

## GEOGRAPHY 228 - A01 UNIVERSITY OF VICTORIA Fall TERM 2022

Dr. Randy Scharien

# COURSE OUTLINE Introduction to Remote Sensing Human & Social Development (HSD) A240 14:30-15:20 Mondays and Wednesdays

Office Hours: Wednesdays 13:00-14:00 or by appointment

Office Location: DTB B122 Contact: randy@uvic.ca

We acknowledge and respect the I k n peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNE peoples whose historical relationships with the land continue to this day.

#### COURSE DESCRIPTION

The objective of this course will be to provide students with a conceptual and practical introduction to Remote Sensing (RS). We will explore air photos, remote sensing image processing and data formats in a digital environment, radiometric and geometric processing of satellite images, image enhancements, and image classification.

## REQUIRED TEXT(S)

None. For laboratory assignments you will be expected to make additional use of remote sensing texts, journal articles, other material in the university libraries, & web-based information to support your work.

## RECOMMENDED TEXT(S)

- 1. Introductory Digital Image Processing. A Remote Sensing Perspective. 4th Edition. John R. Jensen.
- 2. Computer Processing of Remotely-Sensed Images. 4th Edition. Paul M. Mather (available online: <a href="http://voyager.library.uvic.ca/vwebv/holdingsInfo?bibld=3122540">http://voyager.library.uvic.ca/vwebv/holdingsInfo?bibld=3122540</a>)

### LEARNING OUTCOMES

<u>Theoretical</u>: foundations of remote sensing. <u>Technical</u>: state-of-the-art software, image processing, and information extraction procedures. <u>Practical</u>: remote sensing and geospatial data analysis skills, remote sensing as a science and resource management tool, technical writing, knowledge communication.

## **EVALUATION**

Midterm Exam (Component A)
Final Exam (Component A)
Lab Assignments (Component B)

25% 35% lab will explore unique aspects of remote sensing. Analysis and presentation of data, as well as preparation of synthesis reports, are valuable skills that will be developed as part of lab assignments. Time outside of regularly scheduled labs will be required to complete assignments, so plan accordingly.

Lab Website

http://labs.geog.uvic.ca/geog228/

user: geog228 pw: meris

## POLICY ON LATE ASSIGNMENTS

Late lab assignments are subject to significant penalties: 20% per day following the due date and time. 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 no46 Tm[5i TJET/0-6(m)-4(p)3 TJET

and its overall approach by visiting <u>uvic.ca/svp</u>. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:

Where: Sexualized violence resource office in EQHR; Sedgewick C119

Phone: 250.721.8021

Email: <a href="mailto:svpcoordinator@uvic.ca">svpcoordinator@uvic.ca</a>

Web: <u>uvic.ca/svp</u>

## COURSE EXPERIENCE SURVEY (CES)

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). 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. The survey is accessed online and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more information nearer the time but please be thinking about this important activity during the course.

### WEEKLY CALENDAR

WEEK	LECTURE DATES	Lecture Information [ ]	
1	W 7 Sep	Course Introduction [ ]	
2	M 12 Sep, W 14 Sep	Remote sensing introduction, Air photos [	]
3	M 19 Sep, W 21 Sep	Air photos, Air photos [ ]	
4	M 26 Sep, W 28 Sep	Sensors and Imagery, Sensors and Imagery [	]

## NOTE:

A note to remind you to take care of yourself. Do your