

# Department of Geography

## Course Outline

### Geography 228 - Introduction to Remote Sensing Fall 2018

<b>Instructor</b>	Olaf Niemann ( <a href="mailto:olaf@uvic.ca">olaf@uvic.ca</a> ) Office: Turpin Building A246 (office hours by arrangement)
<b>Lecture Hours</b>	Monday, Wednesday @ 14:30-15:20
<b>Lecture Location</b>	Cornett A221
<b>Course Objectives</b>	To provide students with a conceptual and practical introduction to remote sensing data, processing, and interpretation/use.
<b>Textbook</b>	<b>Introductory Digital Image Processing. A Remote Sensing Perspective.</b> John R. Jensen. (Can be purchased at the UVic Bookstore)
<b>Course website</b>	We'll be using the <b>CourseSpaces</b> for all of the materials.
<b>Lab Assignments</b>	All labs will be held in the Geomatics labs DTB A251/253.  All assignments will be due at the time stipulated on the lab assignment handout. Penalties for late assignments are significant: <b>10% for the first 24 hour period day followed by 25% every 24 hour period after (no partial penalties).</b>  <b>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).</b> 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. Please do not try to negotiate exceptions with your TA.

All of the labs will be found on **CourseSpaces**

## Grading

The grade breakdown for the course is as follows:

**Section A: Exams: There will be 3 Midterm examinations spaced throughout the term. There will be no final exam.**

**1 - 15%**

**2 - 20%**

**3 - 15%**

**Section B: Lab Assignments: 45%**

To obtain a passing grade in the course you will be required to obtain a passing grade in both sections **A AND B**

**Section C: Class Participation: 5%**

The grade breakdown follows the university convention:

F	D	C	C+	B-	B	B+	A-	A	A+
< 50%	50-59%	60-64%	65-69%	70-72%	73-76%	77-79%	80-84%	85-89%	90-100%

## 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.

## **Course materials**

All course materials (with the exception of the Textbook) will be available on CourseSpaces

## ***Tentative Lecture Schedule (subject to change)***

### ***September***

Week 1 (September 3)

5: Intro Class

Week 2 (September 10)

10: Introduction to Remote Sensing

12: API - Aerial Photography

Week 3 (September 17)

17: Aerial Photography

19: Film/filters

Week 4 (September 24)

24: Statistics commonly used in Remote Sensing

26: Remote Sensing Systems

### ***October***

Week 5 (October 1)

1: Electromagnetic Spectrum

3: **Quiz 1 (in class)** (responsible up to the end of Week 4)

Week 6 (October 8)

10: Image Preprocessing 1

Week 7 (October 15)

15: Image Preprocessing 2

17: Image Preprocessing 3

Week 8 (October 22)

22: **Quiz 2 (in class)** (Responsible for up to the end of Week 7)

24: Image Enhancements 1

Week 9 (October 29)

29: Image Enhancements 2

31: Image Enhancements 3

### ***November***

Week 10 (November 5)

5: Image Classification 1

7: Image Classification 2

Week 11 (November 12)

**Reading Break**

Week 12 (November 19)

19: Image Classification 3

22: Examples of emerging remote sensing technologies 1

Week 13 (November 26)

26: Examples of emerging remote sensing technologies 2

29: **Open**

***December***

Week 14 (December 3)

3: **Quiz 3 (in class)**