



## **BIOL\*2060 Ecology**

Winter 2022

Section(s): 01

Department of Integrative Biology

Credit Weight: 0.50

Version 1.00 - January 10, 2022

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### **1 Course Details**

#### **1.1 Calendar Description**

This course discusses the ecology of plants, animals, fungi and bacteria as individual organisms, interacting populations, communities and ecosystems. Lectures and discussion groups are used to demonstrate the difficulty of interpreting ecological data derived from field studies. The value of laboratory-based research in ecology will also be discussed. The course will be important for anyone who wishes to understand what we know and need to know about the way ecological systems work.

**Pre-Requisites:** 4.00 credits including BIOL\*1070

#### **1.2 Course Description**

BIOL\*2060 will introduce students to the basic concepts, theories and evidence regarding ecological processes that determine the distribution and abundance of organisms.

#### **1.3 Timetable**

- Lectures: Tuesday/Thursday, 11:30-12:50 in THRN 1200\*
- Tutorials: Monday: 2:30 - 3:20, 3:30 - 4:20, 4:30 - 5:20; Tuesday: 1:30 - 2:20, 2:30 - 3:20, 3:30 - 4:20; All of which are in SSC 3315\*

\* Lectures and tutorials/seminars will start the term in Zoom. Please see "Zoom Links" on Courselink to connect to Lectures and Tutorials/seminars.

#### **1.4 Final Exam**

Date & Time: April 14th, 2:30 - 4:30pm

Location: Courselink

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## 2 Instructional Support

### 2.1 Instructional Support Team

<b>Instructor:</b>	Cortland Griswold
<b>Email:</b>	cgriswol@uoguelph.ca
<b>Office:</b>	1474 SSC
<b>Office Hours:</b>	Wednesdays, 2:30 - 3:30

### 2.2 Teaching Assistants

Cameron Brown, cbrown52@uoguelph.ca

Chris Farrow, farrow@uoguelph.ca

Olivier Herlin, oherlin@uoguelph.ca

### 2.3 Discussion Board on Courselink

Questions that are not of a personal nature are to be asked on the Discussion Board, such that answers are available to classmates.

### 2.4 Emails to Course Instructor

Emails of a more personal nature can be directed to the Course Instructor. In the Subject Heading, begin with "BIOL\*2060: " such that it can be efficiently sorted.

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## 3 Learning Resources

### 3.1 Required Resources

#### Lecture (Readings)

**Encyclopedia of Life Sciences ([www.els.net](http://www.els.net)):** Accessible through the University of Guelph Library

**Encyclopedia of Ecology (<https://www.sciencedirect.com>):** Accessible through the University of Guelph Library

**Scitable by Nature Education ([www.nature.com/scitable](http://www.nature.com/scitable)):** Accessible through the University of Guelph Library

**Journals: Ecology, Journal of Avian Biology, etc.:** Accessible through the University of Guelph Library

Readings are available via the online Library Reserves system, with links provided through Courselink.

A lecture schedule is posted on CourseLink, with an indication of what readings are associated with a lecture. Each set of readings for a lecture has an associated "Reading Guide" to help focus your attention and aid comprehension, which is also available on CourseLink.

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## 4 Learning Outcomes

### 4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Develop cause-effect explanations for observed natural patterns in organism distribution/abundance, by applying fundamental ecological concepts.
  2. Communicate clearly about ecological systems and processes by applying appropriate ecological terminology.
  3. Appreciate the historical development of ecology as a discipline, leading to a deeper appreciation of contributions by contemporary ecologists to grapple with major ecological issues today and in the future.
  4. Reach a deeper understanding of the the science knowledge system by employing the scientific method to explicitly ask questions about ecological states of nature and develop and assess hypotheses of cause-effect explanations.
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## 5 Teaching and Learning Activities

### 5.1 Lecture

**Topics:**

Lectures will cover general topics in Ecology, organized on the basis of the following themes:

1. Biogeography and Species Distributions
2. Individuals
3. Populations
4. Communities
5. Ecosystems

Please see the Lecture & Readings Schedule on Courselink for a more specific list of topics

## 5.2 Seminar

### Week of January 24th

**Topics:** Experimental Design 1: Island Biogeography

### Week of January 31st

**Topics:** Ecological Literature: Overview and initial prep for Annotated Bibliography Assignment

### Week of February 14th

**Topics:** Ecological Literature & Annotated Bibliography: Continued work and feedback

### Week of February 28th

**Topics:** Annotated Bibliography: Sharing & Discussion of Progress

### Week of March 7th

**Topics:** Experimental Design 2: Interspecific Competition

### Week of March 21st

**Topics:** Observing Nature Preparation

### Week of March 28th

**Topics:** Observing Nature: Sharing & Discussion

## 6 Assessments

### 6.1 Assessment Details

**Seminars (20%)****Learning Outcome:** 1, 2, 3, 4

- Experimental Design 1: 3%
- Experimental Design 2: 3%
- Annotated Bibliography: 10%
- Observing Nature: 4%

**Midterm 1 (20%)****Date:** Thu, Feb 10, 11:30 AM - 12:50 PM, Courselink**Learning Outcome:** 1, 2, 3, 4

The exam will include a selection of multiple choice and short answer questions based on all material presented and discussed in lectures, seminars, assignments, and the assigned readings up to and including February 8th. The questions discussed in lecture and seminars will be similar to the kinds of questions that will appear on exams.

\*Weight - The higher mark on Midterms 1 and 2 is weighted 30%, the lower mark is weighted 20%

**Midterm 2 (30%)****Date:** Thu, Mar 17, 11:30 AM - 12:50 PM, Courselink**Learning Outcome:** 1, 2, 3, 4

The exam will include a selection of multiple choice and short answer questions based on all material presented and discussed in lectures, seminars, assignments, and the assigned readings from February 15th up to and including March 15th. The questions discussed in lecture and seminars will be similar to the kinds of questions that will appear on exams.

\*Weight - The higher mark on Midterms 1 and 2 is weighted 30%, the lower mark is weighted 20%

**Final Exam (30%)****Date:** Thu, Apr 14, 2:30 PM - 4:30 PM, Courselink**Learning Outcome:** 1, 2, 3, 4

The exam is comprehensive and will include a selection of multiple choice and short answer questions based on all material presented and discussed in lectures, seminars, assignments, and the assigned readings. The questions discussed in lecture and seminars will be similar to the kinds of questions that will appear on exams.

## 7 Course Statements

### 7.1 Academic Consideration

- If you are unable to complete any of the assignments by the deadline for documented medical, psychological, or compassionate reasons, please contact the Course Instructor in advance of the deadline to make arrangements for a short extension.
- If you are sick or otherwise unable to attend a seminar for a valid medical, psychological or compassionate reason, please contact the Course Instructor by email in advance. You may be able to attend a different seminar section that week or complete the work on an individual basis.
- If you are absent for a midterm exam for documented medical, psychological, or compassionate reasons, you should contact your program counsellor within five working days of the missed exam and seek academic consideration. Students who miss a midterm exam for documented reasons will have the final exam reweighted.
- See the undergraduate calendar for information on regulations and procedures for Academic Consideration:  
<https://www.uoguelph.ca/registrar/calendars/undergraduate/2019-2020/index.shtml>

## 7.2 Academic Integrity

- You are encouraged to discuss the course with your peers, but all work for the assignments MUST be your own unless otherwise stated.
- The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.
- Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an

action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

- The Academic Misconduct Policy is detailed in the Undergraduate Calendar: <https://www.uoguelph.ca/registrar/calendars/undergraduate/2019-2020/index.shtml>

### **7.3 Plagiarism Detection Software**

Electronically submitted student assignments are automatically compared to other electronic documents (including online and student papers) by Turnitin™ for degree of similarity.

### **7.4 Asking Questions in the Online Discussions**

If you have any questions about the course you should post them in one of the discussions on the Courselink website. Questions of a personal nature (e.g. illness) should be emailed to the appropriate person, typically the Course Instructor.

### **7.5 Assignment of Grades**

Assignments will be marked on the basis of the criteria outlined in the Undergraduate Calendar. Clarification about the assignment of grades can be found under Grading Procedures at: <https://www.uoguelph.ca/registrar/calendars/undergraduate/2019-2020/index.shtml>

### **7.6 Course Evaluation Information**

- CCS now provides the U of G Course Evaluation System in a secure, online environment. End of semester course and instructor evaluations provide students the opportunity to have their comments and opinions form part of the information used by Promotion and Tenure Committees in evaluating the faculty member's contributions in the area of teaching.
- Course evaluations are now conducted through this web site. Login with your central email account login ID and password: [https://courseeval.uoguelph.ca/CEVAL\\_LOGIN.php](https://courseeval.uoguelph.ca/CEVAL_LOGIN.php)
- Instructors do NOT receive evaluations until the end of exam period. Furthermore, evaluations are anonymous, unless you specifically indicate you want to acknowledge your comments.

### **7.7 Re-Grading of Assignments**

If you wish to have an assignment re-graded, then you should email the Course Instructor. In order for a re-grading request to be considered, you must provide a written justification for why the grade should be changed based on the assessment criteria found in the grading

rubric. All requests for re-grading **MUST** be made within one week of the return of the assignment. Be aware that the entire document will be re-graded, which could result in an increase, decrease, or no change to your mark.

## 7.8 Student Responsibilities

You should plan on spending a minimum of ten hours per week working on this course, in addition to time spent in lectures and seminars. This time includes reading the assigned readings, reviewing and/or rewriting lecture notes, preparing questions on any material with which you need help, preparing for the seminars, and working on your assignments. The Instructor and TAs will offer as much assistance as possible. However, remember that this is your learning experience, and you will get as much out of this class as you put into it.

## 7.9 Submission of Assignments and Late Policies

- Each student has 2 "late assignment tokens", which allows a student to hand in an assignment within 48 hours of its original due date and time. **To redeem a token**, notify your TA by email when you have uploaded the late assignment to Courselink.
- Otherwise, late assignments will be penalized 20% for each 24 hour period relative to its original due date and time.
- If you encounter technical problems when submitting your assignments, please email the assignment to your TA IN ADVANCE of the deadline to avoid late penalties.
- Please be sure to follow the guidelines in the Submission of Assignments Checklist in order to avoid common problems that could cost you marks.

# 8 Department of Integrative Biology Statements

## 8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. [B.Sc. Academic Advising](#) or [Program Counsellors](#)

## 8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of



courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>

- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: <http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help> and <http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help>

### 8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. <http://www.selfregulationskills.ca/>

### 8.4 Personal information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) <http://www.e-laws.gov.on.ca/index.html>. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes.

For more information regarding the Collection, Use and Disclosure of Personal Information policies please see the Undergraduate Calendar. (<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml>)

### 8.5 Course Offering Information Disclaimer

Please note that course delivery format (face-to-face vs online) is subject to change up to the first-class day depending on requirements placed on the University and its employees by public health bodies, and local, provincial and federal governments. Any changes to course format prior to the first class will be posted on WebAdvisor/Student Planning as they become available.

## 9 University Statements

### 9.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

### 9.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions

<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

### 9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

### 9.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

## 9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For Guelph students, information can be found on the SAS website  
<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website  
<https://www.ridgetownc.com/services/accessibilityservices.cfm>

## 9.6 Academic Integrity

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Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct  
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct  
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

## 9.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

## 9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

## 9.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

## 9.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

## 9.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- <https://news.uoguelph.ca/return-to-campus/how-u-of-g-is-preparing-for-your-safe-return/>
- <https://news.uoguelph.ca/return-to-campus/spaces/#ClassroomSpaces>

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.

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