GEOG 3EC3  
Environmental Catastrophes  
Course Outline  
Winter 2018

Instructor  
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GSB-202  
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Introduction and Course Objectives

We will examine case studies of environmental catastrophes that caused lasting harm to human health and ecosystems. We will be examining the human and systemic errors that led to these events as well as the repercussions on citizen mobilization, development, economics and planning. The tutorials will culminate in debates related to these case studies.

The learning outcomes for this course are summarized below:

1. You will be able to identify the contributing factors and sequence of events that led to major environmental catastrophes in recent history as well as the reactions to these events.

2. You will understand the economic, social and technical contexts of major environmental catastrophes.

3. You will be able to identify the policy implications of these events, and their link to the concept of environmental justice.

Resources


Links to additional reading material will be posted on Avenue to Learn (A2L).

Lectures

Lectures are on Tuesdays, 1:30 to 2:20 p.m., and Thursdays, 12:30 to 1:20 p.m., p.m. in ABB-102 as per the attached lecture schedule. ALL students are expected to attend ALL lectures. Partial lecture notes will be available on A2L. It is the responsibility of the student to ensure that notes are obtained for any classes missed.
The live lectures will be captured by Classroom Audio Visual Services (e.g. ECHO 360), and the link to the captures will be posted on Avenue to Learn. **Therefore students are NOT authorized to record the live lectures (video recording, audio recording; taking pictures, etc.) without explicit and documented approval from the course instructor. If approval is given, students are forbidden to redistribute this material through any platform (social media, etc.).**

**Evaluation**

This course will consist of midterms, assignments, a group debate, and a final exam. There will be 2 midterms in the course covering lecture material. Midterms are valued at 10% each. It is the responsibility of the student to be aware of due dates for assignments. Please see the section titled ‘Missed Work or Late Work’ for information regarding deliverables.

This course will also contain a Final Exam. The final exam will cover key concepts from the lectures, and end of lecture questions. The Final Exam will consist of multiple choices questions and short answer questions.

<table>
<thead>
<tr>
<th>Evaluation Component</th>
<th>Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterms (2 @ 10% each)</td>
<td>20%</td>
</tr>
<tr>
<td>i-Clicker Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Assignments (3 @ 5% each)</td>
<td>15%</td>
</tr>
<tr>
<td>Environmental Catastrophe Debate</td>
<td>15%</td>
</tr>
<tr>
<td>Participation to Tutorials</td>
<td>10%</td>
</tr>
<tr>
<td>Final Exam (cumulative)</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Active Participation during Lectures using i-Clicker**

We will be using the i-Clicker during lectures. Clicker questions are part of every lecture, so bring your clicker to class every day. **If you have registered your i-Clicker and you click a response to at least 80% of clicker polls during the term, you will receive the full 10% clicker grade.**

If you respond to less than 80% of possible polls, your clicker grade is pro-rated, in the following manner:

<table>
<thead>
<tr>
<th>% of polls participated to</th>
<th>Participation Mark %</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 or more</td>
<td>10 (full %)</td>
</tr>
<tr>
<td>75 to 79</td>
<td>9</td>
</tr>
<tr>
<td>70 to 74</td>
<td>8</td>
</tr>
<tr>
<td>60 to 69</td>
<td>7</td>
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<tr>
<td>50 to 59</td>
<td>6</td>
</tr>
<tr>
<td>40 to 49</td>
<td>5</td>
</tr>
<tr>
<td>30 to 39</td>
<td>4</td>
</tr>
<tr>
<td>20 to 29</td>
<td>3</td>
</tr>
<tr>
<td>10 to 19</td>
<td>2</td>
</tr>
<tr>
<td>1 to 9</td>
<td>1</td>
</tr>
</tbody>
</table>

The percentage of the polls you will have provided an answer to, and your i-Clicker Participation mark (out of 10) will be will be updated weekly on Avenue to Learn. To register your i-Clicker,
please use your MacID here:

http://www1.iclicker.com/register-clicker/

When prompted to select the software used by the instructor, select “iClicker Classic”, and select “Brightspace/D2L” for the Learning Management system used by your institution.

Please note that only iClicker remotes will be used in this course; no REEF devices.

No accommodations will be made for i-Clicker issues such as: lost devices, devices forgotten at home, dead batteries, mistakes in programming the Base Frequency, or malfunctioning devices. It is the student’s responsibility to make sure that they have their i-Clicker with them for lecture, that the device is functioning properly, and that they know how to use it.

Should there be a discrepancy between the record of participation obtained from the i-Clicker Base System and a student’s own personal tracking of her/his participation during the term, the record from the Base System will prevail.

**Participation for marks will start to be recorded on Tuesday, January 16th, 2018**

Participation marks will be updated weekly on Avenue to Learn. Make sure to verify your marks on a regular basis, and to contact the course instructor in case of a possible discrepancy. **The last day to have register your i-Clicker device registered will be Monday April 9th, 2018, 4:30 p.m. If your device is not registered by that point, your participation mark will stay as it is.**

**Attendance and Emails Policy**

Appointments can be scheduled with the instructor to help clarify the content of lectures. It is not the instructor’s responsibility to go over an entire lecture with you, if you missed it. It is your responsibility to acquire the necessary information from classmates.

It is not appropriate to use email to ask detailed questions (including asking about what was discussed in lecture). As a general rule, you should not expect to receive answers to emails on weekends or late in the evening. Rather, emails will typically be responded to during regular working hours on weekdays, and as schedule allows. Emails sent 24 hours prior to, or on the test date will not be answered.

As a courtesy, and to ensure your emails are properly answered, you must include your name and student ID number in the email signature, and the course code and number (GEOG 3EC3). **For any issue related to iClickers, include the code of your device. For tutorial issues, state in which tutorial section you are registered. Emails must be sent from McMaster email accounts or they will not be read or responded to.** Emails should be written in a professional manner, spell-checked and proof-read before sending them. The subject line **must** state for which course the query is about. Online discussion terminology (e.g. Twitter) must be avoided.
**Tutorial**

You have been assigned a tutorial time by the Registrar’s Office. Attendance at tutorials is mandatory. Please note first tutorial will be during the week of January 15. A complete schedule is attached.

The deliverables of the course will be introduced by your Teaching Assistant (TA) during the tutorials. There will have a space on the Discussion board on Avenue to Learn assigned to them, where your TA will answer common questions. The tutorials also will be an opportunity to discuss with your colleagues, issues related to the topics of the Debates.

The written deliverables expected during your tutorial can only be handed in by you, in order to count: you cannot ask one of your colleagues to hand in one of these deliverables if you are unable to attend. If such an instance occurs, the deliverable will be considered to have been missed. Please see the section titled ‘Missed Work or Late Work’ for more information.

It is your responsibility to attend your tutorials in a timely fashion, as showing up late disrupts the work flow of the teaching assistants and your colleagues. Students showing up 10 minutes late or more to a tutorial, will not be allowed to participate to that tutorial’s activities.

**Missed or Late work**

If you miss the deadline for a deliverable for a legitimate reason, you must follow the following 2 steps:

1) You can report absences that last up to 3 days using the McMaster Student Absence Form (MSAF). Please see the section titled ‘McMaster Student Absence Form (MSAF)’ for further information. Do not bring a doctor’s note to your instructor or T.A

2) You must contact your instructor to find out what accommodations, if any, will be made for a missed assignment. Most likely, you will be given a short extension.

If you do not complete these two steps within 3 days of the missed evaluation, you will receive a mark of zero.

Unless specified otherwise, no penalties will be applied to material submitted late with justification. DELIVABLES SUBMITTED LATE WITHOUT JUSTIFICATION WILL NOT ACCEPTED AND WILL BE GIVEN A MARK OF ZERO (0).

NO accommodation will be made for extra-curricular activities (participation to varsity teams, academic clubs, etc.) without students having documentation approved by their Associate Dean’s office in advance. Accommodations, approved by the Associate Dean’s office, will need to be discussed a minimum of two weeks before a course component will be missed or due.

After submission of a MSAF and subsequent confirmation with the instructor, the weight for a missed midterm will be carried to the Final Exam, and added to its weight (e.g. the 10% for a missed midterm will be applied to the final exam making it worth 40% of your final mark).
MSAFs will NOT be accepted for missed participation; see the section titled ‘McMaster Student Absence Form (MSAF)’ for absences of a longer duration. Accommodations for missed in-class participation (i-Clicker) will only be possible if the absence, supported by documentation, lasts 21 days or more without interruption. Only in that instance will the percentage of the questions missed be applied to the final exam (e.g. if 50% of the Clicker questions asked during the term were missed, then half of the participation mark, 5%, will be applied to the final exam making it worth 35% of your final mark).

**Special Accommodations**

Students with learning challenges may receive accommodations. Please contact Student Accessibility Services (SAS): [http://sas.mcmaster.ca/](http://sas.mcmaster.ca/)

Students requiring accommodations for Religious, Indigenous, and Spiritual Observances (RISO) should contact their Faculty office as early as possible, preferably at the start of Term: [http://multifaith.mcmaster.ca/riso](http://multifaith.mcmaster.ca/riso)

**McMaster Student Absence Form (MSAF)**

If you are absent from the university for a minor medical reason, lasting fewer than 3 days, you may report your absence, once per term, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted.

When using the MSAF, report your absence to berniejm@mcmaster.ca. You must then contact your instructor immediately (normally within 2 working days) by email at berniejm@mcmaster.ca to learn what relief may be granted for the work you have missed, and relevant details such as revised deadlines.

Please note that the MSAF may not be used for term work worth 25% or more, nor can it be used for the final examination.

**Please note:** students who use the MSAF, but who do not contact the instructor within the 2 working days period, may not be granted any relief.

**A2L (Avenue to Learn)**

URL: [http://avenue.mcmaster.ca](http://avenue.mcmaster.ca)

A2L is an online system which will be used in this class for communicating information relating to the course (e.g. lecture notes, etc.). To log in to A2L, use your MUGSI login and password. See the A2L home page above for more instructions if you need them. **It is the student’s responsibility to check A2L regularly (i.e. AT LEAST twice a week) for updates.**
Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

If you encounter any technical problems with this service, go to the following website for support: http://avenue.mcmaster.ca/help/. Please note that it is not the responsibility of the teaching staff of GEOG 3EC3 to assist you with A2L issues.

**Marks and Grades on A2L**

The times at which you will be able to access your marked Assignments on A2L will be announced during lecture and on A2L. Instructions will be provided on how to view feedback provided by your TA, if you wish to do so. Times to view your scantrons for the midterms will also be announced during lecture. **Unless otherwise specified,** you will have **one week** after your materials have been returned to you, or marks were posted on A2L, to contact the course instructor and report issues with how your materials were graded.

Your marks will be recorded on A2L. **It is your responsibility to check that all marks entered into A2L are recorded properly.** You must notify the instructor about any errors with regards to how your marks are entered. You have until 48 hours prior to the final exam to report any A2L mark issues.

**Student Conduct**

Students’ behaviour in all aspects of this course should meet the standards of the McMaster University Student Code of Conduct. Any inappropriate behaviour directed against any of your colleagues, T.A, or the instructor will not be tolerated. Disruptive behaviour during lectures will also not be tolerated.

This also means that the A2L Discussion Board is an extension of the classroom. These spaces are to be considered inclusive and safe. Abuse, ridicule, slander, inappropriate language, and discrimination towards the instructor, teaching staff, and other students will not be tolerated in any capacity. This may lead to various disciplinary measures including, but not limited to, removal of access privileges to the A2L for GEOG 3EC3.

**Academic Dishonesty**

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in
unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at http://www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Turnitin.com: In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to www.mcmaster.ca/academicintegrity.

**Acknowledgement of Course Policies**

Your registration and continuous participation (e.g. on A2L, in the classroom, etc.) to the various learning activities of GEOG 3EC3 will be considered to be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

In addition, answers to commonly questions are available on Avenue, in a FAQ. It is your responsibility to read it.

Lack of awareness of the course policies cannot be invoked at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

The instructor reserves the right to modify elements of the course and will notify students accordingly (in class and post any changes to the course A2L). **The schedule is only a guideline and may be modified during the course of the class.**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course
websites weekly during the term and to note any changes.
<table>
<thead>
<tr>
<th>Week Beginning</th>
<th>Weekday¹</th>
<th>Lecture Topic</th>
<th>Tutorial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1</td>
<td>Th</td>
<td>Introduction to the Course</td>
<td></td>
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<tr>
<td>Jan. 8</td>
<td>T Th</td>
<td>Environmental Catastrophes and Environmental Justice Minimata</td>
<td>NO TUTORIAL</td>
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<tr>
<td>Jan. 15</td>
<td>T Th</td>
<td>Cuyahoga River Love Canal</td>
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<td></td>
<td></td>
<td>Introduction to the Debates; Group Discussion</td>
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<tr>
<td>Jan. 22</td>
<td>T Th</td>
<td>Love Canal (continued) Seveso</td>
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<td></td>
<td></td>
<td>Group Contract for the Debates; Introduction to Assignment #1</td>
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<tr>
<td>Jan. 29</td>
<td>T Th</td>
<td>Seveso (continued) Sandoz Spill</td>
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<td></td>
<td></td>
<td>Group Discussion</td>
<td></td>
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<td>Feb. 5</td>
<td>T Th</td>
<td>Bhopal First Midterm</td>
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<td></td>
<td></td>
<td>Introduction to Assignment #2; Group Discussion</td>
<td></td>
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<td>Feb. 12</td>
<td>T Th</td>
<td>Bhopal (continued) Great Smog of London/1948 Donora smog Assignment #1 due on Friday Feb. 2, 4:30 p.m., on A2L</td>
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<tr>
<td></td>
<td></td>
<td>Introduction to Environmental Expert Assignment; Group Discussion</td>
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<tr>
<td>Feb. 19</td>
<td>T Th</td>
<td>MID-TERM RECESS</td>
<td>NO TUTORIAL</td>
</tr>
<tr>
<td>Feb. 26</td>
<td>T Th</td>
<td>The Southeast Asian hazes Exxon Valdez Assignment #2 due on Friday Mar. 2, 4:30 p.m., on A2L</td>
<td></td>
</tr>
<tr>
<td>Mar. 5</td>
<td>T Th</td>
<td>Exxon Valdez (continued) BP Oil Spill</td>
<td></td>
</tr>
<tr>
<td>Mar. 12</td>
<td>T Th</td>
<td>Chernobyl Second Midterm</td>
<td></td>
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<tr>
<td>Mar. 19</td>
<td>T Th</td>
<td>Chernobyl (continued) Fukushima Assignment # 3 due on Friday Mar. 23, 4:30 p.m., on A2L</td>
<td></td>
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<tr>
<td>Mar. 26</td>
<td>T Th</td>
<td>Walkerton Sarnia chemical alley/Grassy Narrows</td>
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<tr>
<td>Apr. 2</td>
<td>T Th</td>
<td>Future Environmental Catastrophes Course wrap-up</td>
<td>NO TUTORIAL</td>
</tr>
</tbody>
</table>

¹Please Note: T = Tuesday, Th = Thursday

This schedule is only a guideline and may be modified during the course of the class.