

Biology 4412G Course Outline**1. Course Information and Prerequisites:****Course Information**

Biology 4412G – Biodiversity Science

[REDACTED]

(Lectures, tutorials and discussions are integrated; times above are a general outline)

List of Prerequisites

Biology 2244A – Biostatistics with a minimum 60%.

One of: Biology 3440A/B (Population Ecology), Biology 3442F/G (Conservation Biology), Biology 3445F/G (Community Ecology).

Unless you have either the requisites for this course or written special permission from your Dean's Designate (Department/Program Counsellors and Science Academic Counselling) 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 if you are dropped from a course for failing to have the necessary prerequisites.

2. Instructor Information

[REDACTED]

Students must use their Western (@uwo.ca) email addresses when contacting their instructors. Please put '4412' at the beginning of the subject for all email correspondence, including to your TA. Please note, we cannot guarantee response to questions in the 24-hour period prior to assignment deadlines.

3. Course Description, Learning Outcomes, Schedule, Delivery Mode

Biodiversity science is an emerging and highly integrative field of research dealing with all aspects of biological diversity. This course will address approaches and techniques for the measurement, assessment, monitoring, and management of biodiversity from genes to ecosystems.

As a capstone course to Western Biology's Biodiversity and Conservation Honour's Specialization, we will build on core ecological theories from population ecology, conservation principles, landscape genetics, community ecology, and ecosystem management. We incorporate social, ecological, and evolutionary perspectives to understand the causes and consequences of biodiversity loss, and the socio-economics of biodiversity change. Students are expected to engage highly with course content in a way that synthesises their core ecological knowledge.

As a result of attending integrative lectures / tutorials and successful completion of assigned course work including group projects and discussions, students should be able to:

- Articulate verbally and in writing what biodiversity is and the transdisciplinary nature of biodiversity science

- Articulate verbally and in writing the challenges facing the conservation of biodiversity
- Articulate verbally and in writing the dependence of human societies on biodiversity
- Read and critically evaluate scientific and policy literature on biodiversity
- Interpret statistical results as outputs of statistical analyses and in primary scientific literature
- Relate fundamental ecological principles (from both this, and prerequisite courses) to biodiversity concepts and issues
- Contribute substantively and collaboratively to group project documents and presentations

Lecture Schedule

Classes begin: January 8, 2024

Winter Term Reading Week: February 19 – February 23, 2014

Classes end: April 8, 2024

Refer to OWL for full schedule of lectures, in class activities, and assignments

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.

4. Course Materials

All course material will be posted to OWL: <http://owl.uwo.ca>. This is the primary method by which information will be disseminated to all students in the class, and students are responsible for checking OWL on a regular basis. There is no textbook for this course.

If students need assistance with the course OWL site, they 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.

Technical Requirements



Stable internet connection



Laptop or computer

Please bring a laptop to all classes. In the event of pivoting from in-person to completely online, you must have access to a computer with stable internet connection and Zoom. Personal Response Systems ("Clickers") are not used in this course.

5. Methods of Evaluation

This class will be divided into a formal lecture (most classes), a guided discussion of the assigned reading, and in-class activities usually for marks. This tutorial/laboratory portion of the class will also include available time to complete the in-class assignments, and work towards completion of the final project.

This course involves a class-based project that differs each year; this project will be developed, discussed, and worked on in class throughout the term. Additionally, this course is 4 hours once per week; one missed class is a substantial portion of the course! **For this reason, it is important that students attend all lectures/tutorials.**

This course is designated as an F/G course, which means that a minimum of 2500 written words (in essay form) is a compulsory component of the course; you must pass the essay components to pass the course. The overall course grade will be calculated from a combination of in-class quizzes, individual and group presentations, individual and group written assignments, and various in-class participation activities. Refer to the lecture schedule for dates of each assessment.

Evaluations and Assessments

Please refer to posted class schedule (on OWL) for assignment dates.

Individual Assessments			
Quiz	10%	In class	Can be made-up within 5 days
Presentation #1	2.5%	In class	Cannot be made up
Annotated bibliography	7.5%	Hand in	Late penalty 10% per day (or part thereof up to 4 days late)
Midterm	20%	In class	Can be made-up within 5 days
Participation / group evaluation	10%	In class	Cannot be made up
Group Assessments			
Work plan presentation	5%	In class	Cannot be made up. Peer assessment evaluation
Work plan written document	10%	Hand in	Late penalty 10% per day (or part thereof up to 4 days late)
Conceptual figure	5%	In class & (hand in)	Late penalty 10% per day (or part thereof up to 4 days late)
Final class project presentation	10%	In class	Cannot be made up. Peer assessment evaluation.
Final class project document	20%	Hand in	Late penalty 10% per day (or part thereof up to 4 days late)

6. Student Absences

If you are unable to meet a course requirement due to illness or other serious circumstances, **contact the instructor as soon as possible**, and then follow the procedures below.

Assessments worth less than 10% of the overall course grade:

For work worth less than 10% of the total course grade, refer to the assessment list above. In-class activities (participation, presentations) cannot be made up, nor can I grant extensions or reweighting for individual assessments. For in class group work activities (e.g. presentations) a peer assessment evaluation *may* be granted with valid accommodations procedures. Note that in all cases where documentation (medical or otherwise) is required, it can *only* be collected by the student's Dean's Office Academic Counselling unit.

Assessments worth 10% or more of the overall course grade:

By policy, academic considerations for work totalling 10% or more of the final course grade can be granted only by the student's Faculty of Registration (typically by their academic counsellors). For

work totalling 10% or more of the final course grade, you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible.

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

The Student Medical Certificate is available at https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Note: missed work can *only* be excused through one of the mechanisms above. Being asked not to attend an in-person course requirement due to potential COVID-19 symptoms is **not** sufficient on its own.

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).

7. Accommodation and Accessibility

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Accommodation Policies:

Students with disabilities work with Accessible Education (formerly SSD), 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),

8. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy, 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.

Professionalism & Conduct

Western students are expected to follow the Student Code of Conduct. Additionally, the following expectations and professional conduct apply to this course:

- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
- Recordings are not permitted (audio or video)
- Students will be expected to take an academic integrity pledge before some assessments

In this course, my aim is to foster a professional teamwork environment where students cultivate skills in creativity, synthesize the knowledge acquired at Western, and critically evaluate information presented to them. Emphasizing a reciprocal learning model, students will both receive and provide peer feedback, creating a collaborative environment that prepares them for the challenges of their future careers in biology. Please be courteous and respectful in providing feedback to others by focusing on the goals of the course and course content.

In this class we will follow the THINK before you speak model.
Before you speak ask yourself is it:

- T = true
- H = helpful
- I = inspiring
- N = necessary
- K = kind

We strive to cultivate an atmosphere that values the unique contributions of each member. In this learning community, we unequivocally affirm our commitment to fostering a diverse, equitable, and inclusive environment. Creating this culture requires attention to six values: honesty, trust, fairness, respect, responsibility, and courage. Any form of disrespect towards individuals based on their identity will not be tolerated.

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.

Plagiarism

Biology 4412G is an essay-based course. Students must write their assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt by using quotation marks where appropriate (rare in science) and/or by properly paraphrasing and appropriately citing the source of the information. You are expected to know what plagiarism is at this stage of your programme. All required written work will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Generative AI use

In this course, we recognize the potential benefits of generative AI to support your learning; however, the use of generative AI can detract from learning of key knowledge and skills, particularly skills where it's important for you to accomplish a task unassisted. Each assignment will clearly outline the expectations and restrictions around generative AI use for that assignment. Written assignments will be

scanned for AI generated text through Turnitin.com. Violating the acceptable use of generative AI stated in your assignment requirements may result in academic penalties as laid out in Western University's academic integrity and scholastic offensive policies.

9. 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/>.

10. Equity, Diversity, Inclusion and Decolonization (EDID):

Land Acknowledgement: We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak, and Chonnonton Nations, 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 (First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society. Throughout Canada, North America, and the world, Indigenous Peoples are vital contributors to their communities, and we greatly value their presence, knowledge, and wisdom.

