

Fundamentals of GIS (GEOG 316, section 002)
Mon & Wed. 1:50-3:10pm GIS Lab IE 301
website: <http://www.wku.edu/~pat.kambesis/>
Fall 2008

Class Information

Instructor: Pat Kambesis
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Fundamentals of file management, basic GIS data management and analysis, and cartographic design. Topics include file management, data organization, map projections, scale, and accuracy, making maps with ArcMap.

Prerequisites: GEOG 100 or GEOG 101 or GEOL 111 or Permission of Instructor

Textbooks: There is one required text: Mastering ArcGIS, Maribeth Price, second edition. You can find this textbook used online. You have until week 3 to purchase your textbook. Many of the class exercises will be directly from that book as will the data required to do them.

Students are expected to have a memory stick drive and a few blank CD's.

Other resources (tutorials, data, readings), will be provided/assigned by the instructor.

Course Objectives: Students will be involved in the following:

File Management- Students will learn the principles of file management and will be expected to efficiently manage all files generated from this class.

Fundamentals of Geographic Information Systems - students will learn the principles, philosophies and theories of GIS, including projection, scale, accuracy, file management, and symbolization strategies. Students will also develop skills of map reading and interpretation.

The Design Process - Students will learn the fundamentals of cartographic design and methods, and the applications necessary for them to confidently design their own maps.

Technical Skills - Students will be introduced to and become competent with ArcGIS 9.3, Corel Draw, HTML and the graphing function of Excel. Together these skills should enhance a student's ability to recognize good graphic and map design, create well-designed and well-executed graphics and maps, and be able to interact with others who design and produce maps.

Expected Course Outcomes Each student will be expected to:

- Become proficient in all aspects of file management
- Design a website, a scientific poster and thematic maps using basic principles of map design.
- Be able to manipulate coordinates, data, symbols, and map projections to produce maps for problem-solving.
- Become proficient enough with ArcGIS 9.3 software to design and produce basic maps.

Projects There will be 2 in-class projects assigned during the semester dealing with file maintenance, GIS, cartographic design and thematic map design. Each project must be turned in by the due date or points will be deducted from your grade.

Exams: There will be two Lab exams, where students must demonstrate proficiency in the various methods and techniques learned in lab. There will be two written exams which will cover all course material. covered up until exam time.

Final Project: Instead of a traditional final exam, the student will complete a final GIS project which will be due on the last day of class.

Class credit:

Lab exercises and homework: 150 points

Lab projects (2): 100 points each (200 total)

Practical Exams: 50 points each (100 total)

Written Exams: 120 point each (240 total)

Final Project:t 250 points total

Total class points: 690 points

GRADING SCALE: 90% - 100% = A, 80% - 89% = B, 70% - 79% = C, 60% - 69% = D Less than 60% = F

Attendance and Participation: Regular class attendance is very important in this course. If you find that you cannot attend class on a regular basis, it may be better to withdraw from the

course. If you have more than 5 unexcused absences you will automatically drop one complete letter grade..If you must be absent, contact me and let me know – this will count as an excused absense. PLEASE TURN OFF PAGERS AND CELL PHONES DURING CLASS.

Change Policy The Department of Geography and Geology strictly adheres to University policies, procedures and deadlines regarding student schedule changes. It is the sole responsibility of the students to meet all deadlines in regard to adding, dropping, or changing the status of a course. Only in exceptional cases will a deadline be waived. The student schedule exception appeal form shall be used to initiate all waivers. This form requires a written attachment of appropriate documentation. Poor academic performance, general malaise, or undocumented general stress factors are not considered as legitimate circumstances. **STUDENTS WITH DISABILITIES:** Those who require accommodations (academic adjustments and / or auxiliary aids or services) for this course must contact the Office for Student Disability Services, Room 445 Potter Hall. The OFSDS telephone number is (270) 745-5004 V/TDD. Please do not request accommodations from me without a letter of accommodation from the Office for Student Disability.