

**GEOGRAPHY 433 H(2-3) (AREA III)**  
**Remote Sensing of the Environment**

**Timetable:** WINTER SESSION**CATALOGUE #: 2454**

Lec 01 MW 12:00 50 ES 443  
 Lab 01 W 09:00 170 ES 407  
 Lab 02 W 13:00 170 ES 407

**Instructor**

Dr. Darren Sjogren

**Office:** ES 338**Phone:** 220-2575**E-mail:** Contact thru Blackboard**Office Hours:**

Monday and Wednesday by  
appointment only

**Teaching Assistant**

Chengqian (Chen) Zhang

**Office:** ES 410**Phone:** 220-4885**E-mail:** Contact thru Blackboard**Office Hours:** TBA**Course Assistant**

Dave Nuell

**Office:** ES 406**Phone:** 220-5588**E-mail:** Contact thru Blackboard**Office Hours:** TBA**Course Calendar:**

Principles of earth resource analysis using digital images collected from instruments on airborne and spaceborne platforms. The full range of the electromagnetic spectrum currently used in remote sensing. Emphasis will be given to complementing conventional data and methods with automated techniques.

**Description:**

This course is designed to present the techniques and applications of digital image processing. Emphasis is on the use of satellite remote sensing data and methods in practical applications, including, image transformations and classification for identifying vegetation, geomorphic, geologic, and cultural features. Remote sensing is an increasingly useful information resource for managers and scientists, but data sources are becoming more varied and analysis techniques more complex. This course will provide a solid background in typical image processing techniques in lecture, laboratory, and project settings.

**Evaluation**

Lab 1	10%
Lab 2	10%
Lab 3	10%
Lab 4	10%
Term Project Proposal	5%
Presentation Report	5% 20%
Final Exam <i>Scheduled by the Registrar</i>	30%
<b>Total</b>	<b>100%</b>

**Grading Scheme:**

A+	>93
A	89-92.99
A-	85-88.99
B+	81-84.99
B	77-80.99
B-	73-76.99
C+	69-72.99
C	65-68.99
C-	61-64.99
D+	57-60.99
D	50-56.99
F	<50

**Note:** It is not necessary to pass each course component in order to pass the course.

**Text:** Jensen, John, R. 1996. Introductory Digital Image Processing, Prentice Hall.

**Prerequisites:** Geography 333, or consent of the department.

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\*subject to change before classes officially start.

**Blackboard:**

Blackboard is the information hub for Geog 433. It is a secure web site which is only accessible to people registered in the course or involved in course delivery. Once you have been registered in the course, your University of Calgary username and password is the only information that you require to access the course materials. The site can be accessed at <http://blackboard.ucalgary.ca>. A student who does not have a valid IT username can obtain one by going to the online registration system at <http://www.ucalgary.ca/it/register>.

**Laboratory/Exam Guidelines:**

1. Labs are due at the time indicated on Blackboard's calendar. The penalty for late labs is 20% per day (or portion thereof), including weekends.
2. If you have unforeseen problems completing the labs on time, please contact your teaching assistant **prior** to the deadline. Problems identified after the deadline must be supported by a doctor's note.
3. Exam conflicts/problems must be handled by D. Sjogren.

**Plagiarism:**

Academic dishonesty is not an acceptable activity at the University of Calgary and students are **strongly advised** to read the Student Misconduct section in the University Calendar. Quite often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are 1) presenting another student's work as your own, 2) presenting an author's work or ideas as your own without proper referencing, and 3) using work completed for another course. This activity will not be tolerated in this course and students conducting themselves in this manner will be dealt with according to the procedures outlined in the calendar.

**Re: Posting of Grades and Picking-up of Assignments**

- Assignments will be handed back only in class or by the Professor at pre-arranged time(s).
- To receive your marked assignment back via mail, please include an appropriately sized self-addressed, stamped envelope with your assignment when handing in to the professor.
- Posting of grades will be at the discretion of each Professor and, if posted, they will be scrambled. Grades will **not** be available at Geography's main office.

**Contact Information for Student and Faculty Representation**

- SU VP Academic Phone: 220-3911 and e-mail: [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)
- SU Faculty Rep. Phone: 220-3913 and e-mail: [socialscirep@su.ucalgary.ca](mailto:socialscirep@su.ucalgary.ca)

**Campus Safewalk**

Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day, to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at 220-5333 or use a help phone, and Safewalkers or a Campus Security officer will accompany you to your Campus destination.