

BIOL535 Urbanization & Biodiversity

Winter 2022

3.0 credits

Starting on Zoom Jan 10th shift to on-campus when pandemic conditions permit

PREREQUISITES: Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

Biological Foundations List

BIOL 102/3.0; BIOL 103/3.0; BIOL 200/3.0; BIOL 201/3.0; BIOL 202/3.0; BIOL 205/3.0; BIOL 206/3.0; BIOL 212/3.0; BIOL 300/3.0; BIOL 330/3.0; BIOL 334/3.0; BIOL 339/3.0; BIOL 341/3.0; BIOL 302/3.0; BIOL 303/3.0.

Class time and location

Mondays 8:30-10am; Thursdays 10-11:30 am; Miller Hall 210 for on-campus sessions

Course website: <https://www.bonierlab.com/biol535>

Instructor Information

Name: Dr. Fran Bonier

Office address: Biosci 3523

Office hours: By appointment

Telephone number: 613-533-6000 x77024

Email: bonierf@queensu.ca

About me: Associate Professor in Biology

Social media: Twitter - @biologyFran

Course Description

This course reviews the many ways that organisms respond to urbanization and the challenges of living in urban areas, encompassing physiological, behavioural, and life history responses of individuals, evolutionary adaptations of populations, and changes in composition and dynamics of ecological communities. Discussions will focus on broad patterns that help us better understand how cities impact biodiversity, and why some organisms tolerate urban challenges so much better than others.

Important University 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](#).

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.

Course Learning Outcomes

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

1. Apply broad ecological and evolutionary theory to better understand the effects of urbanization on biodiversity.
2. Share critical evaluations of theory and empirical evidence that indicates how urbanization impacts biodiversity.
3. Synthesize knowledge across multiple primary research studies to summarize one focal area of research in **an oral presentation** to the class.
4. Synthesize knowledge across multiple primary research studies to summarize one focal area of research in **a written report**.
5. Identify gaps in knowledge in the field of urban ecology and evolutionary biology, and propose research approaches to filling those gaps.

Expectations for Zoom Sessions

The use of cameras is optional **but strongly encouraged** during our online synchronous sessions. Turning your camera on allows for a more personal experience, and will make the sessions feel more like an in-person class for all of us. Because Zoom online sessions are considered a virtual classroom, you are expected to behave as if you were in a classroom. We do, however, understand if pets or family members interrupt!

Expectations for Submission of Work

Students are expected to submit all assessments **by the posted due date**. In-class presentations must proceed as scheduled as they comprise class content on several dates, and so aren't as easily adjusted. The final written assignment will have a three-day grace period. That is, your assignment is due on the due date posted, but will be accepted without penalty up to 72 hours afterwards. Assignments not submitted by that time will receive a 0. Short-term academic consideration is therefore built into this assignment's due date, and will not be extended past this 3-day grace period without special prior arrangement, and approval of a long-term Academic Consideration.

Course Materials

All course readings will come from the published research literature, and will be posted online prior to class.

Course Timeline

- The class will start with 2 weeks of presentations and discussions led by the instructor. These four class sessions will introduce students to the field of research and provide a foundation for their in-class presentations.
- Weeks 3-11 of the course will involve focused presentations and discussions led by students on a topic of their choice within the broad framework of the course (list of options to be provided by the instructor). Depending on course enrolment, guest lectures from Urban Ecology & Evolution researchers will be interspersed with these student presentations during these weeks.
- Week 12 will involve a final wrap-up and summary of course material.

Suggested Time Commitment

This is a 3 credit course, so students should spend an average of 10 hours per week on work related to this course. This work includes attendance of class sessions (3hrs/week), independent reading and preparation for sessions (~2-3hrs/week), research and preparations for your in-class presentation, and writing a final report. There is no final exam for BIOL535.

Assessment of Learning Outcomes

Assignment	Assignment Description	Learning Outcomes	Assignment Weight
Participation	Throughout this course, you will have a variety of opportunities to participate in class discussions to demonstrate your understanding of broad ecological and evolutionary theory and apply it to the course topics, to critically evaluate evidence related to course topics, and to identify gaps in the research literature. You will be assessed on the quality and level of your participation during class sessions.	LO1; LO2 & LO5 (see above)	15%
In-Class Oral Presentations	Working with a partner, you will develop 2 presentations, each based on one focal research area. The presentations should guide students through an in-depth review and evaluation of the concepts and evidence relevant to your topic.	LO3	45%
Written Literature Review	You will write an in-depth review of the research literature related to the topic that you covered for your oral presentation.	LO4	40%

Grading Scheme and Grading Method

All components of this course will receive numerical 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:

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

Questions about the Course

Throughout this course, you may come upon general questions about the course and assignments. If you think that the answers to your question may benefit other students, you are invited to post your question in the Zoom chat box during remote class sessions, or unmute and ask your questions at the start or end of class. Any questions that you would prefer to share privately, please email your instructor, and expect a response back within 24 hours (except on weekends).

Course Announcements

I will post announcements via email to the @queensu email address that I have for each student, only as needed. I will post other routine announcements to the course website: <https://www.bonierlab.com/biol535>.

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

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](#).

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. Arts and Science undergraduate students can find 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.

If you need to request academic consideration for this course, you will be required to provide the name and email address of the instructor/coordinator. Please use the following contact information:

- Instructor/Course Coordinator Name: *Frances Bonier*
- Instructor/Course Coordinator email address: *bonierf@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 granted. Any delay in contact may limit the Consideration options available.

For more information on the Academic Consideration process, what is and is not an extenuating circumstance, and to submit an Academic Consideration request, [please visit this 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 behaviour 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.

Copyright of Course Materials

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.

Technology Requirements

Students in BIOL535 must have the ability to attend and fully engage in concurrent Zoom class sessions. Students will also need access to the published research literature, as is available through the Queen's University Library System.

Online and Blended Course Support

For technology support ranging from setting up your device, issues with onQ to installing software, contact [ITS Support Centre](#).

Late Policy

The only assignment with any potential for flexibility in due dates is your written literature review. As described above, that assignment will be associated with a 72-hour grace period, and no work will be accepted after that grace period without prior arrangements. In-class oral presentations must proceed as scheduled, as they comprise class content for their scheduled session. Students can arrange to swap presentation dates as needed, provided all students involved agree to the altered schedule.

Attendance

Given the online format for at least the first half of the semester, attendance is required for all Zoom sessions, and will affect final participation marks. Students with extenuating circumstances must use the [Academic Considerations portal](#) to request excused absences. If classes move to in-person, similar guidelines will apply, with flexibility to allow for safety during the pandemic.

Netiquette / Discussion Guidelines

University is a place to share, question, and challenge ideas. Each of us brings a different set of lived experiences. We can all help to create a safe, respectful learning environment by promoting and adhering to the following guidelines:

1. Make a personal commitment to learn about, understand, and support your peers.
2. Assume the best of others and expect the best of them.
3. Acknowledge the impact of oppression on other people's lives and make sure your language is respectful and inclusive.
4. Recognize and value the experiences, abilities, and knowledge each person brings.
5. It's alright to disagree with ideas, but do not make personal attacks.
6. Be open to being challenged or confronted on your ideas and challenge others with the intent of facilitating growth. Do not demean or embarrass others.
7. Encourage others to develop and share their ideas.

Students Studying or Travelling Abroad

We strongly recommend that you confirm Internet availability in your host country before departure if you plan to travel. In the past, students in other countries have been blocked from accessing certain websites relevant to their courses and onQ. It is the responsibility of all students to book travel around course work, as we cannot change the format or timing of assessments or assignments because of travel plans.