

# BIOL 111

## Ecology and the Environment

Fall Term (2014-15)

### CALENDAR DESCRIPTION

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 Continuing and Distance Studies.

ONE-WAY EXCLUSION May not be taken with or after BIOL 302/3.0; BIOL 303/3.0.

### SCHEDULE

**Lectures: Monday 2:30pm-3:30pm, Tuesday 4:30pm-5:30pm, Thursday 3:30pm-4:30pm. STIRLG A.**

<b>Instructor</b>	Shelly Bursick
<b>Instructor Contact</b>	<a href="mailto:Shelly.bursick@queensu.ca">Shelly.bursick@queensu.ca</a> Phone: TBA
<b>Office Hours</b>	TBA
<b>TA:</b>	TBA
<b>TA Contact Information</b>	TBA
<b>Office Hours</b>	TBA

### Learning Objectives

1. You should have a good understanding of basic ecology and be able to discuss the basic principles pertaining to community ecology and population ecology.
2. You should have a good understanding of the characteristics of the earth's biomes and the factors that influence them.
3. You should be able to explain the different factors that affect human population ecology in developed and developing countries.
4. You should be able to describe the earth's renewable and non-renewable resources, their current status, the factors that influence them and the things humans have to do to use them in more sustainable ways.
5. You should be able to discuss current environmental problems and their potential solutions.

### Learning Hours

<i>Teaching method</i>		<i>Average hours per week</i>	<i>Number of weeks</i>	<i>Total hours</i>
In-class hours	Lecture	3	12	36
	Seminar			
	Laboratory			
	Tutorial			
	Practicum			
	Group learning			

	Individual instruction			
Other	Online activity			
	Off-campus activity			
	Private study	6	12	72
Total hours on task				108

### Course Outline

Topics covered include a general introduction to environmental problems, ecosystems, evolution and biodiversity, climate and terrestrial biodiversity, aquatic biodiversity, community ecology, population ecology, the human population, sustaining biodiversity: ecosystem and species approaches, food and soil resources, water resources, non-renewable energy resources, energy efficiency and renewable energy, climate change and ozone loss, air pollution, water pollution and sustaining human societies.

### Textbooks/Readings

Living in the Environment, 3<sup>rd</sup> Canadian Edition by Miller & Hackett.

### Grading Scheme

Component	Weight (%)	Date
Quizzes x 10	15%	TBA
Mid term	25%	TBA
Final Exam	35%	TBA
Project (1 paper)	25%	TBA

### Grading Method

- All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale.

Your course average will then be converted to a final letter grade according to Queen's Official Grade Conversion Scale:

#### *Queen's Official Grade Conversion Scale*

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59

D	53-56
D-	50-52
F	49 and below

### **Academic Integrity and Queen's Code of Conduct**

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and conduct conform to the principles of academic integrity. Information is available in the Arts and Science Calendar (see Academic Regulation 1 - <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>, on the Arts and Science website (see <http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>), and at Biology's website (<http://www.queensu.ca/biology/undergrad/integrity.html>) and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulations on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

### **Accommodation Policy, Exam Conflicts, and Other Conflicts**

Students who feel they need accommodations for disabilities or extenuating circumstances, or have a conflict between exams or other commitments should consult the Biology Department's website for details about how to proceed (<http://www.queensu.ca/biology/undergrad/integrity.html>). In general, the earlier a course coordinator is apprised of an extenuating circumstance, the more likely an accommodation can be made. Students are encouraged to be proactive in anticipating difficulties, when it is possible to do so.

Students may apply to write a make-up or deferred exam if they have an exam conflict as defined in the Academic Regulations of the Faculty (See Arts and Science Calendar Regulation 8 - <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>). In this case, the student should report to the Exams Office first to verify that there is a genuine exam conflict. Biology professors will not consider your situation to be a conflict unless it meets the criteria set out by the Faculty of Arts and Sciences.

Students may request a make-up or deferred exam if they have an exam conflict with off-campus travel associated with a field course (e.g BIOL-307/3.0 or 407/3.0) that is held during the fall or winter terms.

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### **Accommodation of Disabilities**

*Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging 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 disability*

*and think you may need accommodations, you are strongly encouraged to contact the Disability Services Office (DSO) and register as early as possible. For more information, including important deadlines, please visit the DSO website at: <http://www.queensu.ca/hcds/ds/>*