GEOG 380 LEC 01 Geospatial Communication Winter 2022 classes: January 10th – April 12th, 2022

GFC HOURS (3-2)

Section	Days	Time	Location
LEC 01	MWF	10:00-10:50AM	EDC 179
Lab 01	M	11:00-12:50PM	ES 307
Lab 02	M	15:00-16:50PM	ES 307
Lab 03	T	12:00-13:50PM	ES 307
Lab 04	W	8:00-9:50AM	ES 307
Lab 05	R	9:00-10:50AM	ES 415
Lab 06	F	8:00-9:50AM	ES 415
Lab 07	F	14:00-15:50PM	ES 307

Instructor: Darren Sjogren	Office: ES 456
Telephone: (403) 220-2575	Email: sjogren@ucalgary.ca
Communication will be through D2L using email, Chat, or Discussion functions.	Office hours: Wednesday 15:00-16:00 (in-office and virtual) Tuesday 14:00-15:00 (virtual only) **OR** by appointment (contact using **chat** in D2L)

*The **Department of Geography** condemns the longstanding and continued injustices against those marginalized by racism, sexism, homophobia, transphobia, classism, xenophobia, able-bodied normativity, mental health profiling, and other forms of prejudice. We are pained by the fact that injustices are unevenly borne.* https://arts.ucalgary.ca/news/anti-racism-statement

Territorial Acknowledgement

The Department of Geography would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III. https://www.ucalgary.ca/indigenous/cultural-protocol

Official Course Description

An introduction to fundamentals in cartography, remote sensing, geographic information systems, and descriptive spatial statistics.

Course Objectives

The primary objective of this course is to provide the theoretical knowledge, technical skills, and practical experience necessary to pursue advanced courses in cartography, Geographic Information Systems (GIS), remote sensing, and statistics. Successful students will have a working knowledge of state-of-the-art GIS software and be able to produce cartographic products using real-world geospatial data.

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.

Course Learning Outcomes	PLO(s)*	Level(s)**
By the end of the course, a successful student will be able to:		
Describe conceptual & data models and evaluate their use	4,6,7	1
Describe electromagnetic radiation interactions with matter	4,6	1
Explain and apply different types of scale and resolution	4,6	1
Explain and apply abstraction and generalization concepts	4,6	1
Explain the linkages among scale, geometry, and spatial representations	4,6,7	1
Explain spatial and non-spatial descriptive statistical methods	3,4	1

Manipulate geographic and projected coordinate systems in software	6,7	1
Apply basic vector GIS operations	6,7	1
Implement elements of manual and automated image classification	3,4,6,7	1
Implement principles of map design	6,7	1
Implement spatial sampling techniques	3	1
Create maps using ArcGIS Pro and ArcGIS Online	6,7	1

**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

There are no prerequisites for this course.

Because this is an introductory geospatial course, students are not expected to have advanced computer skills with geospatial software. Students taking this course must be willing to learn basic computer skills, particularly with the Microsoft Windows operating system (e.g., students should be able to navigate the contents of a drive, create folders, copy files, create, and unpack .zip archives, etc.). These skills, in addition to using specialized geospatial software, will be taught in the lab exercises. Students should also possess, or be willing to self-learn, basic proficiency with standard office productivity software, such as Microsoft Word, Excel, and PowerPoint as these will not be explicitly taught in the course. Students who do not possess these skills and proficiencies should contact the instructor prior to the start of the course to obtain suggestions for online training opportunities that should be completed before undertaking the course.

Course Format

This course will follow a traditional format where theory is taught in the lecture component and practical application of theory will occur in the lab component. Usually, relevant theory will be presented in lecture before the associated labs, but, due to the length of the term and scheduling restrictions, this will not always be the case.

Lecture component will operate as follows:

- Lectures will occur MWF from 10:00-10:50 in EDC 179.
- The lectures will be dominated by PowerPoint presentations with episodic demonstrations and in-class activities when deemed appropriate.
- Although students are encouraged to attend the in-person lecture, we realize there may be some concern about attending a crowded lecture theatre or requirements for COVID-related isolation, so the instructor will offer a hybrid option for the lectures. The hybrid lecture will operate as follows:
    - The instructor will initiate a Zoom meeting at the beginning of the lecture period on a device with the camera pointed toward the front of the room so that no attending students are recorded. Note: if you ask a question during the class your voice will be recorded.
    - If you choose to attend the lecture remotely during the scheduled lecture time, Students are responsible for turning off their camera and/or microphone if they do not wish to be recorded. Students are welcome to ask questions in Zoom, but they should expect delays in response from the instructor. Any interaction on Zoom will be recorded.
    - Recordings of the lectures will be available on D2L and are intended for student and instructor use for this course and will normally be deleted at the end of term.
    - To access these Zoom meetings either to attend during the lecture period or for the recordings, go to Communication>Zoom in D2L. Captioning will be available.
    - Note: these recordings will not be production quality as they will be recorded on the instructor's mobile device.
- The instructor will have in-person and virtual office hours for additional assistance with course material.

Midterm Exam

The midterm exam will take place during the scheduled lecture period. There cannot be an online accommodation for this exam so all students must complete the exam in the lecture theatre at the scheduled time (see Course Schedule).

Due to the change to online learning until February 19, 2022, the date for the in-person midterm exam has been changed to March 4 during the lecture period.

Laboratory component will operate as follows:

- Students are expected to attend the lab section in which they are registered.
- There will NOT be a virtual (Zoom) option for the labs, but it is possible to install the software on your own computer (PC only) or use the remote login options (see below).
- Teaching assistants will provide introductory videos for each lab which are to be watched by all students **prior** to attending the in-person lab to ensure the most productive use of the lab period.
- Teaching assistants will be available during the lab period to answer questions and facilitate completion of the labs.
- Teaching assistants will have schedule office hours outside the for additional help but will NOT be always available.
- All labs will be completed digitally and submitted through D2L (no exceptions!).
- Due to space and scheduling restrictions, it may, or may not, be possible to attend other scheduled lab times (in which you are not registered) for additional help completing the lab exercises.
- There will be additional technical support and remote login options for accessing the software when the lab rooms are not available (more information below).

Learning Resources – Textbook and Readings

The following textbook is **STRONGLY** recommended. Older versions of the textbook are a reasonable substitution. Recommended readings will be provided out of this version of the text.

Introduction to Geospatial Technologies, 5th edition. Bradley A. Shillito, MacMillan Learning, New York, 2020.

Required & recommended readings from other sources will be assigned with the relevant topic as the term progresses. These readings will be posted on D2L. These additional readings will not require purchase and be available through the UofC Library or free web sources.

Learning Resources - Technologies and Requirements

The lectures and labs will operate in a traditional manner where computer resources are provided. However, if students wish to engage remotely (see above) in any component of the course, they should 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

Learning Resources – D2L Learning Management System and Online Tutorials

This course will use D2L learning management system for most online course materials and interaction (e.g., recorded lectures, text-based chat, discussion, posting of lecture materials, videos, assignment submission, online gradebook, etc.).

In some of the labs you will be provided links to tutorials which have been produced by Geography Department staff. **To access these resources, students are required to enable multi-factor authentication (MFA) on their UCalgary Office365 accounts.** For more information on multi-factor authentication and how to get started, see LINK.

Virtual office hours will be conducted using Zoom within D2L.

Learning Resources – ArcGIS Pro and ArcGIS Online software

The exercises and assignments in this course will primarily use Esri's ArcGIS Pro and ArcGIS Online software. Students may obtain a licence to install ArcGIS Pro on their personal computers. ArcGIS Pro runs on the Windows operating system only, and system requirements for the software can be found on the software vendor's website LINK.

For Apple Mac users, it may be possible to install the Windows operating system on a Mac computer using either Apple's Boot Camp or a commercial virtualization client, such as Parallels Desktop or VMware Fusion for Mac, although these options are supported by the University of Calgary, and students must obtain and install necessary software themselves (student discounts are often available to offset the cost of purchasing commercial virtualization software and a licence for the Windows operating system). Interested students are advised to contact their instructor for more information.

IMPORTANT: You will need an Esri account to complete this course. Anyone with a University IT account can create an Esri Account for access to ArcGIS Online, Esri Training and ArcGIS Pro *without having to submit a request*. Updated instructions are available in the following articles, previous instructions have been removed.

- ArcGIS – Esri Account (How to access ArcGIS Online, ArcGIS Pro and Esri Training)
- ArcGIS Pro - Personal Computer (How to install and license ArcGIS Pro on a personal computer)

Existing ArcGIS Online users have a couple of options; continue to use their existing Esri Account or create a new Esri Account accessible through their University IT login. For details, please see the 'ArcGIS – Esri Account Options' article.

For students who are unable to run ArcGIS Pro on their home computers, shared access to a campus computer via a remote connection will be available. For remote access, students will require a Windows or Mac-based computer and a reliable broadband connection. The instructions for remote login will be provided in an accompanying document posted on D2L.

In addition to the assistance provided by your teaching assistants and instructor, there will be additional technical support provided by the department. If the teaching staff for GEOG 380 are unavailable or you have a technical (e.g., why isn't my computer working or the GIS tool not working) you can contact the technical support. Note: the individuals who are offering the support cannot help with deadlines, what to do for full marks, grading rubric etc. For these types of questions, you will need to contact your teaching assistant. To access this addition technical support please see the accompanying document posted on D2L.

Assessment Methods

Lab Assignments	50%	
Midterm Exam	20%	In-class exam on March 04.
Final Exam	30%	Registrar scheduled exam.

*See course schedule for details and due dates.

Notes:

- There WILL BE a registrar-scheduled final exam in this class.
- It is NOT essential to pass all elements/components to pass the course as a whole.
- Only pens, pencils and erasers are allowed in exams. No other materials or devices are allowed.
- Late assignments will be assessed a penalty unless accompanied by the documentation indicated in the section "Missed Course Components" (below).

Policy on Late Assignments

Deliverables will be submitted through D2L and, as a result, will be automatically time stamped. A deliverable is considered late if the time stamp is later than the published due date/time. Deliverables received within 1 minute to 24 hours of the due date will be assessed a 10% penalty. This means if your assignment receives a grade of 78% it will be entered as 68% (78 - 10= 68) on the grade sheet. If it is received between 24 and 48 hours, it will be assessed a

20% penalty. If the assignment is received greater than 48 hours from the due date it will be assessed a penalty of 30%, and so forth.

Grading System

92 – 100	A+	76 – 80	B	60 – 64	C-
88 – 92	A	72 – 76	B-	56 – 60	D+
84 – 88	A-	68 – 72	C+	50 – 56	D
80 – 84	B+	64 – 68	C	0 – 49	F

Flexible Grade Option (CG Grade)
https://www.ucalgary.ca/pubs/calendar/current/f-1-3.html

Exams & Deferrals https://www.ucalgary.ca/registrar/exams

Supplementary Fees
Not applicable

Missed Course Components

- For all missed components
  - Notify the instructor as soon as possible, preferably before the deadline.
- Missed Exams follow the steps below.
  - Get documentation as outlined at https://www.ucalgary.ca/pubs/calendar/current/m-1.html
  - If the justification is accepted, the instructor will allow a deferred exam. The deferred exam will be administered by the Department of Geography. Times to be determined.
  - If the justification is not accepted, a grade of "0" will be recorded.
- Missed lab assignment deadlines follow the steps below.
  - Get documentation as outlined at https://www.ucalgary.ca/pubs/calendar/current/m-1.html
  - If the justification is accepted, the instructor will grant an extension.
  - If the justification is not accepted, a late penalty will be assessed.

Referencing Standard
In written work presented in this class, the accepted method for referencing the work of others will be the Chicago Manual of Style: https://www.chicagomanualofstyle.org/home.html

Important Dates
The last day to drop this course and receive a tuition fee refund is **Thursday, January 20th, 2022**. The last day to withdraw from this course is **Tuesday, April 12th, 2022**. No classes February 20 – 26th, 2022.

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

Writing support
Please note writing support resources provided by the Student Success Centre https://ucalgary.ca/ssc/resources/writing-support and the library https://library.ucalgary.ca/guides/writinghelp

University of Calgary Academic Integrity Policy
Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. 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://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure

For students wishing to know more about what constitutes plagiarism and how to properly cite the work of others, the Department of Geography recommends that they attend Academic Integrity workshops offered through the Student Success Centre: https://www.ucalgary.ca/student-services/student-success/learning/academic-integrity

Instructor Intellectual Property

Information on Instructor Intellectual Property can be found at https://www.ucalgary.ca/legal-services/university-policies-procedures/intellectual-property-policy

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.

Research

Students will NOT participate as subjects or researchers on human subjects.

Posting of Grades and Picking-up of Assignments

Graded assignments will be returned by the instructor or teaching through D2L. Grades and assignments will not be available at the Department of Geography's main office and assignments cannot be dropped off at the Department 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/pubs/calendar/current/b-6-1.html
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: https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure

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: freeman@ucalgary.ca).

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 us 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.

Media Recording (if applicable)
Please refer to the information presented above.

Course evaluations and student feedback
Student feedback will be sought at the end of the course through the standard University Student Ratings of Instruction (USRI) and Faculty course evaluation forms.

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/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy 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/).

Students requiring assistance are encouraged to email the **Student at Risk line** if they or others appear to need wellness assistance: sar@ucalgary.ca For more immediate response, please call: 403-210-9355 and select option #2.

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. Please see the policy available at https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf

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/

Emergency Evacuation/Assembly Points

Assembly points for emergencies have been identified across campus. Assembly points are designed to establish a location for information updates from the emergency responders to the evacuees; from the evacuated population to the emergency responders. For more information, see the University of Calgary's Emergency Management website: https://www.ucalgary.ca/risk/emergency-management. In case of emergency the Assembly Point for this classroom is **Scurfield Hall Atrium**.

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.