

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: BIO 106		Number of Credits: 4 Course credit policy (105)															
Course Full Title: Ecology from an Urban Perspective Course Short Title: Ecology from an Urban Perspec. <i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>																	
Faculty: Faculty of Science		Department (or program if no department): Biology															
Calendar Description: Designed for non-science students with an interest in ecology and the environment. Ecosystems, evolution, biodiversity, and features of populations and communities focused on examples found in local urban and rural ecosystems will be studied in lectures and laboratory. Note: Students with credit for any Biology course numbered above 110 cannot take this course for further credit.																	
Prerequisites (or NONE):		None.															
Corequisites (if applicable, or NONE):		None															
Pre/corequisites (if applicable, or NONE):		None															
Antirequisite Courses <i>(Cannot be taken for additional credit.)</i> Former course code/number: Cross-listed with: Dual-listed with: Equivalent course(s): Any Biology course numbered above 110 <i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>		Special Topics <i>(Double-click on boxes to select.)</i> This course is offered with different topics: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>															
		Independent Study If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit															
Typical Structure of Instructional Hours <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>45</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td>33</td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td>12</td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td>Total hours</td> <td>90</td> </tr> </table>		Lecture/seminar hours	45	Tutorials/workshops		Supervised laboratory hours	33	Experiential (field experience, practicum, internship, etc.)	12	Supervised online activities		Other contact hours:		Total hours	90	Transfer Credit Transfer credit already exists: <i>(See bctransferguide.ca.)</i> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Submit outline for (re)articulation: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i>	
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		Grading System <input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit															
		Maximum enrolment (for information only): 36 Expected Frequency of Course Offerings: Annually															
Department / Program Head or Director: Anthony Stea		Date approved: September 2021															
Faculty Council approval		Date approved: October 8, 2021															
Undergraduate Education Committee (UEC) approval		Date of meeting: January 28, 2022															

Learning Outcomes:

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

1. Demonstrate a foundational understanding of core concepts in evolution, population ecology, community ecology, and ecosystem ecology.
2. Compare terrestrial and aquatic biodiversity (ecosystems) and assess the effects of climate and climate change on biodiversity
3. Analyze the roles humans play in the loss of species and ecosystem services, and compare approaches to sustaining wild species and ecosystem services
4. Engage in observation and identification of the unique characteristics of plant and animal species found in local ecosystems by sight and using field guides. Includes identification of local plants used as food plants by coastal First Peoples
5. Work collaboratively in small groups to conduct lab and field work (use lab and field equipment)

Prior Learning Assessment and Recognition (PLAR)

☒ Yes ☐ No, PLAR cannot be awarded for this course because

Typical Instructional Methods (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

Lectures, laboratories, guest lectures, student small group activities, student presentations, field trips, student group field project.

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials (*If more space is required, download Supplemental Texts and Resource Materials form.*)

Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1. Miller, G.T. Jr., and Spoolman, S	Essentials of Ecology	<input checked="" type="checkbox"/>	Brooks Cole	2019
2.		<input type="checkbox"/>		

Required Additional Supplies and Materials (*Software, hardware, tools, specialized clothing, etc.*)

Typical Evaluation Methods and Weighting

Final exam:	30%	Assignments:	25%	Lab final:	16%	Portfolio:	%
Midterm exam:	20%	Project:	5%	Lab midterm:	4%	Total:	100%

Details (if necessary):

Typical Course Content and Topics

Ecological footprints
 The nature of science
 Matter, energy, and systems
 Ecosystems
 Energy flow
 Nutrient cycling
 Evolution
 Genetics
 Biodiversity
 Extinctions
 Climate
 Climate change
 Populations
 Communities
 Impact of human populations
 Terrestrial biomes
 Aquatic ecosystems
 Saving species, ecosystems, and ecosystem services

Laboratory topics:

Classification of living organisms
 Dichotomous keys
 Scientific method
 Introductory microscopy
 Use of lab and field equipment for measurement and sampling
 Plants of the Lower Mainland (native and invasive)
 Nutrient cycling (maintaining a closed pond ecosystem)
 Streamkeepers field training
 Wildlife of the Great Blue Heron Nature Reserve
 Impervious surfaces
 City composting
 Urban parks