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**COURSE OUTLINE**  
**GIS ANALYSIS**

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**Instructor: Dr. Noémie Boulanger-Lapointe**  
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**Office: DTB B130**

**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.

**Class Meetings:** Tuesdays and Wednesdays 9:30 to 10:20  
**Classroom:** Cornett Building A125

**Lab information:** B01 Tuesday 12:30 pm - 2:20 pm DTB A251  
B02 Wednesday 3:30 – 5:20 pm DTB A251  
B03 Thursday 10:30 – 12:20 pm DTB A251

**Office Hours:** Tuesday 10:30-11:30 and Wednesday 10:30-11:30

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**REQUIRED TEXTS AND SOFTWARE**

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

The laboratory manual is available at:

<https://labs.geog.uvic.ca/geog328/>, Username: geog328, Password: gis328)

**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 in a report format.
4. Be able to critically evaluate the capabilities and limitations of GIS analysis.

## EVALUATION

Laboratory Assignments x 6 50%

Midterm Exams x 2 20% (10% each)

Final Exam (during Final Exam period) 30%

## LECTURES, LABS AND ASSIGNMENTS SCHEDULE

<b>Week</b>	<b>Dates</b>	<b>Topic</b>	<b>Lab</b>	<b>Due dates</b>
1	Sept. 6 - Sept. 9	Introduction	No lab	
2	Sept. 12 - Sept. 16	Topic 1 and Topic 2	Lab 0 Map Making 1%	
3	Sept. 19 - Sept. 23	Topic 2 continued	Lab 1 Summary Statistics 10%	Lab 0
4	Sept. 26 - Sept. 30	Topic 2 and Topic 3		
5	Oct. 3 - Oct. 7	Topic 3 continued	Lab 2 Data Collection 9%	Lab 1
6	Oct. 10 - Oct. 14	<b>Oct 11 Midterm Exam 1</b> and Topic 4		
7	Oct. 17 - Oct. 21	Topic 4	Lab 3 Least Cost Path 10%	Lab 2
8	Oct. 24 - Oct. 28	Topic 4 continued and Topic 5		
9	Oct. 31 – Nov. 4	Topic 5	Lab 4 Interpolation 10%	Lab 3
10	Nov. 7 – Nov. 11	READING BREAK		
11	Nov. 14 – Nov. 18	<b>Nov 15 Midterm 2</b> and guest speaker	Lab 5 Regression 10%	Lab 4
12	Nov. 21 – Nov. 25	Topic 6		
13	Nov. 28 – Dec. 2	Catch up and review!	No Lab	Lab 5

\*Note that the lecture schedule may be adjusted as needed

Topic 1: Introductory Concepts and Review

Topic 2: Spatial Analysis Building Blocks

Topic 3: Multi-criteria Modeling

Topic 4: Interpolation

Topic 5: Terrain Analysis

Topic 6: Special topics

## GEOGRAPHY DEPARTMENT INFORMATION

Geography Department website: <http://geog.uvic.ca>

Undergraduate Advising: [geogadvising@uvic.ca](mailto:geogadvising@uvic.ca)

Department Chair: Dr. David Atkinson [geogchair@uvic.ca](mailto:geogchair@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](mailto:helpdesk@uvic.ca), Tel: 250-721-7687.

## GRADING SYSTEM

As per the academic calendar:

Grade	Grade Point Value	Percentage	Description
A+	9	90 - 100	An A+, A, or A- is earned by work, which is technically superior, shows mastery of the subject matter, and in the case of an A+ offers original insight and/or goes beyond course expectations. Normally achieved by a minority of students.
A	8	85 - 89	
A-	7	80 - 84	
B+	6	77 - 79	A B+, B, or B- is earned by work that indicates a good comprehension of the course material, a good command of the skills needed to work with the course material, and the student's full engagement with the course requirements and activities. A B+ represents a more complex understanding and/or application of the course material.
B	5	73 - 76	
B-	4	70 - 72	
C+	3	65 - 69	A C+ or C is earned by work that indicates an adequate comprehension of the course material and the skills needed to work with the course material and that indicates the student has met the basic requirements for completing assigned work and/or participating in class activities.
C	2	60 - 64	
D	1	50 - 59	A D is earned by work that indicates minimal command of the course materials and/or minimal participation in class activities that is worthy of course credit toward the degree.
F	0	0 - 49	F is earned by work, which after the completion of course requirements, is inadequate and unworthy of course credit towards the degree.
N	0	0 - 49	Did not write examination or complete course requirements by the end of term or session; no supplemental.

## IMPORTANT COURSE POLICIES

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.

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

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.

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.

## PLAGIARISM

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](http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html)

Academic dishonesty (plagiarism, cheating) is a very serious matter in any academic institution and is dealt with severely at the University of Victoria. Instructors and academic units have the responsibility to ensure that standards of academic honesty are met. By doing so, the institution recognizes students for their hard work and assures them that other students do not have an unfair advantage through cheating on essays, exams, and projects. Plagiarism sometimes occurs due to a misunderstanding regarding the rules of academic integrity, but it is the responsibility of the student to know them. If you are unsure about the standards for citations, for referencing your sources, or unauthorized use of an editor, please familiarize yourself with the University policy on academic integrity found in the Undergraduate Calendar at the following website - <https://www.uvic.ca/students/academics/academicintegrity/index.php#ipn-policies-consequences>.

*Please contact me if you have any questions.*

Infractions will be dealt with in accordance with University policy. Commonly, the penalty for any form of cheating/plagiarism is a grade of F on the tests or laboratory assignments, or a final grade of F in the

course. However, depending on the severity of the case other penalties may include a record on the student's transcript or expulsion.

## **ACCESSIBILITY**

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 <http://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.

## **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. To ensure that all class members feel welcomed and equally able to contribute to class discussions, we will all endeavor to be respectful in our language, our examples, and the way we conduct our discussions and group work. If you have any concerns or suggestions to improve inclusivity and safety in the classroom, please contact me.

## **COURSE EXPERIENCE SURVEY (CES)**

We value your feedback on this course. Towards the end of the course, 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 via MyPage 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.

## **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](http://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](mailto:svpcoordinator@uvic.ca)

Web: [uvic.ca/svp](http://uvic.ca/svp)

## **DISCLAIMER**

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