. Late homework submissions will result in a penalty of a letter grade per class late
2) Mid-term / Final Exam: 15 % / 25%
   Exams are performed in class as a format of short answer, definitions, and practical questions and so on.
3) Class Participation: 10%
4) Optional presentation for extra credit - 5% (optional)

Grading:

A = 90-100 %, B = 80-90%, C= 70-80%, D = 60-70%, and F = =< 60%