

BIOL-111 W26 Ecology and the Environment Syllabus

1. General Course Information

Course: BIOL-111

Course title: Ecology and the Environment

Pre-requisites: None

Semester and year: Winter 2026

Number of credits: 3.0

Learning hours: 108

Modality (on campus, blended, or online): On campus

Course Instructor:

Department of Biology and School of Environmental Studies, Queen's University
Please use the **OnQ Forum “Ask the Instructor”** to communicate with the instructor

2. Welcome Message

I warmly welcome you to BIOL111. I was trained as an ecologist, so naturally, I love teaching this course. My passion for this field started when I took field course as an undergraduate student at the Bamfield Marine Station on Vancouver Island. I hope that this course will inspire some of you to consider a career in applied ecology or environmental studies. Or at the very least, I hope you become more aware of the impacts of humans on Earth and thus will make informed decisions in your professional and personal life on how to leave the planet a better place for future generations.

3. Course Description from Calander

“Introduces the basic concepts of ecology and shows how they relate to environmental issues such as population growth, resource management, biodiversity, agriculture, air and water pollution, energy, and climate change, and to solutions leading to a sustainable environment. NOTE Also offered online, consult Arts and Science Online (Learning Hours may vary).

Learning Hours: 108 (36 Lecture, 72 Private Study)

Requirements: Prerequisite None. One-Way Exclusion May not be taken with or after BIOL 300/3.0.

Offering Faculty: Faculty of Arts and Science

Course Learning Outcomes: Analyze the factors controlling human population growth in developed and developing countries. Describe the basic principles of community ecology and population ecology. Describe the earth's renewable and non-renewable resources, their current status, the factors that influence them and explain how humans can use them in more sustainable ways. Identify the main biomes on Earth and explain the factors that influence them. Predict most likely future trends of current environmental problems and formulate potential solutions.”

Source: Queen’s Academic Calendar 2024-2025

4. Course Schedule

Week	Class	Date	Class Description	Reading	Assignment
1	1	Tuesday, January 6, 2026	Lecture 1: Environment, Resources, & Society	Ch 1	
	2	Thursday, January 8, 2026	Spotlight 1		Assignment 1
2	3	Tuesday, January 13, 2026	Lecture 3: Ecosphere I	Ch 3	
	4	Thursday, January 15, 2026	Spotlight 2		Assignment 2
3	5	Tuesday, January 20, 2026	Lecture 4: Ecosphere II	Ch 4	
	6	Thursday, January 22, 2026	Spotlight 3		Assignment 3
4	7	Tuesday, January 27, 2026	Lecture 5: Ecosphere III	Ch 5	
	8	Thursday, January 29, 2026	Spotlight 4		Assignment 4
5	9	Tuesday, February 3, 2026	Lecture 6: Review of Ecosphere	Ch 3-5	
	10	Thursday, February 5, 2026	Spotlight 5		Assignment 5
6	11	Tuesday, February 10, 2026	Mid-Term Quiz		
	12	Thursday, February 12, 2026	Spotlight 6 [virtual]		Assignment 6
		Tuesday, February 17, 2026	Reading Week (no classes)		
		Thursday, February 19, 2026	Reading Week (no classes)		
7	13	Tuesday, February 24, 2026	Lecture 6: Climate Change; Group Projects	Ch 8	
	14	Thursday, February 26, 2026	Spotlight 7		Assignment 7
8	15	Tuesday, March 3, 2026	Lecture 7: Water & Fisheries	Ch 9, 12	
	16	Thursday, March 5, 2026	Spotlight 8		Assignment 8
9	17	Tuesday, March 10, 2026	Lecture 8: Minerals & Energy	Ch 13	
	18	Thursday, March 12, 2026	Spotlight 9		Assignment 9
10	19	Tuesday, March 17, 2026	Lecture 9: Forests & Agriculture	Ch 10, 11	
	20	Thursday, March 19, 2026	Group Presentations		
11	21	Tuesday, March 24, 2026	Group Presentations		
	22	Thursday, March 26, 2026	Group Presentations		
12	23	Tuesday, March 31, 2026	Group Presentations		
	24	Thursday, April 2, 2026	Final Quiz		

5. Course Learning Outcomes

On successful completion of this course, students will be able to:

1. Describe the principal processes that sustain the planetary life support system
2. Understand how human activities have caused unprecedented environmental degradation
3. Explain and give examples of how scientists apply ecological principles to understand contemporary environmental problems
4. Practice the professional skills of reading, critiquing, and discussing ecological research and environmental issues with more confidence
5. Appreciate the diversity of career options available to applied ecologists

6. Important University Dates

Please visit the [Faculty of Arts and Sciences Sessional Dates website](#) for all academic deadlines.

7. Land Acknowledgement

Let us acknowledge that Queen's University occupies traditional Anishinaabe and Haudenosaunee territory. To acknowledge this traditional territory is to recognize its longer history, one predating the establishment of the earliest European colonies. It is also to acknowledge this territory's significance for the Indigenous Peoples who lived, and continue to live, upon it and whose practices and spiritualties are tied to the land and continue to develop in relationship to the territory and its other inhabitants today. Indigenous communities in Kingston/Katarokwi continue to reflect the area's Anishinaabe and Haudenosaunee roots. There is also a significant Métis community and First Peoples from other Nations across Turtle Island present here today. To read more about the history of the land, see the [Queen's Encyclopedia](#) and to learn more about land acknowledgements, see the [Office of Indigenous Initiatives](#).

8. Equity, Diversity, and Inclusivity Statement

Queen's University recognizes that the values of equity and diversity are vital to and in harmony with its educational mission and standards of excellence. It acknowledges that direct, indirect, and systemic discrimination exists within our institutional structures, policies, and practices and in our community. These take many forms and work to differentially advantage and disadvantage persons across social identities such as race, ethnicity, disability, gender identity, sexual orientation, faith, and socioeconomic status, among other examples. In this class I will work to promote an anti-discriminatory, anti-racist and accountable environment where everyone feels welcome. Every member of this class is asked to show respect for every other member.

9. Building a Classroom Community

University is a place to share, question, and challenge ideas. Each student brings a different set of lived experiences. You can help to create a safer, more respectful classroom community for learners by following these guidelines:

- Make a personal commitment to learn about, understand, and support your peers.
- Assume the best of others and expect the best of them.
- Recognize and value the experiences, abilities, and knowledge each person brings to the course.
- Acknowledge the impact of oppression on other people's lives and make sure your words and tone are respectful and inclusive.
- Encourage others to develop and share their ideas.
- Pay close attention to what your peers say/write before you respond. Think through and re-read what you have written before you post online or send your comments to others.
- Be open to having your ideas challenged and challenge others with the intent of facilitating growth.
- Look for opportunities to agree with one another, building on and intentionally referencing peers' thoughts and ideas; disagree with ideas without making personal attacks, demeaning, or embarrassing others.

10. Fostering Accessibility

All of us have a shared responsibility for reducing barriers to learning and fostering accessibility and promoting meaningful inclusion of those with disabilities. The [Accessibility Hub](#) at Queen's University's Human Rights & Equity Office offer a host of [tutorials](#) that provide us all with practical tips for:

- creating accessible documents, e.g., to submit to your teaching team or share with peers in peer feedback activities/in a presentation,
- emails, e.g., while communicating with group members or your teaching team, and
- meeting practices (e.g., in tutorials/labs/seminars or virtual meetings).

11. Name/Pronoun

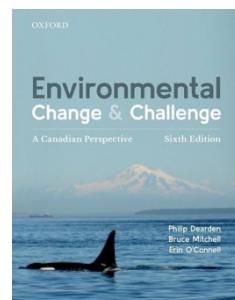
If, for whatever reason, you wish to change how your name appears in onQ and/or on class lists, please follow these steps. You may also use this process to add your pronouns to the appearance of your name.

1. Log into SOLUS.
2. Click on Personal Information tab.
3. Click on the Names tab
4. Click on the Add New Name tab
5. Choose Preferred from the Name Type drop down menu
6. Enter the name you would like to appear in onQ and/or on class lists.
7. Click Save.

Please allow 24 to 48 hours for your name to be registered within the system. If you have further questions or concerns, please contact ITS at Queen's University.

12. Course Textbook

The required textbook for this course is [Environmental Change & Challenge: A Canadian Perspective \(6th Edition\)](#). This textbook is available for purchase from the Queen's Bookstore, and copies are held in Course Reserves at Queen's Library (Stauffer).



Course Textbooks	Edition(s)	Publisher	For Purchase	Cost	At Queen's Library?
Environmental Change & Challenge: A Canadian Perspective	6th	Oxford University Press Canada	Queen's Bookstore	\$130.00	Yes

13. Other Required Materials

Readings (if required for Spotlights) are posted to the relevant class folders on the course onQ.

14. Supplemental Materials

None.

15. Educational Technologies, Help, Privacy, and Accessibility

This course makes use of the following website(s), program(s), and/or application(s) for specific educational use/purposes. Privacy: Be aware that your independent use of the website(s), programs, and/or application(s) used in this course, beyond what is required, is subject to their terms of use and privacy policy. You are encouraged to review the applicable privacy statements before using the site. Please see below. Accessibility: Queen's University is committed to developing courses that are accessible. For further information on accessibility compliance of the website(s), program(s) application(s) used in the course, please consult the links below.

Software	Use	Support	Privacy	Accessibility
onQ	Online learning	https://www.queens.ca/onqsupport/students/student-support	https://www.queens.ca/onqsupport/about-onq/student-privacy	https://www.queens.ca/onqsupport/students/student-support

16. Notice of Recording

Not applicable.

17. Copyright of Course Material

Course materials created by the course instructor, including all slides, presentations, handouts, tests, exams, and other similar course materials, are the intellectual property of the instructor. It is a departure from academic integrity to distribute, publicly post, sell or otherwise disseminate an instructor's course materials or to provide an instructor's course materials to anyone else for distribution, posting, sale or other means of dissemination, without the instructor's express consent. A student who engages in such conduct may be subject to penalty for a departure from academic integrity and may also face adverse legal consequences for infringement of intellectual property rights.

18. Questions about the Course and Contacting the Teaching Team

Please kindly ask questions about the course content and assignments in the **OnQ Forum** the **“Ask the Instructor”** or **“Ask the Teaching Assistant”**. This is the most efficient and equitable way of disseminating information about the course to all students. Personal information should not be shared with the instructor. To protect your privacy, please submit an academic consideration/accommodation for personal issues that affect your attendance/performance.

19. Queen's Email

The university communicates with students via Queen's email. Please check your email regularly to ensure you do not miss important information related to your course.

20. Course Feedback

At various points during the course, you may be asked to take part in a variety of feedback activities, such as surveys and questionnaires. This feedback enables the teaching team to improve the course. All surveys are anonymous and are directly related to activities, assessments, and other course material.

21. Weighting and Alignment with Course Learning Outcomes (CLOs)

Category	Graded Item	Alignment with CLOs	Mark	Subtotal
Quizzes	Mid-Term Quiz	1, 2	20	60
	Final Quiz	1, 2	40	
Spotlights	Assignment 1	3, 5	3	24
	Assignment 2	3, 5	3	
	Assignment 3	3, 5	3	
	Assignment 4	3, 5	3	
	Assignment 5	3, 5	3	
	Assignment 6	3, 5	3	
	Assignment 7	3, 5	3	
	Assignment 8	3, 5	3	
	Assignment 9	3, 5	3	
	Assignment 10	3, 5	3	
Group Project	Presentation	4, 5	16	16
Total				100

22. Assessment Flexibility

To make the course universally flexible for students, an automatic consideration (i.e., you are *not* required to officially file an academic consideration) is built into this course:

- The lowest mark for 2 spotlight assignments will be removed from the calculation of your final mark.

If you missed a quiz for valid reasons, you do need to officially file an academic consideration for extenuating circumstances (<https://www.queensu.ca/artsci/undergrad-students/academic-consideration-for-students>) and contact the instructor to discuss next steps. If you miss the midterm quiz (and have a valid academic consideration), the final quiz will be reweighed to 60 marks. If you miss the final quiz (and have a valid academic consideration), you will need to write the exam on a deferred exam date.

23. Descriptions of Learning Activities and Assessments

Quizzes

Assessment of knowledge gained from textbook readings and associated lectures

Spotlights

Application of knowledge and skills to understand and communicate ecological problems.

Group Project

Assessment of ability to comprehend and summarize ecological literature as well as collaboration, communication, and time management skills.

24. Proctored Exams

There is no final exam.

25. Assignment Submission Policy

See above policy described in section 22.

26. Policy Review of Graded Work

Requests, along with rationale, can be made to the course instructor within 7 days.

27. Class Attendance

Your presence and participation in class contributes to the knowledge and skills that you will develop throughout this course. I expect that you attend class regularly, participate in class conversations and learning activities. These types of activities provide active engagement, promote a deeper understanding of the course content, and contribute to your success.

28. Academic Support

All undergraduate students face new learning and writing challenges as they progress through university: essays and reports become more complex; effectively incorporating research into writing becomes more important; the types of assignments become more diverse; managing your time and developing the skills you need to read and think critically gets more challenging. I encourage students to contact Student Academic Success Services (SASS). SASS offers many different ways to receive support:

- Free online or in-person [appointments](#) to get personalized support on writing and academic skills from expert staff and trained peers.
- [Workshops](#) and [drop-in programs](#). SASS' [Events Calendar](#) lists events coming soon.
- [Online resources](#) that provide strategies for academic skills and writing development at university.
- If English is not your first language, SASS has specific resources for [English as Additional Language students](#), including weekly programs and EAL academic skills appointments. You can meet on an ongoing basis with an EAL consultant to work on your academic writing, speaking, listening, and reading skills.

29. Accommodations for Disabilities

Queen's University is committed to working with students with disabilities to remove barriers to their academic goals. Queen's Student Accessibility Services (QSAS), students with disabilities, instructors, and faculty staff work together to provide and implement academic accommodations designed to allow students with disabilities equitable access to all course material (including in-class as well as exams). If you are a student currently experiencing barriers to your academics

due to disability related reasons, and you would like to understand whether academic accommodations could support the removal of those barriers, please visit the [QSAS website](#) to learn more about academic accommodations or start the registration process with QSAS by clicking Access Ventus button at [Ventus | Accessibility Services | Queen's \(queensu.ca\)](#).

VENTUS is an online portal that connects students, instructors, Queen's Student Accessibility Services, the Exam's Office and other support services in the process to request, assess, and implement academic accommodations. To learn more go to: <https://www.queensu.ca/ventus-support/students/visual-guide-ventus-students>.

Academic Consideration for Students in Extenuating Circumstances. Academic Consideration is a process for the University community to provide a compassionate response to assist students experiencing unforeseen, short-term extenuating circumstances that may impact or impede a student's ability to complete their academics. This may include but is not limited to any extenuating circumstance (illness, bereavement, traumatic event, injury, family emergency, etc.) which is short-lived, begins within the term, and will not last longer than 12 weeks - see [Academic Consideration](#) webpage for details

(<https://www.queensu.ca/artsci/undergraduate/student-services/academic-consideration>)

Each Faculty has developed a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances. For more information, undergraduate students in the Faculty of Arts and Sciences should consult the Faculty's webpage on [Academic Consideration in Extenuating Circumstances](#) and submit a request via the [Academic Consideration Request Portal](#). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty.

Students are encouraged to submit requests as soon as the need becomes apparent and to contact their instructor and/or course coordinator as soon as possible once academic consideration has been granted. Any delay in contact may limit the options available for academic consideration. While we encourage instructors to accommodate, each instructor has discretion in deciding whether or how to apply the Academic Consideration. For more information on the Academic Consideration process, what is and is not an extenuating circumstance, and to submit an Academic Consideration request, please see the Faculty of Arts and Science's [Academic Consideration website](#). ASO courses include links to information on Academic Consideration on your Course Homepage in onQ. For more information, please see the [Senate Policy on Academic Consideration for Students in Extenuating Circumstances](#).

Queen's Policy Statement on Academic Integrity. Queen's University is dedicated to creating a scholarly community free to explore a range of ideas, to build and advance knowledge and to share the ideas and knowledge that emerge from a range of intellectual pursuits. Each core value of academic integrity, as defined in the [Senate Academic Integrity Policy](#), gives rise to and supports the next. Honesty appears in presenting one's own academic work, whether in the context of an examination, written assignment, laboratory or seminar presentation. It is in researching one's own work for course assignments, acknowledging dependence on the ideas or words of another and in distinguishing one's own ideas and thoughts from other sources. It is also present in faithfully reporting laboratory results even when they do not conform to an original hypothesis. Further, honesty is present in truthfully communicating in written and/or oral

exchanges with instructors, peers and other individuals (e.g. teaching assistants, proctors, university staff and/or university administrators). Trust exists in an environment in which one's own ideas can be expressed without fear of ridicule or fear that someone else will take credit for them. Fairness appears in the proper and full acknowledgement of the contributions of collaborators in group projects and in the full participation of partners in collaborative projects. Respect, in a general sense, is part of an intellectual community that recognizes the participatory nature of the learning process and honours and respects a wide range of opinions and ideas. However, "respect" appears in a very particular sense when students attend class, pay attention, contribute to discussion and submit papers on time; instructors "show respect by taking students' ideas seriously, by recognizing them as individuals, helping them develop their ideas, providing full and honest feedback on their work, and valuing their perspectives and their goals" ("The Fundamental Values of Academic Integrity", 3rd Edition, p. 8). Ultimately, responsibility is both personal and collective and engages students, administrators, faculty and staff in creating and maintaining a learning environment supported by and supporting academic integrity. Courage differs from the preceding values by being more a quality or capacity of character – "the capacity to act in accordance with one's values despite fear" ("The Fundamental Values of Academic Integrity", 3rd edition, p. 10). Courage is displayed by students who make choices and integrous decisions that are followed by action, even in the face of peer pressure to cheat, copy another's material, provide their own work to others to facilitate cheating, or otherwise represent themselves dishonestly. Students also display courage by acknowledging prior wrongdoing and taking proactive measures to rectify any associated negative impact. All of these values are not merely abstract but are expressed in and reinforced by the University's policies and practices.

Syllabus statements for Generative Artificial Intelligence (AI) Tools. Use of Generative Artificial Intelligence (GenAI) Tools is Not Permitted: Use of GenAI tools is not allowed in any part of student work for this course. Submitting AI-generated content constitutes a departure from academic integrity as defined by university Academic Integrity procedures.

Queen's [Student Academic Success Services](#) (SASS) offers a self-directed, online academic integrity module which we encourage all students to take which will help with:

- Understanding the nature of the academic integrity departure
- Understanding the expectations of and role of sources in scholarly writing
- Integrating sources into your writing (paraphrasing, quoting, summarizing)
- Understanding when and how to cite your sources
- Managing your time effectively to avoid the need for shortcuts
- Taking effective notes to ensure accuracy of source material and correct attribution

30. Turnitin Statement

This course makes use of Turnitin, a third-party application that helps maintain standards of excellence in academic integrity. Normally, students will be required to submit their course assignments through onQ to Turnitin. In doing so, students' work will be included as source documents in the Turnitin reference database, where they will be used solely for the purpose of detecting plagiarized text in this course. Data from submissions is also collected and analyzed by Turnitin for detecting Artificial Intelligence ([AI-generated text](#)). These results are not reported to your instructor at this time but could be in the future. Turnitin is a suite of tools that provide instructors with information about the authenticity of submitted work and facilitates the process

of grading. The similarity report generated after an assignment file is submitted produces a similarity score for each assignment. A similarity score is the percentage of writing that is similar to content found on the internet or the Turnitin extensive database of content. Turnitin does not determine if an instance of plagiarism has occurred. Instead, it gives instructors the information they need to determine the authenticity of work as a part of a larger process. Please read Turnitin's [Privacy Policy](#), [Acceptable Use Policy](#) and [End-User License Agreement](#), which govern users' relationship with Turnitin. Also, please note that Turnitin uses cookies and other tracking technologies; however, in its service contract with Queen's Turnitin has agreed that neither Turnitin nor its third-party partners will use data collected through cookies or other tracking technologies for marketing or advertising purposes. For further information about how you can exercise control over cookies, see [Turnitin's Privacy Policy](#). Turnitin may provide other services that are not connected to the purpose for which Queen's University has engaged Turnitin. Your independent use of Turnitin's other services is subject solely to Turnitin's Terms of Service and Privacy Policy, and Queen's University has no liability for any independent interaction you choose to have with Turnitin. Portions of this document have been adapted, with permission, from the University of Toronto Centre for Teaching Support and Innovation tip sheet "[Turnitin: An Electronic Resource to Deter Plagiarism](#)".

31. Copy Rights Use Statement

Course materials created by the course instructor, including all slides, presentations, handouts, tests, exams, and other similar course materials, are the instructor's intellectual property. It is a departure from academic integrity to distribute, publicly post, sell, or otherwise disseminate an instructor's course materials or to provide an instructor's course materials to anyone else for distribution (including note sharing sites), posting, sale or other means of dissemination without the instructor's express consent. A student who engages in such conduct may be subject to penalty for a departure from academic integrity and may also face adverse legal consequences for infringement of intellectual property rights. For further information, please see:

<https://www.queensu.ca/secretariat/policies/administration-and-operations/copyright-compliance-and-administration-policy>