GEOGRAPHY 480
GFC HOURS (3-2)

Cartography and Geovisualization

Section	Days	Time	Location
LEC 01	TuTh	09:30 – 10:45	Web Based Course
LAB 01	Mo	14:00 – 15:50	Web Based Course
LAB 02	Th	15:30 – 17:20	Web Based Course

Instructor: Dan Jacobson	Office: ES 306
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Teaching Assistant: TBD	Email:

Official Course Description

Focuses on mapping technologies for cartography and geo-visualization. The role of cartography and geovisualization is explored both theoretically, and practically in the communication of spatial data. In lecture and lab-based settings, examines data considerations, map design fundamentals and techniques, map use and interactive design for the communication of geographic information.

Course Objectives

This course focuses on the creation and analysis of cartographic products. The lecture material will provide insights into cartographic representation, geographic visualization, and communication. A range of cartographic representations that are data and user appropriate will be created and critiqued. Work will be contextualized within recent debates and techniques in cartography and geovisualization. Students will become skilled at using industry-standard GIS software, such as the ArcGIS® software suite, through weekly computer laboratory exercises and online training.

Online Meeting Schedule

Section	Meeting Time	Meeting Days/Dates
LEC 01	09:30 - 10:45	Sep 8 (09:30-10:45), Sep 10 (09:30-10:45), Dec 8 (09:30-1045)
Lab B01	14:00 - 15:50	Sep 14 (14:00-15:50)
Lab B02	15:30 - 17:20	Sep 10 (15:30-17:20)

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)**
Produce a cartographic product appropriate to a dataset	6, 7	2
Competently employ components of the ArcGIS® software suite and related software packages to map and visualize geographic data	4, 6, 7	2
Select, analyze and evaluate appropriate graphic representation techniques for a range of temporal, attribute and spatial scales	3, 6,7	2,3

Assess, critique and implement principles of map design: including layout, color, symbolization and typography.	6,7	2,3
Implement and analyze data considerations for cartographic processes such as data abstraction, generalization, classification and selection	3,6,7	2,3
Compare different methods, media and mechanisms for map production and re-production.	6,7	3
Create, present, discuss, interpret, and critique cartographic products, in the context of existing literature	3,6,7,8	2
Deconstruct, illustrate and analyze the power, societal, philosophical and gender theories when interpreting map creation, use and evaluation.	1,4,7,8	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
Prerequisites: 3 units from Geography 231 or 380.
Prerequisite skills: Good working knowledge of generic computer software. This includes, but is not limited to file management, standard office products, such as Microsoft Word, Excel, PowerPoint, or alternative open-source or online equivalents. Experience with other Geographic Information System (GIS) software , cartographic software and graphic design software is useful but not required.

Learning Resources
Required textbooks: There is no required textbook for this course.
Readings from other sources will be assigned – notifications will be posted on D2L, and additional readings will not require purchase.

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. General technology information is available here https://elearn.ucalgary.ca/technology-requirements-for-students/

- A computer with the latest security and malware updates
- A current and updated web browser
- Office software products, such as Microsoft Word, Excel, PowerPoint, or alternative open-source or online equivalents.
- Webcam (built in or external)
- Microphone and speaker (built in or external) or headset with microphone
- Broadband internet connection
- Remote access will be provided to campus machines that use required software for the course.
  - Apple Mac, and Windows operating systems can be used
- To use a free student version of the software used for the labs in the course on your own computer only Microsoft Windows machines are supported
- This is a recommendation not a requirement for the course
- The system hardware requirements are specified here
  - https://pro.arcgis.com/en/pro-app/get-started/arcgis-pro-system-requirements.htm

Grading (Weighting)

Online training exercises	10%
Cartography lab assignments	70%
Final Project	20%

There is no final examination for this course

Assignment Dates and Timing

1. Four <u>online training</u> exercises (each at 2.5% of total grade)
Start: September 8
Deadline: November 30

Select four (4) online training exercises delivered by ESRI that use ArcGIS Pro. You may choose any four training exercises that you would find useful in this course but have not completed before. Certificates of completion are provided after you take the online training. Submission to D2L. (FREE)

2. <u>Cartography lab assignments</u>

	Start*	Deadline	Start*	Deadline
	Lab Sect01	Lab Sect01	Lab Sect02	Lab Sect02
Lab 1 (14 % of grade)	M September 14	Sun September 27	R September 17	W September 30
Lab 2 (14 % of grade)	M September 28	Sun October 11	R October 1	W October 14
Lab 3 (14 % of grade)	M October 12	Sun October 25	R October 15	W October 28
Lab 4 (14 % of grade)	M October 26	Sun November 15	R October 29	W November 18
Lab 5 (14 % of grade)	M November 16	Sun November 29	R November 19	W December 2

 * Labs may be released prior to their scheduled formal start date to facilitate students working at their own pace. However, instructional lab support will only be provided in the date window allocated to each lab.

3. <u>Final Project</u>
Start: September 24
Initial idea. Deadline: October 30
Final Project. Deadline: December 6

Submission of final project overview document and data to D2L.

- It is essential to pass all components to pass the course as whole
  - To pass the course, students must receive a passing grade in both the lecture component (i.e. the final project) and the laboratory component (i.e., combined scores from the online training exercises and the lab assignments).

- Late assignment policy: Late assignments will be assessed a 20% penalty per day.
  - The schedule for online training exercises, and the cartography lab assignments will be posted to the web page on the university's Desire2Learn system. Deadlines for assigned work are firm. Late submissions will be penalized with a grade reduction of 20% per day beyond the due date.

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 any course work due to illness, or another reasonable circumstance, a "valid excuse" will be considered. The student is required to email the instructor, as soon as possible, and preferably prior to the deadline.

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.

Course-Specific Administrative Policies and Procedures
This section describes the administrative policies and procedures that students are expected to follow for this course. If you have questions or concerns about these policies or procedures, please speak to your instructor immediately.

1. You will be required to complete several assignments during this course. A due date and time will be posted on D2L for each assignment, and these deadlines are firm. If extenuating circumstances arise that will prevent you from completing an assignment by the deadline, you must request an extension from your lab Teaching Assistant at least <u>one business day in advance</u> of the deadline. Late assignments will be assessed a 20% penalty per day.

2. All assignments must be submitted online through the course D2L page using the appropriate dropbox provided for each of your assignments.

3. The D2L submission system enables you to view your uploaded files to verify that they are correct and complete (if you don't know how to do this, please ask your TA to demonstrate it for you). In this course, **you are required to verify that your uploaded submissions are correct**. Requests to resubmit materials after a submission deadline has passed, or especially after an assignment has been graded, will not be granted – ensure that you have uploaded the correct materials **before you** submit your work.
    a. Maps should be uploaded <u>individually</u> in the specified format. A grade penalty may be assigned, for incorrect file format submission.
    b. Written work should be uploaded <u>individually</u> in the specified format. A grade penalty may be assigned, for incorrect file format submission.
    c. Other files in your submission (e.g., data files, etc.) should be zip-archived (.zip or .7z file), especially if there are multiple other files in your submission. If you are not sure how to create zip files, please ask your Teaching Assistant for a demonstration.

4. Your lab Teaching Assistant will be available for consultation and assistance during the scheduled lab period and their scheduled office hours. Your TA is not compensated for their time outside of these hours, so please refrain from seeking their help outside of lab hours or office hours.

(Remember, they are students, too, with their own busy schedule and work to complete!)

5. **Plagiarism is a serious academic offence that will be vigilantly monitored and reported in this course.** Essentially, plagiarism can arise whenever a student submits material for evaluation that was not entirely their own work (e.g., copied from another student, "borrowed" from another source without proper citation, based on ideas that were not your own) and the source of that work was not appropriately acknowledged. All students in this course are required to review and become familiar with university policies and regulations regarding plagiarism and academic misconduct in the University Calendar.

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
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
Students will not participate as subjects or researchers on human subjects in this course

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.

Posting of Grades and Picking-up of Assignments
Graded assignments from the instructor or teaching assistant are made available electronically through the course D2L webpage. Grades and assignments will not be available at the Department of Geography's 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.