Geographical Information Systems Course Policy

SO432, Spring 2017

Section: 6001, MW6,R56

Instructor: Prof. P.L. Guth
Available Hours: By arrangement
Home Phone: (distributed in class first day)

Text: MICRODEM Help file
Various additional readings, handouts, and web pages.

Course Learning Outcomes. At the conclusion of this course students will be able to:

- Identify common map projections from their patterns of distortion and coordinate grids.
- Explain the difference between horizontal and vertical datums, and what a datum shift entails.
- Differentiate common GIS data types and formats.
- Design geospatial databases.
- Use digital elevation models to create viewsheds, line of sight, 3D terrain depictions, and slope/aspect maps.
- Perform GIS operations such as registration, digitizing, masking, map algebra, filtering, and joins.
- Employ lidar data for terrain mapping and change detection.
- Use remote sensing as a base map layer, for land cover classification, and change detection.
- Use the internet for data delivery and web mapping services
- Evaluate the quality of geospatial data sets.
- Generate maps to display complex geospatial information and explain patterns.

Course Policy and Guidelines:

Students in this course will come to class prepared, alert and ready to actively participate in classroom discussions. The following course policies are listed for your guidance:

A. Reading Assignments: Will be completed prior to each class, and may be included on quizzes prior to coverage in lecture. The instructor may lecture from material not readily available to the student. It is imperative that students keep well organized class notes. The student is responsible for all material covered in class and during laboratory sessions. The instructor will cover major topics and supplement text material in lecture, but some testable material will only be found by reading the text. The frequency of unannounced quizzes will be driven by the level of interest and preparation demonstrated by students in class.

B. Calculators: If calculators are required for graded work, students will be notified in advance, and the quiz or test will be in two parts: one with calculators allowed, and the other without. Calculators will not be allowed otherwise.

C. Cease Work: Students will immediately stop work on all graded work when instructed to do so by the instructor. Where I come from, failure to do so resulted in dismissal for an honor violation. Here I will take up the matter with your company officer as failure to respond to a direct order and violation of written instructions.

D. Tests. The tests will be a mixture of definitions, short answer and problems.
E. Absenteeism: If you miss a class or lab session you are responsible to get the notes, handouts and assignments from that session. Lateness will be duly reported by the section leader or assistant section leader.

F. Extra Instruction: The instructor has an open door policy, but you must find him in before you can take advantage of it. The most efficient way to obtain E.I. is to make an appointment. E.I. may not be possible on the spur of the moment; professors do have other commitments. Come to E.I. prepared to recount what you have already done to find answers to your questions; have questions ready. The key to education is learning to find answers on your own. You will be encouraged to do just that (painful as it may be). DO NOT come to E.I. expecting "gouge" as you will be disappointed. There will be EI in the lab 5th and 6th periods of Friday if you need assistance on the labs. We can also run EI for computer issues using Adobe Connect. To use this, contact the instructor to set up an appointment (via phone, email, or in person) and then follow directions on the course web page.

G. Section Leaders: Section Leaders and assistants are expected to be familiar with the procedures associated with the academic accountability system. You are required to simply report what is true and allow the system to make judgments concerning guilt.

H. GRADING. If you do not keep up with the labs in this course you will have severe problems because the computer work will be cumulative. A lab that will take three hours to complete may not be doable in 3 continuous hours the night before it is due, but require three one hour blocks interspersed with either a chance to get help, or to step away and come back refreshed (which solves a surprising number of computer problems). Start the labs early, so you can get help if needed. Unless permission is granted for emergency illness or other compelling reason, papers, projects, and labs will be docked 100% if they are not turned in at the start of class on the date assigned. If you will not be at class, you are responsible for turning in the assignment on time. With the second late assignment your company officer will be contacted. Labs will be turned in via Blackboard, which will time stamp them. In the event of problems with Blackboard, email your lab to the instructor.

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I. Project. There will be a project required for this course. You will be responsible for collecting data and performing an analysis of a region to demonstrate that you can apply the principles of GIS. Details are posted on the course web page.

J Fire or other evacuation: if the classroom or lab must be evacuated, we will move in an orderly fashion to muster on Stribling Walk between Tecumseh and the Mexican Monument. If on the lab deck we will use the nearest open doorway to exit toward Ingram Field and then go around the buildings.

K. Classroom Decorum. In accord with USNA policy, there will be no eating or sleeping in class. In accord with Oceanography Department policy, the only drinks allowed in the classroom will be a personal water bottle or covered coffee mug that will be removed at the end of the classroom and will not generate any trash. Violators of this food and drink policy will be dismissed from class with a note to their company officer. Once class starts and until class is dismissed, there will be no using the computers in the classroom unless directed by the instructor for class purposes.

SO432 Web Site. I maintain a web site with the syllabus, labs, and other material for the course. This site will be updated throughout the semester.

Updated 1/9/2017