

CourseGISC 7367: Remote Sensing workshop
ProfessorDr. Fang Qiu
Associate Professor in GIS and Remote Sensing
TermFall, 2006
MeetingsThursday 6:00-10:00 PM, GR3.602

Professor's Contact Information

Office Phone972-883-4134
Office LocationGR 3.303
Email AddressFang.Qiu@utdallas.edu
Office HoursThursday 3:00 – 5:00 PM
Other Information I use WebCT for this class. Please contact me through WebCT email for all class related issues.

General Course Information

Pre-requisites,
Co-requisites, & other restrictions Introduction to Remote Sensing or Remote Sensing Digital Image Processing, or permission of instructor.

Provides a structured laboratory experience focused on the students' substantive area of interest. Each participant develops a project which should include aspects of remote sensing data collection, image preprocessing, image analysis, and graphic presentation of results. Projects may be designed in coordination with a local government, utility, business, or other entity that uses remote sensing in its operations and research.

Course Description. The Remote Sensing Workshop consists of an independent project designed and conducted by the student. Projects will develop and demonstrate competence in using remote sensing techniques in a substantive application to his/her field of interest. The projects will be identified by the student and approved by the instructor during the first two weeks of class. From the second week onward, students are expected to work independently, using the university computer labs or

facilities off-site as needed to complete their chosen project. After the first two weeks, the class will meet at mid-semester for students to discuss project progress and demonstrate provisional results to the class, and at the end of the semester to present their final results. In addition to that, the report for the project is due on a progressive basis. Most of the time required for completing the students' projects will be outside of regular scheduled class hours – students should expect to spend approximately 12 – 15 hours per week in order to complete a significant project.

This course is the culmination of the Graduate Certificate in Remote Sensing at the University of Texas at Dallas; five courses are needed to receive the certificate.

Upon completing this class, students will be able to:

- Demonstrated their ability to use remote sensing software to conduct a project from initiation through implementation to completion and documentation
- Shown their ability to make presentations as a consultant to a client
- Shown their ability to evaluate presentations made by consultants to clients
- Be eligible to receive their Graduate Certificate in Remote Sensing providing that the other four courses required have been successfully completed

**Learning
Outcomes**

**Required Texts None
& Materials**

**Suggested Texts,
Readings, &
Materials**

- Jensen, John R., 2005, *Introductory Digital Image Processing*, 3rd Ed., Upper Saddle River, NJ: Prentice Hall, 544 pages, ISBN: 0131453610
- Jensen, John R., 2007, *Remote Sensing of the Environment: An Earth Resource Perspective*, 2nd Ed., Upper Saddle River, NJ: Prentice Hall, 592 pages. ISBN: 0-13-188950-8
- Aronoff, Stan, 2005, *Remote Sensing for GIS Managers*, Readlands, CA, ERSI Press, 487 pages, ISBN: 1-58948-081-3
- Lillesand, T.M, R. Kiefer, J.W., Chipman, 2004, *Remote Sensing and Image Interpretation*, 5th Ed. John Wiley & Sons, Inc, 763 pages, ISBN: 0-471-45153-5

Assignments & Academic Calendar

[Topics, Reading Assignments, Due Dates, Exam Dates]

5/15	Course introduction, presenting of initial idea for workshop project
5/24	Proposal due if initial idea is approved; presenting new idea otherwise
6/7	Report with introduction, literature review due
7/5	Midterm progress demo and report with methodology due
7/26	Final Presentation
7/30	Report with everything and Evaluation of Presentations due

Course Policies

- Project Proposal: 10%

A written *project plan* (hard-copy or e-mail) is required within the first two weeks of the semester. This should clearly describe: (i) the scope and objective of the project; (ii) the data to be used, and its sources (iii) the processing, programming, and/or analysis to be applied to the data in order to meet the objective; and (iv) the results and conclusions you expect to obtain. It is particularly important to ensure that the data required for the project be available in an appropriate form within the time constraints.

- Report with introduction and literature review done: 10%
- Report with methodology done and midterm presentation: 10%

**Grading (credit)
Criteria**

Two progressive reports are also required. Refer to http://www.utdallas.edu/~briggs/poec6389/gisc6389_contents.doc for further guidance regarding requirement of a report.

- Evaluation of Presentations: 10%

You must also submit comments and suggestions on all students' midterm presentations and an *evaluation* of the final student presentations. The final evaluation, based on all the presentations you attend, should: rank all the presentation from the strongest to the weakest (1=strongest) and briefly justify their selection (In other words, identify the people you would, and would not, hire to do your remote sensing project!).

- Report with everything done and final presentation: 60%

The grade for the class will be based on three considerations: (1) the quality of the project and level effort and sophistication required for its execution, (2) the student's presentation in class during the semester. (3) The quality of the final report.

Make-up Exams No Make-up presentation will be given without a legitimate excuse accompanied by proper formal documentation (e.g., a doctor's excuse). "Incompletes" will only be given under exceptional circumstances such as serious illness.

Extra Credit No extra credit will be given in this class

Late Work Late submission for proposal and progressive report will be penalized for 1 point per day being late. No late submission is allowed for final report.

**Special
Assignments** TBD

Class Attendance Class attendance is required only for 3 required meetings (first meeting, midterm and final presentations). The rest of the class will be conducted by email through WebCT.

**Classroom
Citizenship**

Students are expected to display a positive attitude toward learning by paying attention (e.g. not sleeping), conducting themselves with civility and respect for others (e.g., sharing thoughts and actively listening to the thoughts and comments of peers and the instructor), and general good, courteous behavior. Please make sure you turn off your cell-phone before coming to the classroom. Viewing anything that is not related to class and communicating with other using instant messenger are prohibited during the class.

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year.

**Student Conduct
and Discipline**

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391).

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, **Academic** and/or the submission as one's own work or material that is not one's own.

Integrity As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider **Email Use** email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that **Withdrawal from** semester's course catalog. Administration procedures must be followed. It **Classis** the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and **Student** evaluations. If the matter cannot be resolved at that level, the grievance **Grievance** must be submitted in writing to the respondent with a copy of the **Procedures** respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grades

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of F.

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:
The University of Texas at Dallas, SU 22
PO Box 830688
Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)

Disability Services

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A

Religious Holy Days student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Off-Campus Instruction and Course Activities Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean.

These descriptions and timelines are subject to change at the discretion of the Professor.