GEOG 5225 Geographic Applications of Remote Sensing – AU 2019 Syllabus

Meeting Time:
>Lecture: T 2:20pm – 3:40pm, 270 Journalism Building
>Lab: T&R 3:55pm – 5:15pm, 135 Derby Hall

Instructor Name and Email: Dr. Yang Song, song.630@osu.edu
- Office Hours: T 11:00am-1:00pm @ 1120 Derby, or by appointment.

Teaching Assistant Name and Email: Xiaoyu Liang, liang.918@osu.edu
- Office Hours: T&R 12:30pm – 1:30pm @ 1083 Derby, or by appointment.

Course Description: This course introduces the fundamentals of remote sensing and its geographic applications. Lectures will focus on basic concepts and techniques in remote sensing data acquisition and analysis. Computer laboratory exercises are designed to help students to gain hands-on experiences on the digital processing of remotely sensed data. Students are expected to complete a project that applies remote sensing techniques to solve a real-world problem.

Materials:
- Textbooks:
    - Required textbook: Jensen, John R., 2015, Introductory Digital Image Processing: A Remote Sensing Perspective, Prentice Hall: Upper Saddle River, NJ, 4th ed., ISBN 9780134058160.
    - Optional reference: Jensen, John R., 2007, Remote Sensing of the Environment: An Earth Resource Perspective, Prentice Hall: Upper Saddle River, NJ, 2nd ed., ISBN 9780131889507.
- Data storage:
    - A portable memory device (with 16GB or larger storage), such as a portable hard drive or flash drive, is required. Please bring it with you to every lab session as all your work needs to be saved to this device.
    - You can also store your data with a cloud drive (Box, Google Drive etc.). Please remember to log out the cloud drive when you finish using a lab PC.

Evaluation:
- Lab assignments – 40%
    - There will be 8 labs through the semester, each one with an assignment.
    - Lab assignments are usually due ***one week after the lab session (5:00pm of the due day)***. Lab 6 and 7 will be given two weeks to finish due to complexity.
    - All assignments will be submitted via the course website in .doc, .docx or .pdf format (.pdf preferred). Do not expect to finish all lab work during the scheduled lab time. You will need to work outside of class to complete your labs.
- Exams – 20%
    - There will an examination in the second half of the semester during the normal lecture time. Exam questions will be drawn from the lectures, textbooks and labs.
- Course Project – 25%

- o Students are required to complete a final project that applies remote sensing techniques to solve a real-world problem of their own interest.
  - o You will need to submit a project proposal by 5pm of 10/29 and a final report by 5pm of 12/03. No late submissions of the proposal and final report will be accepted. More detailed information on the project will be discussed in class.
- Attendance – 15%
  - o Attendance is required and will be recorded at all class meetings. An attendance sheet will be passed around the classroom, and you are responsible for remembering to sign it. If you forget to sign the attendance sheet during the scheduled class time, you will be marked absent (unexcused).
    - o Unexcused Absences:
      - ➢ You may miss 2 classes (including lectures and labs) without penalty. Additional unexcused absences will result in a 1-point deduction from your attendance grade. No more than 15 points can be deducted from attendance.
    - o Excused Absences:
      - ➢ Please email the instructor (or TA if you can't attend a lab) for excused absences (e.g. due to illness, car trouble, conference attendance, required job training, passing away of a loved one, etc.) Proper documentation (e.g. doctor's note, bill from a mechanic, proof of conference registration, email from a supervisor, obituary, etc.) must be provided.
- Grading Scale (OSU standard scale):

A	93-100%	B-	80-82%	D+	67-69%
A-	90-92%	C+	77-79%	D	60-66%
B+	97-89%	C	73-76%	E	0-59%
B	83-86%	C-	70-72%		

  - o Your final grade as seen on the course website will be rounded to the nearest whole number (e.g. an 89.49 is a B+ while an 89.50 is an A) before being submitted to the University Registrar at the end of the semester.

Course Policies:
- Email correspondence policy
  - o You are responsible for all course related emails, so be sure to check your inbox on a daily basis.
  - o When emailing your instructor or TA, please always begin the subject of the email with the course number (GEOG5226) and your name (first name followed by last name). This is important as your instructor and TA teach multiple classes and need to know to which class you are referring. A proper email subject should be like this:
    GEOG5226_John Smith_Schedule a make-up exam
- Course website policy
  - o You are responsible for all announcements, additional readings, assignments and other material posted on the course website. Be sure to check it frequently.
- Lab questions policy
  - o Please send your lab-related questions as least 24 hours before the day/time the lab is due to allow your TA time to respond.
- Late submission policy
  - o Lab assignments will be penalized 10% for each day late.
  - o Extensions will not be granted due to lost work. Be sure you back up and keep all your work.

- Exam policy
  - Exam must be taken at the scheduled time, unless you have informed your instructor before the exam with proper reasons and documents and got approved by the instructor. Please contact your instructor in advance of the scheduled exam to schedule a make-up exam, except in the case of emergency.
  - You are expected to arrive to the exam on time. Students who arrive late to the exam will be permitted to begin the exam, until the first student leaves. After a student completes the exam and leaves, students who arrive late will not be permitted to begin the exam, will be asked to leave, and will be considered absent. Your absence will be considered unexcused, except in the case of emergency.
  - You are expected to finish the exam on time. Exam begins when schedule class time begins, and exams end when the scheduled class time ends. At the end of the scheduled class time, you are to stop working and turn in your exam. You may not continue working on your exam after the scheduled class time.
- Disability services policy
  - Students with disabilities that have been certified by the Office for Disability Services (SLDS) will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 098 Baker Hall, 113 W. 12th Ave, Columbus, OH 43210; telephone 614-292-3307; http://slds.osu.edu/.
  - Registration with SLDS does not grant accommodations automatically. You need to bring the accommodation form provided by SLDS to the instructor to work out a plan for accommodations. Please contact the instructor as soon as you are registered with SLDS for attendance, assignment and/or exam accommodations.
- Academic Misconduct policy
  - It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct: http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf.
  - Collaboration for the purposes of troubleshooting is highly encouraged in this course, but everyone is expected to submit their own unique work. For example, asking a classmate how to resolve an unexpected error message is OK, but using another classmate's work (e.g. screen captures, etc.) as your own is NOT ok, regardless of whether or not they provide consent for the use of their materials. (Note: There are many other acceptable/unacceptable actions than those exemplified here.) If you have any questions or concerns about acceptable/unacceptable actions, ask your instructor for clarification/permission.
  - Do NOT leave any of your work saved on the lab computers, as this presents data security and academic integrity concerns.
    - If you leave your work on the lab computers, another student could access it and use it as their own, resulting in work that is identical or nearly identical (as determined by the instructor). If this happens, both will receive zeros for the assignment, and both will be held responsible for academic misconduct.
    - If you discover work that was left on the lab computers by another student, please immediately delete the files from the computer so that

they will not be available to anyone else. (You may also delete files who owners cannot be determined.)
- o All open-ended responses to questions, prompts, etc. must be written entirely, nearly entirely, or at least in majority using your own words. Use credible sources, and cite all sources, including those only referenced, those indirectly paraphrased, and those directly quoted, being sure to use quotation marks to identify excerpts from these credible sources. This expectation to cite all of your sources also extends to the textbook, the lab instructions, lecture slides, other course materials, online resources, etc. Please contact Center for the Study and Teaching of Writing (CSTW, https://cstw.osu.edu/writing-center) or the instructor if you have difficulties organizing language for assignments.

Classroom and Computers:
If you need to return to the computer lab outside of class time, please be aware that the building maybe locked at night, over weekends, and on holidays, so be sure to plan accordingly. When you do return to the computer lab outside of class time, there may be a class in session. Please attempt to avoid interrupting classes that are in session, and if there is a class in session, check the computer lab across the hall in Derby 140. It has the same software as Derby 135, and it is usually available.

If you would like to check the schedules for Derby 135 and 140, you can check the Room Matrix:
https://delegated.osu.edu/psp/csosuda_1/EMPLOYEE/CAMP/c/OSR_CUSTOM_MENU.OSR_ROOM_MATRIX.GBL
- Enter DB0135 for Derby 135 or DB0140 for Derby 140.
- Select the date under "Show Week of".

Click "Refresh Calendar".