

Geography 85 – Applications of GeoSpatial Technologies

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Course Description

This course is a quick, basic overview of the technology used in applied geography and other fields. You will focus on what the technology can do for you (GIS, Remote Sensing, and GPS) often labeled as *GeoSpatial Technologies* now. For each topic, the focus will be on case studies, which you will write about and even do a GIS case study presentation.

Course Goals

By the end of this semester, the student should be able to recognize:

- Common applications of GIS
- Concept of a base map and its GIS layers
- Concept of thematic GIS layers (as compared to base map layers)
- Basics of aerial photography (resolution, accuracy, orthorectification, etc.)
- Basics of GPS (how they work, accuracy issues, integration with GIS)

Course Student Learning Objectives

Course Student Learning Objectives (CSLO's) are key topics that are even more specific than goals and general concepts. They have specific outcomes or "answers" that are measurable. That is, you will probably be tested on these topics (and more) with questions on a test. Here is the list for this course:

CSLO 1 - Research GIS case studies for any industry of choice, with focus on application to solve real-world problems.

CSLO 2 - Distinguish between base map features and thematic map features for a particular application, such as watershed mapping.

CSLO 3 - Compare and contrast different remote sensing products and applications, discussing advantages and disadvantages.

CSLO 4 - Identify key elements of Global Positioning Systems (GPS) including aspects of proper set-up, positional accuracy, corrections methods, and output to mapping software.

To help you become literate in these key concepts, the instructor may provide extended discussions, learning aids and study guides.

Texts and Suggested Reading

- Most information is located on the Internet, thus a small list here

Attendance, Expectations and Classroom Decorum

This class meets on-line for about three (3) weeks. You are expected "to come to class" by checking into the virtual campus (Canvas) at least a few times each week. At the virtual campus, you will read the announcements, the lecture notes, the current assignment, and be required to use the discussion board (DB) or "Discussions."

Academic Honesty

You are graded individually, so you must complete the assignments on your own. You may confer and talk to other students in person or on-line through the discussion boards, but the written assignments and quizzes must be your own work.

Grades

You have 5 simple assignments plus a culminating GIS presentation assignment worth 20 points. The first participation exercise is easy... simply introducing yourself via the DB or Discussions (do it and get participation credit). For all assignments, you will not be given full credit if accepted late because of the rapid pace of this course.

You also have 2 quizzes to assure that you have read and comprehended the material in lectures, the books, and the articles. One note: before you start a quiz, make sure that you have done *all* the work and know it well up to that point... you have very little time to use your notes and references.

A = 90 - %100	5 assignments x 10 pts.	= 50 points
B = 80 - % 89	GIS presentation assn.	= 20 points
C = 70 - % 79	Quizzes (2 of them)	= 20 points
D = 60 - % 69	Participation	= 10 points
F = < %60	Total	= 100 points

Credit / No Credit - You may take this course on a credit / no credit basis or a letter grade. A letter grade will be assigned unless you request a CR/NCR option. Make sure to do this the 1st day of class, if not immediately, to make sure you meet the administration deadlines.

Withdrawals – you will have to check with Sierra College Records and Admin. office for specific details for this type of short-term class.

Incomplete - an incomplete "I" grade is rarely granted except under extraordinary circumstances with verified proof, such as a written medical notice. Don't count on it.

Final Words – This is a rapid-paced class, so please keep up with the work by reading the lectures regularly and completing the assignments within the week -- the normal deadline. I'll try to keep this class simple so that you can easily complete the assignments and get a good feel for these technologies.