

**Geog 228 – Introduction to Remote Sensing
January 2019**

Instructor	Maycira Costa (maycira@uvic.ca)
Office Hours	Tuesday 3pm – 4pm DTB B126
Lecture Hours	Tuesday 9.30pm – 10.20pm Wednesday 9.30am – 10.20am
Lab coordinator	Terri Evans (tevens@uvic.ca)
Course Objectives	To provide students with a conceptual and practical introduction to Remote Sensing.
Late Assignment Policy	Lab assignments are due at the beginning of the following week's lab. Penalty for assignments handed in late is 20% per day every day after. All lab assignments must be submitted to be allowed to sit the final examination. Failure to submit a lab assignment will result in a failing grade of incomplete (N). Exceptions will only be granted for medical reasons (requiring a written report from a medical practitioner stating your inability to attend class) or extreme personal crises. Only the course instructor can grant exceptions.

Course Evaluations

	Component A		Component B
Mid-term Exam	25%	Lab assignments	40%
Final Exam	35%		

To obtain a passing grade in the course (at least a “D”), students are required to pass both components of the course.

GRADING SYSTEM

As per the Academic Calendar:

Grade	Grade point value	Grade scale	Description
A+	9	90-100%	Exceptional, outstanding and excellent performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.
A	8	85-89%	
A-	7	80-84%	
B+	6	77-79%	Very good, good and solid performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
B	5	73-76%	
B-	4	70-72%	
C+	3	65-69%	Satisfactory, or minimally satisfactory. These grades indicate a satisfactory performance and knowledge of the subject matter.
C	2	60-64%	
D	1	50-59%	Marginal Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
F	0	0-49%	Unsatisfactory performance. Wrote final examination and completed course requirements; no supplemental.
N	0	0-49%	Did not write examination or complete course requirements by the end of term or session; no supplemental.

Course Text

1. *Introductory Digital Image Processing. A Remote Sensing Perspective.* John R. Jensen. **(On reserve in the library)**
2. *Computer Processing of Remotely-Sensed Images. 4th Edition.* Paul M. Mather and Magaly Koch. Free and online:
<http://voyager.library.uvic.ca/vwebv/holdingsInfo?bibId=3122540>.

Lab Website:<http://labs.geog.uvic.ca/geog228/>

Username: geog228

Password: meris

Lab Computers

Username: your UVic Netlink-ID

Password: your student number (V00...)

Lecture Summaries

Lecture presentations can be downloaded from UVic's CourseSpace

Username: your UVic Netlink-ID

Password: your UVic Netlink-ID password

These files are intended as a supplement to the lectures.

They are not intended to replace the lectures, although most of the material covered in the lectures is contained in the notes. I plan to post the pdf before the class starts.

Lab Access

The Geomatics Teaching Laboratory (Social Sciences & Math A251/A253) is open daily from 8.30 am to 4.30 pm. Access to the Laboratory is restricted after 4.30 pm for security purposes. You are encouraged to purchase a key fob, which will enable you to gain access to that facility after hours. The cost of a card is \$10.00 and you can keep it in case you take another course that uses the lab facilities.

Printing

You are permitted to print a maximum of 40 pages using the Laboratory's printer.

Academic Standards

Plagiarism will be dealt with in accordance with university policy. Please review calendar for details. Be sure to reference all material you use. If you have any questions, please contact me.

Students with a Disability

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a documented disability/health consideration that may require accommodations, please feel free to approach me and/or the Centre for Accessible Learning (CAL) as soon as possible. The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <https://www.uvic.ca/services/cal/>. The sooner you let us know your needs, the quicker we can assist you in achieving your learning goals in this course.

Please Note: You are under no obligation to disclose your disability.

Notes

1. I reserve the right to make changes to the schedule.
2. The best way to reach me is to come see me during office hours.
- 3. If you have ANY concerns related to lectures, labs, and/or exams, please come see me as soon as possible.**

Cell phones

Must be off or in silent mode during lectures. Computers must be used to facilitate learning only. Recording of lectures is strictly prohibited

Tentative Course Schedule

Date	Lecture/lab	Topic
Jan. 8	Lecture 1	Goals and structure of the course. Introduction to Remote Sensing and aerial photos
Jan. 9	Lecture 2	Aerial photos
Jan. 15	Lecture 3	Aerial photos
Jan. 16	Lecture 4	Remote sensing process – radiation
Jan. 22	Lecture 5	Remote sensing process – image properties
Jan. 23	Lecture 6	Remote sensing data collection - sensors
Jan. 29	Lecture 7	Remote sensing data collection - sensors
Jan. 30	Lecture 8	Remote sensing data collection - sensors
Feb. 5	Lecture 9	Radiation –Atmospheric attenuation
Feb. 6	Lecture 10	Atmospheric correction
Feb. 12	Lecture 11	Atmospheric correction
Feb. 13	Lecture 12	Geometric correction
Feb. 19	Reading break	No class
Feb. 20	Reading break	No class
Feb. 26	Lecture 13	Geometric correction
Feb. 27	Lecture 14	<i>Midterm</i>
March. 5	Lecture 15	Image enhancement
March. 6	Lecture 16	Image enhancement
March. 13	Lecture 15	Image enhancement
March. 16	Lecture 16	Classification
March. 19	Lecture 17	Classification
March. 13	Lecture 18	Classification
March. 19	Lecture 19	Accuracy assessment
March 20	Lecture 20	Accuracy assessment
March 26	Lecture 21	Light interaction - basics
March 27	Lecture 22	Light interaction - basics
April 2	Lecture 23	Invited talk
April 3	Lecture 24	Review

THE UNIVERSITY OF VICTORIA IS COMMITTED TO PROMOTING, PROVIDING AND PROTECTING A POSITIVE AND SAFE LEARNING AND WORKING ENVIRONMENT FOR ALL OF ITS MEMBERS.