

FINAL COURSE OUTLINE: SPRING 2021

GEOGRAPHY 639 H(3-3)

Advanced Spatial Analysis and Modelling

Section	Meeting Times	Location
LECO1	None	Web Based Course
LAB01	None	Web Based Course

Instructor: Stefania Bertazzon	Office: ES 336
Telephone: 403 220 7355	Email: bertazzs@ucalgary.ca

Please note: The appropriate emergency evacuation assembly point for all classes taught in Earth Sciences is the ICT Food Court.

Official Course Description:

History of spatial modelling in geography; comprehensive coverages of techniques, spatial analysis and spatial modelling as currently used within GIS and remote sensing.

Course Content:

The course will provide students with analytical tools to help them understand spatial phenomena and to stimulate their critical thinking about spatial processes. The course will focus on the properties of spatial data and their effects on quantitative analysis. Students will learn an array of spatial analytical models, understanding their hypothesis, power and limitations; they will learn to choose the most appropriate techniques for different research questions and spatial data. Concepts and theories of spatial analysis will be discussed, with reference to landmark and current literature.

Prerequisites: No prerequisites required
Consent of the Department. Basic GIS skills are recommended.

Learning Resources

Recommended: one or more of the following textbooks:

Rogerson, P.A., 2015. Statistical Methods for Geography. Sage Publications Ltd., London.

Fotheringham, A. S., Brunson, C., Charlton, M., 2000. Quantitative Geography. Perspectives on Spatial Data Analysis. London: SAGE.

Fortin, M.-J., Dale, M. R. T., 2005. Spatial Analysis. A Guide for Ecologists. Cambridge: Cambridge University Press.

Lloyd, C.D., 2006. Local Models for Spatial Analysis. CRC Press.

Additional material will be suggested in class and made available on D2L.

Learning Technologies and Requirements

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology.

- A computer with a supported operating system, as well as the latest security and malware updates
- A current and updated web browser
- Webcam (built in or external)
- Microphone and speaker (built-in or external) or headset with microphone
- Broadband internet connection

Grading (Weighting)

Labs and assignments	35%	(4 labs, 1-week long, due on May 18 th , May 25 th , June 1 st , June 8 th)
Tests	35%	(2 oral midterms, held on May 27 th and June 10 th)
Final project	30%	(proposal, due on June, 3 rd , written report, due on June 15 th , and oral presentation, due on June 15 th)

*please note: every piece of work is due at 8.00 a.m. MDT on the stated date.

**please note: the oral midterms will consist of individual zoom meetings scheduled between 8.00 a.m. and 12.00 noon on the stated dates.

Class Participation is not formally graded, but students are strongly encouraged to share their ideas, contributions, and questions in class.

In order to obtain the minimum graduate level passing grade (B-), *students must obtain no less than 70% in each of the following course components:*

1. Total sum of all the labs and assignments;
2. Total sum of Test 1 and Test 2;
3. Total sum of the project component (proposal, literature review, written project, and presentation).

Lab exercises are due at the beginning of the lab session the week after the assignment (unless otherwise specified).

The final project is an opportunity to perform an insightful spatial statistical analysis on a research topic chosen by each individual student. Detailed guidelines for the project completion will be provided in class. The final project (literature review, written project, and presentation) must be consistent with the project proposal. If the final project is not consistent with the proposal, the proposal will receive a 0 grade.

Late Policy:

Lab assignments, short papers, project proposal, and final project are due on the date specified in the calendar provided in class. They are due at the beginning of the lab session or class on that date. There are no exceptions and any piece of work handed in late will be subject to an immediate 10% penalty followed by a 10% reduction in grade for each day thereafter (weekends and holidays included). Medical related circumstances will require a note from a physician. Appropriate documentation shall be provided in support of other circumstances.

There is no final examination for this course.

Exemptions to the Examination and Tests Regulations (if applicable)

N/A.

Grading System

96 – 100	A+	77 – 80	B	59 – 61	C-
90 – 95	A	71 – 76	B-	55 – 58	D+
86 – 89	A-	65 – 70	C+	50 – 54	D
81 – 85	B+	62 – 64	C	0 – 49	F

In the event that a student misses a midterm or any course work due to illness, supporting documentation, such as a medical note or a statutory declaration will be required see: <https://www.ucalgary.ca/pubs/calendar/current/m-1.html>

Please refer to <https://www.ucalgary.ca/registrar/registration/appeals/student-faq> for frequently asked questions concerning the provision of a medical note/statutory declaration.

Supplementary Fees

N/A.

For additional detailed course information posted by the instructor, visit the course Desire2Learn page online at <https://d2l.ucalgary.ca/d2l/home>.

SUPPLEMENTAL INFORMATION

Principles of Conduct

The University Calendar includes a statement on the principles of conduct expected of all members of the university community (including students, faculty, administrators, any category of staff, practicum supervisors, and volunteers), whether on or off university property. This statement applies in all situations where members of the university community are acting in their university capacities. All members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: www.ucalgary.ca/pubs/calendar/current/k.html.

Plagiarism, Cheating, and Student Misconduct

The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect.

Academic dishonesty is not an acceptable activity at the University of Calgary, and students are **strongly advised** to read the Student Misconduct section in the University Calendar at: www.ucalgary.ca/pubs/calendar/current/k-3.html. Often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are (1) presenting another student's work as your own, (2) presenting an author's work or ideas as your own without adequate citation, and (3) using work completed for another course. Such activities will not be tolerated in this course, and students suspected of academic misconduct will be dealt with according to the procedures outlined in the calendar at: www.ucalgary.ca/pubs/calendar/current/k-5.html.

Instructor Intellectual Property

Information on Instructor Intellectual Property can be found at <https://www.ucalgary.ca/policies/files/policies/Intellectual%20Property%20Policy.pdf>

Freedom of Information and Protection of Privacy

Freedom of Information and Protection of Privacy (FOIP) legislation in Alberta disallows the practice of having students retrieve assignments from a public place, such as outside an instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they must provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

Human subjects

N/A.

Guidelines for Zoom Sessions

Zoom is a video conferencing program that will allow us to meet at specific times for a "live" video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published **with** the instructor's permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith and respect (as per the Code of Conduct). When entering Zoom or other video conferencing sessions (such as MS Teams), you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behavior in these sessions may affect others. Participants are required to use names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g. Student Non Academic Misconduct Policy). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your Zoom sessions visit: <https://elearn.ucalgary.ca/guidelines-for-zoom/>.

If you are unable to attend a Zoom session, please contact your instructor to arrange an alternative activity for the missed session (e.g., to review a recorded session). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected to turn on their webcam (for group work, presentations, etc.).

The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These recordings will be used to support student learning only and will not be shared or used for any other purpose.

Posting of Grades and Picking-up of Assignments

Graded assignments will be made available electronically through the course D2L webpage.

Academic Accommodations

It is the student's responsibility to request academic accommodations, according to the university policies and procedures listed in the University Calendar.

The student accommodation policy can be found at: www.ucalgary.ca/access/accommodations/policy. Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf.

Students needing an accommodation based on a protected ground other than disability should communicate this need, preferably in writing to their instructor or the Department Head (email: david.goldblum@ucalgary.ca).

Copyright Legislation

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Act.

Wellness and Mental Health Resources

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness, and academic success and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support, or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, <https://www.ucalgary.ca/wellnesscentre/services/mental-health-services>) and the Campus Mental Health Strategy website (<http://www.ucalgary.ca/mentalhealth/>).

Contact Information for Student and Faculty Representation

1. Student Union VP Academic 403-220-3911, suvpaca@ucalgary.ca
2. Students Union Representatives for the Faculty of Arts – 403-220-3913, arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
3. Student Ombuds Office information can be found at: www.ucalgary.ca/ombuds/

Campus Safewalk

Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day, to any location on Campus, including the LRT station, parking lots, bus zones, and university residences. Contact Campus Security at 220-5333 or use a help phone, and Safewalkers or a Campus Security officer will accompany you to your campus destination.