Yukon University	**School of Science**
	ENVS 100 **Introduction to Environmental Science**
	Fall 2025 **3 Credits**

Course Outline

INSTRUCTOR: Rachel Pugh, MSc; Vladimir Kabanov, PhD
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OFFICE HOURS: Rachel: by arrangement via email / Vladimir: TBD

LECTURE: Tues/Thurs 9:00-10:20	**Room:** A2712	**Dates:** Sept. 4 – Dec. 9
LAB: Mon 1:00-4:00pm	**Room:** A2801	**Dates:** Sept. 8 – Dec. 8

COURSE DESCRIPTION

Environmental Science 100 is designed for students who are not pursuing a science program but who wish to learn more about the physical and biological processes that shape our environment. Our planet, and its living and non-living parts, makes up the biosphere, which itself is a complex web of interactions. We investigate these interrelationships by studying the underlying processes in terms of their biology and chemistry.

The course has two goals. First to explain some of the basic concepts in earth systems and processes, ecology, and chemistry and secondly to show how these concepts can help understand some contemporary critical problems facing our world.

COURSE REQUIREMENTS

Prerequisite(s): Prerequisite(s): Admission to an academic program within the School of Science or School of Liberal Arts

EQUIVALENCY OR TRANSFERABILITY

Receiving institutions determine course transferability. Find further information at:
https://www.yukonu.ca/current-students/transfer-credit

See https://bctransferguide.ca/ for an up to date list of transfers within BC.

LEARNING OUTCOMES

Students that successfully complete this course will be able to:

- Describe the basic processes and interrelationships that govern our biosphere.
- Be able to research environmental topics and prepare verbal and written arguments.
- Outline the range of environmental problems confronting the world and identify potential solutions at a variety of levels (as individuals, locally and globally.)

COURSE FORMAT

Lectures: Three hours per week (2 classes of 1.5 hours, in person).

Labs: Three hours per week, in person.

ASSESSMENTS:

Attendance & Participation
Students are expected to attend both lectures and the scheduled lab activities (including field activities). The lab exercises usually involve collecting data or making observations and this makes it impossible for students who miss the lab to complete the lab assignment. Students who don't attend a lab will get a grade of zero on any assignment for that lab. There is a strong correlation between regular attendance and academic performance.

Lab Assignments
The field/lab activities usually involve written assignments or worksheets. These assignments may be completed during the lab although some may require further effort and be handed in later at an assigned date. Students must pass the field/lab portion of the course to receive a passing grade for the overall course. As mentioned above, if a student misses a lab, they will receive a grade of zero for any assignments for that lab.

Major Assignment
We will have a major assignment due near the end of the semester where students will work together in assigned groups to create a video news story or mini documentary (5-10 minutes) on a topic related to environmental science. A separate handout will be distributed outlining this assignment.

Readings
Mandatory readings (and possibly videos) to complement the lecture material will be posted on Moodle. Readings may be discussed in class and their subject matter may be included in exam questions.

Quizzes
We will have two short quizzes (15-20 minutes) on the materials presented in lectures, assigned readings, and labs. The quizzes will be at the start of class and students must be on time to class to get the full time to write. There will be no option to take the quiz later. Quizzes will help prepare you for the type of questions to expect on the midterms and final exams.

Tests
Rather than a single mid-term examination we will have two shorter exams. The final exam, scheduled for Dec. 11 from 9am to noon, will be comprehensive and cover all topics taken up during the term.

EVALUATION

Major Assignment	25%
Field/Lab assignments	25%
Quizzes	5%
Midterms (2@10% each)	20%
Final Exam	25%
Total	100%

COURSE WITHDRAWAL INFORMATION

The Last date to withdraw without academic penalty is Oct 31, 2025. Refer to the YukonU website for other important dates https://www.yukonu.ca/admissions/important-dates.

TEXTBOOKS & LEARNING MATERIALS

Freedman, Bill 2018. Environmental Science: A Canadian Perspective. 6th Edition The text is available as a free download in various formats under a Creative Commons license. See: https://digitaleditions.library.dal.ca/environmentalscience/

The text will be posted on Moodle

ACADEMIC INTEGRITY

Students are expected to contribute toward a positive and supportive environment and are required to conduct themselves in a responsible manner. Academic misconduct includes all forms of academic dishonesty such as cheating, plagiarism, fabrication, fraud, deceit, using the work of others without their permission, aiding other students in committing academic offences, misrepresenting academic assignments prepared by others as one's own, or any other forms of academic dishonesty including falsification of any information on any Yukon University document.

Please refer to Academic Regulations & Procedures for further details about academic standing and student rights and responsibilities.

Note that generative artificial intelligence tools such as Chat GPT, and others, can be useful in the same way as a web search or Wikipedia. They can be a starting point but cannot be used to do the work for you. Simply copying the output from something like Chat GPT and submitting it as your own work will be considered plagiarism the same as if you copied directly from a book, webpage, or classmate. Furthermore, appropriate referencing is expected in submitted work. Generative AI cannot be used as a reference source. Chat GPT and similar tools are not actual sources of information and should not be referenced as such.

There may be specific instances where AI tools are accepted and even recommended. Such instances will be clearly indicated by the instructor.

ACCESSIBILITY AND ACADEMIC ACCOMMODATION

Yukon University is committed to providing a positive, supportive, and barrier-free academic environment for all its students. Students experiencing barriers to full participation due to a visible or hidden disability (including hearing, vision, mobility, learning disability, mental health, chronic or temporary medical condition), should contact Accessibility Services for resources or to arrange academic accommodations: access@yukonu.ca.

TOPIC OUTLINE (Tentative, subject to change)

Module 1	**Environmental Principles, Human Activities and Resource Use**
Sept 4 – Oct 7	Intro to course, environmental science as a discipline, scientific method, ecology, sustainable development, ecological footprint, worldviews, earth systems, energy flow, nutrient flows, climate change
Sept 18	Quiz #1
Oct 9	Midterm #1
Nov 13 – 17	Reading Week
Module 2	**Chemistry**
Oct 20 – Nov 17	Chemistry of the environment
Oct 30	Quiz #2
Nov 17	Midterm #2
Module 3	**Human Activities and Resource Use continued**
Nov 18 – Dec 9	Resources, sustainability, waste and contaminants, agriculture, forestry
Dec 8	Term Project Due – watch in lab period
Dec 11 (Thursday)	Final Exam, 9am-12pm

**topic coverage may be subject to change during the course*