



**GEOG 231: Introduction to Geospatial Methods
Fall 2017 - H(3-3)**

COURSE INSTRUCTOR

Dr. Victoria Fast

Office: ES 452

Office hours: THURS 11:00 – 12:00

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Section	Days	Time	Location*
LEC01	MoWeFr	10:00 – 10:50	ES 443
LAB01	Tu	11:00 – 13:50	ES 307
LAB02	Tu	14:00 – 16:50	ES 307
LAB03	Th	14:00 – 16:50	ES 307

**The emergency evacuation assembly point for all classes taught in Earth Sciences is ICT Food Court.*

COURSE DESCRIPTION

An introduction to cartography, coordinate systems, remote sensing, geographic information systems and descriptive statistics.

COURSE OBJECTIVES

In the introduction to geospatial methods course, the primary objective is to introduce students to the tools, techniques, and science of geographic information, including web mapping, cartography, geodesy, GIS, and remote sensing. The course will serve as a foundation for upper-level cartography, GIS, remote sensing, and statistics courses.

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 they facilitate and the expected level of achievement.

Course Learning Outcomes	PLO(s)	Level(s)
Implement multiple geospatial methods to critically synthesize a human-environment process.	1, 2	1
Explain geographic representation and its conceptual underpinnings for the major spatial data models used in geography.	3, 4	1
Describe the basic nature of geographic/spatial data, including core concepts such as scale, spatial autocorrelation, and topology.	5	1

Demonstrate spatial data literacy skills, including inputting, managing, analyzing, and presenting spatial data.	3, 4	1
Describe various spatial reference systems and the challenges of representing a 3-D Earth.	3	1
Apply industry standard software to perform fundamental tasks in GIS, cartography, remote sensing, and statistics.	6	1
Generate cartographically sound maps and reports to communicate geographic information in a variety of media.	6, 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, (3) Advanced.

PREREQUISITE

Pure Mathematics 30 or Mathematics 30-1 or Mathematics II (offered by continuing Education).

REQUIRED READINGS / TAKE HOME TASKS

A take home task will be assigned weekly, and can include readings, videos, and challenges. They will be introduced in lecture and posted on D2L. Please complete the weekly task, as they are developed to achieve the learning goals in this course, and will be tested throughout.

SUPPLEMENTARY FEES

No supplementary fee has been assessed for this course.

COURSE EVALUATION COMPONENTS AND WEIGHTING

Laboratory Assignments (5)	53%
In-Class Engagement	12%
Map reading quiz	05%
Midterm	10%
Registrar-Scheduled Final Exam	20%

Note: It is not necessary to pass each course component in order to pass the course.

GRADING SYSTEM

Grade	Grade Point Value	% grade	Description
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 in the same subject
D	1.00	50-55	Minimal pass. Insufficient preparation for subsequent courses in the same subject.
F	0	<50	Failure. Did not meet requirements.

For additional detailed course information posted by the Instructor, see the course website on Desire2Learn at <https://d2l.ucalgary.ca/d2l/home>

POSTING OF GRADES AND PICKING-UP OF ASSIGNMENTS

- All assignments will be handled through D2L or personally.
- Grades will be available to each student on D2L by password access.

POLICY REGARDING ROUNDING OF FINAL GRADES

In an effort to be fair to all students in the class, your individual grade will not be rounded up, regardless of how close you are to a grade break. In short, the final grade breaks are hard breaks. This policy minimizes ambiguity and ensures the grading is as fair and clear as possible. For more information see the "Grade appeal and rounding policy" on D2L.

MISSING EXAMS

As listed in the Deferral of final Examinations section of the University of Calgary Calendar are illness, domestic affliction or religious conviction. If you miss an assignment or examination and you provide me with the appropriate documentation, you will have one opportunity to make arrangements for the missed work. Without appropriate documentation, you will receive a zero for that portion of your grade.

USRI

At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

WRITING ACROSS THE CURRICULUM

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Support Services can be utilized by all undergraduate and graduate students who feel they require further assistance.

HUMAN SUBJECTS

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

INTERNET AND ELECTRONIC COMMUNICATION DEVICE INFORMATION

No restriction on the use of laptops and tablets in class if they are used to take notes or find information relevant to the class, and if there is *no disturbance or distraction of other students or the instructor*. Phones must be turned off during class time unless use is relevant to the class.

PRINCIPLES OF CONDUCT

The University of Calgary 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 the University's property. This statement applies in all situations where the members of the University community are acting in their University capacities. All Members of the University Community have a responsibility to familiarize themselves with this statement which is available at: <http://www.ucalgary.ca/pubs/calendar/current/j-2.html>

PLAGIARISM

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. Quite 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 proper referencing and 3) using work completed for another course. This activity will not be tolerated in this course and students conducting themselves in this manner will be dealt with according to the procedures outlined in the calendar: <http://www.ucalgary.ca/pubs/calendar/current/k-5.html>

ACADEMIC ACCOMMODATIONS

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. The procedure can be found at: ucalgary.ca/policies/files/policies/student-accommodation-policy

Students needing an accommodation based in relation to their coursework or to fulfil requirements for a graduate degree, on a Protected Ground other than Disability, should communicate this need, preferably in writing to their instructor or the appropriate Associate Dean or Department Head.

ucalgary.ca/policies/files/policies/student-accommodation-policy

Students needing an Accommodation unrelated to their coursework or the requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience).

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

FOIP: The Freedom of Information and Protection of Privacy (FOIP) legislation disallows the practice of having students retrieve assignments from a public place, e.g., outside 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 provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

CONTACT INFORMATION FOR STUDENT AND FACULTY REPRESENTATION

- SU VP Academic Phone: 220-3911 and e-mail: suvpaca@ucalgary.ca
- SU Faculty Rep. Phone: 220-3913 and e-mail: arts1@ucalgary.ca

The students ombudsman office information can be found at:

<http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info>

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, 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.

FACULTY OF ARTS PROGRAM ADVISING AND STUDENT INFORMATION RESOURCES

- Have a question, but not sure where to start? The new Faculty of Arts Students Centre is your information resource for everything in Arts! Drop in at SS 102, call us at 403-220-3580 or email us at ascarts@ucalgary.ca you can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210 7625 or visit them at the MacKimmie Library Block.

Contact for Students Union Representatives for the Faculty of Arts:

arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca