

Learning objectives: In addition to covering fundamental concepts about how life on Earth interacts with the environment, this course provides the foundation for 3000- and 4000-level courses in ecology and conservation biology. By the end of the course, students will be able to describe and explain the ecological mechanisms and interactions that determine the distribution and abundance of organisms in the environment at the population, community, and ecosystem levels. Students will also be able to explain ecological concepts within an evolutionary context.

Prerequisites: A minimum grade of 60% in either Biology 1001A or 1201A and a minimum grade of 60% in either Biology 1002B or 1202B, or Integrated Science 1001X.

Instructors: Dr. Hugh Henry
Dr. Graeme Taylor

Lectures:

The lecture schedule (including corresponding Chapters from the 6th edition of the textbook) is available on the final page of this document.

Tutorials: The tutorial schedule, locations, and TA contact information will be available on the course OWL site (under the 'tutorial information' tab).

Materials: **Required Textbook:** Bowman and Hacker, Ecology, 6th edition. The textbook will be an important resource for students. The 5th edition is also acceptable.

SimBio software: This software will be used in each of the tutorials. You may either i) purchase a SimBio voucher from The Book Store at Western and use the code to access the software, or ii) purchase the software directly from SimBio. Instructions for setting up the software will be posted on the OWL site under the tutorial info tab.

OWL website: Items posted to this website will include lecture materials, tutorial schedule and TA contact information, a question/answer forum, announcements, and exam information.

Students who need assistance with the course OWL site can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Evaluation:

Value	Item	Date (s)
35%	Midterm test	Sat. Oct. 14 from 1:30-2:30pm
20%	Tutorial quizzes	Each tutorial session
45%	Final exam Students must pass the final exam to pass the course	December exam period; Time and Locations TBA

*** no electronic devices are permitted during examinations.**

Biology 2483A course-specific policies

1. Communications and office hours:

Official course announcements will be posted on the course OWL site and sent via e-mail to all students registered in the course. Please check the OWL site (<http://owl.uwo.ca>) and your uwo.ca e-mail on a regular basis. Missing course information due to not checking OWL or your uwo.ca e-mail cannot be used as a basis for appeal. Similarly, missing information due to an email account going over quota cannot be used as a basis for appeal.

Short answers to questions about lecture material can be provided in person immediately after each class. Longer answers will require meeting the instructor during office hours. When preparing to visit during an office hour, please prepare your lecture notes and textbook, and flag the material with which you need help.

Office hours: Thursdays 12:30-1:20 via Zoom. Meeting hosted by that day's lecturer.

In many cases, questions regarding the course content can be answered by consulting the textbook. Likewise, questions regarding administrative aspects of the course typically can be answered by consulting the course outline. If you still have questions after consulting these resources, you can email the instructors directly (hhenry4@uwo.ca, gtaylor8@uwo.ca). Please copy your TA on this correspondence. When communicating with professors or TAs over e-mail, please use your uwo.ca e-mail. We will not respond to e-mails originating from other e-mail providers. Please include **2483A plus your tutorial section number** in the subject area of e-mails that you send to the professors or TAs. This helps us to find relevant information quickly.

E-mail responses can be expected within 2 working days, (excludes weekends and holidays), and will be addressed during regular work hours (9 a.m. – 5 p.m.).

2. Lectures:

Video recording or photographing lectures is not permitted. If you have academic accommodation to make audio recordings of the lectures, you must first seek permission from the instructors. Recording lectures without the instructor's knowledge or consent is against Canadian law, and violators will be reported to the Dean.

Course materials (lecture slides, other materials posted on OWL, exams, etc.) are the intellectual property of the instructors and are made available to you for your personal use in this

course. Sharing, re-posting, or using this material outside of your personal use in this course is considered an infringement of intellectual property rights and will be reported to the Dean.

3. **What to do if you miss a lecture:** Read the corresponding chapter in the textbook to learn the material that was covered in class. Review the posted lecture slides and ask another student to verify which material in the chapter was emphasized in class. In fairness to all students in the class, the professors will not provide additional lecture notes.
4. **Tutorials/quizzes:** Tutorials will commence in person starting the week of September 18 (details will be posted on OWL). Attendance at tutorials is mandatory and students must attend only the section for which they have registered. Tutorial grades will be based on quizzes conducted during tutorial hours. Students arriving late to tutorials risk missing material required for answering quiz questions. Recording or photographing tutorials is not permitted.

Graded quizzes will be returned to students in their next tutorial session. Tutorial materials and quizzes are protected by intellectual property laws and sharing, re-posting, or using this material outside of your personal use in this course is considered an infringement of intellectual property rights and will be reported to the Dean.

5. **What to do if you miss a tutorial:** Please contact your TA within 24 hours of the missed tutorial. Missed tutorials/quizzes will receive a grade of '0' unless academic consideration has been approved (see page 5 for the university policy about academic consideration). If academic consideration was approved, the other quiz grades will be re-weighted such that the total value of quizzes remains 20% of the final grade (if >2 quizzes are missed, the remaining marks for missed quizzes will be reweighted to the final examination). It is not possible to attend another tutorial section to make up for a missed tutorial.
6. **Exams and course grades:** No electronic devices may be in your possession during exams. The midterm will be multiple choice and the final exam will be a combination of multiple choice and short-answer questions. Students **must pass the final exam to pass the course** (i.e., final exam grade $\geq 50\%$). A student who fails the final exam will receive the lower of 49% or their earned course grade. Course grades will be calculated to one decimal place and will be rounded to the nearest whole number (e.g., 81.4 will be rounded to 81 and 81.5 will be rounded to 82). There will be no rounding to the next letter grade (e.g., 89.4 will not be rounded to 90).

Computer-marked multiple choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating. Graders of short-answer questions will also be comparing answers for unusual similarity. Please see page 6 of this document for the university policy on academic offenses.

Due to the size of the class, students must write the midterm and final exams in the room to which they have been assigned. Stay tuned for OWL announcements about room assignments.

After the midterm exam has been graded, the grades will be posted on the course OWL site. Neither midterm nor final exams will be returned but students will have an opportunity to view their exams. Information about exam viewing will be posted on OWL.

7. What to do if you miss an exam: If you are unable to write an exam due to illness or other serious circumstance, please seek academic consideration as soon as you are able to do so (see page 5 regarding the university policy about academic consideration). Only students who have been granted academic consideration may write a make-up exam. Based on university policy, there will be only one make-up exam scheduled for each of the mid-term and final exams.

The **make-up midterm** for students who received academic consideration for the regular midterm exam will take place on Friday Oct. 20. When the time and location are determined they will be posted on OWL. Students with valid (and documented) reasons for missing the make-up midterm exam will have all of their exam marks re-weighted towards the final exam (making the final exam worth 80% of the final course grade).

For the **final exam**, students who have exam scheduling conflicts with the Biology 2483A final exam may be eligible to write the make-up final exam. Resolving exam scheduling conflicts requires approval from your Academic Counselling Office. (http://www.registrar.uwo.ca/examinations/exam_schedule.html). If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so.

The **make-up final exam** (called a Special Exam by the university) for students who received academic consideration for the December exam will take place in January 2023. When the day, time, and location are determined, they will be posted on OWL. Students with valid (and documented) reasons for missing the Special Exam may take the final exam with the next class (summer 2023 or Dec 2023).

8. What to do if you wish to have an exam or a quiz reassessed: For quizzes, contact your TA no later than one week after the graded quiz was returned to you. If you wish to have an exam reassessed, contact Dr. Henry (hhenry4@uwo.ca) no later than one week after the exam viewing period (see OWL for details about the viewing period). Your entire quiz/exam will be reviewed, not subsections of it. Your mark may increase, decrease, or remain the same. The revised grade will replace the original grade, with no basis for appeal.

For your information, the university-wide descriptors of the meaning of letter grades are:

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	Below 50	Fail

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=5&SelectedCalendar=Live&ArchiveID=#SubHeading_73

University-wide policies (from Western's Academic Calendar):

1. **Prerequisites:** Unless you have either the requisites for this course or written special permission from your Dean (via the Dean's academic counsellors) to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. **Accessibility:** Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf.

Please contact the course instructors, Dr. Henry (hhenry4@uwo.ca) and Dr. Taylor (gtaylor8@uwo.ca), if you require material in an alternative format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education at http://academicsupport.uwo.ca/accessible_education/index.html if you have any questions regarding accommodations.

3. **Academic consideration:** Requests for academic consideration cannot be made to the instructors or TAs. If you are unable to meet a course requirement due to **illness, other serious circumstance, or based on compassionate grounds**, you must seek academic consideration as soon as possible through the following routes:

- (i) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to the Academic Counselling office of their Faculty of Registration.

For further information, please consult the University's medical illness policy at https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration.pdf.

The Student Medical Certificate is available at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

- (ii) Submitting appropriate documentation for non-medical absences to the Academic Counselling office in their Faculty of Registration.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences must be submitted to the Academic Counselling office of a student's Home Faculty.**

If you are unable to write a quiz or exam due to a **Sabbath or Religious Holiday**, you must inform your Academic Counselling Office, in writing, as early as possible but no later than one week prior to a mid-term exam or quiz and no later than two weeks prior to a final exam.

Consideration will be granted only for the specified date of the religious holiday and only holidays appearing on the university-approved list of dates (<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>) will be accommodated.

4. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Learning-skills counsellors at the Student Development Centre (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Additional student-run support services are offered by the USC, <https://westernusc.ca/services/>.

5. Academic offenses: Students must write their quizzes and exams in their own words and must not copy other student's work. Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

6. Code of Student Conduct: To foster a supportive and enriching academic environment that is conducive to learning and free inquiry, Western has a Code of Student Conduct, which is available at: <http://www.uwo.ca/univsec/pdf/board/code.pdf>

7. EDI statement:

The pronouns used by the instructors are: “he/him”

8. Land acknowledgement:

We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum. This land continues to be home to diverse Indigenous peoples (e.g., First Nations, Métis, and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.

9. Contingency plan

Although the intent is for this course to be delivered in person, should any university-declared emergency require some or all of the course to be delivered online, either synchronously or asynchronously, the course will adapt accordingly. The grading scheme will not change. Any assessments affected will be conducted online as determined by the course instructor.

Lecture schedule:

Unit #	Dates	Textbook chapters	Chapter titles	Instructor
1	Sept. 7 - 14	1, 4, 5	The web of life Coping with environmental variation – temperature and water Coping with environmental variation – energy	Henry
2	Sept. 19 - 26	6 - 8	Evolutionary ecology Life history Behavioural ecology	Taylor
3	Sept. 28 – Oct. 5	9 - 11	Population distribution and abundance Population dynamics Populations – growth and regulation	Henry
4	Oct. 10 - 19	12 - 15	Predation Parasitism Competition Mutualism and commensalism	Taylor
5	Oct. 24 – Nov 9 (reading break Oct. 30 to Nov. 3)	16 - 19	The nature of communities Change in communities Biogeography Species diversity in communities	Henry
6	Nov. 14 - 21	20 - 22	Production Energy flow and food webs Nutrient supply and cycling	Henry
7	Nov. 23 – Dec. 5	23 - 25	Conservation biology Landscape ecology and ecosystem management Global ecology In-class review	Taylor