



<b>Course Number:</b>	PLAN 608	<b>Classroom:</b>	PF 2165
<b>Course Name:</b>	Geographic Information Systems for Environmental Design		
<b>Pre/Co-Requisites:</b>	N/A		
<b>Instructor:</b>	Jessica Letizia	<b>Office Hours:</b>	Meetings can be booked by appointment.
<b>Contact Info:</b>	<a href="mailto:jletizia@ucalgary.ca">jletizia@ucalgary.ca</a>   403-660-1160		
<b>Class Dates</b>	Fridays, January 14, 2022 – April 8, 2022, 9:00 am to 1:00 pm		
<b>Instructor Email Policy</b>	I will respond to emails sent via student’s @ucalgary emails to my email account (see above) within 48 hours.		
<b>Name and Email of Teaching Assistant(s)</b>	TBD		

## Course Description

This course will explore fundamental GIS principles such as data acquisition, data creation, data management, and cartography that will provide students with an in-depth working understanding of GIS core fundamentals through hands-on, practical assignments and problem solving in the context of a GIS working environment.

(<https://www.ucalgary.ca/pubs/calendar/current/planning.html#45263>)

**Course Hours:** 3 units; (2-2)

## Course Learning Outcomes

Upon completion of this course, students will understand and be able to discuss:

1. Basic GIS fundamentals and language that will allow them to “speak the same language” as GIS professionals.
2. The considerations and processes involved in data acquisition, creation, and management.
3. The processes involved in manipulating spatial data using mainstream GIS technologies for the purpose of spatial analysis and cartography.
4. The importance of audience and purpose when creating and/or requesting maps.
5. The use of GIS technology and techniques to support decision-making and public engagement.

## Learning Resources

There are no required textbooks for this course, but the following supplemental resources are recommended:

- Making Maps: A Visual Guide to map Design for GIS (Third Edition) by John Krygler & Denis Wood
  - <https://www.chapters.indigo.ca/en-ca/books/making-maps-a-visual-guide/9781462509980-item.html?ikwid=Making+Maps%3a+A+Visual+Guide+To+Map+Design+For+Gis&ikwsec=Home&ikwidx=0#algoliaQueryId=ec858967c615f8f71864f2d88973f406>
- Getting to Know ArcGIS Desktop 10.8 by Amy Collins and Michael Law (note, I have not yet used this specific edition, but previous editions were great)
  - <https://esripress.esri.com/display/index.cfm?fuseaction=display&websiteID=407&moduleID=0>
  - <https://www.chapters.indigo.ca/en-ca/books/getting-to-know-arcgis-desktop/9781589485778-item.html?ikwid=Getting+to+Know+ArcGIS+Desktop+10.8&ikwsec=Home&ikwidx=0#algoliaQueryId=57643b6b2204de87dbc97ac38b64e326>

**Technology requirements (D2L etc.):** 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;
- Current antivirus and/or firewall software enabled;
- Broadband Internet connection

Note: most current laptops will have a built-in webcam, speaker, and microphone.

## Assignment Components

Course evaluation will be based on four assignments (briefly described below). Complete details for these assignments, as well as assignment criteria will be provided in class when the assignment is first introduced. All assignments will be done individually.

ASSIGNMENT	DESCRIPTION	WEIGHT	ALIGNED COURSE LEARNING OUTCOME
Assignment 1: GIS Fundamentals & Data Management	Answer a series of questions related to GIS fundamentals and data acquisition, creation, and management. <b>Due electronically on D2L before 9:00 am on Monday, February 7.</b>	15%	1 and 2
Assignment 2: Map Book	Building on what you learned from creating your first map, create a map book utilizing ArcMap, basic spatial analysis tools, and other design software. <b>Due electronically on D2L before 9:00 am on Monday, March 7.</b>	25%	1, 2, and 3
Assignment 4: Public Engagement Infographic	Create an infographic displaying spatial information to be used for a public engagement scenario utilizing ArcMap, basic spatial analysis tools, and other design software. <b>Hard Copy due in class on Friday, March 25.</b>	25%	1,2,3,4, and 5
Final Assignment: Map Portfolio	Create a portfolio that assembles evidence of in-class learning utilizing ArcMap and basic spatial analysis tools. The product will be a collection of maps that meet certain criteria accompanied by text that describes the process used to create the	35%	1,2,3,4, and 5

map and interpret what it shows. Full instructions will be provided on an assignment sheet distributed in class. <b>Due electronically on D2L before 4:00 pm on Friday, April 15.</b>		
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## Assessment and Evaluation Information

### ATTENDANCE AND PARTICIPATION EXPECTATIONS

Class time will be catered to developing the skills necessary to complete the assignments outlined above and there will be time reserved in each class to complete them with assistance from the instructor and TAs, therefore, it is strongly encouraged that you attend class. Note, if a student needs to miss class, it will be up to them to make sure they are up-to-date on the lecture material and assignments.

### GUIDELINES FOR SUBMITTING ASSIGNMENTS

Assignments need to be submitted electronically via D2L as a single PDF, specified in the previous page.

### FINAL EXAMINATIONS

There will be no final examination.

### EXPECTATIONS FOR WRITING (<https://www.ucalgary.ca/pubs/calendar/current/e-2.html>)

Students are expected to present clear and concise, consistent, organized, and grammatically correct writing for all assignments.

### LATE ASSIGNMENTS

To be fair to all students, assignments submitted after the deadline will be assessed using the rubric, the mark converted to a percent, and then 10% deducted from the assignment total. If you find yourself in a situation that you could not have planned for, and that you believe warrants an exception, please contact the instructor.

### CRITERIA THAT MUST BE MET TO PASS

See Grading Scale below.

## Grading Scale

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range. All assignments will be evaluated by percentage grades, with their letter grade equivalents as shown below.

GRADE	GRADE POINT VALUE	4-POINT RANGE	PERCENT	DESCRIPTION
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance
B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.

C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

Note: A student who receives a "C" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

Topic Areas & Detailed Class Schedule		
DATE	TOPIC	ASSIGNMENTS/DUE DATES
January 14	Introduction to GIS Concepts	Assignment 1 Introduced
January 21	Data Management	
January 28	Data Analysis I	
February 4	Cartography I	Assignment 2 Introduced, Assignment 1 Due Feb 7
February 11	Tips & Tricks	
February 18	Cartography II	
<b>February 20-26</b>	<b>No classes – term break</b>	
March 4	GIS for Public Engagement	Assignment 3 Introduced, Assignment 2 Due Mar 7
March 11	GIS as a Decision Support Tool	
<b>March 14-18</b>	<b>No classes – SAPL Block Week</b>	
March 25	Presentations	Final Assignment Introduced, Assignment 3 Due in class
April 1	Map Critiques	
April 8	(Last Class) Instructional Input as Required to Support Final Project	Final Assignment Due April 15

Guidelines for Zoom Sessions
<p><b>Note, classes will be delivered in person, at the University of Calgary Campus, however, if anything changes and Zoom classes become a requirement, the following will be relevant.</b></p> <p>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.</p> <p>To help ensure Zoom sessions are private, do not share the 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.</p> <p>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 <a href="#">Code of Conduct</a>). 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 behaviour in these sessions may affect others. Participants are required to use names officially associated with their UCID</p>

(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 in advance to arrange an alternative activity for the missed session (e.g., to review the 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.

## Special Budgetary Requirements

N/A

## University of Calgary Policies and Supports

### COVID-19 PROCEDURE FOR SICK STUDENTS

<https://ucalgary.ca/risk/sites/default/files/Covid-19%20Folder/COVID-19-Procedure-for-Sick-Students.pdf>

### ACADEMIC ACCOMMODATION:

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The Student Accommodations policy is available at <https://ucalgary.ca/student-services/access/prospective-students/academic-accommodations>.

Students needing an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS) in accordance with the Procedure for Accommodations for Students with Disabilities (<https://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities.pdf>). Students who require an accommodation in relation to their coursework based on a protected ground other than Disability should communicate this need in writing to their Instructor. SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/).

### ACADEMIC MISCONDUCT

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedure please visit:

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>

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

Additional information is available on the Academic Integrity Website at <https://ucalgary.ca/student-services/student-success/learning/academic-integrity>.

### **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](http://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 Policy (<https://www.ucalgary.ca/pubs/calendar/current/k.html>).

### **INSTRUCTOR INTELLECTUAL PROPERTY**

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

### **FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY**

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

### **SEXUAL VIOLENCE POLICY**

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>

### **UNIVERSITY STUDENT APPEALS OFFICE**

If a student has a concern about the course, academic matter, or a grade that they have been assigned, they must first communicate this concern with the instructor. If the concern cannot be resolved with the instructor, the student can proceed with an academic appeal, which normally begins with the Faculty. <https://www.ucalgary.ca/secretariat/student-appeals>

### **OTHER IMPORTANT INFORMATION**

Please visit the Registrar's website at: <https://www.ucalgary.ca/registrar/registration/course-outlines> for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk