



GEOGRAPHY FINAL COURSE OUTLINE: WINTER 2017
GEOGRAPHY 433
H(3-3)

Remote Sensing II

Section	Days	Times	Location
LECO1	TuTh	15:30 – 16.45	ES 342
LAB01	We	13:00 – 15:50	ES 415

Instructor: Mir Mustafizur Rahman	Office: ES 906
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Please note: *The appropriate emergency evacuation assembly point for classes taught in Earth Sciences is ICT food court.*

Official Course Description:

The course is divided into two sections; the first section will focus on introducing advanced remote sensing technologies including image segmentation and object based image classification methods, absolute and relative radiometric correction techniques, different spatial, spectral and temporal scales, LiDAR, point clouds and 3D modeling, and microwave remote sensing. The second section will focus on digital image processing techniques using Interactive Data Language (IDL). This section will include basic image operations, working with masks and image statistics, manipulating and customizing images, automate image processing and batch processing techniques in IDL.

Prerequisite: Geography 333 and 339

Supplementary Fees: *(field trips etc).* N/A.

Reference Materials: No text book is required, though a few books are recommended for this course. Students are expected to obtain additional reference materials through scientific journals and the Internet. There are several good remote sensing textbooks that provide useful general reference materials, and students would be well-advised to gain access to one or more of the following:

Jensen, J.R. 2005. Introductory Digital Image Processing: A Remote Sensing Perspective. Prentice Hall
ITT Visual Information Solutions 2009. Image Processing in IDL.

Grading (Weighting):

1. Lab Assignments	30%
2. Midterm - 1	15%
3. Midterm - 2	15%
4. Class Participation/Attendance	10%
5. Term Paper	30%

It is not essential to pass all components in order to pass the course as a whole. There will be no scheduled final exam for this course.

The only acceptable reasons for missing an examination or assignment in this class, as listed in the Deferral of Final Examinations section of the University of Calgary Calendar (http://www.ucalgary.ca/pubs/calendar/2008/how/How_IF.htm), are illness, domestic affliction, or religious conviction. If you miss an assignment or examination, and you provide me with the appropriate documentation, you will have one opportunity to make arrangements for the missed work. Without appropriate documentation, you will receive a zero for that portion of your grade.

Grading System:

A+	90-100	B+	77-79.9	C+	67-69.9	D+	57-59.9	F	0-49.9
A	85-89.9	B	73-76.9	C	63-66.9	D	53-56.9		
A-	80-84.9	B-	70-72.9	C-	60-62.9	D-	50-52.9		

For additional detailed course information posted by the Instructor Desire2Learn at <https://d2l.ucalgary.ca/d2l/home>

USRI

At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Writing across the Curriculum

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Support Services can be utilized by all undergraduate and graduate students who feel they require further assistance.

Principles of Conduct

The University of Calgary Calendar includes a statement on the Principles of conduct expected of all members of the University community (including students, faculty, administrators, any category of staff, practicum supervisors and volunteers) whether on or off the University's property. This statement applies in all situations where the members of the University community are acting in their University capacities. All Members of the University Community have a responsibility to familiarize themselves with this statement which is available at: <http://www.ucalgary.ca/pubs/calendar/current/j-2.html>

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. <http://www.ucalgary.ca/honesty/plagiarism>

Academic Accommodations:

It is the student's responsibility to request academic accommodations according to the university policies and procedures listed below. The student accommodation policy can be found at: www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf

Students needing an accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities. The procedure can be found at: www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf

Students needing an accommodation based on a Protected Ground other than Disability, should communicate this need, in writing, to the Instructor.

Freedom of Information and Protection of Privacy

FOIP: The Freedom of Information and Protection of Privacy (FOIP) legislation disallows the practice of having students retrieve assignments from a public place, e.g., outside instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

Re: Posting of Grades and Picking-up of Assignments

- All assignments will be handled through D2L or personally.
- Their own grades will be available to each student on D2L by password access. 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: suvpaca@ucalgary.ca
- SU Faculty Rep. Phone: 220-3913 and e-mail: arts1@ucalgary.ca

The students ombudsman office information can be found at:

<http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info>

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.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The new Faculty of Arts Students Centre is your information resource for everything in Arts! Drop in at SS 102, call us at 403-220-3580 or email us at ascarts@ucalgary.ca you can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210 7625 or visit them at the MacKimmie Library Block.

Contact for Students Union Representatives for the Faculty of Arts:

arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca