Overview: This course surveys archeological and paleontological applications of GIS and remote sensing data such as digital maps, aerial photography and satellite imagery for use in locating field sites, planning field logistics and conducting landscape analysis.

The GIS component of the course builds on the remote sensing component and adds to it the analysis of map features stored in databases. The course introduces databases theory and practice, and moves through the various stages of GIS workflow: the planning and design of GIS projects, building geospatial datasets, various methods of geospatial analysis and a short introduction to map layouts and reports. The remote sensing component of the course covers remote sensing data acquisition, image georectification, image processing and classification.

The course covers GIS and remote sensing from an applied perspective and students are expected to invest lab time in completing tutorials on GIS and RS methods as well as applying these methods to individual projects.

Prerequisites and Expectations: This is NOT an introductory course in GIS and remote sensing. This is an accelerated course in GIS and RS fundamentals. There are no enforced prerequisites, but students should have a comfortable working knowledge of computers and an introductory GIS or remote sensing course is recommended but not required.

Required textbooks: The following book is required reading for this course. It is available through the University Coop as well as other campus bookstores. It is also available for direct purchase from the author in print or digital form.


Recommended Textbooks: The following book is recommended for those who are brand new to GIS using ESRI software:


Lectures and Lab: The class meets M from 9-12 in SAC 5.112. We will be using ESRI ArcGIS software and Leica ERDAS Imagine software for remote sensing. Each student will have access to their own GIS/RS workstation during class and in addition students have access to the GIS lab in CLA 3.104 in order to complete assignments outside of class. The CLA 3.104 lab is open during CLA building hours and requires a UT proximity ID card for entry.

Grading: Grades for this course are based on weekly lab exercises (55%) and a final presentation (45%). The course is designed for students to develop their own GIS based projects and work on their data related to their research and dissertations.
Canvas. In this class we use Canvas—a Web-based course management system with password-protected access at http://canvas.utexas.edu—to distribute course materials, to communicate and collaborate online, to post grades, to submit assignments, and to give you online quizzes and surveys. You can find support in using Canvas at the ITS Help Desk at 475-9400, Monday through Friday, 8 a.m. to 6 p.m., so plan accordingly.

Classroom Protocol. Civil and courteous behavior is expected during lectures and labs (It’s a good idea outside of class too). Cell phone ringers must be turned off prior to the beginning of lecture.

Honesty. Please pursue rigorous honesty in everything you do, including your work for this class. It will serve you well in life, and in this class as well since we report all cases of suspected academic dishonesty to the dean of students. Dishonesty will result at least in a failed grade for the assignment and perhaps also for the course. For a description of academic dishonesty, see http://deanofstudents.utexas.edu/sjs/acadint_avoid.php. For more info, see http://www.lib.utexas.edu/services/instruction/learningmodules/plagiarism

Religious Holidays. If you will not be able to attend class due to religious services, let me know at least a week ahead of time. We will make every effort to help you keep up with course assignments in such situations.

Disability Services. Students with documented disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259. Please let me know about any arrangements we can make that will assist you in your learning.

Behavior Concerns Advice Line (BCAL). If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual’s behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal

Important Dates. (2016)
- Last day of the official add/drop period: Friday, Jan. 22.
- Last day to drop a class without possible academic penalty: Wednesday, Feb. 3.
- Academic Advising dates: April 13-15, 18-22
- Summer and fall registration: April 18-29.
- Final exams: May 11-14, 16-17. Final exam date for your specific class(es) are available at http://registrar.utexas.edu/students/exams/

Resources for Learning & Life at UT Austin. The University of Texas has numerous resources for students to provide assistance and support for your learning.
- Sanger Learning and Career Center: http://lifelearning.utexas.edu/
- Undergraduate Writing Center: http://uwc.utexas.edu/
- Counseling & Mental Health Center: http://cmhc.utexas.edu/
- Career Exploration Center: http://www.utexas.edu/student/careercenter/
- Student Emergency Services: http://deanofstudents.utexas.edu/emergency/

Use of E-Mail for Official Correspondence to Students. E-mail is recognized as an official mode of university correspondence; therefore, you are responsible for reading your e-mail for university and course-related information and announcements. You are responsible to keep the university informed about changes to your e-mail address. You should check your e-mail regularly and frequently—we recommend daily, but at minimum twice a week—to stay current with university-related communications, some of which may be time-critical. You can find UT Austin’s policies and instructions for updating your e-mail address at http://www.utexas.edu/its/help/utmail/1564

Emergency Evacuation Policy. Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation: Familiarize yourself with all exit doors of the classroom and the building. Remember that the nearest exit door may not be the one you used when you entered the building. If you require assistance to evacuate, inform me in writing during the first week of class. In the event of an evacuation, follow my instructions
or those of class instructors. Do not re-enter a building unless you’re given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.

**Q drop Policy.** Texas law limits the number of course drops for academic reasons to six. Senate Bill 1231 says: “Beginning with the fall 2007 academic term, an institution of higher education may not permit an undergraduate student a total of more than six dropped courses, including any course a transfer student has dropped at another institution of higher education, unless the student shows good cause for dropping more than that number.”