

Department of Biology
Course Outline

SC/BIOL 4250 3.0
Birds and the Environment, Fall 2024
Mondays and Wednesdays 10:30 to 11:20
Chemistry Building (CB) 115
Course Outline subject to change up until September 18th 2024

Course Calendar Description

A review of the adaptations of birds to different environments, behaviour and ecology, biodiversity and evolution, and current threats to the world's birds. Laboratories include field work, a study of bird anatomy, and examination of museum specimens. One term. Three credits.

In-person lectures and in-person labs. Lectures are not recorded, although there will be some recorded material posted on, or linked in, eClass.

Course Instructor(s) and Contact Information

- Name and contact information of instructor(s), including email information
 - Professor Alex Mills, ammills@yorku.ca
 - Put "BIOL 4250" in the subject line
 - Don't use eClass to email Professor Mills
 - Reply may take up to 48 hrs; email is active Mon-Fri
- Office: CHEM Building 134, but office hours will likely be by Zoom (or in person by arrangement)
 - Check eClass for office hour information

Expanded Course Description

Anticipated topics (lectures): Diversity and Evolution, Ecology, Life History, Sexual Selection, Vocal Communications, Mating Systems, Nesting and Parental Care, Annual Cycles, Flight, Migration and Navigation, Social Behaviour, Avian Demography, Conservation, Citizen Science. As we cover these, we will also touch upon evolution, flight, population trends, connectivity of populations, climate change, island birds, extinction and endangerment, recovery strategies, song recognition, invasive species, and hybrid zones.

Anticipated topics (labs): Field techniques, Diversity, Anatomy, Feathers and Flight, Vocalizations, Migration, Sexual size dimorphism, Populations and Conservation.

Course Learning Outcomes

Upon successful completion of this course students should be able to demonstrate an understanding of the following:

Area 1. Fundamental Understanding:

- Explain the varieties of biodiversity that are the focus of ornithology
- Use terminology appropriate to the field of ornithology
- Integrate knowledge of genetics, evolution, diversity, and population biology in demonstrating an understanding of ornithology
- Demonstrate an ability to sample birds in a field setting
- Identify birds, including Canadian ones, that are suffering population declines
- Exhibit an understanding of the costs and benefits of migration and residency
- Distinguish among birds mating systems

Area 2. Critical Thinking Skills

- Apply biological principles to the analysis of bird life history traits
- Assign conceptual categories of threat to particular cases of avian population decline
- Analyze datasets to test for hypotheses about avian evolution, migration, and mating

Area 3. and Problem Solving Skills

- Devise ways of analyzing existing data to determine if population parameters are stable, including the use of basic statistics
- Use sophisticated methods of literature searching to find material that is relevant for a particular subject area
- Evaluate alternative biological and policy approaches to issues of bird conservation

Area 4. Effective Communication

- Write effective reports based on lab and field investigations
- Perform basic literature searches and find library resources relating to biological topics

Area 5. Social Skills

- Work with a partner in producing and communicating scientific information
- Demonstrate the connection between biological harm and societal or personal values

Evaluation

Labs **35%** (ten labs), probably starting the week of September 16th

Mid-term Monday, October 21st **25%**

- Note: If you score higher on the Final Exam, the Mid-term will be re-weighted to 15%

Cumulative Final Exam during the December Final Exams period **40%**

- Note: If you score higher on the Final Exam, the Final Exam will be re-weighted to 50%

The value of a missed mid-term will be added to the Final exam (i.e. 65%). Missing the Mid-term is not optional. If you miss it, you must notify Professor Mills within 48 hours and provide information or documentation about why the Mid-term was missed. See also “Course Policies” below.

ALSO: you must pass the lecture part of the course. For example, if your overall grade is 60% but your lecture grade falls below 32.5/65, you will get an E grade.

Course Materials

- Readings posted on eClass
- Labs posted on eClass; you will need to print these weekly
- There is no textbook

Important Dates

- Last Day to drop the course without receiving a grade: Friday, November 8th, 2024.

Experiential Education and E-Learning

Experiential Education: 10 labs, including two in field situations

There will be an optional birding morning at Leslie Street Spit, likely on Sunday, September 22nd.

Course Content and Format

The course content will be delivered through 5 means:

1. Lectures delivered in class twice per week
 2. Readings posted on eClass
 3. PowerPoint slides (used in lectures) posted on eClass
 4. Online office hours (see eClass for details)
 5. Labs
- Note: There will be some recorded material posted on, or linked in, eClass

Course Policies

- **Questions and Concerns should be directed to**
 - *Lecture material*: During office hours by Zoom, or by email to Professor Mills
 - *Missed assessments, late submissions, grading errors, accommodations*: By way of email to Professor Mills
 - ammills@yorku.ca
 - *Labs*: Your assigned Lab Demonstrator/Grader, whose contact information will be provided to you
- **Policy for a missed test or exam or for a late exercise**
 - Neither *Travel* nor *Employment* exempts a student from writing a test or a deferred test
 - Don't purchase a travel ticket that conflicts with a test or the Final Exam period
 - Medical reasons are valid reasons, but advise Professor Mills within 48 hours if you wish to not get a zero grade
 - You may be required to supply an Attending Physician Statement
 - See also “Evaluation” above
- **Late Submissions of Labs**
 - Students lose 20% per day

Copyright and Intellectual Property

- PowerPoints used during lectures are the © property of Professor Mills
 - Permission is granted to copy them for your own use
 - Advice: **Print in grayscale**, or you will spend too much money on ink!
 - It's a breach of copyright to upload them to the internet, including sites like One Class, Course Hero, WeChat, Chegg, etc.
- Both Mid-term tests and Final Exams are the © property of Professor Mills
 - It's a breach of copyright to copy them in any form, and it is a breach therefore to upload them to the internet, including to sites like One Class, Course Hero, WeChat, Chegg, etc.
 - It's a breach of York's Policy on Academic Honesty to upload tests or assignments to third party sites on the internet, including to sites like Once Class, Course Hero, WeChat, Chegg, etc.

University Policies

Academic Honesty and Integrity

Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Major prohibitions under York's policy are the following, and some of these are also prohibited by the Criminal Code of Canada:

- No cheating
- No impersonation
- No falsification of documents
- No plagiarism
- No prohibited collaboration
- No obstruction
- No aiding and abetting others
- No disseminating information without permission

Please familiarize yourself with the full *Senate Policy on Academic Honesty*, found at <http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

Please also familiarize yourself with the *SPARK Academic Honesty tutorial* found at <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

Message from the Faculty of Science Dean's Office Regarding Academic Honesty

Numerous students in Faculty of Science courses, including NATS courses, have been charged with academic misconduct when materials they uploaded to third party repository sites (e.g. **Course Hero, One Class, WeChat, Chegg**, etc.) were taken and used by unknown students in later offerings of the course. The Faculty's *Committee on Examinations and Academic Standards* (CEAS) found in these cases that the burden of proof in a charge of aiding and abetting had been met, since the uploading students had been found in all cases to be willfully blind to the reasonable likelihood of supporting plagiarism in this manner.

Accordingly, to avoid this risk, students are **prohibited from uploading** their work to these sites. Whenever a student submits work obtained through Course Hero or One Class, the submitting student will be charged with plagiarism and the uploading student will be charged with aiding and abetting.

Note also that exams, tests, and other assignments are the copyrighted works of the professor assigning them, whether copyright is overtly claimed or not (i.e. whether the © is used or not). Scanning these documents constitutes copying, which is a breach of Canadian copyright law, and the breach is aggravated when scans are shared or uploaded to third party repository sites.

Academic Accommodation for Students with Disabilities

York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.

Please familiarize yourself with the full Senate Policy on Academic Accommodations for Students with Disabilities, found at <http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/>

- Student Accessibility Services - <https://accessibility.students.yorku.ca/>
- York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

Note: A student registered with SAS and choosing to write with Alternate Exams, is responsible for making the appropriate arrangements within the timeframes set by Alternate Exams.

Alternate Exams - <http://altexams.students.yorku.ca/>

Religious Observance Accommodation

Students who will have an academic conflict as a result of a religious observance at any point in the term should make the instructor aware of such at least three weeks prior to the conflict.

For religious conflicts occurring during an official examination period, please complete the Examination Accommodation Form available at <https://www.yorku.ca/science/chemistry/wp-content/uploads/sites/189/2021/01/Religious-Accommodation-Agreement.-fillable-form.pdf> and submit to your instructor at least three weeks prior to the final exam.

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. A statement of the policy and procedures regarding disruptive and/or harassing behaviour by students in academic situations is available on the website of the University Secretariat (<http://secretariat.info.yorku.ca/>).

Other Resources

Learning Commons

The Learning Commons brings together key supports for your learning: writing, research, learning skills and career services. <http://www.library.yorku.ca/cms/learning-commons/>

goSAFE

goSAFE is a complimentary service provided to the York Community. At the Keele campus, goSAFE has two routes: North Route & South Route which will safely transport community members by vehicle from one specified hub to another on campus. goSAFE operates seven days a week, all year round, including University closures (with the exception at Glendon during the Christmas holiday closure).

Call the goSAFE office at 416-736-5454 or extension 55454 during hours of operation. Please give your name, location and destination. <http://www.yorku.ca/goSAFE/>

Mental Health and Wellness at York University

Outlines a variety of resources available to support mental health and wellness
<http://mhw.info.yorku.ca/resources/resources-at-york/students/>

Good2Talk

Post-Secondary Student 24 hour Helpline
<http://www.good2talk.ca/> 1-866-925-5454