



**Faculty of Social Sciences  
Department of Geography**

**University  
of Victoria**

**Geography 228 A01  
INTRODUCTION TO REMOTE SENSING  
SPRING 2017**

- Instructor:** Dr. Randy Scharien  
**Office:** David Turpin Building B122  
**Office Hours:** Monday 13:30-15:30 or by appointment  
**E-mail:** [randy@uvic.ca](mailto:randy@uvic.ca)
- Lecture Times:** Monday and Thursday 11:30-12:20 DTB A102
- Lab Instructor:** Georgia Clyde ([gclyde@uvic.ca](mailto:gclyde@uvic.ca))
- Lab Section and Hours:**
- |     |         |               |
|-----|---------|---------------|
| B01 | Monday  | 13:00 – 14:50 |
| B02 | Tuesday | 08:30 – 10:20 |
| B03 | Tuesday | 10:30 – 12:20 |
| B04 | Tuesday | 14:30 – 16:20 |
- David Turpin Building A253
- Course Objective:** To provide students with a conceptual and practical introduction to Remote Sensing (RS).
- Course Text (optional):** Introductory Digital Image Processing. A Remote Sensing Perspective. 4<sup>th</sup> Edition. John R. Jensen.
- CourseSpaces** Access CourseSpaces (<http://CourseSpaces.uvic.ca>) for announcements, instructor notes, your grades, and additional information (e.g. discussion topics). Please familiarize yourself with CourseSpaces if you haven't already done so.
- Lecture presentations:** Lecture presentations can be downloaded from CourseSpaces
- Lab Website:** [labs.geog.uvic.ca/geog228](http://labs.geog.uvic.ca/geog228)  
Username: geog228  
Password: meris
- Lab Computers:** Username: your UVic Netlink-ID  
Password: your student number

**Lab Access**

The Geomatics Teaching Laboratory (DTB 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.

**Grading Scheme**

Component A: Mid-term Exam	25%
Component A: Final Exam	35%
Component B: Lab (Assignments and Exam – see Lab Website)	40%

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

**Late Assignment Policy**

Lab assignments are due at the beginning of the following week’s lab. Penalty for assignments handed in late is **10% for the first day followed by 25% 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. Please do not try to negotiate exceptions with the TA.

**Grade Scale**

A+	A	A-	B+	B	B-	C+	C	D	F
90-100%	85-89%	80-84%	77-79%	73-76%	70-72%	65-69%	60-64%	50-59%	0-49%

**Academic Standards**

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

## **Students with a disability**

If you have any type of disability, there are support systems, resources, and accommodation actions available to you. If you wish to access any of these supports, resources or accommodations, I encourage you to contact the Resource Centre for Students with a Disability (<http://rcsd.uvic.ca/>) and I would be more than happy to work with you to ensure your success in this course.

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

## **Course Experience Survey (CES)**

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to <http://ces.uvic.ca>. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. I will remind you nearer the time, but please be thinking about this important activity, especially the following three questions, during the course.

1. What strengths did your **instructor** demonstrate that helped you learn in this course?
2. Please provide specific suggestions as to how the **instructor** could have helped you learn more effectively.
3. Please provide specific suggestions as to how this **course** could be improved.

## **Academic Integrity**

Academic integrity requires commitment to the values of honesty, trust, fairness, respect and responsibility. It is expected that students, faculty members and staff at the University of Victoria, as members of an intellectual community, will adhere to these ethical values in all activities related to learning, teaching, research and service. Any action that contravenes this standard, including misrepresentation, falsification or deception, undermines the intention and worth of scholarly work and violates the fundamental academic rights of members of our community. Students are advised to consult the university's Policy on Academic Integrity in the University Calendar. The instructor reserves the right to use plagiarism detection software programs to detect plagiarism in term papers.

## Tentative Course Schedule

<i>Date</i>	<i>Lecture/Lab</i>	<i>Topic</i>
05 Jan	Lecture 1	Goals/structure of the course. Intro to Remote Sensing.
09 Jan	Lecture 2.1	Aerial photos
12 Jan	Lecture 2.2	Aerial photos
<b>9-13 Jan</b>	<b>Lab 1</b>	<b>Digital Air Photo Interpretation</b>
16 Jan	Lecture 3	Remote sensing process – image properties
19 Jan	Lecture 4	Remote sensing process – radiation
<b>16-20 Jan</b>	<b>Lab 1 (cont.)</b>	<b>Digital Air Photo Interpretation</b>
23 Jan	Lecture 5.1	Remote sensing data collection - sensors
26 Jan	Lecture 5.2	Remote sensing data collection - sensors
<b>23-27 Jan</b>	<b>Lab 2</b>	<b>Intro to Software and Imagery</b>
30 Jan	Lecture 6	Radiation
02 Feb	Lecture 7	Radiometric normalization
<b>30 Jan-03 Feb</b>	<b>Lab 3</b>	<b>Radiometric/Atmospheric Correction</b>
06 Feb	Lecture 8.1	Geometric correction
09 Feb	Lecture 8.2	Geometric correction
<b>06-10 Feb</b>	<b>Lab 3 (cont.)</b>	<b>Radiometric/Atmospheric Correction</b>
13 Feb	READING BREAK	NO CLASS
16 Feb	READING BREAK	NO CLASS
<b>13-17 Feb</b>	<b>READING BREAK</b>	<b>NO LAB</b>
20 Feb	Review class	Mid-term review
23 Feb	Exam	Mid-term exam
<b>20-24 Feb</b>	<b>Lab 4</b>	<b>Geometric Correction</b>
27 Feb	Lecture 9.1	Image enhancement
02 Mar	Lecture 9.2	Image enhancement
<b>27 Feb-03 Mar</b>	<b>Lab 5</b>	<b>Image Enhancement</b>
06 Mar	Lecture 9.3	Image enhancement
09 Mar	Lecture 9.4.	Image enhancement
<b>06-10 Mar</b>	<b>Lab 6</b>	<b>Image Classification</b>
13 Mar	Lecture 10.1	Classification
16 Mar	Lecture 10.2	Classification
<b>13-17 Mar</b>	<b>Lab 6 (cont.)</b>	<b>Image Classification</b>
20 Mar	Lecture 10.3	Classification
23 Mar	Lecture 10.4	Classification
<b>20-24 Mar</b>	<b>LAB EXAM INFO.</b>	<b>LAB EXAM INFO.</b>
27 Mar	Lecture 11.1	Accuracy Assessment
30 Mar	Guest Lecture	Topic TBD
<b>27-31 Mar</b>	<b>LAB EXAM</b>	<b>LAB EXAM</b>
03 Apr	Last Class	Review

*The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members.*