Official Course Description
Surveys GIS applications for urban studies, and the data structures, sources, and analysis techniques used in them. Explores urban spatial analysis, decision-making in a GIS environment, and representational challenges, including project planning, spatial data acquisition, data preparation and coding, analysis and visualization of project findings, and communication and implementation of project results.

Course Objectives
This course aims to enhance your GIS skills in urban studies. We will explore data acquisition, data wrangling, and data analysis techniques. We will further explore decision-making process in a GIS environment, followed by the introduction of representational challenges, including project planning, spatial data acquisition, data preparation, analysis and visualization of project findings. You will learn the best practices to follow to communicate and implement the project results. You will gain experience to the process workflow of acquiring geospatial data from different levels of government sources. You will perform spatial analysis in both desktop and cloud-based GIS software. You will explore extending the in-built functionality through scripting languages and conclude the course with exploration of wide range of Urban GIS applications.

Course Learning Outcomes
The Department of Geography is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes to which they contribute, and the expected level of achievement.

<table>
<thead>
<tr>
<th>Course Learning Outcomes</th>
<th>PLO(s)*</th>
<th>Level(s)**</th>
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<tbody>
<tr>
<td>Experience acquiring and handling different geospatial data (Extract, Transform and Load processes)</td>
<td>3,4,6</td>
<td>3</td>
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<tr>
<td>Apply various analytical approaches in GIS to solve complex urban problems</td>
<td>1, 2, 3, 4, 5</td>
<td>2,3</td>
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<tr>
<td>Effectively communicate project planning and findings both through oral and written communication methods</td>
<td>1,2, 3, 6, 8</td>
<td>2,3</td>
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<td>Understand the geospatial analysis workflow from topic exploration to effectively generating analysis results</td>
<td>1,2,3,5,6, 7,8</td>
<td>2,3</td>
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*PLOs = Program Learning Outcomes: 1 = reflect and communicate diverse human-environment perspectives, 2 = identify and explain human-environment processes, 3 = implement sampling, data collection, analyses and communication methods, 4 = analyze spatial and temporal aspects of human-environment systems, 5 = employ knowledge, arguments, and methodologies for solving human-environment problems, 6 = evaluate geospatial data and manipulate it to create cartographic products, 7 = communicate geographic concepts using oral, written, graphic, and cartographic modes, and 8 = demonstrate literacy skills.

**Levels: 1 = Introductory, 2 = Intermediate, and 3 = Advanced.

Prerequisites
3 units from Geography 231, 380. Geography 357, 482 is recommended.

Learning Resources
There is no course textbook. Instead weekly readings and assignments will be provided to familiarize students with the concepts being studied in the class.

Grading (Weighting)

Laboratory Assignments (5) – 9% each 45%
Class Participation 10%
Story Map (GIS in urban environment) 10%
Final Project 35%
  Project Proposal 5%
  Presentation 15%
  Final Report 15%

1. There are no midterm or final examination for this course.
2. Passing grade on any particular component of a course is not essential if the student is to pass the course as a whole.
3. There will be a late penalty of 20% per day for the grading components mentioned above.
4. In case of missed assessment components due to legitimate reason, email Instructor Amritpal Khakh or the TA (for laboratory assignments) as soon as possible to facilitate special accommodations.
5. The project proposal is due on February 23rd, 2021 11:59 pm and the final report is due on April 8th, 2021, 11:59 pm. The proposal presentations will be conducted between February 9th and March 9th.

Grading System

A+ 4.00  >95  Outstanding performance
A  4.00  86-94  Excellent performance
A- 3.70  80-85  Approaching excellent performance
B+ 3.30  77-79  Exceeding good performance
B  3.00  74-76  Good performance
B-  2.70  70-73  Approaching good performance
C+  2.30  67-69  Exceeding satisfactory performance
C   2.00  64-66  Satisfactory performance
C-  1.70  60-63  Approaching satisfactory performance
D+  1.30  56-59  Marginal pass. Insufficient preparation for subsequent courses
D   1.00  50-55  Minimal Pass. Insufficient preparation for subsequent courses
F   0.00  <50  Failure. Did not meet course requirements

Supplementary Fees
Not applicable

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: https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf

Instructor Intellectual Property

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**
Students are not expected to participate as subjects or researchers when research on human subjects may take place.

**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 without 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/](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. Grades and assignments will not be available at the Department of Geography main office.

**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: https://www.ucalgary.ca/policies/files/policies/student-accommodation-policy_0.pdf

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 https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.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 disciplines 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
• Student Union VP Academic 403-220-3911, suvpaca@ucalgary.ca
• 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
• 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.