

COURSE SYLLABUS



COURSE TITLE: ENVR-115-Atmosphere and Hydrosphere

CLASS SECTION:

TERM: 2024F

COURSE CREDITS: 3

DELIVERY METHOD(S): Face-to-face

Camosun College respectfully acknowledges that our campuses are situated on the territories of the Lək̓ʷəŋən (Songhees and Kosapsum) and WSÁNEĆ peoples. We honour their knowledge and welcome to all students who seek education here.

INSTRUCTOR DETAILS

NAME: Emrys Prussin

EMAIL: prussine@camosun.ca

OFFICE: Fisher 250C

HOURS: Mondays 12:30 – 1:30 and Wednesdays 1:30 - 2:30

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

Using a physical geography approach, students will learn to describe two major components of Earth's environmental system: the atmosphere and hydrosphere. Students will examine the relationship between these, including weather systems, climate controls and change, surface and subsurface hydrology, and basic oceanography. Students will explore these topics at global, regional, and local scales and apply course concepts to case studies including impacts of climate change, groundwater contamination, and ocean circulation patterns. Where possible, this course will incorporate examples of Traditional Ecological Knowledge. Students will also develop applied lab- and field-based skills such as weather sampling and prediction.

PREREQUISITE(S):

One of:

C+ in English 12

C in English 12 Camosun Alternative

And one of:

C in Math 11

C in Math 11 Camosun Alternative

CO-REQUISITE(S):

EQUIVALENCIES:

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon completion of this course learners will be able to:

Describe the structure and function of Earth's atmosphere and hydrosphere.

Explain key weather patterns and systems at global and regional scales, with particular emphasis on coastal BC.

Describe the major components and processes of the hydrologic cycle, including atmospheric inputs, surface water bodies and runoff, groundwater, and basic oceanography.

Identify and use relevant metrics to analyse data.

Forecast weather and climate trends.

Critically analyze hydrologic systems.

Analyse data forecast trends using predictive metrics of weather and climate.

Use field instrumentation, externally sourced data, and maps to describe and predict the behaviour of atmospheric and hydrologic systems.

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

All lecture and lab material will be provided and posted on D2L. Labs will be held once per week and posted to D2L, please come prepared to each lab as they require the full lab period to complete. This course will use D2L to post all course material, as the place to hand-in labs and assignments, and where you can go to check due-dates and grades.

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

WEEK or DATE RANGE	ACTIVITY or TOPIC	OTHER NOTES
1	Lab: Labour Day (no lab). Lecture: Welcome and Atmospheric Composition and Structure.	
2	Lab: Solar Radiation and Weather Sampling. Lecture: Radiation/Temperature and Rivers.	
3	Lab: Dallas Road Beach Morphology. Lecture: Pressure and Wind and Humidity and Precipitation. Assignment: Temperature and Wind.	
4	Lab: Humidity and Uplift. Lecture: Weather Systems and Climate.	
5	Lab: Truth and Reconciliation Day (no lab). Lecture: Ecosystem Classification and EXAM 1 Assignment: Ecosystem Maps.	
6	Lab: Weather Maps. Lecture: Hydrology and Karst	
7	Lab: Thanksgiving (no lab). Lecture: Introduction to Aquatic Science and Morphology of Oceans and Lakes. Assignment: Deep Water Masses.	
8	Lab: Groundwater Hydrology. Lecture: Physical Properties of Water and Charts and Navigation.	
9	Lab: Charts and Navigation. Lecture: Temperature and Salinity in Oceans and Waves. Assignment: Waves.	
10	Lab: Benthic Diversity. Lecture: EXAM 2 and Surface Currents. Assignment: Tides.	
11	Lab: Remembrance Day (no lab). Lecture: Estuaries. Assignment: People of a Feather	
12	Lab: Hypoxia in Saanich Inlet. Lecture: Dissolved Gasses/Chemical Solutions and Water Quality.	

There will be seven short assignments that are designed as a review of material covered in lecture. These will be done in class after a number of lectures, there will be time left to work on these in class, but they may need to be done as homework if time does not permit. Assignments account for 20% of your final grade. All assignments will be posted to D2L and I will provide printed copies in class.

In-Class Exams

There will be two in-class exams, which will not be cumulative. These will be based on lecture and lab material, held during class, and will account for 20% of your final grade.

Final Exam

There will be a final exam held during the exam period, which will account for 10% of your final grade.

COURSE GUIDELINES & EXPECTATIONS

[INSERT TEXT HERE]

SCHOOL OR DEPARTMENTAL INFORMATION

[INSERT TEXT HERE]

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit camosun.ca/services.

Support Service	Website
Academic Advising	camosun.ca/services/academic-supports/academic-advising
Accessible Learning	camosun.ca/services/academic-supports/accessible-learning
Counselling	camosun.ca/services/health-and-wellness/counselling-centre
Career Services	camosun.ca/services/co-operative-education-and-career-services
Financial Aid and Awards	camosun.ca/registration-records/financial-aid-awards
Help Centres (Math/English/Science)	camosun.ca/services/academic-supports/help-centres
Indigenous Student Support	camosun.ca/programs-courses/iecc/indigenous-student-services
International Student Support	camosun.ca/international
Learning Skills	camosun.ca/services/academic-supports/help-centres/writing-centre-learning-skills
Library	camosun.ca/services/library
Office of Student Support	camosun.ca/services/office-student-support
Ombudsperson	camosun.ca/services/ombudsperson
Registration	camosun.ca/registration-records/registration
Technology Support	camosun.ca/services/its
Writing Centre	camosun.ca/services/academic-supports/help-centres/writing-centre-learning-skills

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Integrity

Students are expected to comply with all College policy regarding academic integrity; which is about honest and ethical behaviour in your education journey. The following guide is designed to help you understand your responsibilities: <https://camosun.libguides.com/academicintegrity/welcome>
Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.13.pdf> for Camosun's Academic Integrity policy and details for addressing and resolving matters of academic misconduct.

Academic Accommodations for Students with Disabilities

Camosun College is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging appropriate academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a documented disability and think you may need accommodations, you are strongly encouraged to contact the Centre for Accessible Learning (CAL) and register as early as possible. Please visit the CAL website for more information about the process of registering with CAL, including important deadlines:

<https://camosun.ca/cal>

Academic Progress

Please visit <https://camosun.ca/sites/default/files/2023-02/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <https://camosun.ca/sites/default/files/2021-05/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <https://camosun.ca/registration-records/tuition-fees#deadlines>.

Grading Policy

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal (see [Medical/Compassionate Withdrawals policy](#)). Please visit <https://camosun.ca/services/forms#medical> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right

to choose what is right for them. For more information see Camosun's Sexualized Violence Policy: <https://camosun.ca/sites/default/files/2021-05/e-2.9.pdf> and camosun.ca/services/sexual-violence-support-and-education.

To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-370-3841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <https://camosun.ca/sites/default/files/2021-05/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Looking for other policies?

The full suite of College policies and directives can be found here: <https://camosun.ca/about/camosun-college-policies-and-directives>

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.

