

GEOGRAPHY 333 H(3-3) (AREA III)

MAPPING AND REMOTE SENSING

Lecture / Lab	Days	Start Time	Length	Location
Lec 92	TR	18:00	75	ES 443
Lab 92	W	18:00	170	ES 307
Lec 93	TR	18:00	75	ES 443
Lab 93	F	08:00	170	ES 307
Lec 94	TR	18:00	75	ES 443
Lab 94	F	13:00	170	ES 307

Instructor

Graham Gerylo

E-mail: Contact through Blackboard**Office Hours:** TBA**Teaching Assistant**

TBA

Office: TBA**Phone:** TBA**E-mail:** Contact through Blackboard**Office Hours:** TBA**Course Assistant****Robin Poitras****Office:** ES 424**Phone:** 220-6023**Email:** Contact through Blackboard**Office Hours:** TBA**Course Content:**

This course is an introduction to the use of aerial photographs and digital imagery for creating maps. Lectures will deal with basic mapping concepts, physics of light, image interpretation, and digital image acquisition and manipulation. While lectures will focus on the theory of mapping and remote sensing, the labs will apply these concepts using digital data.

Lecture Topics:**Mapping:** generalization, abstraction, and map projections**Aerial Photographs:** acquisition, geometry, and interpretation**Electromagnetic Spectrum:** atmospheric windows, scattering, absorption, surface interactions**Colour Theory:** colour perception, additive and subtractive colour mixing, and colour models**Digital Images:** acquisition, sensors, geometry, spatial and spectral resolutions**Location:** georeferencing, rectification, and Digital Elevation Models**Image Enhancements:** histograms, filters, and indices**Image Classification:** supervised and unsupervised techniques**Introduction to Remote Sensing applications****Prerequisites:**

Geography 201 or 203, or Geology 201 or 203 or 209, or consent of the department.

Required Text:Lillesand, Thomas M., and Ralph W. Kiefer. 2003. *Remote Sensing and Image Interpretation, 5th Edition*. John Wiley & Sons, Inc. ISBN 0-471-45152-5 - John Wiley & Sons**Blackboard** will be used as a course tool: <http://blackboard.ucalgary.ca/>

Grading (Weighting):

Lab Assignments	50%
Midterm Exam	17%
Lab Exam	8%
Final Exam	25% (To be scheduled by the registrar)

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

Grading System

96-100	A+	77-80	B	59-61	C-
90-95	A	71-76	B-	55-58	D+
86-89	A-	65-70	C+	50-54	D
81-85	B+	62-64	C	0-49	F

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 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: 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.