GEOGRAPHY FINAL COURSE OUTLINE: FALL 2010

GEOGRAPHY 603
H(3-3)

Remote Sensing: Basics and Beyond

Instructor: Mryka Hall-Beyer +1-403-220-6586

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Earth Sciences 458

Official Course Description:
Introduction to the theory and practice of remote sensing. Topics include physics of remote sensing, sensor systems, resolutions, geometric and radiometric correction, image analysis (enhancements, filtering, texture analysis, principal components, classification approaches and algorithms and accuracy), current satellite systems, and applications of remote sensing imagery and techniques. May include methodological requirements of specific image acquisition systems. Emphasis is on fundamental concepts. Laboratory provides experience with fundamental image processing techniques and project completion and writing.

Online course
This course in Fall 2010 is offered in an online format. There are no formal class meetings, and students are not required to be in Calgary top complete the course. Lectures, lab instructions and all supplementary material will be available using the Blackboard online courseware system (http://www.blackboard.ucalgary.ca). Students will be automatically enrolled once they have registered for the course and activated their University of Calgary IT accounts, **Students must have or have access to a computer able to install and run the image processing software and have a connection able to upload and download large files.**

Prerequisite:
Consent of the Department

Supplementary Fees*:*
N/A

Text(s)/Readings:
1. Jensen, J.R. Introductory Digital Image Processing 3rd ed. (2004) Prentice-Hall. ISBN-10: 0131453610; *ISBN-13:* 978-0201508031.
2. Recommended in addition, for students wanting detailed technical information: J.A. Richards and X. Jia, Remote Sensing Digital Image Analysis: an Introduction.4th ed. 2005, Springer. ISBN-10 3-540-25128-6 or ISBN-13 978-3-540-25128-6.

Software Students must purchase an edition of Idrisi Taiga (http://www.clarklabs.org/products/idrisi-taiga.cfm), either a one-year “student starter” or a

student full edition (good for the entire student career). Instructions on how to purchase and validate student status for purchase will be given on the course Blackboard site. Purchase is made online at http://www.clarklabs.org/buy/buy-online.cfm?method=main.chooseProducts&type=new&cat=STUD

Grading (Weighting):

Participation in online discussions, quizzes	15%
Formal labs: 3@10%	30%
Lab-based final project	25%
Tests/essays: 2@15%	30%

There is no final examination for this course

To pass the course all components listed above must be *completed.* The average of all grades must be passing, but it is *not necessary to pass* each component in order to pass the course as a whole.

Grading System:

Students enrolled in a University of Calgary graduate program are reminded that a B- average must be maintained over all courses taken to continue in program. Students receiving less than a B might be denied permission to enroll in GEOG633.

94-100	A+	75-79.99	B	56-60.99	C-
88-93.99	A	70-74.99	B-	52-55.99	D+
84-87.99	A-	66-69.99	C+	50-51.99	D
80-83.99	B+	61-65.99	C	0-49.99	F

Any course component grades by letter will follow the official grading scheme of the university will be used (Course Information Section in the University Calendar): Such grades will be incorporated into the average using the midpoint t for the letter given (e.g. B=77.5)

A+	4.00	Outstanding performance
A	4.00	Excellent-superior performance, showing comprehensive understanding of subject
A-	3.70	
B+	3.30	
B	3.00	Good - clearly above average performance
B-	2.70	
C+	2.30	
C	2.00	Satisfactory performance – basic understanding of the subject
C-	1.70	
D+	1.30	
D	1.00	Minimal Pass-marginal performance
F	0	Fail - - poor performance

For additional detailed course information posted by the Instructor see Blackboard at: http://blackboard.ucalgary.ca/

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.

Disability Resource Centre Accommodations

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

Re: Posting of Grades

- **All assignments and tests will be submitted, graded and handed back on line using the Blackboard system.**
- 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: 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.