Intermediate Geographic Information Systems
Spring 2010

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Intermediate GIS prepares students for advanced geographic analysis. Within the framework of class projects and lab exercises, students will integrate geographic and spatial concepts, data management and analysis, and cartographic design using a leading software package (ArcGIS). Students will develop a deeper understanding of GIS concepts and theory, and greater proficiency in software applications.

Please bring your student ID number, User Name, and PIN number to the first class. If you don't know these details, check your registration materials. You need this information to log into the computers.

Communications

Contact me

- **Email:** mpaxlenney@saddleback.edu. Email is the best way to reach me. I will try to respond to you the same day.
- **Phone:** 949-582-4900 ext 7251

Student email

I will communicate with the class via Saddleback email. Make sure you can access your Saddleback email accounts. You can have your Saddleback email forwarded to another address if you prefer. It is the student's responsibility to make sure email accounts are working properly.

Class Format

The format is a combination of lecture, discussion and lab exercises. Additional reading assignments may complement the textbook. Students will present final projects in small groups. I will use Blackboard to post assignments and grades.

Prerequisites: GEOG/GIS 110 or permission of instructor

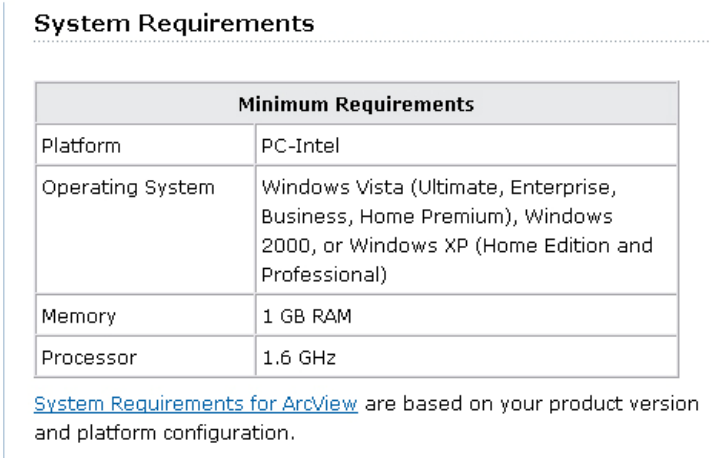
Required supplies

- Textbook: Keranen, Kathryn and Robert Kolvoord. Making Spatial Decisions Using GIS. Redlands, CA: ESRI Press, 2008. ISBN: 978-1-58948-183-1

- Software: A one-year subscription to ArcGIS Desktop will be provided free to all students. However, it is very important that you make sure your computer meets the software requirements.

  You need access to a computer with ArcGIS Desktop (version 9.2, 9.3, or 9.3.1). Ideally, this means you will load the software onto your personal computer. Alternatively, there are two computers with ArcGIS 9.3 in the Learning Assistance Program (LAP) in the lower level of the Library. The LAP is not open on the weekends so you must have time during the week to access these computers if you do not have access to the software elsewhere.

ESRI, the software developer, lists current requirements on their website. Go to: http://www.esri.com/software/arcgis/arcview/system-requirements.html



System Requirements

Minimum Requirements	
Platform	PC-Intel
Operating System	Windows Vista (Ultimate, Enterprise, Business, Home Premium), Windows 2000, or Windows XP (Home Edition and Professional)
Memory	1 GB RAM
Processor	1.6 GHz

System Requirements for ArcView are based on your product version and platform configuration.

- An electronic data storage device – Bring a thumb drive to class to save your work.

Assignments

You must do the assignments and take the exams during the scheduled timed to receive credit.

Lab assignments

There will be a lab assignment each week. The top 10 grades count toward your final grade. Some labs assignments will be completed during class time; some will require additional time. Students are encouraged to work with each other on lab assignments. (Each lab is worth 5 points, total lab points = 50).

Exams

There will be a midterm and final exam. These exams are comprehensive and are designed to assess general understanding of the material and familiarity with the software. Exams are independent evaluations, not group work. Each exam is worth 10 points. The exam format is problem solving and short answers.

Presentations

Working in small groups, students will design and fulfill a final project including data acquisition, data analysis, evaluation and presentation. A short report is part of the assignment. (15 points)

Grading

Lab Assignments	50 points
Midterm Exam	10 points
Final Exam	10 points
Class Presentation	15 points
Total	85 points

Class participation will influence final grades in cases of borderline scores between two grade levels.

Classroom Guidelines

- Any form of cheating, including plagiarism, is not acceptable. Participating in such activities may result in a failing grade for the assignment or the class.
- Please arrive on time and stay throughout the class. Repeated tardiness or leaving early may affect your grade.
- If you drop the class, please follow procedures set by Saddleback College. It is the student's responsibility to complete all necessary paperwork.
- No food or drink is allowed in the classroom.

Student Services

General Student Service Information is available at the Saddleback College Website. General, academic, and service information can be obtained by accessing the Counseling Division and Financial Aid Websites. Individual and small group counseling information such as academic planning and review of transcripts is available by appointment. All other student services are available on campus during normal business hours.

Accommodations for Students with Disabilities

This course meets the requirements set forth in the accessibility checklist and universal design grid provided by Special Services. The Web pages, video presentations, textbooks and class materials used in this course are accessible to students with disabilities. If you have questions on how to make accommodations please contact Special Services.

Learning Objectives

Upon completion of this course, the student will be able to:

- Collect GIS data from various sources
- Translate data from one source type to another.
- Create original GIS data based on existing digital information.
- Create original GIS data based on non-digital input
- Use GPS as data collection method.
- Apply topological logic to GIS data
- Demonstrate advanced cartographic skills
- Program new functionality to GIS interface
- Utilize raster data in problem solving and site analysis
- Access additional GIS functionality
- Work in a group environment to solve a give multi-faceted GIS problem.