

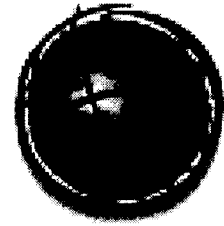
UAP 5114

Fall 2006

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Dept. of Urban Affairs and Planning

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Computer Applications in Planning - GIS

Course Description

This course will acquaint students with the basic concepts of geographic information systems (GIS) and its analytic capabilities. The course will provide a firm grounding in the principles and concepts of GIS technology, applications of this technology to planning problems, and important system implementation issues. These issues will be addressed in assigned readings and discussed in the lecture portion of the course. Laboratory sessions will be used primarily for "hands-on" exposure to ArcGIS and extensions. The use of this particular software package is intended to provide students with a practical understanding of the generic underpinnings of GIS design and a working knowledge of a package that can be applied to later course work and in professional practice.

Meeting Time and Place

Lecture and Lab: Monday, 4:15-6:45pm, 1021 Prince Street, Computer Lab (2nd Floor)

Text

Required: Ormsby, T., Napoleon, E., Burke, R., Groessel, C., and Feaster, L. 2004. *Getting to Know ArcGIS Desktop* (2nd Edition) Redlands, CA: ESRI Press. ISBN: 1-58948-083-X, 588 pages \$59.95

Evaluation Method

Final grades will be established on the basis of:

Homework Assignments	30%
Tests/Quiz (2)	30%
Class Project	40%

Homework Assignments

These assignments will be based on the *Learning ArcGIS 9* on-line tutorial on ESRI's website. See the Course Schedule and instructions. Print your module completion certificate to an Acrobat file and e-mail it to me for the assigned week.

Class Project

The class project includes GIS-based analyses of a planning related problem requiring a comprehensive use of the methods explored during the semester. The presentation will involve a poster display and a brief (2-3 minute) presentation on analysis methods and results.

COURSE SCHEDULE

Week:	Lecture Topic	Chapters / Exercises	Modules
8/21	Intro. to GIS Technology	Chapters 1-3 / 3A-C	1. Getting Started with ArcGIS Desktop
8/28	Spatial data and sampling	Chapters 4-5 / 4A-C, 5A-D	2. Creating Map Symbology
9/4	Projection/coordinate systems	Chapters 6-7 / 6A-D, 7A-C	3. Referencing Data to Real Locations
9/11	GIS Database Concepts	Chapters 8-9 / 8A-C, 9A-B	4. Organizing Geographic Data
9/18	Spatial Analysis Methods (Q)	Chapters 10-11 / 10A-b, 11A-D	5. Creating and Editing Data
9/25	Spatial Analysis Methods	Chapters 12-13 / 12A-C, 13A-B	6. Getting Started with GIS Analysis
10/2	Network Analysis Methods	Chapters 14-15 / 14A-C, 15A-B	7. Working with Geoprocessing and Modeling Tools
10/9	No class	Chapters 16-17 / 16A-C, 17A-C	8. Designing Maps with ArcGIS
10/16	Census/TIGER data	Chapters 18-19 / 18A-C, 19A-D	
10/23	Surface and 3D analysis	Using ArcGIS Spatial Analyst ch.1-7 (BB)	
10/30	GIS Design and Projects (Q)	Using ArcGIS 3D Analyst ch.1-7 (BB)	
11/6	Cartographic Output	Chapter 20 / 20A-C	
11/13	GPS/Remote Sensing	See Blackboard	
11/20	Thanksgiving Holiday		
11/27	GIS Projects	TBA	
12/4	GIS Projects	Final Presentations	
TBA	FINAL EXAMS		

(Q) = quiz/test scheduled for that week.

(BB) = Blackboard

Learning ArcGIS 9 - INSTRUCTIONS:

1. Go To My Training

Go to <http://training.esri.com>. Click "Go to My Training." Under My Courses click "My Virtual Campus Courses." If you already have an ESRI Global Account, log in using your username and password. If you do not, click "Create Account."

2. Start Your New Course

Type your 14-character Course Access Code in the field provided and click "Go." The title of the course will appear in your course list.

3. Go To Class

From your course list, click the course title to begin.

If you have any questions, please [contact us](#).

Thank you,

ESRI Training and Education
learnGIS@esri.com