

BIOL300 – Ecology - Fall 2022 Syllabus

General Course Information

BIOL300 - Ecology (3.0 Credits)

Fall 2022 (September to December)

Modality: on campus (remote options are available for all lectures and labs except the field trip)

Pre-requisite: BIOL 103

Exclusion: BIOL 302; BIOL 303.

Recommended: BIOL 206, BIOL 212, second year statistics (e.g. BIOL 243, PSYC 202, STAT 269)

Location & Time:

Lectures: Humphrey Auditorium

Monday: 8:30 – 9:20 am

Tuesday: 10:30 – 11:20 am

Thursday: 9:30 – 10:20 am

Labs: Biosciences Rm 3311 and 3312

Tuesdays and Wednesdays (not weekly - see Course Timeline for details)

Lecture Instructor/Course Coordinator

Name: Dr. Paul Martin

Office address: Biosciences 4320A

Office hours: by appointment

Telephone number: 613-533-6598

Email: pm45@queensu.ca

Websites: <https://www.paulmartinlab.com/>

Lab Instructor

Name: Dr. Anna Rooke (she/her)

Office address: Biosciences 2321A

Office hours: Thursdays 10:30 – 12:30 pm in Rm 3311 and on zoom

Email: a.rooke@queensu.ca (expect a reply within 24 hours Monday-Friday).

Course Description and Learning Outcomes

Ecology is the study of the relationships between living things and their environment. In BIOL300, we emphasize the interpretation of ecological patterns in terms of mechanisms and consequences of evolution by natural selection. We will explore diverse topics including trade-offs and constraints, organismal ecology, population dynamics, interactions, community structure, energy and elemental flow through ecosystems, and global diversity patterns. During labs activities, you will gain hands-on experience in field sampling and species identification, as well as data analysis and interpretation.

After successful completion of this course, you will be able to:

1. Explain the basic concepts underlying life history, population, community, and ecosystem ecology, and provide a critique of their strengths, shortcomings, and significance.
2. Integrate across ecological scales to understand and assess current environmental issues.
3. Identify and assess the linkages between evolution and ecology at all ecological scales.
4. Apply life-history, population, community, and ecosystem concepts to generate hypotheses and understand patterns in ecological data.
5. Apply practical field skills to collect data on wild animals.
6. Analyse and interpret data collected by students in the course.

Important Dates

Key dates (first day of class, tuition due date, last day to add/drop courses) are important to your academic success. Please find them at [Important Dates](#).

This course includes a mandatory in-person field trip to [Queen's University Biological Station](#).

The field trip is scheduled for Sept 17, Sept 18, and Sept 24 (Sept 25 is reserved as a rain day). You only need to attend one of these dates. There are a limited number of spots on each date: sign-up sheets will be available the first day of class. Estimated cost of trip: \$40 (includes transportation, site access, and lunch).

Course Materials

Required Textbook: Relyea 2021. *Ecology, The Economy of Nature*, Ninth Edition. W.H. Freeman, Macmillan Learning (available in university bookstore, eBook through publisher). Lecture modules follow the organization of the textbook – you will need to read the relevant chapters before lecture/completing each module. Lecture modules and other course materials will be available through onQ.

Field trip materials: Students will be required to wear appropriate clothing and shoes which are safe for working in the field. You will also need to bring a paper field notebook and pencil for taking notes while outdoors.

Course Expectations

BIOL300 students are responsible for knowing and adhering to the rules, regulations, and requirements of this course, including due dates, and the details of required assignments and activities. We have designed BIOL300 so that all activities (except the field trip) have options for in-person or remote learning. Although the majority of students benefit most from participating in-person, we recognize the need for flexibility, especially with ongoing public health concerns. **We encourage everyone who is not feeling well, or who feels unsafe with in-person learning, to take advantage of remote options.** Remote options cover the same material and have the same assessment requirements as in-person options. You can use either approach, or a combination of both approaches throughout the term - whatever works best for you.

You should expect to invest on average 10 to 12 hours per week in this course. This includes the time you spend in lecture or lab, studying course material, and completing quizzes and lab reports. We encourage you to develop a pre-determined study schedule and stick to it: you will be more likely to complete the course on time successfully if you stay organized and up to date. All quizzes, remote lecture modules, and lab activities (except the field trip) are autonomous but have specific due dates. This approach is designed to give students some flexibility in choosing when to complete work, but also makes sure that no one falls behind. **Keeping up to date with readings, lecture modules/participation, and lab assignments is your responsibility.** The “Timeline” in the course homepage on Q banner is your first resource for due dates and detailed course schedule.

Equity, Diversity, and Inclusivity Statement

BIOL300 is committed to counteracting discrimination and developing a climate of educational equity that recognizes and respects the equal dignity and worth of all who seek to participate in the life, work, and mission of Queen’s University. Such a climate is created and maintained by developing a commitment to and understanding of educational equity, supported by policies, programs, curricula, practices, and traditions that facilitate individuals, and equity-seeking groups, free, safe, and full participation. Our commitment to providing options for both in-person and remote self-paced learning, and built-in flexible deadlines for quizzes and assignments, are two specific examples of practices that we employ which are known to be particularly beneficial to equity-seeking groups. We will continue adjusting our course practices and policies each year with an aim to improving the climate of educational equity in BIOL300.

Queen’s is situated on traditional Anishinaabe and Haudenosaunee territory. We are grateful to be able to be live, learn and play on these lands.

Assessments & Weighting

Component	Description	Weight	Due Date*
Lecture material (50% of course grade)			
Reading Quizzes	Based on textbook readings (20 in total)	15%	Regularly throughout semester. Wide windows of availability
Active participation in modules	Written responses to questions posed during lectures/online modules	5%	Regularly throughout semester
Online Quizzes	Based primarily on lecture content (8 in total)	30%	Regularly throughout semester. 3-day availability window
Lab material (50% of course grade)			
Field Activity	Participation in field trip + species identification quizzes	5%	One of the following dates: Sept 17, Sept 18, Sept 24, (Sept 25 held as a rain day)
Beetle Report	Figures, Results text	10%	Oct 7
Bird Report	Figures, statistics, Results text	15%	Nov 4
Fish Report	Figures, statistics, Results text	20%	Nov 25

Due Dates* and Late Policy

All quizzes and assignment due dates (except the field trip) have a three-day grace period. This means that your assessments are due on the date and time specified, but we will accept all submissions within 72 hours of the deadline without penalty. Short term academic consideration is therefore built into all due dates and will not be extended past this 3-day grace period. Quizzes and assignment submission folders will close 72 hours after the deadline and any assessments not submitted by that time will not be accepted. Do not wait until the last minute to submit your assessment in case you run into technical problems! Students who wish to apply Academic Accommodations or Academic Consideration requests longer than 3 days to specific assessments should reach out to the course inbox (biol300@queensu.ca) before the end of the grace period and we will arrange suitable accommodations.

Timing of Final Examinations

BIOL300 does not have a final exam. Instead, we use regular Reading and Content Quizzes which are scheduled periodically throughout the semester. This approach helps students keep up to date with the material and avoids high-stakes testing.

Grading Scheme and 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

Re-grading requests: Work in this course is marked very carefully by the Teaching Assistants. We do not typically remark assignments unless there are clear addition errors. If you have a concern about your grade, please make sure that your concern is legitimate by checking over the feedback provided by TAs and reading over all correspondence on the class website (announcements, instructions, etc.). If you are confident that you have a valid concern, submit a copy of the original work to the Regrade Request folder including a detailed explanation of why you believe it has been incorrectly marked. Please be clear about what sections are the problem and link these to your explanation statement. **THIS MUST BE SUBMITTED WITHIN 10 DAYS OF THE POSTING OF YOUR GRADE FOR THE ASSIGNMENT.**

Your entire submission will be re-marked (this means that your total mark may go up or down). We will consider and respond to all regrade requests within two weeks of receiving your request; if you have not heard from us within that time frame, please email the course inbox.

Course Announcements

We will post important course announcements to the Announcements Section in the onQ course homepage. We encourage you to check the Announcements section regularly for updates. The "Timeline" feature in the course homepage onQ banner is your first stop for all due dates and schedules. We will always keep the Timeline up to date.

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

Contacting the Teaching Team

Throughout this course, you may come upon some general questions about the course and any assignments. We encourage you to post your question in the appropriate Course Questions discussion forum. Feel free to help answer your peers' questions on these forums. The teaching team will monitor discussion forums and answer questions. Most questions are answered within 24 hours (Monday – Friday). For questions that you would prefer to share privately, please contact the course inbox (biol300@queensu.ca) and we will direct your question to the appropriate person who can help.

Accommodations for Disabilities

Queen's University is committed to achieving full accessibility for people 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 their academic activities. The Senate Policy for Accommodations for Students with Disabilities was approved at [Senate in November 2016](#). If you are a student with a disability and think you may need academic accommodations, you are strongly encouraged to contact the **Queen's Student Accessibility Services (QSAS)** and register as early as possible. For more information, including important deadlines, please visit the [QSAS website](#).

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:

- Short-term physical or mental health issues (e.g., stomach flu, pneumonia, COVID, vaccination, etc.)
- Responses to traumatic events (e.g., Death of a loved one, divorce, sexual assault, social injustice, etc.)
- Requirements by law or public health authorities (e.g., court date, isolation due to COVID exposure, etc.)

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances. For more information, please see the [Senate Policy on Academic Consideration for Students in Extenuating Circumstances](#). Arts and Science undergraduate students should use the Faculty of Arts and Science protocol and the [portal where a request](#)

[can be submitted](#). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty. For guidance on **submitting requests**, please refer to the Resource Guides available on the [Academic Consideration website](#) under “Applying for Academic Consideration.”

N.B: The COVID-19 pandemic is an evolving situation. If you have symptoms or are deemed a close contact of someone with COVID, please access our **COVID-Related Absence Reference Guide** on the [Academic Consideration website](#). This guide will provide you with information on applying for consideration, the types of documentation (including non-medical documentation) you can use to support your request, as well as insight into how the Faculty Office will assess these requests.

If you need to request academic consideration for this course, you will be required to provide the following name and email address to ensure it reaches our team accordingly:

Instructor/Course Coordinator Name: Dr. Paul Martin

Instructor/Course Coordinator email address: biol300@queensu.ca

Students are encouraged to submit requests as soon as the need becomes apparent and to contact their Professors/Course Coordinators as soon as possible once Consideration has been verified. Any delay in contact may limit the Consideration options available.

Please follow up your request with an email to the course inbox (biol300@queensu.ca). If your request is not covered by the accommodations/flexibility that is already built into the course, we will wait to hear from you directly before initiating additional accommodations (that way we can discuss what approach will work best for you).

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 our website](#).

[Academic Integrity](#)

Queen’s students, faculty, administrators and staff all have responsibilities for upholding the fundamental values of academic integrity: honesty, trust, fairness, respect, responsibility and courage. These values are central to the building, nurturing, and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and their behavior conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1), on the Arts and Science website, 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 regulation 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.

We have had issues in the past with unintended plagiarism in this course. Regardless of how and where you retrieve information, the principles of academic integrity apply. You may benefit from visiting these websites for further tips on what constitutes plagiarism and how to avoid it.

- Queen's SASS: Departures from academic integrity and how to avoid them
- Avoiding Plagiarism: Paraphrasing
- Quoting and Paraphrasing

Turnitin

This course uses 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 to detect plagiarism.

Turnitin is a suite of tools that provide instructors with information about the authenticity of submitted work and facilitates the process of grading. Turnitin compares submitted files against its extensive database of content and produces a similarity report and a similarity score for each assignment. A similarity score is the percentage of a document that is similar to content held within the database. Turnitin does not determine if an instance of plagiarism has occurred. Instead, it gives instructors the information they need to select the authenticity of work as a part of a larger process.

Please read [Turnitin's Privacy Pledge, Privacy Policy, and Terms of Service](#), 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.

Copyright of Course Materials

Unless otherwise stated, the material on the course website is copyrighted and is for the sole use of students registered in BIOL300. The material on the website may be downloaded for a registered student's personal use but shall not be distributed or disseminated to anyone other than students registered in this course.