



## COURSE OUTLINE

### 1. **Course:** ENSC 401, Environmental Science Field Course I - Fall 2020

Lab 01: MWF 15:00 - 15:50 - Online and 08:00 - 18:00 - Online and TR 08:00 - 18:00 - Online

<b>Instructor</b>	<b>Email</b>	<b>Phone</b>	<b>Office</b>	<b>Hours</b>
Dr Daniel Shugar	daniel.shugar@ucalgary.ca	403 220-5028	ES 230	By appointment

This course will run M-F Aug 24 - Sept 4, from 9am until about 5pm. During the remainder of the term, we have scheduled meeting times MWF 3pm until 3:50pm, and a schedule of topics is in the Lab Manual on D2L.

#### **Online Delivery Details:**

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time.

Course will be delivered via a mix of Synchronous (and recorded for later viewing) Zoom lectures, pre-recorded videos (via YouTube private channel), and individual field data collection. Since we likely will have students in different time zones enrolled in the course, all Zoom sessions will be recorded and posted to D2L so you can watch (or rewatch) them later.

Since the course is being delivered remotely, I will have flexible office hours during the term. In the Lab Manual (on D2L) you will see specific dates throughout the term listed as 'Office Hours' but if you want to chat at any other time, please just send me an email. I will aim to respond to email inquiries within 24 hrs except on weekends and holidays.

#### **Course Site:**

D2L: ENSC 401 B01-(Fall 2020)-Environmental Science Field Course I

**Note:** Students must use their U of C account for all course correspondence.

### 2. **Requisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

#### **Prerequisite(s):**

Biology 315 or Statistics 327; and admission to the Environmental Science program.

#### **Note(s):**

- This course occurs in rugged field conditions and varying weather, for which participants must be prepared and equipped. A supplementary fee will be assessed to cover additional costs associated with this course. Students will require consent of the program to drop this course.

### 3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
Google Maps Navigation	5	Sept 9
Group Research Proposal (question)	3	Sept 11
Google Maps Topography	7	Sept 16
Site description	5	Sept 18
Vegetation	11	Sept 30
Group Research Proposal (rough draft)	3	Oct 9
Group Research Proposal (peer review feedback - individual)	4	Oct 14
Group Research Proposal (peer review feedback - group)	5	Oct 23
Water Quality/Discharge	11	Oct 25
Air Quality	11	Nov 18
Group Research Proposal (final submission)	15	Nov 27
Group Research Proposal (presentations)	10	Nov 27-Dec 2
Quizzes	10	variable

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
<b>Minimum % Required</b>	95 %	88 %	83 %	78%	74%	70 %	66 %	62%	58%	54 %	50 %

Late policy - I will accept late assignments, but will deduct 10% of the assignment total per 24hr period following the due date, up to a period of 5 days, after which I will no longer accept the assignment.

#### 4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

Quizzes are designed to take 30 minutes to complete but you will be given 60 minutes (timed in D2L) to account for any issues.

#### 5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

This class is an inquiry-based course that involves traditional lectures as well as group work, and individual field data collection. While time is specifically scheduled during the main part of the course (Aug 24-Sept 4) for field data collection, I understand that especially during a pandemic, your own personal situation may preclude a fixed schedule due to work obligations, child care, etc. As a result, assignments are spread out over the rest of Fall term to allow you to collect and analyze field data at your convenience.

#### 6. **Course Materials:**

A course Lab Manual will be available on D2L and will be discussed on the first day of class.

#### 7. **Examination Policy:**

No aids are allowed on tests or examinations.

Students should also read the Calendar, [Section G](#), on Examinations.

#### 8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

## 9. Writing Across The Curriculum Statement:

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section [E.2](#) of the University Calendar.

## 10. Human Studies Statement:

Students will not participate as subjects or researchers in human studies.

See also [Section E.5](#) of the University Calendar.

## 11. Reappraisal Of Grades:

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See [Section I.3](#) of the University Calendar.

- a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections [I.1](#) and [I.2](#) of the University Calendar
- b. **Final Exam:** The student shall submit the request to Enrolment Services. See [Section I.3](#) of the University Calendar.

## 12. Other Important Information For Students:

- a. **Mental Health** 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, [Mental Health Services Website](#)) and the Campus Mental Health Strategy website ([Mental Health](#)).
- b. **SU Wellness Center:** For more information, see [www.ucalgary.ca/wellnesscentre](http://www.ucalgary.ca/wellnesscentre) or call [403-210-9355](tel:403-210-9355).
- c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email ([syasa@ucalgary.ca](mailto:syasa@ucalgary.ca)) or phone at [403-220-2208](tel:403-220-2208). The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>)
- d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples.**
- e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at [procedure-for-accommodations-for-students-with-disabilities.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Program Director of the Environmental Science Program, Dr. Daniel Shugar by email [daniel.shugar@ucalgary.ca](mailto:daniel.shugar@ucalgary.ca) or phone 403 220-5028. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See [Section E.4](#) of the University Calendar.

- f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPPA). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see [Legal Services](#) website.
- g. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](#) Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca). SU Faculty Rep., Phone: [403-220-3913](#) Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca). [Student Ombudsman](#), Email: [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca).
- h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.
- i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

## Environmental Science Field Course I, Fall 2018

### Course Outcomes

By the end of this course, students will have foundational ability to conduct environmental assessments (Phase 1 and Phase 2) from initial planning to a completed document.

In particular, successful students will be able to:

1. apply specific lab and field techniques in ecology, hydrology, chemistry, geology and field navigation
  - a. identify and quantify common plants and apply ecosite classifications
  - b. quantify vertebrate habitat use
  - c. measure air quality using physical sampling
  - d. measure and interpret physical, chemical and biological metrics of water quality
  - e. measure water discharge of flowing water
  - f. use maps, compass, and GPS to locate specific points
2. apply the concepts of variability and error in gathering and interpreting data
  - a. identify accuracy and precision of measurements
  - b. design studies that account for natural variability when choosing sampling locations and intensity
  - c. apply statistical methods to collected data and draw appropriate conclusions
3. assess data with respect to government environmental standards and the peer-reviewed literature
4. integrate human use of the environment when interpreting data and recommending actions
5. communicate effectively when working in teams, when writing reports, when creating scientific posters and when giving oral presentations

### Course Outcomes:

- Apply lab and field methods in environmental science.
- Apply concepts of variability and error in data collection.
- Assess data according to government standards and peer-reviewed literature.

- integrate human use into conclusions based on data
- Communicate in discussions, in writing, and in oral presentations.

Electronically Approved - Aug 21 2020 06:22

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**Department Approval**

Electronically Approved - Aug 21 2020 10:44

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**Associate Dean's Approval for...**

1. A non-registrar scheduled final examination.