



**GEOGRAPHY FINAL COURSE OUTLINE: WINTER 2018**  
**GEOGRAPHY 415**  
**H(3-2)**

**Hydrology**

Section	Days	Times	Location
LEC 01	MoWeFr	09:00 – 09:50	ES 920
LAB 01	Mo	14:00 – 15:50	ES 415
LAB 02	Tu	15:30 – 17:20	ES 415

Instructor: Brent Else	Office: ES 340
Telephone: 220 2484	Email: belse@ucalgary.ca

**Please note:** *The appropriate emergency evacuation assembly point for classes taught in Earth Sciences is ICT Food Court.*

**Official Course Description:**

The physical basis of water resource management. Elements of the hydrologic cycle: precipitation, ground water and stream flow. Introduction to the physical hydrology of different ecosystems and landscapes (e.g., peatlands, permafrost and mountain terrain) and to methods in ecosystems and catchment hydrology.

**Course Objectives:**

Students will learn the processes that allow water to flow through the hydrological cycle (evaporation, precipitation, groundwater, and streamflow), and how to measure transport through each of those components. Students will also learn about snow hydrology and water quality.

**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)
Students will learn to understand the hydrologic cycle and the water balance equation as a unifying framework for studying and managing freshwater.	1	3
Students will learn to use various techniques to measure, model, or calculate flows and reservoirs within the hydrological cycle.	3	2
Students will learn to connect concepts of hydrology to physical geography (meteorology, geomorphology, soils & vegetation, ecology) and human geography (land use, energy & economy, urban planning, sustainability).	2	2
Students will learn to See themselves as part of the hydrological cycle, and understand the needs and demands that others place on the hydrological cycle.	1	3
Students will learn to Be excited about hydrology, and understand it as a broad field of study with many practical applications.	1	1

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**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.

**Prerequisites:** Geography 305 or 307 and 339, or a course in statistics by consent of the Department.

**Learning Resources:**

None. Readings will be provided.

**Grading/Weighting**

There is no final examination to be scheduled by the Registrar’s Office. The lab assignments must be passed to pass the course as a whole.

- Lab Assignments: 35% (5 assignments @ 7% each)
- Quizzes: 15% (4 quizzes @ 3.75% each)
- Midterm Exams: 40% (2 @ 20% each)
- Final Review test: 10% (Last day of class)

**Grading System**

94-100	A+	74-78	B	60-63	C-
86-94	A	70-74	B-	55-50	D+
82-86	A-	67-70	C+	50-55	D
78-82	B+	63-67	C	0-50	F

In this course, most assignments will be assessed using a rubric. Rubrics communicate expectations for course work, and provide a framework for assessment. This approach applies to the course as a whole, and students can expect letter grades to reflect the following criteria of achievement:

Grade	Criteria
F	Student cannot display a basic understanding of course materials
D	Student displays only a basic understanding of course materials
C	Student has a modest understanding of course materials, and can apply those understandings in basic problem solving.
B	Student has a good understanding of course materials, and can make connections between various course topics to solve interconnected problems.
A	Student has an excellent understanding of course material, and can solve problems not directly discussed in lectures/readings/assignments.

**Human subjects**

Students in the course will not be expected to participate as subjects or researchers for research on human subjects.

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

## **SUPPLEMENTAL INFORMATION**

### **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, faculty members can and should consider quality of writing as a factor in the evaluation of student work. The services provided by Writing Support Services can be utilized by all undergraduate and graduate students who feel they require further assistance: [www.ucalgary.ca/ssc/writing\\_support/overview](http://www.ucalgary.ca/ssc/writing_support/overview).

### **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: [www.ucalgary.ca/access/accommodations/policy](http://www.ucalgary.ca/access/accommodations/policy). 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 the Department Head (email: [geograph@ucalgary.ca](mailto:geograph@ucalgary.ca)).

### **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: [www.ucalgary.ca/pubs/calendar/current/k-5.html](http://www.ucalgary.ca/pubs/calendar/current/k-5.html).

**Internet and electronic communication device information:**

There is 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, unless you have previously identified yourself to the instructor as a health care or law enforcement professional. The use of any calculators and/or devices during examinations will be allowed.

**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.

**Posting of Grades and Picking-up of Assignments**

Graded assignments will be returned by the instructor or teaching assistant personally during schedule 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.

**Faculty of Arts Program Advising and Student Information Resources**

Have a question, but not sure where to start? The 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](mailto:ascarts@ucalgary.ca). You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate>, which provides detailed information about common academic concerns.

For guidance on course registration (add, drop, swap), information about paying fees, and assistance with your Student Centre, contact Enrolment Services at 403-210-7625 or visit them at the MacKimmie Block.

**Contact Information for Student and Faculty Representation**

- SU VP Academic Phone: 220-3911 and e-mail: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca)
- SU Faculty Rep. Phone: 220-3913 and e-mail: [arts1@ucalgary.ca](mailto:arts1@ucalgary.ca)
- The students ombudsman office information can be found at: [www.ucalgary.ca/ombuds/](http://www.ucalgary.ca/ombuds/)

**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/>).

**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.

**USRI Surveys**

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](http://www.ucalgary.ca/usri)). Your responses make a difference, so please participate in USRI surveys.