

Environmental Science 1021F 550

Environmental Science and Sustainability

September - December 2022

1.0 BASIC COURSE INFORMATION

Instructor: Dr. Brennan Vogel
Email: bvogel@uwo.ca

Scheduled class times: Wednesdays 6:30pm – 9:30pm, V-210

Office Hours: By appointment via email

Pre/Anti-requisites: None; Priority will be given to students in their first year at affiliate colleges.

2.0 COURSE DESCRIPTION

EnvirSci 1021 – Environmental Science & Sustainability – An overview of the science underlying key environmental issues (e.g. climate change, loss of biodiversity and ecosystem function, air and water pollution, and resource use) and how each issue impacts environmental sustainability from the local to global scale. Extra Information: 3 lecture/tutorial hours.

3.0 COURSE LEARNING OBJECTIVES

- Develop ecological literacy in the context of local and global ecosystems and the changes they face
- Survey earth's different biomes and contrast current challenges and sustainable options for future development
- Cultivate systems thinking recognizing that environmental issues are multi-faceted and multi- scaled
- Examine and understand the connection between human actions and their environmental consequences
- Sharpen critical thinking skills as applied to solving real world problems
- Gather, organize, analyse and synthesize information about a critical environmental issue and create a professional report
- Use the skills developed in this course to make informed and well-thought-out life choices regarding environmental issues

4.0 DESCRIPTION OF CLASS METHODS

This course uses a combination of traditional in-person lectures with active learning approaches, centred around exploring issues related to environmental science and sustainability. Weekly online quizzes based on assigned Chapter readings are a key aspect of independent learning

and cumulative evaluation. Students are also provided weekly opportunities to spend time working independently or in groups cumulatively developing research and writing skills to complete the term research project.

Participation is a fundamental part of the learning environment. Attendance will be taken at all lectures. Students should come prepared and ready to participate actively in the communal learning. Please read or watch the relevant class material ahead of time and prepare questions or comments.

An individual participation grade will be awarded based on participation during class activities.

Please turn off all technological devices that are not used for class purposes. When using online technology to interact with peers (e.g. OWL) please practice online etiquette and treat everyone with respect. Derogatory and offensive language is not acceptable and will not be tolerated under any circumstances.

5.0 TEXTBOOKS AND OTHER REQUIRED RESOURCES

Required E-Text & Platform:

Karr, Susan. ENVIRONMENTAL SCIENCE: For a Changing World. FOURTH EDITION. ISBN: 978-1-319-36313-0 (ePub). © 2021, 2018, 2015, 2013 by W. H. Freeman and Company

McMillan Achieve Learning Management System

ENVIRSCI 1021F uses the McMillan Achieve Learning Management System and accompanying e-text: "Environmental Science: For a Changing World". Please search for either of the following two options, available for purchase at the UWO Bookstore or directly from MacMillan Learning Achieve.

https://bookstore.uwo.ca/textbook-search?campus=HC&term=W2022A&courses%5B0%5D=550_HC/ENV1021F

The instructor will provide additional details related to using the McMillan Achieve LMS at the first lecture.

Course website:

Please access weekly and term course content through OWL: <https://owl.uwo.ca/portal>. Please follow the announcements and lesson plans posted on OWL on a regular basis. Lecture slides do not contain all of the details discussed in class. It is the responsibility of each student to take good notes from in-class discussions as well as engaging with the textbook.

You are encouraged to communicate with your peers through OWL "Forums". Before consulting the course instructor regarding general course related info, please consult the course syllabus and course expectation documents, also available on OWL.

6.0 METHODS OF EVALUATION & ASSESSMENT

Attendance/Participation 5

Weekly Online Quizzes 15 (Using McMillan Achieve)

I. Attendance/participation [5%]

Attendance and participation are a fundamental part of the learning environment. You need to be in attendance (5%) at all lectures as well as be ready to participate actively in-class learning. Prepare for the class by reviewing material ahead of time and preparing questions or comments. An individual participation grade will also be awarded based on your attendance and participation during in-class activities.

II. Weekly online quizzes [15%]

In order to help you prepare for each lecture and the mid-term and final exams, you will have to complete 10 short online quizzes (using McMillan Learning Achieve). Each online quiz consists of a minimum of 5 questions and the quizzes are structured to test your basic comprehension of the assigned chapter readings. Some of the questions from the quizzes may make it onto the mid-term and final exam. For each class, the weekly quiz is required to be completed in advance, and by no later than 6:30pm ET, Wednesdays. More details will be provided at the first lecture.

III. Term project [30%]

This is an essay course with a significant writing component in which both the content and the quality of your writing will be assessed. You will gather information, analyze it, and write a scientific article on the theme of one major environmental issue (look for ideas in journals such as *Frontiers in Ecology and the Environment*). I will provide you guidance regarding your writing assignment and help you find writing assistance if need be.

Part 1 - Annotated bibliography and problem statement: To keep you on track with your research, you will have to *submit a 1/2 page problem statement of your article (what is the context of the issue you are writing plus topic, title and research question) and an annotated bibliography through OWL- Dropbox.*

Annotated bibliographies are short summaries (5-8 sentences) of the reference works you are using to base your article on. They should also include 1-2 sentences on how that particular reference was useful to develop your arguments in your own paper. You are expected to include at least 7 references which should include both peer reviewed scientific articles (minimum four) as well as book chapters and government reports. *This part of the term project should be 4-5 pages (one annotation for each of 7 sources + article outline + mind- map) long and will count for 10% of your final mark.*

Part 2 - Final project: The article should have a *short abstract (200 words in length) and be no more than 8 pages long (double- spaced) including references and figures. The articles should include graphs, tables, maps, or pictures, but they cannot add to the 8-page limit. Only include additional information if they strengthen a point you are making in the paper. There should be a minimum of 7 references including at least 4 scientific articles (from peer-reviewed journals).*

It is very important to give credit to what others have written or created. Please use APA style for in-text citations and reference citation formatting. Turnitin will be used on all assignments to check for originality (i.e., the entire assignment needs to be written in your own words). Please upload completed projects to OWL Dropbox.

Late assignments: With the exception of documented illness or family death (see below), late assignments will be penalized at the rate of 10% per day of lateness. Upon presentation of legitimate documentation, a student can hand in the assignment within 2 weeks without late penalty or the mark value for the assignment will be added to the midterm and final examinations in an equitable manner.

IV. Exams [50%]

There will be one two-hour midterm test (worth 20%) and a final examination (30%). The midterm (2 hours) will be held in class.

The final examination (3 hours) will be scheduled by the Registrar during the **December** examination period. The examinations will include questions from material covered in lectures, assigned readings, in-class exercises and videos. The final examination will include material from the entire term. The format of the examinations will be a combination of multiple choice, short and long answer type questions. No electronic devices (e.g., laptop computers, cell phones, etc.) will be allowed during an examination.

If you miss the midterm exam under extreme circumstances, you must obtain permission from the Dean's office and provide sufficient documentation. When I receive the permission from the Dean's office, your final exam will account for 50%. If you miss the midterm with no good reason, you will receive a mark of 0%. Make-up exams will be given for the final exam only under extreme circumstances. If you consider that you have grounds to write the final exam on an alternate date, you must follow the procedure established by the Dean's Office and complete the appropriate forms. You must obtain permission from the Dean's office and provide sufficient documentation. In addition, you must inform the instructor at least 2 days in advance before the final exam. To prevent prior disclosure, the format and contents of make-ups may differ substantially from the scheduled test or examination.

6.5 SPECIAL INSTRUCTIONS

What to do if you fall sick:

Students seeking academic accommodation on medical grounds for any missed tests, exams, participation components and/or assignments worth 10% or more of their final grade must apply to the Academic Counselling office of their home Faculty and provide documentation. Academic accommodation cannot be granted by the instructor or department.

UWO Policy on Accommodation for Medical Illness: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf

Downloadable Student Medical Certificate (SMC): http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

Academic Offences:

You are advised to read the academic calendar to familiarize yourself with the University's regulations and procedures concerning grades and penalties. Scholastic offences are taken seriously and you may 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 is an academic offense and will be treated as such. Students who are in doubt as to the nature of this offence should consult their instructor, Department Chair, or Dean's Office, as well as the Huron University College Statement on Plagiarism, available at the Reference Desk in the Huron

University College Library and at <https://huronatwestern.ca/library>. In addition, students may seek guidance from a variety of current style manuals available at the Reference Desk in the Huron University College Library. Information about these resources can be found at <https://huronuc.lib-guides.com/citingsources>.

Plagiarism detection software will be used in this course. Students will be required to submit their work in electronic form.

Additional Information:

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 (<http://www.sdc.uwo.ca/>) for any specific question regarding an accommodation.

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit <http://www.uwo.ca/uwocom/mentalhealth/> for more information on these resources and on mental health.

Social conduct is governed by the Code of Student Conduct approved by the Board of Governors of the University. This Code can be viewed at: http://www.uwo.ca/univsec/pdf/academic_policies/ap-peals/code_of_conduct.pdf

7.0 COURSE SCHEDULE, INCLUDING REQUIRED READINGS

ENVIR SCI 1021: ENVIRONMENTAL SCIENCE AND SUSTAINABILITY (Fall 2022)

WEEK #	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2	3
					SEPTEMBER		
1	4	5	6	7	8	9	10
					Classes Begin		
2	11	12	13	14	15	16	17
				LECTURE: Ch 1 + Introduction			
3	18	19	20	21	22	23	24
				LECTURE: Ch 2			
				Quiz #1			
4	25	26	27	28	29	30	1
				LECTURE: Ch 3			
				Quiz #2			
5	2	3	4	5	6	7	8
				LECTURE: Ch 4			
				Quiz #3			
6	9	10	11	12	13	14	15
	Thanksgiving			LECTURE: Ch 5			
				Quiz #4			
7	16	17	18	19	20	21	22
				LECTURE: Ch 6			
				Quiz #5			
8	23	24	25	26	27	28	29
				LECTURE: Ch 7			
				Quiz #6			
						Annotated Bibliography & Problem Statement Due	
9	30	31	1	2	3	4	5
		NOVEMBER					
		READING WEEK					
10	6	7	8	9	10	11	12
			MIDTERM				
11	13	14	15	16	17	18	19
				LECTURE: Ch 8			
				Quiz #7			
12	20	21	22	23	24	25	26
				LECTURE: Ch 9			
				Quiz #8			
13	27	28	29	30	1	2	3
				LECTURE: Ch 10			
				Quiz #9			
					DECEMBER		
14	4	5	6	7	8	9	10
				LECTURE: Ch 11 + Review			
				Quiz #10			
					Classes End		Final Project Due

8.0 STANDARD FASS APPENDIX



Appendix to Course Outlines: Academic Policies & Regulations Fall/Winter 2022

Pandemic Contingency

Huron will continue to follow the guidance of public health and government officials. It is anticipated that there will be no further disruptions to in-person instruction. This is subject to change.

Student Code of Conduct

Membership in the community of Huron University College and Western University implies acceptance by every student of the principle of respect for the rights, responsibilities, dignity and well-being of others and a readiness to support an environment conducive to the intellectual and personal growth of all who study, work and live within it. Upon registration, students assume the responsibilities that such registration entails. While in the physical or online classroom, students are expected to behave in a manner that supports the learning environment of others. Please review the Student Code of Conduct at: <https://huronatwestern.ca/sites/default/files/Res%20Life/Student%20Code%20of%20Conduct%20-%20Revised%20September%202019.pdf>.

Prerequisite and Antirequisite Information

Students are responsible for ensuring that they have successfully completed all course prerequisites and that they have not completed any course antirequisites. 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.

Attendance Regulations for Examinations

A student is entitled to be examined in courses in which registration is maintained, subject to the following limitations:

- 1) A student may be debarred from writing the final examination for failure to maintain satisfactory academic standing throughout the year.
- 2) Any student who, in the opinion of the instructor, is absent too frequently from class or laboratory periods in any course will be reported to the Dean of the Faculty offering the course (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean of that Faculty, the student will be debarred from taking the regular examination in the course. The Dean of the Faculty offering the course will communicate that decision to the Dean of the Faculty of registration.

Review the policy on Attendance Regulations for Examinations here: [Academic Calendar - Western University \(uwo.ca\)](#)

Statement on Academic Offences

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 website: [Academic Calendar - Western University \(uwo.ca\)](#). The appeals process is also outlined in this policy as well as

more generally at the following website: https://www.uwo.ca/univsec/pdf/academic_policies/ap-peals/appealsundergrad.pdf.

Turnitin.com

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>).

Statement on Use of Electronic Devices

It is not appropriate to use electronic devices (such as, but not limited to, laptops, tablets, cell phones) in the classroom for non-classroom activities. Such activity is disruptive and distracting to other students and to the instructor, and can inhibit learning. Students are expected to respect the classroom environment and to refrain from inappropriate use of technology and other electronic devices in class.

Statement on Use of Personal Response Systems (“Clickers”)

Personal Response Systems (“clickers”) may be used in some classes. If clickers are to be used in a class, it is the responsibility of the student to ensure that the device is activated and functional. Students must see their instructor if they have any concerns about whether the clicker is malfunctioning. Students must use only their own clicker. If clicker records are used to compute a portion of the course grade:

- the use of somebody else’s clicker in class constitutes a scholastic offence
- the possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offence.

Academic Consideration for Missed Work

All students pursuing academic consideration, regardless of type, must contact their instructors no less than 24 hours following the end of the period of absence to clarify how they will be expected to fulfill the academic responsibilities missed during their absence. **Students are reminded that they should consider carefully the implications of postponing tests or midterm exams or delaying submission of work, and are encouraged to make appropriate decisions based on their specific circumstances.**

Students who have conditions for which academic accommodation is appropriate, such as disabilities or ongoing or chronic health conditions, should work with Accessible Education Services to determine appropriate forms of accommodation. Further details concerning policies and procedures may be found at: <http://academicsupport.uwo.ca/>.

Policy on Academic Consideration for a Medical/ Non-Medical Absence

- (a) **Consideration on Medical Grounds for assignments worth *less than 10%* of final grade:
Consult Instructor Directly and Contact Academic Advising**

When seeking consideration on **medical grounds** for assignments worth *less than 10%* of the final course grade, the student should contact the instructor directly. The student need only share broad outlines of the medical situation. The instructor **may** require the student to submit documentation to the academic advisors, in which case she or he will advise the student and inform the academic advisors to expect documentation. If documentation is requested, the student will need to complete and submit the [Student Medical Certificate](#). The instructor may **not** collect medical documentation. The advisors will contact the instructor when the medical documentation is received, and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation, and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation.

b) Medical Grounds for assignments worth 10% or more of final grade: Go Directly to Academic Advising

University Senate policy, which can be found at [Academic Calendar - Western University \(uwo.ca\)](#) requires that all student requests for accommodation on medical grounds for assignments worth 10% or more of the final grade be made directly to the academic advising office of the home faculty (for Huron students, the “home faculty” is Huron), with supporting documentation in the form (minimally) of the Senate-approved Student Medical Certificate found at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

The documentation is submitted in confidence and will not be shown to instructors. The advisors will contact the instructor when the medical documentation is received, and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation, and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation. The instructor will not normally deny accommodation where appropriate medical documentation is in place and where the duration it describes aligns with the due date(s) of assignment(s). Before denying a request for accommodation on medical grounds, the instructor will consult with the Dean. The instructor’s decision is appealable to the Dean.

c) Consideration on Non-Medical Grounds: Consult Huron Support Services/Academic Advising, or email huronsss@uwo.ca.

Students seeking academic consideration for a **non-medical** absence (e.g. varsity sports, religious, compassionate, or bereavement) will be required to provide appropriate documentation. All consideration requests must include a completed [Consideration Request Form](#). Late penalties may apply at the discretion of the instructor.

Please review the full policy on Academic Consideration for medical and non-medical absence at: [accommodation_medical.pdf \(uwo.ca\)](#). Consult [Huron Academic Advising](#) at huronsss@uwo.ca for any further questions or information.

Support Services

For advice on course selections, degree requirements, and for assistance with requests for medical accommodation, students should email an Academic Advisor in Huron’s Student Support Services at

huronsss@uwo.ca. An outline of the range of services offered is found on the Huron website at: <https://huronatwestern.ca/student-life/student-services/>.

Department Chairs, Program Directors and Coordinators are also able to answer questions

about individual programs. Contact information can be found on the Huron website at:
<https://huronatwestern.ca/contact/faculty-staff-directory/>.

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If you think that you are too far behind to catch up or that your workload is not manageable, you should consult your Academic Advisor. If you are considering reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines. Please refer to the Advising website, <https://huronatwestern.ca/student-life/student-services/academic-advising/> or review the list of official Sessional Dates on the Academic Calendar, available here: <http://www.westerncalendar.uwo.ca/SessionalDates.cfm>.

You should consult with the course instructor and the Academic Advisor who can help you consider alternatives to dropping one or more courses. Note that dropping a course may affect OSAP and/or Scholarship/Bursary eligibility.

Huron Student Support Services: <https://huronatwestern.ca/student-life/student-services/> Office of the Registrar: <https://registrar.uwo.ca/>
Student Quick Reference Guide: <https://huronatwestern.ca/student-life/student-services/#1> Academic Support & Engagement: <http://academicsupport.uwo.ca/>
Huron University College Student Council: <https://huronatwestern.ca/student-life/beyond-classroom/hucsc/>
Western USC: <http://westernusc.ca/your-services/#studentservices>

Wellness and Health Supports at Huron and Western

University students may encounter setbacks from time to time that can impact academic performance. Huron offers a variety of services that are here to support your success and wellbeing. All Huron staff and faculty have received training on responding to disclosures of Gender-Based Sexual Violence (GBSV); students should know that the Community Safety Office is a resource for survivors, providing support and, if desired, guidance while referring them to the further supports that they may require. Please visit <https://huronatwestern.ca/student-life-campus/student-services/wellness-safety> for more information or contact staff directly:

Wellness Services: huronwellness@huron.uwo.ca Community Safety Office:
safety@huron.uwo.ca

Additional supports for Health and Wellness may be found and accessed at Western through, <https://www.uwo.ca/health/>.

Western Calendar - Policy Pages -

[Academic Calendar - Western University \(uwo.ca\)](#)