

## GEOGRAPHY FINAL COURSE OUTLINE: FALL 2020

### GEOGRAPHY 586 GFC HOURS (3-2)

#### Web Mapping and Internet GIS

Section	Days	Time	Location
LEC 01	TuTh	14:00 – 15:15	Web Based Course
LAB 01	01		Web Based Course

Instructor: Ryan Burns	Office: ES 442
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#### Official Course Description

Explores and practices theoretical and applied concepts related to online mapping. Covers advantages and techniques for publishing, visualizing and accessing maps and data on the internet. Develops web mapping applications including static and interactive platforms.

#### Course Objectives

In 2020, increasing amounts of geographic information are delivered over the web. No longer is it enough for activists, administrators, analysts, and researchers to understand the processes of making desktop-software maps. New patterns of communication necessitate critical thought regarding – and effective use of – collecting, analyzing, and visualizing information on the web.

In this course, we will develop our spatial thinking by leveraging theoretical and applied concepts of web mapping. From a theoretical perspective we will study advantages and techniques for publishing, visualizing and accessing maps and data on the Internet, rather than through other methods. This entails examining architectures of Web GIS/Web mapping systems, markup languages (e.g. HTML, XML, and KML), scripting languages, screen cartography, data sharing, and geoportals. We will also develop some ways of thinking about the social, political, and economic impacts of web mapping as a set of practices and knowledges. From an applied perspective you will learn to develop Web mapping applications including static and interactive platforms. You will primarily learn and work with some well-known open source software and libraries.

#### Online Meeting Schedule

Section	Meeting Day	Meeting Time	Meeting Dates
LEC 01	TuTh	14:00 – 15:15	Sep 8, Sep 10, Sep 15, Sep 17, Oct. 6, Oct 8, Oct 13, Oct 15, Nov 3, Nov 5, Nov 17, Nov 19, Dec 1, Dec 3
LAB 01	N/A		None – all asynchronous

#### 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.

**By the end of this course, students should be able to:**

<b>Course Learning Outcomes</b>	<b>PLO(s)*</b>	<b>Level(s)**</b>
Design an interactive spatial visualization project that poses interesting inquiries	2,3,4,5,6,7,8	3
Assess whether a web map effectively communicates spatial information	1,6,7,8	3
Develop a web script that dynamically displays spatial information	3,6,7,8	3
Formulate a critique of web mapping's affordances, limitations, and assumptions	1,2,5,7,8	3
Explain the benefits and drawbacks of different Web GIS architectures	6,7,8	3
Describe how web mapping mobilizes particularly geographic questions	1,2,4,7,8	3

**\*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 357, 437, 480, 482

### **Learning Resources**

Weekly required readings will be posted to D2L.

Recommended textbook: Fu, P. 2020. *Getting to Know Web GIS*. Redlands, CA: Esri Press. **(not required)**

### **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 (I can help you work with Windows, OSX, or Linux)
- A current and updated web browser (I recommend and can support Chrome or Firefox)
- Webcam (built in or external)
- Microphone and speaker (built in or external) or headset with microphone
- Broadband internet connection

### **Grading (Weighting)**

<b>Assignment</b>	<b>Weight</b>	<b>Note</b>
Reading quizzes	10%	<i>Weekly on Wednesdays, beginning in week 2.</i>
Midterm Exam	20%	<i>Short/long answer format</i>
Final Projects	20%	<i>Work throughout term; final presentations Dec 1/8</i>
Lab Exercises	50%	<i>Due throughout term</i>

*There will not be a final exam. A passing grade is not required on every component in order for the student to pass the course as a whole.*

### Midterm exam

The midterm exam will go online 5pm on October 28<sup>th</sup> and students will have until 5pm on October 29<sup>th</sup> to complete it. The exam is written to take about 2 hours, and it will close at 3 hours. The exam will be administered on D2L, and students should expect a mix of multiple choice, short answer, and long answer questions. Due to the exam format which will require creative individual thinking, students may collaborate with their peers, review their notes, and find material online, but all written answers must be the student's original writing, with citations provided where necessary.

### Grading System

97 – 100	A+	77 – 80	B	59 – 61	C-
91 – 96.9	A	71 – 76	B-	55 – 58	D+
87 – 90.9	A-	65 – 70	C+	50 – 54	D
82 – 86.9	B+	62 – 64	C	0 – 49	F

In the event that a student misses a midterm or any course work due to illness, I will ask the student for a valid excuse.

### 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](http://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](http://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](http://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 in the course will not be 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 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 returned by the instructor or teaching assistant personally during scheduled lecture or laboratory periods, unless they 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](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](http://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](mailto: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 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**

- Student Union VP Academic 403-220-3911, [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)
- Students Union Representatives for the Faculty of Arts – 403-220-3913, [arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca), [arts2@su.ucalgary.ca](mailto:arts2@su.ucalgary.ca), [arts3@su.ucalgary.ca](mailto:arts3@su.ucalgary.ca), [arts4@su.ucalgary.ca](mailto:arts4@su.ucalgary.ca)
- Student Ombuds Office information can be found at: [www.ucalgary.ca/ombuds/](http://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.