

**GEO 721 Seminar in Physical Geography:
Digital Field Methods**

Spring 2014
Thursday 1:00 - 3:45
313 Classroom Building

Dr. J. Anthony Stallins
869 Patterson Office Tower
859-257-2138
ja.stallins@uky.edu
Office hours:
Tues 11 - 1 and Thurs 12 - 1 or by appt

Home Page: Available in Blackboard

Course description

This seminar will allow students to gain initial experience with several digital mapping techniques, including kite photography, structure from motion photographic analysis, total station surveying, and the operation of survey-grade GPS equipment. The goal is to collaboratively develop basic geographic digital data collection skills for running a field-based research project from the ground up. Instruction will be student-directed and organized around the completion of a class field mapping project.

Student learning outcomes/objectives

Upon completion, students should be able to:

Describe the pros and cons of the digital field methods covered in this class
Use documentation to operate and troubleshoot equipment hardware and software
Integrate different digital field methods into GIS software

Required texts

No required texts

Email account

You are required to have (and actively check or forward) a UK email account so as to receive electronic postings of class announcements.

Course evaluation and grading

The final letter grade for this course will be based on a qualitative assessment of: (1) development of a specific expertise in one or more of the digital field methods used in the class (33%), (2) the contributions made to enhance the learning of other participants (33%), and (3) the level of involvement in group project (33%).

Description of course activities

Each week students and the instructor will review the operation of the software and hardware associated with one or more of the survey techniques. Some weeks the participants will work independently. Instructions for how to use the equipment will originate from the sources that you would be expected to consult if you were learning a new technique on your own: users manuals, Google searches, help menus, tinkering, and the discussions among class members. Once the basics of the operation are established, a trial mapping will be conducted locally. The goal of each method is to perform basic data collection and then to integrate and visualize it in GIS software. While we do not analyze the data, the goal is to take data from collection to the stage just prior to where formal statistical analyses and cartographic production can take place.

COURSE SCHEDULE

| Date | Topic |
|-----------|--|
| Jan 16 | GPS field class |
| Jan 23 | Overview of all the methods to be covered in the class Discussion of local class field mapping and final class project (Sapelo) |
| | Readings |
| Jan 30 | Total station set up |
| Feb 6 | Kite photography set up |
| Feb 13 | SFM set up |
| Feb 20 | Individual and group work |
| Feb 27 | |
| March 6 | |
| March 13 | |
| March 20 | Spring Break - No class |
| March 27 | Individual and group work |
| April 3 | Class field mapping trip - Sapelo Island, Georgia AAG Conference - No class |
| April 10 | |
| April 17 | Assembly and integration of data from field mapping trip |
| April 24 | |
| Exam week | |

Course policies

Absences. Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: a) **serious** illness, b) illness or death of family member, c) University-related trips, d) major religious holidays, and e) other circumstances found to fit “reasonable cause for nonattendance” by the professor. Senate Rule 5.2.4.2 states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence. Students must notify the instructor of their absence prior to the absence or within one week after the absence. Students must submit any written documentation supporting their excused absence within one week after the absence. Absences for major religious holidays require advance written notification (The amount of time required is left to each instructor’s discretion and should be stated in the syllabus).

Academic Integrity. Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Accommodations due to disability. If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754) for coordination of campus disability services available to students with disabilities.