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**COURSE OUTLINE**  
**Hydrology**

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**Contact:** [fargey@uvic.ca](mailto:fargey@uvic.ca) or 250-721-7342  
**Office Location:** DTB B308  
**Office Hours:** Tuesdays and Wednesdays 11:00 am – 12:30 pm, *or by appointment*  
**Class Meetings:** Tuesdays and Wednesdays 4:30 to 5:50 pm  
Location: DTB A104

**Lab Information:**

B01	W	10:30 am to 12:20 pm	HSD A170 (on March 22 <sup>nd</sup> CLE A012)
B02	M	3:30 to 5:20 pm	BEC 180
B03	T	1:30 to 3:20 pm	BEC 180

*TA information posted on CourseSpaces*

**COURSE DESCRIPTION**

This course provides an overview of hydrological processes, measurement techniques and data analysis. The movement of water in the hydrologic cycle via precipitation, interception, evapotranspiration, surface runoff, infiltration, soil moisture, groundwater flow and streamflow generation will be examined. Applied aspects and local examples will be discussed. Lecture material is complimented by laboratory assignments and a field trip on a Friday in March.

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**LEARNING OUTCOMES**

1. To understand the different hydrological processes involved in the hydrologic cycle.
2. To know how these hydrologic processes differ at a variety of scales (local, regional, global).
3. To learn about and practice basic measurement and data analysis techniques in hydrology.
4. To investigate how recent and anticipated changes in the hydrological cycle impact water quantity, quality and availability.

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**REQUIRED TEXT**

Dingman, L. (2015). Introduction to Physical Hydrology (3rd Edition) Waveland Press (available at the University Bookstore)

A second edition of this textbook is acceptable, however assigned readings (pages and chapters) will reference the third edition only. If you use an older edition, you are responsible for matching content between books.

In addition, a list of supplemental readings and learning materials will be posted on CourseSpaces throughout the term.

A good alternate textbook for this course is provided below. If you use this book, you are responsible for identifying and researching any content differences between the required textbook and this resource. Hendriks, M.R. (2010). Introduction to Physical Hydrology. Oxford University Press

## EVALUATION

Midterm Exam (February 21 <sup>st</sup> in class)	15%
Final Exam (During Exam period)	30%
Laboratory Assignments x 6	40%
<i>Lab Weights: Lab 1,6 (4% each), Labs 2,3,4,5 (8% each)</i>	
Lab Exam (April 4 <sup>th</sup> in class period)	15%

**Exam Format:** The questions for the midterm exam and final exam will be based on lectures, posted learning resources and class discussion. The midterm test will cover only the topics discussed immediately preceding it. The final exam is comprehensive, but will be weighted more heavily on material not previously tested on. Format includes a combination of short-answer, problem-solving and multiple-choice questions. The lab exam questions will be based on lab assignments, background material and lab discussions.

## GRADING SYSTEM

As per the Academic Calendar:

Grade	Grade point value	Grade scale	Description
<b>A+</b> <b>A</b> <b>A-</b>	9 8 7	90-100% 85-89% 80-84%	<b>Exceptional, outstanding and excellent</b> performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.
<b>B+</b> <b>B</b> <b>B-</b>	6 5 4	77-79% 73-76% 70-72%	<b>Very good, good and solid</b> performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
<b>C+</b> <b>C</b>	3 2	65-69% 60-64%	<b>Satisfactory, or minimally satisfactory.</b> These grades indicate a satisfactory performance and knowledge of the subject matter.
<b>D</b>	1	50-59%	<b>Marginal</b> Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
<b>F</b>	0	0-49%	<b>Unsatisfactory</b> performance. Wrote final examination and completed course requirements; no supplemental.
<b>N</b>	0	0-49%	Did not write examination or complete course requirements by the end of term or session; no supplemental.

## GEOGRAPHY DEPARTMENT INFORMATION

Geography Department website: <http://geog.uvic.ca>

Undergraduate Advisor: Phil Wakefield [geogadvisor@uvic.ca](mailto:geogadvisor@uvic.ca)

Department Chair: Dr. Johannes Feddema [geogchair@uvic.ca](mailto:geogchair@uvic.ca)

## COURSESPACES

CourseSpaces learning management systems (LMS) will serve as the main avenue of communication (<http://coursespaces.uvic.ca>). Please monitor the page on a regular basis for course announcements. If you are having difficulty logging in or password problems, contact the Computer Help Desk Email: [helpdesk@uvic.ca](mailto:helpdesk@uvic.ca), Tel: 250-721-7687

## IMPORTANT COURSE POLICIES

A high level of student cooperation and participation, involving asking and answering questions is expected. Students are expected to attend all lectures, take notes and be punctual for class.

Cell phones and portable music players must be **turned off or silenced** during lectures.

Topic handouts based on lecture presentations will be provided before the beginning of class meetings on CourseSpaces. These handouts will be removed **7 days** after the posting date. Students are responsible for downloading/saving and completing notes packages. *If you miss any material, make arrangements to get handouts from a fellow student, not from the instructor.*

**Students must complete all evaluation components to obtain credit.** Failure to complete an any evaluation component without permission from the instructor, will result in an 'N' grade, which equals a Grade Point Value of 0.

Students will not be permitted to write make-up tests except for documented medical or compassionate reasons. Please inform the instructor of your situation promptly and present written proof within five working days. Any make-up test or examination may not follow the same format as the in-class one.

Lab assignments are due at the beginning of your lab section, thereafter late penalties will be applied.

Late assignments will be penalized **20% per day** (including weekends and holidays). Exceptions will only be granted for documented medical or compassionate reasons. Written proof must be provided within five working days. *Only the course instructor can grant exceptions.*

Details regarding your labs and their marks are managed by the course TAs. Please discuss any issues or questions on labs with your TA first.

Please attend only the laboratory section for which you are registered. If you must miss a lab for exceptional circumstances, please make arrangements with your TA in advance to attend another section. This however does not change the due date of your lab assignment.

Conflicts with holidays or travel plans are not considered an acceptable reason to apply for a deferred examination or an assignment extension.

Unless otherwise stated students are expected to complete assignments **independently**.

## **PLAGIARISM**

Academic dishonesty (plagiarism, cheating) is a very serious matter in any academic institution and is dealt with severely at the University of Victoria. *The responsibility of the institution:* Instructors and academic units have the responsibility to ensure that standards of academic honesty are met. By doing so, the institution recognizes students for their hard work and assures them that other students do not have an unfair advantage through cheating on essays, exams, and projects. *The responsibility of the student:* Plagiarism sometimes occurs due to a misunderstanding regarding the rules of academic integrity, but it is the responsibility of the student to know them. If you are unsure about the standards for citations or for referencing your sources, ask your instructor.

Infractions will be dealt with in accordance with University policy. Commonly, the penalty for any form of cheating/plagiarism is a grade of F on the tests or laboratory assignments, or a final grade of F in the course. However, depending on the severity of the case other penalties may include a record on the student's transcript or expulsion.

Please familiarize yourself with the University policy on academic integrity found in the Undergraduate Calendar at the following website. Please contact me if you have any questions.

<http://www.uvic.ca/learningandteaching/students/resources/expectations/>

## **ACCESSIBILITY**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a documented disability/health consideration that may require accommodations, please feel free to approach me and/or the Resource Centre for Students with a Disability (RCSD) as soon as possible. The RCSD staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <http://rcsd.uvic.ca/>. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

## **POSITIVITY AND SAFETY**

The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members. To ensure that all class members feel welcomed and equally able to contribute to class discussions, we will all endeavour to be respectful in our language, our examples, and the manner in which we conduct our discussions and group work. If you have any concerns about the climate of the class, please contact me.

## **Course Experience Survey (CES)**

We value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

## Course Information

Week	Dates	Tentative Lecture Schedule	Lab Schedule
1	Jan 2 to 6	Topic 1: Introductory Concepts	No Lab
2	Jan 9 to 13	Topic 1 cont., Topic 2: Atmospheric Water	Lab 1: The Hydrological Cycle
3	Jan 16 to 20	Topic 2: cont.	*Lab 2: Watershed Analysis, Lab 1 Due
4	Jan 23 to 27	Topic 3: Soil Water	Lab 2 cont.
5	Jan 30 to Feb 3	Topic 3: cont.	Lab 3: Water Vapour and Evapotranspiration, Lab 2 Due
6	Feb 6 to 10	Topic 4: Groundwater	Lab 3 cont.
7	Feb 13 to 17	<i>Reading Break</i>	No Labs
8	Feb 20 to 24	Midterm and Topic 4 cont.	Lab 4: Water Balance Model Lab 3 Due
9	Feb 27 to Mar 3	Topic 5: Surface Water	Lab 4 cont.
10	Mar 6 to 10	Topic 5 cont.	Lab 5: Groundwater, Lab 4 Due
11	Mar 13 to 17	Topic 6: Snow Hydrology	Lab 5: cont.
12	Mar 20 to 24	Topic 6 cont., Topic 7: Special Topics and Connections	Lab 6: River Discharge
13	Mar 27 to 31	Catch up! (if required) and Review	Lab 6 Due
14	April 3 to 7	Lab Exam (April 4 <sup>th</sup> in class period)	No lab

*March 28<sup>th</sup> – Last day for withdrawing from the first term courses without penalty of failure.*

\*Lab 2 will be based out of the Geomatics Teaching Labs in the Geography Department (Locations will be confirmed on CourseSpaces)

B01 DTB A253 (Wednesday Jan 18 and Jan 25th)

B02 DTB A251 (Thursday Jan 19 and 26th)

B03 DTB A249 (Friday Jan 20 and 27th)

Please familiarize yourself with the University policy on academic integrity found in the Undergraduate Calendar at the following website. Please contact me if you have any questions.

(<http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcl.html>)