
COURSE OUTLINE
GIS ANALYSIS

Office Hours: Wednesdays 12:30-2:30 or by appointment
Office: DTB B122
Contact: randy@uvic.ca

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

COURSE DESCRIPTION

This course focuses on analyses for mapping and modelling, developing, and using geographic data to answer spatial research questions, conducting basic statistics, spatial interpolations, and carrying-out multi-criteria modelling.

KEY THEMES

Geographic data acquisition, spatial statistics, spatial interpolation, multi-criteria modelling

REQUIRED TEXTS AND SOFTWARE

There is no required text for this course, however a reading and learning resources list will be included on Brightspace.

Laboratories will be conducted in the computer lab and focus on the use of the Open-Source software QGIS.

LEARNING OUTCOMES

1. Understand how GIS can be used to solve spatial problems (theoretically and practically) in Geography and other disciplines.
2. Build a foundation in using GIS: to create summary statistics for geographic data, conduct terrain analysis, calculate a least cost path, interpolate data, and conduct regression models with open-source software (QGIS and R).
3. Acquire a strong academic skills foundation - specifically research - to find the resources you need, to collect, analyze and interpret data, to present results effectively and communicate findings.
4. Be able to critically evaluate the capabilities and limitations of GIS analysis.

EVALUATION

Laboratory assignments are due before the start of your scheduled lab time.

Laboratory 1	Week of Sept 15 th to 19 th	5%
Laboratory 2	Week of Sept 22 nd to 26 th	5%
Laboratory 3	Week of Oct 13 th to Oct 17 th	10%
Laboratory 4	Week of Oct 27 th to Oct 31 st	10%
Laboratory 5	Week of Nov 17 th to Nov 21 st	10%
Laboratory 6	Week of Nov 24 th to Nov 28 th	10%

Midterm exam 1	October 1 st	10%
Midterm exam 2	November 5 th	10%

Final Exam	TBD during the Final Exam period	30%
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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.

GEOGRAPHY DEPARTMENT INFO

- Geography Department website: uvic.ca/socialsciences/geography/
- Geography Department Chair: geogchair@uvic.ca
- Geography Undergraduate Advising: geogadvising@uvic.ca

BRIGHTSPACE

Brightspace learning management systems (LMS) will serve as the main avenue of communication (<https://www.uvic.ca/systems/services/learningteaching/brightspace/index.php>). Please monitor the page on a regular basis for course announcements. If you are having difficulty logging in or password problems, contact the Computer Help Desk Email: helpdesk@uvic.ca, Tel: 250-721-7687.

POLICY ON LATE ASSIGNMENTS

Students must complete all evaluation components to obtain credit. Failure to complete an evaluation component without permission from the instructor, will result in an 'N' grade, which equals a Grade Point Value of 0.

Late assignments and/or project work will be penalized *20% per day* (including weekends). Exceptions will only be granted for medical or compassionate reasons. Please contact the instructor within five working days if possible. *Only the course instructor can grant exceptions.*

Conflicts with work, holidays or travel plans are not considered an acceptable reason to apply for a deferred assignment or project extension.

Unless otherwise stated students are expected to complete assignments independently.

POLICY ON ATTENDANCE

Attendance is expected for lectures and lab assignment time. Recordings of lecture material or laboratory introductions will not be provided unless the University reinstates online learning. High level of student cooperation and participation, involving asking and answering questions is expected. Students are also expected to be punctual for course meetings. Cell phones must be turned off or silenced during lectures and labs and **ONLY** be used during field activities if pertinent to do so.

As an Instructor, I can refuse a student admission to a lecture, laboratory, learning activity or exam because of lateness, misconduct, inattention, or failure to meet the responsibilities of the course. Students who neglect their academic work may be assigned a final grade of 'N' (which equals a Grade Point Value of 0) or debarred from final examinations. Please refer to the UVic academic calendar in the section on student academic conduct for further information.

ACADEMIC INTEGRITY

It is every student's responsibility to be aware of the university's policies on academic integrity, including policies on **cheating, plagiarism, unauthorized use of an editor, multiple submission, and aiding others to cheat.**

Policy on Academic Integrity: web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html

If you have any questions or doubts, talk to me, your course instructor. For more information, see uvic.ca/learningandteaching/cac/index.php.

USE OF AI

Please be advised that in this course you are not authorized to use any form of generative AI unless as instructed in the lab sessions. Students should otherwise not make any use of generative AI tools such as ChatGPT, Grammarly, among others that use AI for content generation and editing. As the University of Victoria states on its Academic Integrity Policy "Academic integrity requires commitment to the values of honesty, trust, fairness, respect, and responsibility." Therefore, I expect you to comply with the course syllabus and I encourage you to enhance your academic experience in this course by refraining from use generative AI outside of the specific use outlined in the lab sessions.

ACCESSIBILITY

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

POSITIVITY AND SAFETY

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

SEXUALIZED VIOLENCE PREVENTION AND RESPONSE AT UVIC

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting uvic.ca/svp. 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: svpcoordinator@uvic.ca
Web: uvic.ca/svp

EQUITY AND HUMAN RIGHTS (EQHR)

EQHR is a resource for students, staff and faculty who have experienced discrimination and harassment and are looking for informal and formal resolution options as well as advice, coaching and/or education. We are available for confidential consultations so that you can ask questions and learn your options.

eqhr01@uvic.ca

Sedgewick C Wing

www.uvic.ca/equity

RESOURCES FOR INTERNATIONAL STUDENTS

The University of Victoria offers a number of resources to support international students as they pursue their studies. UVic's [International Centre for Students](#) is the primary office supporting international students on campus at the university-wide level and provides various supportive program through the [UVic Global Community Initiative](#), including a Mentorship Program and Conversation Partner Program. For academic advising-related questions, students in the Geography Department are also encouraged to meet with the Geography Undergraduate Advisor (geogadvising@uvic.ca) as well as an academic advisor in the [Academic Advising Centre](#) early in their studies to help map out a plan to declare a major and complete university program requirements. Other resources include the [Centre for Academic Communication](#) and the [Math and Stats Assistance Centre](#). International students are also encouraged to contact the International Student Liaison in Geography (Prof. CindyAnn Rose-Redwood, cindyann@uvic.ca), who can assist in making connections with other international and domestic students in the Geography Department and share opportunities for getting involved in departmental activities more broadly.

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 detailed information nearer the time but please be thinking about this important activity during the course.

WEEKLY CALENDAR

Week	Dates	Topic
1	Sep 1 – 5	Introductory concepts
2	Sep 8 – 12	Introductory concepts <i>Sep. 16 - Last day to drop class with 100% reduction of tuition fees</i>
3	Sep 15 – 19	Spatial analysis building blocks <i>Sep. 19 - Last day for adding courses that begin in the first term</i>
4	Sep 22 – 26	Spatial analysis building blocks
5	Sep 29 – Oct 3	Midterm Exam 1 <i>Sep. 30 - Last day for paying first term fees without penalty</i> <i>Sep. 30 – University closed (National Day for Truth and Reconciliation)</i>
6	Oct 6 – 10	Multi-criteria modeling <i>Oct. 7 - Last day for 50% reduction of tuition fees</i>
7	Oct 13 – 17	Multi-criteria modeling
8	Oct 20 – 24	Interpolation
9	Oct 27 – 31	Interpolation and terrain analysis <i>Oct. 31 - Last day for withdrawing from first term courses without penalty of failure</i>
10	Nov 3 – 7	Terrain analysis and Midterm Exam 2
11	Nov 10 – 14	Reading break
12	Nov 17 – 21	Terrain analysis and guest lecture
13	Nov 24 – 28	Special topics and guest lecture
14	Dec 1 – 5	Catch up and review

DISCLAIMER

The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances.

NOTE:

A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

Counselling Services - *Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students.* uvic.ca/services/counselling/

Health Services - *University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives. uvic.ca/services/health/*

Centre for Accessible Learning - *The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 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.*

Elders' Voices - *The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being. uvic.ca/services/indigenous/students/programming/elders/index.php*