Environmental Science 1021F – Environmental Issues
Fall 2016

Every day the media reports on a large number of environmental issues, including the loss of insect pollinators, the development of oil pipelines, and the changing climate. This course is intended to give you the scientific background necessary to think critically about these issues. We will use readings from the textbook and from online news articles to provide us with a basis of discussion in lectures.

Instructor: Tim Hain, tjhain@uwo.ca, Collip Building Room 209
Class hours: Wednesdays, 6:30 - 9:30 pm
Office hours: I am available by appointment between 12:00 noon and 5:00 pm, Monday to Friday. To schedule an appointment, please email me from your UWO email address.
Teaching assistants: To be announced. I will be assigning each group to their own TA who will help them with their projects from beginning to end.
Prerequisites: There are no prerequisites for this course.

Course website:
Students should check OWL (http://owl.uwo.ca) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis.

I encourage students to use the Forums on the OWL site for asking questions that other students might want to ask. For example, if you have a question about an assignment’s format or due date, please post it to the forum so that the question needs to be answered only once.

Textbook and readings
The textbook for the course is: Environmental Science for a Changing World (Canadian Edition) by Marnie Branfireun. It is available from the UWO Bookstore for $129.95. One copy is also on reserve at Taylor Library.

We will be using the textbook as well as online news articles throughout the semester to provide us with a starting point for our classroom discussions. Readings will be announced on the OWL course website and in class a week in advance. Students are expected to do these readings and answer a short quiz on the OWL website before class. More information on these quizzes is given below (on Page 2). It is not necessary to own a copy of the textbook, but I recommend that you take steps to ensure you can keep up with the readings.

Class format
There will be breaks approximately every hour during the three-hour lecture. Some class time will be used as tutorial time to teach skills and to give you time to work on your group projects. Unfortunately, the classroom does not have electrical outlets for every seat, so if you are using a laptop to take notes, please make sure that you have enough battery power to get you through the entire period.
**Evaluations**

- **10%** Online quizzes (weekly)
- **10%** Annotated bibliography for research paper (due November 2)
- **20%** Final research paper individual component (due December 7)
- **5%** Group component of research paper (submitted with research paper on Dec. 7)
- **5%** Participation on research paper (assigned by group members, by final exam)
- **20%** Midterm (Saturday, October 22, 6:30-9:30pm. Talbot College, rooms TBA)
- **30%** Final exam (date to be determined by the registrar’s office)

**Online quizzes**

There will be weekly* online quizzes to make sure that you come prepared for class. Each week I will assign a short reading, either from the textbook or from an online article, and announce this reading at the end of class and on the course website. On the Thursday following class, a short quiz of 1-2 multiple choice questions will become available on the OWL website. This quiz will remain open until the beginning of class the following Wednesday, when we will discuss the material from the reading. *Together, these quizzes will be worth 10% of your mark for the course.

* - Some weeks will not have a quiz if the schedule for the course is already busy with assignments, tests, or review sessions (see the schedule on Page 5 of the syllabus). I will announce in class and online if there will not be a quiz for the following week.

**Final group project**

This is an essay course, so many marks in the course are tied to the final project. This is a mixed group/individual project. Most of the work will be done individually, but you will work in a group of three to put together a mini-magazine that discusses a common theme. Each magazine should have 1) a cover page with a picture that highlights your theme, a title, and a list of the articles with the authors; 2) an unsigned ‘editorial’ written by the group which is one page in length. It should summarize the importance of the issue and explain how each article discusses the issue; 3) three articles, with each article written by a single member of the group. You may choose to include additional elements such as a table of contents page, or page numbers on the cover page, if you think that these would help a reader navigate your magazine. The articles should be tied together by a common theme. For example, you might choose a theme of Deforestation. One group member can write an article about the environmental impacts of deforestation in Canada, one can write about the wildlife impacts of deforestation in the Amazon rainforest, and one can write about the products manufactured from trees or the crops grown on deforested lands. The cover page could show a logged section of Boreal forest, and the editorial might bring up statistics that describe the extent of forest loss throughout the world in the last 60 years. Groups are encouraged to discuss their ideas with the instructor or a TA.

How do you find a group? You will choose your own group. If you have two other friends in the course interested in writing about the same theme, you can form a group with them. If you do not know anyone else in the course, but you have a theme in mind, you can post to the OWL Forums with a message saying: “Hi, I do not have a group, but I would like to write about forests. Is there anyone out there who would like to work with me?” There will be time at the end of class on September 21 to meet other people in the class and discuss forming a group. If you do not have a group by the third class on September 28, I will help you locate other people in the class who need partners.
Working well as a group on the final project is worth 10% of your total mark for the course. 5% of that will be marks based on the quality of the cover page and the editorial. The remaining 5% is based on a participation mark assigned to you by your fellow group members. By the final exam, everyone in the class is expected to log into OWL and assign their group members a mark out of 2, with 2 representing a full contribution to the final project, a mark of 1 for a reduced contribution to the final project, and a mark of 0 for extremely limited or no contribution to the final project. The total mark out of 4 will be converted to a mark out of 5 for the group component (two marks of 2 is worth 5%, a total of three marks is worth 3.75%, etc.) If a student fails to grade the contributions of his or her group members by the final exam, the group members will automatically be given a mark of 2 each, and the student who did not contribute a mark will be given a 50% penalty to their group participation mark (that is, the student can earn a maximum of 2.5 of the possible 5 marks).

Annotated bibliography
To ensure that you are on the right track with your final research project, you are expected to submit an Annotated Bibliography by November 2. You will submit this assignment individually, using the Assignments section on OWL. In an annotated bibliography, you are expected to give a short outline of your final paper, and include at least five references, of which a minimum of two should be primary articles (the difference between primary and secondary articles will be described in class) and at least three should be books. With each of your references, you should give at least one piece of information that clearly shows how the article contributes to the point you are trying to make in your final paper.

Be sure to give the names of your two group members and mention the theme that your magazine will discuss. The annotated bibliography will be 1-2 pages long. There are not marks for format, but there are for content, spelling and grammar. Do not concern yourself with matching a particular style template. The annotated bibliography is worth 10% of your final mark.

Final research paper
The final research paper is due by the last class on December 7. You will combine your written assignment with the assignments of your two other group members, add a cover page and an editorial page, and submit everything as a single document on the OWL website in the Assignments section. It is necessary for only one group member to submit the assignment as long as everyone’s name is on the cover page. If a second group member submits the assignment as well, only the first submission will be graded.

Each individually-written article in the magazine should be 6-8 double-spaced pages in length. The article should include a title, the name of the author, and a list of references. You may choose to include additional information such as graphs, tables, maps, or pictures that will not count towards your page allotment, but if you do include these items, make sure that you refer to them in the text and include a caption that makes it clear what each graph, table, map, or picture is showing. These additional elements may improve the readability, information level, or appearance of your article, but they are not required or expected. This research paper is worth 20% of your final mark. Some marks will be for spelling and grammar, so give yourself enough time to proofread.
References
It is important that you research your topics thoroughly and give credit to the original authors for their ideas. This means citing the author within the text when their idea is used, and again in the reference section at the end of the article. Citing well-established authors has the additional benefit of giving your article’s message some additional credibility.

References should follow a consistent style throughout a magazine, so decide as a group what referencing style you will use. Because my background is in biology, my preference is that you cite journal articles and books using a system like that seen in a scientific journal (see a recent article in Ecology for an example). If you other types of sources, please consult a style guide such as MLA, Chicago, APA, or Harvard for ideas on what information to include.

Late assignments
Assignments are due at the beginning of class (6:30pm) on the due date. Assignments submitted after that time will be penalized 10% per day. You are encouraged to submit all assignments online through the OWL website so that they can be inspected with the plagiarism software and so that the exact time and date of submission is recorded.

Midterm
The midterm is scheduled for October 22, 2016 at 6:30pm, and is worth 20% of your final mark. The test will include multiple choice and written questions, and will draw on material up to October 12. The location of the midterm is Talbot College, and room assignments will be posted to OWL closer to the midterm date. You will write in either room 309, 341, 342, or 343.

Final exam
The final exam will be scheduled by the registrar’s office for a date between December 10 and December 21, 2016. The final exam is worth 30% of your final mark. The exam will include multiple choice and written questions, and will draw on the material from the entire course, with an emphasis on material from October 19 to the end of the course. Some questions may test your ability to integrate information from the first and second halves of the course. Further details will be posted on the OWL course website.

Accessibility
Please contact the course instructor if you require material in an alternate format or if you require other arrangements to make the course accessible to you. You should also contact Services for Students with Disabilities (SSD) at 661-2111 x82147 for specific questions regarding accommodation.

Support services
Learning-skills counsellors at the Student Development Centre (http://www.sdc.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.
Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help. Additional student-run support services are offered by the USC, http://westernusc.ca/services.

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

**Schedule**

The schedule presented here is meant to highlight important due dates and to give you an idea of what activities are planned for the last ‘tutorial’ hour every week. The lecture topics may change as the semester develops. The weekly quizzes must be completed on the OWL website by the beginning of class. The quiz will close at 6:30pm.

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<thead>
<tr>
<th>Date</th>
<th>Lecture topic</th>
<th>Tutorial activity</th>
<th>Assignments due</th>
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<td>September 14, 2016</td>
<td>Introduction and philosophy of the environment</td>
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<tr>
<td>September 21, 2016</td>
<td>Politics and environmental issues</td>
<td>Discussion on literature, find groups</td>
<td>Weekly quiz</td>
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<tr>
<td>September 28, 2016</td>
<td>Food &amp; Land I</td>
<td>Meet with groups, I will help unpaired students find groups</td>
<td>Weekly quiz</td>
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<tr>
<td>October 5, 2016</td>
<td>Food &amp; Land II</td>
<td>Presentation on referencing and plagiarism</td>
<td>Weekly quiz</td>
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<tr>
<td>October 12, 2016</td>
<td>Water</td>
<td>Description of group assignment, time to work as a group</td>
<td>Weekly quiz</td>
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<tr>
<td>October 19, 2016</td>
<td>Midterm Review + video</td>
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<tr>
<td>Saturday, October 22, 2016</td>
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<td>Midterm test: 6:30pm Talbot College (20%)</td>
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<td>October 26, 2016</td>
<td>Air</td>
<td>Group work time on final project</td>
<td>Weekly quiz</td>
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<tr>
<td>November 2, 2016</td>
<td>Waste &amp; Pollution</td>
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<td>Weekly quiz Annotated Bibliography (10% )</td>
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<td>November 9, 2016</td>
<td>Energy</td>
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<td>Weekly quiz</td>
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<tr>
<td>November 16, 2016</td>
<td>Energy &amp; Transportation</td>
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<td>Weekly quiz</td>
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<tr>
<td>November 23, 2016</td>
<td>Climate Change</td>
<td>Group work time on final project</td>
<td>Weekly quiz</td>
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<tr>
<td>November 30, 2016</td>
<td>Wildlife &amp; Biodiversity</td>
<td>Group work time on final project</td>
<td>Weekly quiz</td>
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<tr>
<td>December 7, 2016</td>
<td>Urbanization &amp; Exam Review</td>
<td></td>
<td>Final project due (20% individual component, 10% group component)</td>
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<td>December exam period</td>
<td>-</td>
<td>Submit participation marks for your fellow group members on OWL by this date</td>
<td>Final exam (30% )</td>
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