

## Biology 2483A - Ecology Course Outline

### 1. Course Information

#### Course Information

Biology 2483A – Ecology

Fall 2024. 2 lecture hours, 1 tutorial hour per week.

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

#### List of 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.

Unless you have either the requisites for this course or written special permission from your Dean 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. Instructor Information

Instructors	Email	Office	Section numbers
Dr. Tim Hain ( <i>Course Coordinator</i> )	thain@uwo.ca	NCB 301F	
Cailyn McKay (TA)	cmckay48@uwo.ca		002, 003, 010
Emeli Obie (TA)	jobi@uwo.ca		004, 008, 011
Eric Fordjour (TA)	efordjo@uwo.ca		005, 006, 016
Ingrid Tello-López (TA)	itellolo@uwo.ca		007, 017, 020
Olaide Ajibola (TA)	oajibol3@uwo.ca		009, 013, 014
Julia Lacika (TA)	jlacika@uwo.ca		019
Dr. Graeme Taylor ( <i>Tutorial Coordinator</i> )	gtaylor8@uwo.ca	BGS 2066	

*Office hours* will be offered over from 12:30-1:20pm on Thursdays in the instructor's office.

Please copy your TA on email 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 emails 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.).

### **3. Course Syllabus, Schedule, Delivery Mode**

An introduction to ecology, the scientific study of the interactions that determine the distribution and abundance of plants, animals, and microorganisms. Ecological concepts at the organism, population and ecosystem levels will be considered, including tolerance limits, life history evolution, competition, predation, population growth and control, and ecosystem dynamics.

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.

### **4. Course 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, and as a textbook in support of some lectures. 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.

All course material will be posted to OWL: <https://westernu.brightspace.com/>

Students are responsible for checking the course OWL site (<https://westernu.brightspace.com/>) regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

### **5. Methods of Evaluation**

#### **Grading Scheme and Assessment Dates**

<b>Value</b>	<b>Item</b>	<b>Date</b>
36%	Midterm	Saturday, October 26, 1:30-3:30pm
24%	Tutorial assignments	Each tutorial session

40%	Final exam Students must pass the final exam to pass the course	December exam period: date and location to be announced
-----	--	---

Non-programmable calculators are permitted during exams.

### General information about missed coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs* posted on the Academic Calendar:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/academic\\_consideration\\_Sep24.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf),

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar’s webpage:

[https://registrar.uwo.ca/academics/academic\\_considerations/](https://registrar.uwo.ca/academics/academic_considerations/)

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

All Academic Consideration requests must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this course. However, the following assessments are excluded from this, and therefore always require formal supporting documentation:

When a student *mistakenly* submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above or those in the **Coursework with Assessment Flexibility** section below, the request cannot be recalled and reapplied. This privilege is forfeited.

### Evaluation Scheme for Missed Assessments

Please contact your TA within 24 hours of the missed tutorial. The first missed tutorial and quiz will have its grade reweighted to the remaining tutorials so that each tutorial is worth 12% of your final grade. If a student misses a second tutorial, then both the missed tutorial grades (worth 16%) will be shifted to the final exam. Students must pass the completed tutorial component to pass the course. It is not possible to attend another tutorial section to make up for a missed tutorial.

When a student misses the Final Exam and their Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup Final Exam). See the Academic Calendar for details (under [Special Examinations](#)), especially for those who miss multiple final exams within one examination period.

### Essential Learning Requirements

Even when Academic Considerations are granted for missed coursework, the final exam is deemed essential to earn a passing grade.

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.

Students must pass the tutorials to pass the course (i.e. a grade of  $>12\%$  out of the 24% for tutorials, or  $>4\%$  if only one tutorial is attended).

## 6. Additional Statements

### Religious Accommodation

When conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible but not later than two weeks prior to the writing or the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays:

<https://www.edi.uwo.ca>.

### Accommodation Policies

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](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf).

### Academic Policies

The website for Registrar Services is <https://www.registrar.uwo.ca/>.

In accordance with policy,

[https://www.uwo.ca/univsec/pdf/policies\\_procedures/section1/mapp113.pdf](https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf),

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

Exams and course grades: Non-programmable calculators may be used for the midterm and final exam. No other 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. 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).

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).

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.

Hain (thain@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&S\\_electedCalendar=Live&ArchiveID=#SubHeading\\_7](http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=5&S_electedCalendar=Live&ArchiveID=#SubHeading_7)

**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:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](https://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.

In the event that this course is delivered online, tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

<https://remoteproctoring.uwo.ca>.

### **Support Services**

Please visit the Science & Basic Medical Sciences Academic Advising 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](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](mailto:support@uwo.ca).

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at

[http://academicsupport.uwo.ca/accessible\\_education/index.html](http://academicsupport.uwo.ca/accessible_education/index.html)

if you have any questions regarding accommodations.

Learning-skills counsellors at Learning Development and Success (<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/>.

Lecture schedule

<b>Unit #</b>	<b>Dates</b>	<b>Textbook chapters</b>	<b>Chapter titles</b>	<b>Instructor</b>
1	Sept. 5-12	1, 4, 5	The web of life Coping with environmental variation – temperature and water Coping with environmental variation – energy	Hain
2	Sept. 17-24	6-8	Evolutionary ecology Life history Behavioural ecology	Taylor
3	Sept. 26 - Oct. 3	9-11	Population distribution and abundance Population dynamics Populations – growth and regulation	Hain
4	Oct. 8-24 (no class Oct 14-18 for Reading week)	12-15	Predation Parasitism Competition Mutualism and commensalism	Taylor
5	Oct. 29 – Nov. 7	16-19	The nature of communities Change in communities Biogeography Species diversity in communities	Hain
6	Nov. 12-19	20-22	Production Energy flow and food webs Nutrient supply and cycling	Hain
7	Nov. 21 – Dec. 3	23-25	Conservation biology Landscape ecology and ecosystem management Global ecology In-class review	Taylor