

## Environmental Science 1021F Environmental Science and Sustainability Fall 2024

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Questions about course material, structure and organization, exams, and accommodation should be directed to your course instructor.

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You will be assigned to a specific TA who will help mentor you throughout the scientific literacy and communication aspect of the course. Your TA will act as your first point of contact for any inquiries regarding your writing assignments.

Your TAs will be available by email and via Zoom and you may ask to set up appointments with them. You have been assigned to a TA based on your surname. This information is available on OWL under Communications > Groups.

Teaching Assistant	Email
Benjamin Fordjour	bfordjou@uwo.ca
Cailin Gallinger	cgallin4@uwo.ca
Hana Hopson	hhopson@uwo.ca
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**Pre- or co-requisite:** There are no pre-requisites for the course.

Class lectures: W 6:30-9:30pm NSC 145

### Course description and details:

This course is divided into two key components:

Environmental understanding and awareness
Scientific literacy and communication

## Environmental understanding and awareness (60% of your overall mark)

Every day, the media reports on many environmental issues including the loss of insect pollinators, the development of oil pipelines, and changing climate. This course is intended to give you the scientific background and skill set necessary to think critically about these issues. The course focuses on the practical and applied aspects of environmental science through studying environmental problems in terms of their causes, assessment, and solutions. We will tackle the most pressing environmental issues including the loss of biodiversity, food provision and security, water security, supply and pollution, plastic waste, air pollution, the mining and oil industry, sustainable development, energy production, and climate change. Throughout the course, students will apply their foundational knowledge to work through case studies based on current issues and learn about strategies that are used to mitigate and manage topical issues of environmental concern.

This aspect of the course will be delivered through: And will be assessed through:

Interactive course notes

Course readings Weekly quizzes

In-person lectures Examinations (midterm and final

exam)

## Scientific Writing and Communication (40% of overall mark)

ENVIRSCI 1021F is an essay course. An essay is defined by the university as:

The term "essay" is to be understood broadly to include many of the reports, reviews, summaries, critiques, and some laboratory reports that are currently assigned, as well as essays in the strictest sense. The essential point is that the assignments involve assembling information and argument and presenting it in connected prose.

set of assignments that are designed to help you develop your skills in scientific writing. Your writing assignment will mimic the research, writing, and revision cycle of a scientific article and will help you gain practical skills in scientific writing.

This aspect of the course will be delivered through:

There will be three assessed components of this part of the course:

Assignment instructions Writing tutorials Discussions with your TA Annotated bibliography Mini-review (1200 words) Response to reviewer

Please note: You cannot pass the course without passing the writing assignment portion.

#### **Learning Outcomes**

Upon completion of this module, students should be able to:

**Environmental knowledge** - Summarize a range of pressing environmental problems, identify their causes and consequences and discuss possible solutions;

**Environmental awareness** - Appreciate, value and respect the environment and the role of society in it, along with the diverse viewpoints and perspectives of stakeholders;

Scientific literacy - Identify the validity of scientific sources, synthesize and critically analyze the vas1(t)-4()-4(an)3(d)15p31q0.00000912 0 610 g TETQq0.00000912 0 612 792 reW\* nQ EMC /Span &(max)

important for the midterm and final exam. It is important to note that it is your responsibility to read the course notes before attending lecture as we will not explicitly discuss all of this information during lecture.

## Why use this format instead of an official textbook?

It is more concise - Textbooks are big. Publishers include a lot of information in their chapters,
I've purposefully kept the writing to more of a conversational tone and tried to be succinct and concise.

**Expense** - If I thought not having a textbook would hamper your ability to learn about environmental issues, we would have one. But I think that this is a more flexible and adaptable format that also comes with the bonus that it is free!

**Updates** - Things in the environmental sector change rapidly. Printed textbooks are inherently behind before they even sell their first copy. As much as we can, we will be dealing with issues as they emerge and having a set of online course notes allows us to do that.

Course notes will be released at the beginning of every week; however, you can see the line-up for the entire semester in the course timetable below.

## **Course Readings**

In addition to reading the weekly interactive course notes, you have a set of weekly course readings as well. The course readings are aligned to weekly lecture topics and are selected to (1) demonstrate a variety of scientific writing styles (scientific articles, informal articles, media articles, blogs, etc.), (2) further your knowledge about environmental issues, and (3) help prepare you for your examinations. Your course readings are mostly drawn from the scientific literature, but they may also include shorter, more informal articles as well.

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The course is assessed via a diverse range of methods that are designed to help you learn the material and develop your practical skills.

### Environmental knowledge and awareness (60% of overall mark)

10% Online quizzes (weekly)

15% Midterm

35%

## Scientific literacy and communication skills (40% of overall mark)

10% Annotated bibliography

20% Mini review

10% Response to reviewers

All written assignments are due at [6:30pm EST] unless otherwise specified Written assignments will be submitted to Turnitin (statement in policies below) Every deadline for any assignment has an automatic grace period of 48 hours (you do not need to contact the instructor to ask for this grace period, it is automatically given).

## More information on: Environmental knowledge and awareness (60%)

Online Quizzes and Homework Activities (10%)

To encourage your active participation and improve learning, you will be given quiz questions associated with each week that will test material from the course notes and readings. All quizzes are **open-book** and have no time limit (outside of submitting before the deadline). The quizzes are meant to encourage you to review and practice material for the midterm and final exam. The quizzes will be released each week with the course notes and then will be due the following week at 6:30pm (the deadlines for each quiz are also available from the quizzes page). The quizzes are not designed to replicate exam style questions, but rather to help you stay on track with the course and help you review for exams.

The idea behind the quiz schedule is that it keeps you on track and working your way through the course in a timely manner so that it doesn't pile up on you around the midterms and finals.

### Midterm (15%)

The midterm is scheduled for **October 23** and is worth 15% of your final mark. The test will draw on material up to and including week 5 (Digging and Drilling). The midterm will be administered in-person.

There will be a make-up midterm for those with official absences (e.g., accommodation). The date for the make-up midterm will be **November 1 at 9:30 am** (location TBD). If you cannot write the make-up exam due to an official absence (e.g., accommodation), the weight of the midterm will be shifted to the final exam.

### Final exam (35%)

Your final exam is cumulative and will include questions on all lecture and course reading material from the entire course.

during the exam period. The final

exam is worth 35% of your final mark. The exam will be a combination of multiple choice and short answer questions and will draw on the material from the entire course, with an emphasis on material from after the midterm (approximately 40% before midterm, 60% after midterm). Some questions may test your ability to integrate information from the first and second halves of the course.

## More information on: Scientific literacy and communication (40%)

On the OWL website, I have provided detailed instructions on your writing assignments under the Assignment Info tab.

Each of your writing assignments fits together in succession to help you gradually build your scientific writing skills from initial research to final revision. Your main goal with these assignments is to create a thorough and thoughtful review of a pressing environmental topic by using the most up-to-date publications in the scientific literature.

All assignments must be completed independently without the assistance of artificial intelligence (AI) tools such as text generators. The expectation is to draw upon your own knowledge, research abilities and critical thinking skills to complete your work. Proof of use of AI tools will result in an automatic zero on the assignment.

### **Annotated Bibliography** (10%)

The first step to completing a review on a specific topic is to conduct thorough background research. In an annotated bibliography, you are expected to give a short outline of your final paper and include at least four references. You should give at least one piece of information that clearly shows how the article

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

## **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).

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.

#### **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,

the centrally administered e-

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.

No electronic devices of any kind can be used on tests and exams.

**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.

All required papers may 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).

All assignments and essays must be written in your own words. Changing the word or sentence order or changing words using a thesaurus **does not** constitute original work. If you use an idea or excerpt from

another author, regardless of source type, you  $\underline{\text{MUST}}$  reference it in the appropriate fashion as requested on the assignment. Details of how to do this will be provided to you.

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For this schedule, **test dates and due dates are firm**. The schedule of lecture material is tentative. The instructor reserves the right to change topics or introduce new topics if significant environmental issues

should arise during the term or add articles to study.

Week	Date	Lecture Topic	Assignments & Readings	
4 Comt 44		01 Ë Setting the Green Stage	Complete week #1 readings	
1 Sept 11	Course expectations, scientific literacy, and welcome	Submit weekly quiz #1 (Sept 13**)		
2	Sept 18	02 Ë Silent Spring	Complete week #2 readings	