

Course 398F – GIS in the Sciences

Fall 2001

Mrs. Tracy McLane
Computer Lab, Phone: 641-3396

Office Hours: M & W, 8:40 – 9:30 p.m.
(Other times by appointment)

Textbooks: Clarke, Keith. 2000. Getting Started with Geographic Information Systems. Prentice Hall, Third Edition, 352 pp.

Hohl, Pat and Brad Mayo. 1997. ArcView Exercise Book. OnWord Press, Second Edition, 432 pp.

Class Schedule:

August	20	What is a GIS?	Clarke, Chapter 1
	22	History of GIS	
	27	Maps & Cartographic Design	Clarke, Ch. 2,7
	29	Map Projections & Coordinate Systems	
September	3	GIS Data Formats	Clarke, Chapter 3
	5	Global Positioning Systems (GPS)	
	10	Making Data Digital	Clarke, Chapter 4
	12	Data Issues: Accuracy vs. Precision	
	17	EXAM #1 / Class GIS Projects	Library Res. 1
	19	Data Topology	
	24	Attribute Data: Joins vs. Links	Clarke, Chapter 5
	26	Spatial & Attribute Queries	
October	1	Class GIS Projects	Library Res. 2
	3	Class GIS Projects	
	8	FALL BREAK	
	10	EXAM #2 / Class GIS Projects	
	15	Data Management	Library Res. 3
	17	Relational Database Design	
	22	Spatial Analysis Concepts	Clarke, Chapter 6
	24	Advanced Spatial Analysis	
	29	Site Suitability Models	Library Res. 4
	31	Predictive Modeling	
November	5	Surface Modeling	Clarke, Chapter 8
	7	EXAM #3 / Class GIS Projects	
	12	GIS Software & Operating Systems	Clarke, Chapter 9
	14	GIS Data Standards	

	19	GIS Case Studies	
	21	THANKSGIVING	
	26	GeoSpatial Databases & the Web	Clarke, Chap. 10
	28	The Future of GIS	
December	10	FINAL EXAM	

Class Objective: This class is designed to introduce students to the basic concepts of cartography, Geographic Information Systems (GIS), spatial analysis and relational database design. It is my desire that students will acquire an understanding about GIS and how to apply it as a decision-making tool in their particular course of study.

Learning or Physical Disabilities: If you have a learning or physical disability that might affect your performance in this class, please inform your instructor and Ms. Kay Benitez, Disability Services Coordinator (x3626). Ms. Benitez will verify your status and provide you with the appropriate assistance.

Writing Skills: Good writing is a valued skill in this course, as it is in most disciplines. Written work that you produce for this class may be included in your junior writing portfolio. For further information on the portfolio requirement, please consult your USCA Undergraduate and Graduate Bulletin or visit Dr. Lynne Rhodes, Director of Writing Assessment or Nr. Karl Fornes, Director of the Writing Room.

Grading: There will be three 30-minute exams and one final exam for this course. No exams will be made up, rescheduled or dropped. In addition to exams, there will a GIS project developed by each student over the course of the semester, which will periodically be turned in and graded. Homework assignments will be given and turned in on a weekly basis. **Several opportunities for extra credit will also be given.

Homework Assignments	200 points
Class GIS Project	300 points
EXAM#1	100 points
EXAM#2	100 points
EXAM#3	100 points
FINAL EXAM	<u>200 points</u>
	1,000 points (Total Possible)
A	=> 900 points
B	800-899 points
C	700-799 points
D	600-699 points
F	< 600

Attendance: Absence from more than two (2) classes will be grounds for removal from the class role.