

GEO 460.101 – Introduction to GIS

1:25 – 4:00 p.m. Mondays and Wednesdays, LSCB 146
Spring 2009

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Office Hours: 4:00 – 5:30 pm Mondays, 1:30-4:00 pm Tuesdays, and 9:00-11:00 am Wednesdays, *or by appointment*

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COURSE OBJECTIVES AND CONTENT

The purpose of this class is to give students a solid foundation in geographic information systems, specifically with ESRI's ArcGIS 9 software. We will cover such topics as software functionality, data editing and manipulation, cartography, and spatial analysis. By the end of the semester, students should be able to use the software for cartographic and analysis purposes.

TEXTBOOK

Required textbook: *Getting to Know ArcGIS Desktop*, 2nd edition; Tim Ormsby et al., 2004, ESRI Press. Additional required readings may be handed out in class or posted on my webpage. Also needed is a large capacity jump drive or some blank cds.

EVALUATION AND GRADING POLICIES

Grades are assessed using projects (50%), quizzes (30%), attendance (5%), and a final exam (15%). Material for quizzes will come from the textbook tutorials (including the terminology), readings, and class lecture. This course builds upon techniques learned throughout the course; therefore, students *may be tested* on such material learned early in the course at any time. Quizzes will consist of conceptual questions and exercises to work through using the GIS software. All students are expected to take quizzes and the final exam at the scheduled time. The final exam will be cumulative.

PROJECTS

The first seven weeks of class are allotted for completion of the tutorial in your textbook. The remainder of the semester will consist of completing six projects that use the skills you learned in the first part of the course (see table below for worth of each project). Projects due dates will be announced when the project is assigned. You may have to conduct research on the internet or collect data in the field for several of these projects. Project grades will be based on project completion, data organization, data manipulation, and cartographic display. Further instructions and guidelines on the projects will be given at a later date.

The final grades will be determined based on the following rules:

A: 100 to 90

B: 89 to 80

C: 79 to 70

D: 69 to 60

F: <60%

Course component	Percentages
Six projects	50%
Six quizzes	30% (5% each)
Final Exam	15%
Attendance	5%
Total	100%

Projects	Percentages
Projects 1 & 2	10% total (5% each)
Projects 3 & 4	16% total (8% each)
Projects 5 & 6	24% total (12% each)
Total	50%

CLASSROOM AND ATTENDANCE POLICIES

- Attendance is required.
- Quizzes are given at the beginning of class.
- Students late for class (or are absent) need to cover the material missed on their own time.
- Etiquette rules: no talking, no playing on the computer, or other non-course related activities during the lecture. Turn off all cell phones, pages, and any text messaging devices – you will be asked to leave for texting/talking during class.
- NO food or drinks!
- Do NOT download ANY program files (IM, KAZAA, etc.)
- We will be using copywrited data which cannot be used personally/commercially without express written permission from USA, ESRI, or the City of Mobile (depending on the dataset).

LAB TIME

Time is set aside during the regular course time for you to begin work on the tutorials and the projects. Use your time wisely. You CANNOT fall behind in the work in this course and expect a decent grade.

MISSED or LATE WORK

If you have a valid excuse for missing a deadline or quiz, you must contact me via email as soon as possible. All legitimate excuses require written validation. Valid excuses include: illness (your's or a dependent's), a death in the immediate family, or participating in a university-sponsored event. Only exceptional excuses from work-related absences are accepted. A 20% reduction in the grade will be applied to missed exams/quizzes if no valid excuse is presented. Make up quizzes will be given within one week of the original date. Make up quizzes *will be different* than those given at the scheduled time. Late projects will be accepted (without a valid excuse), but will suffer a 10% reduction in the grade for every day late (including weekends).

STUDENTS WITH DISABILITIES

The University of South Alabama provides reasonable accommodations to qualified individuals with disabilities. In accordance with the American with Disabilities Act, students with bona bide disabilities will be afforded reasonable accommodations. The Office of Special Student Services will certify a disability and advise faculty members of reasonable accommodations. If you have a specific disability that qualifies you for academic accommodations, please notify me and provide certification from Disability Services (Office of Special Student Services). The Office of Special Student Services is located in the Student Center, room 270. Their phone number is (251) 460-7212.

ACADEMIC HONESTY POLICY

All members of the academic community are responsible for supporting freedom and openness through rigorous personal standards of honesty and fairness. The University of South Alabama is committed to the fundamental values of preserving academic honesty as defined in the Student Handbook: The Lowdown. Plagiarism is using somebody else's ideas in your writing without correctly identifying such sources. Cheating includes using or taking someone else's work and using it as your own. This includes using fellow classmate's work. Plagiarism and other forms of academic dishonesty undermine the very purpose of the university and diminish the value of an education and must be avoided. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from receiving a zero on an exam to probation and expulsion.

Tentative Schedule*

Week of:	Topic	Lab assignment	Activities
Jan 12 th	GIS Basics: data formats, sources, navigating	Chapters 1-4	
Jan 19 th	Monday, Jan 19th – NO Class Drawing and symbolizing features	Chapters 5-7	
Jan 26 th	Spatial Query: overlay, buffering, distance measuring, spatial joins, tables	Chapters 8-10	Quiz 1
Feb 2 nd	Displaying data: maps, reference systems, and projections	Chapters 11-13	Quiz 2
Feb 9 th	Acquiring data, part I: importing computer data and manipulation	Chapters 14-15	Quiz 3
Feb 16 th	Acquiring data, part II: geocoding and digitizing	Chapters 16-17	Quiz 4
Feb 23 rd	Presenting data through maps	Chapters 18-19	No quiz
Mar 2 nd	Acquiring data, part III: field data	Project 1	Quiz 5
Mar 9 th	Acquiring data, part III: field data cont'd	Project 2	Quiz 6
Mar 16 th – 20 th	NO CLASS - SPRING BREAK		
Mar 23 rd	Work on Project 3	Project 3	
Mar 30 th	Metadata, data quality, error, and uncertainty	Project 4	
Apr 6 th	Acquiring data, part IV: creating and building a database, data entry and editing	Project 5	
Apr 13 th	Editing techniques: snapping, changing features, topology	Project 5	
Apr 20 ^h	Finding Data	Project 6	
Apr 27 th	Future directions, other GIS systems, Remote sensing and GIS	Project 6 due May 1 st , 4:00 pm.	
May 4 th	FINAL EXAM, Wednesday, May 6th, 1:00 p.m. – 3:00 p.m.		

***The course schedule may change or be adjusted as the semester progresses. Students will be notified of any adjustments at least one week in advance.**