I. Locator Information:
Instructor: Dr. Rakesh Malhotra
Course # and Name: GEOG 325
Semester Credit Hours: 3
Office Location: LS 212-A
Office hours: MWF 10:00 AM to 1:00 PM
Day and Time Class Meets: TR 11:00 AM – 12:15 PM
Office Phone: 910-672-2628
Total Contact Hours for Class: 3
Email address: rmalhotr@uncfsu.edu

FSU Policy on Electronic Mail: Fayetteville State University provides to each student, free of charge, an electronic mail account (username@broncos.uncfsu.edu) that is easily accessible via the Internet. The university has established FSU email as the primary mode of correspondence between university officials and enrolled students. Information from FSU or FSU students pertaining to academic records, grades, bills, financial aid, and other matters of a confidential nature must be submitted via FSU email. The student is responsible for ensuring the mailbox remains available to receive notifications. FSU is not responsible for issues related to notifications that are not deliverable due to full mailboxes. Inquiries or requests from personal email accounts are not assured a response. Rules and regulations governing the use of FSU email may be found at http://www.uncfsu.edu/PDFs/EmailPolicyFinal.pdf

II. Course Description: An introductory study of remote sensing, emphasizing its application to environmental and land use analyses of the earth.

III. Disabled Student Services: In accordance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ACA) of 1990, if you have a disability or think you have a disability to please contact the Center for Personal Development in the Spaulding Building, Room 155 (1st Floor); 910-672-1203.

IV. Title IX – Sexual Misconduct
Fayetteville State University (University) is committed to fostering a safe campus environment where sexual misconduct — including sexual harassment, domestic and dating violence, sexual assault, and stalking - is unacceptable and is not tolerated. The University encourages students who may have experienced sexual misconduct to speak with someone at the University so that the University can provide the support that is needed and respond appropriately. The Sexual Misconduct policy can be found at the following link: http://www.uncfsu.edu/Documents/Policy/students/SexualMisconduct.pdf

Consulting with a Health Care Professional - A student who wishes to confidentially speak about an incident of sexual misconduct should contact either of the following individuals who are required to maintain confidentiality:

Ms. Pamela C. Fisher
Licensed Professional Counselor
Spaulding Building, Room 165
(910) 672-387
psmith@uncfsu.edu

Ms. Linda Melvin
Director, Student Health Services
Spaulding Building, Room 121
(910) 672-1454
lmelvi10@uncfsu.edu

Reporting an Incident of Sexual Misconduct - The University encourages students to report incidents of sexual misconduct. A student who wishes to report sexual misconduct or has questions about University policies and procedures regarding sexual misconduct should contact the following individual:

Ms. Victoria Ratliff
Deputy Title IX Coordinator for Students
Spaulding Building, Room 155
(910) 672-1222
vratliff@uncfsu.edu
Unlike the Licensed Professional Counselor or the Director of Student Health Services, the Deputy Title IX Coordinator is legally obligated to investigate reports of sexual misconduct, and therefore cannot guarantee confidentiality, but a request for confidentiality will be considered and respected to the extent possible.

Students are also encouraged to report incidents of sexual misconduct to the University’s Police and Public Safety Department at (910) 672-1911.

V. **Textbook:** Remote Sensing and Image Interpretation (Lillesand, Kiefer, Chapman)

VI. **Student Learning Outcomes**
Upon completion of this course, students will be able to:

- Understand the basics of remote sensing (EM radiation)
- Study the principles of Physics applied to remote sensing
- Understand raster datasets (satellite and aerial photography)
- Work with data acquired from aerial photographs and satellite data
- Perform image processing, image classification, and image interpretation
- Explain different satellite data set specifications
- Explain the symbiotic relationship between GIS, remote sensing, and GPS technologies
- Understand active remote sensing (LiDAR) and passive remote sensing (LANDSAT)
- Understand environmental applications of remote sensing (land use, vegetation mapping, wildfires, etc.)

Assessment: Assessment will be conducted in the form of a project that applies remote sensing to a real world project.

VII. **Course Requirements and Evaluation Criteria**

a. **Grading Scale**
The university grading scale applies:
   - A = 92% - 100% - Exceptionally High
   - B = 83% - 92% - Good
   - C = 73% - 82% - Satisfactory
   - D = 64% - 72% - Marginally Passing
   - F = 63% or less - Failing

b. **Attendance Requirements:**
   - Students are expected to attend the classes punctually. In Case You (students) Are Late or Absent:
   i. Official document is required for your absence excuse.
   ii. 15 minutes late to class and leaving class 15 minutes earlier will be considered to be absent unless you get prior approval by the instructor.
   iii. It is your responsibility to withdraw the class according to the deadline published in the catalog. You **may get “FN” grade** (FN = FAILURE DUE TO NON-ATTENDANCE) **without “WN” submission**;
   v. NEW TYPE OF GRADE: INTERIM GRADES – (New name for “midterm grade,” with additional purposes). Interim grades will be assigned from the first week of the semester until the deadline for class withdrawals. Interim grades are used for informational and warning purposes only; they are not part of your permanent transcript and have no effect on your GPA. Instructors may assign interim grade of F to warn students of poor academic performance or they may assign “X” (NO SHOW) or “EA” (EXCESSIVE ABSENCES) grades. After midterm, faculty will assign all students an interim grade of A – F to inform students of their academic status as of midterm.
   vi. Children are not permitted in the classroom. Guests must have prior approval by the instructor.
   vii. It is your responsibility to get the course notes, handouts, and assignments should you miss class or be late;

c. **Graded Assignments and Value of Each Assignment.** Students will be evaluated (graded) as indicated below:
   - Attendance/Participation/Quizzes: 15%
   - Study Notes: 10% (Study Notes: Textbook Readings)
Online Assignments 45% (Chapter Exams)
Midterm Examination: 15%
Final Examination: 15%
There is no “I” (incomplete) grade for this course.
GRADING ASSIGNMENTS ARE SUBJECT TO CHANGE
d. Policy on Missed or Late Assignments
Students are expected to take or submit assignments/tests on the date specified on the instructor’s request. The instructor reserves the right to deduct points for late assignment or not to accept late work. There is NO MAKEUP for midterm and final exam.
e. Other
Cell Phone and Electronic Entertainment Devices (Read carefully): NO LIVE CELL PHONES are permitted in the classroom (except with prior permission of the instructor). Likewise, no electronic game, CD player or other amusement or entertainment devices are permitted in the classroom. Any student coming to class with a live phone or entertainment devices WILL BE asked to leave the class promptly. We want the learning process to be carried out with as little interruptions and distractions as possible.
No Grade Change for the Class: unless the grade was submitted to university in error from the instructor. However, you have the right to appeal your grade to university:
http://www.uncfsu.edu/plret/FINALfinalpartI1104.pdf (Page 53: Grade Appeal)
Grade Change and Appeal: (Read carefully): Please read the grade change policy from FSU:
http://www.uncfsu.edu/plret/FINALfinalpartI1104.pdf (Page 53: Changing a Grade)
Plagiarism/Cheating: Students are expected to uphold the school’s standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity shall be that a student’s submitted work, examinations, reports, and projects must be that of the student’s own work. Students shall be guilty of violating the honor code if they: (1) Represent the work of others as their own; (2) Use or obtain unauthorized assistance in any academic work; (3). Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit; (4). Give unauthorized assistance to other students; (5). Misrepresent the content of submitted work. The penalty for violating the honor code is severe. Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

Please note: If these evaluation criteria must be revised because of extraordinary circumstances, the instructor will distribute a written amendment to the syllabus.
VII. Academic Support Resources: University College Learning Center for written assignments

VIII. Course Outline and Assignment Schedule
- Week 1: Remote Sensing basics
- Week 2 – 3: Satellite data
- Week 4 – 5: Remote Sensing applications
- Week 6 – 7: Image processing
- Week 8 – 9: Image interpretation
- Week 10: Active Sensors / Passive Sensors
- Week 11: LiDAR data / NC Floodplain mapping
- Week 12: Remote sensing applications
- Week 13 – 16: Lab exercises / Graduate Project

FSU Policy on Disruptive Behavior in the Classroom (Optional)

The Code of the University of North Carolina (of which FSU is a constituent institution) and the FSU Code of Student Conduct affirm that all students have the right to receive instruction without interference from other students who disrupt classes.

FSU Core Curriculum Learning Outcome under Ethics and Civic Engagement (6.03): All students will “prepare themselves for responsible citizenship by fulfilling roles and responsibilities associated with membership in various organizations.” Each classroom is a mini-community. Students learn and demonstrate responsible citizenship by abiding by the rules of classroom behavior and respecting the rights all members of the class.

The FSU Policy on Disruptive Behavior (see FSU website for complete policy) identifies the following behaviors as disruptive:

1. Failure to respect the rights of other students to express their viewpoints by behaviors such as repeatedly interrupting others while they speak, using profanity and/or disrespectful names or labels for others, ridiculing others for their viewpoints, and other similar behaviors;
2. Excessive talking to other students while the faculty member or other students are presenting information or expressing their viewpoints.
3. Use of cell phones and other electronic devices
4. Overt inattentiveness (sleeping, reading newspapers)
5. Eating in class (except as permitted by the faculty member)
6. Threats or statements that jeopardize the safety of the student and others
7. Failure to follow reasonable requests of faculty members
8. Entering class late or leaving class early on regular basis
9. Others as specified by the instructor.

The instructor may take the following actions in response to disruptive behavior. Students should recognize that refusing to comply with reasonable requests from the faculty member is another incidence of disruptive behavior.

1. Direct student to cease disruptive behavior.
2. Direct student to change seating locations.
3. Require student to have individual conference with faculty member. At his meeting the faculty member will explain the consequences of continued disruptive behavior.
4. Dismiss class for the remainder of the period. (Must be reported to department chair.)
5. Lower the student’s final exam by a maximum of one-letter grade.
6. File a complaint with the Dean of Students for more severe disciplinary action.

Students who believe the faculty member has unfairly applied the policy to them may make an appeal with the faculty member’s department chair.
X. Teaching Strategies
The principal teaching strategies will consist of lectures, discussions and literature review. Students will be required to complete regular assignments and laboratory exercises to support materials covered in class.

XI. Bibliography
The instructor may assign additional readings beyond the textbook during the semester. These items may be on reserve in the library and/or the appropriate citation to obtain the readings will be given to students.