

# Geography / Natural Resources 377/577

## Remote Sensing I

### Fall Semester

**Lecture:** Tuesday, Thursday 10-11AM SCI B338  
**Lab Section #1** Tuesday 8:00-9:50 AM SCI B308  
**Lab Section #2** Wednesday, 8:00-9:50 AM SCI B308

**Instructor:** Eric Larsen

**Online Office Hours:** Mon 11-12, Thurs. 11-1, or by appointment

**Office:** Science Building, Room B307

**Telephone:** (715) 346-4098

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**Text:** Remote Sensing of the Environment: An Earth Resource Perspective.  
Jenson, John R. (2nd edition)

### Class Attendance:

We will be meeting face-to-face this semester, unless the COVID situation changes. I will also be posting the lectures/Powerpoints on-line (asynchronous – meaning they are recorded and can be viewed at any time). But the plan as of right now is to run the class as a face-to-face class.

### Laboratory:

A lab manual will be provided.

**Lab exercises are due two weeks after assignment, unless otherwise instructed. Many labs will require working outside the 2 hour lab periods. During the lab introduction, computers are NOT to be used for any function except 377.**

**Late labs will be assessed at 25% late penalty. Late labs will only be accepted for two weeks after the lab due date.**

### Grades:

Exams (3 exams @ 100 points each) 300  
 Lab exercises 200

(Note: Your final lab grade will be your percentage score of all the labs combined).

A	>= 93%	C	73-76%
A-	90-92%	C-	70-72%
B+	87-89%	D+	67-69%
B	83-86%	D	60-66%
B-	80-82%	F	<60%
C+	77-79%		

**How grades are calculated:** There are 500 points possible. Let's say (for example) you received the following PERCENTAGE scores on your work:

Exam 1	87%
Exam 2	75%
Exam 3	92%
Lab Exercises	95%

**So your final grade would be  $(87+75+92+95+95) = 444/500 = 88.8\% = B+$**

### **Course Technology Requirements**

A computer/internet connection to connect to UWSP's Canvas software and the "Z drive."

### **Computer Technical Assistance**

If you need technical assistance at any time during the course or to report a problem with Canvas you can check with the instructor or

- Visit with a [Student Technology Tutor](#)
- Seek assistance from the [IT Service Desk](#) (Formerly HELP Desk)
  - IT Service Desk Phone: 715-346-4357 (HELP)

### **Electronic devices:**

Cell phones and other electronic devices should be turned off during class (lecture and lab). Laptops are OK as long as they are used for 377 only, please remember that electronic devices can be very disruptive to the learning process for those students sitting behind and around you.

### **Course Objectives:**

The objectives of this course are for you to develop the hands-on skills you will need for employment and/or graduate work in remote sensing, emphasizing applications in resource management. The student will develop skills in the following areas;

- 1.) Developing analytic skills in photogrammetry. These include determining scale, distance, area, heights, and density calculations from aerial imagery. Orthorectification and accuracy assessment of image maps will also be emphasized.
- 2.) Interpretation and land cover classification of panchromatic, color, and color infrared aerial imagery, in both digital and paper form. Developing skills in stereo viewing of imagery.
- 3.) Using aerial imagery in conjunction with field collected information, maps, GPS, and GIS.
- 4.) Development of skills in software used in the remote sensing field

### **COVID-19 Safety Measures and Requirements:**

Chancellor Gibson currently has ordered that face masks must be worn by all individuals when inside UWSP campus buildings. See the "Masks" PDF document on Canvas for details. Class policy for COVID protocols will follow these and any other further instructions from UW administration.

**Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors.**

From the Chancellor's Order:

1. Face Coverings. Face covering means a piece of cloth or other material that is worn to cover the nose and mouth completely. A face covering must be secured to the head with ties, ear loops or elastic bands that go behind the head and must fit

snuggly but comfortably against the side of the face. Cloth face coverings must be made with two or more layers of breathable fabric that is tightly woven (i.e., fabrics that do not let light pass through when held up to a light source). A face covering does not include bandanas, single layer neck gaiters, plexiglass barriers, face shields, goggles, scarves, ski masks, balaclavas, shirt or sweater collars pulled up over the mouth and nose, or masks with slits, exhalation valves or punctures because public health experts have determined that these types of coverings are ineffective at preventing respiratory droplets from entering the air.

a. Face Covering Required. Every individual who enters campus lands shall wear a face covering: i. In all indoor public spaces except students in their assigned residence hall rooms and employees when alone in a private, unshared office or lab; and ii. While riding in a campus bus or when two or more people are present in a university vehicle b. Exceptions. Requests for exceptions to this order should be made to Human Resources (employees) or Disability and Assistive Technology Center (students) and will be evaluated on an individualized basis utilizing the interactive reasonable accommodations process.

**Students Rights and Responsibilities.** **Student commitment:** Students are expected to read all assigned materials and to ask informed questions regarding the subject matter. As per the Student Handbook, students should be prepared for two hours of course work for each hour of lecture or lab. GEOG/NRES 377 consists of two lecture and two lab hours a week meaning students can expect an estimated eight hours of self study beyond scheduled lecture and lab times. **Student Rights and Responsibilities:** Your rights and responsibilities within the UWSP campus community, including required behavior by students and faculty within the classroom environment are detailed in these documents: <http://www.uwsp.edu/admin/stuaffairs/rights/rightsCommBillRights.pdf> <http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf>. **ACADEMIC DISHONESTY:** Chapter 14 of the UWSP Handbook (web address below) defines academic misconduct as follows;

1. Seeks to claim credit for the work or efforts of another without authorization or citation
2. Uses unauthorized materials or fabricated data in any academic exercise.
3. Forges or falsifies academic documents or records.
4. Intentionally impedes or damages the academic work of others
5. Engages in conduct aimed at making false representation of a student's academic performance; or
6. Assists other students in any of these acts.
7. Violates electronic communication policies or standards as agreed upon when logging on initially.

Violation of the above policies on any exam or laboratory exercise will result in a zero for that assignment. A second offense will result in a referral to the Academic Misconduct Hearing Committee.