

# Life Sci 2X03

## *Environmental Change and Human Health*

### Course Outline

### Winter 2017

#### Instructor

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GSB-202

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#### Introduction and Course Objectives

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The course is an introduction to the direct and indirect impacts of global environmental change on human health.

Its learning outcomes are summarized below:

1. You will be able to identify and assess the most pressing environmental changes worldwide from a scientific perspective.
2. You will be able to appreciate the interconnectedness between various ecosystem services and human health
3. You will be able to understand how changes to these services may impact human health.
4. You will be able to discuss possible solutions to these issues.

#### Readings

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There is no textbook to purchase. Links to Readings associated to each lecture are available on Avenue to Learn.

#### Lectures

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Lectures are on Mondays and Thursdays at 9:30 a.m. in JHE/376 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**

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This course will consist of midterms, assignments and a final exam. There will be 2 midterms in the course covering lecture (and relevant) reading 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, relevant readings (covered in lecture), and tutorials. The Final Exam will consist of multiple choices questions and short answer questions.

Midterms (2 @ 10 % each)	20%
i-Clicker Participation	10%
Group Presentation (Contract, Participation, Presentation)	15%
Term Paper:	
Outline	1.25%
Annotated Bibliography	1.25%
Draft of Term Paper	1.25%
Participation to Peer Feedback	1.25%
Final Term Paper	10%
Participation to Group Discussions	10%
Final Exam (cumulative)	30%

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

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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:

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

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

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

**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 Monday, January 16<sup>th</sup> 2017**

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 Friday April 7<sup>th</sup> 2017, 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**

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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 (LIFE SCI 2X03). Emails must be sent from McMaster email accounts or they will not be read or responded to. **Emails sent from Avenue or within Avenue will not be 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. Facebook) must be avoided.

## **Tutorials**

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You have been assigned a tutorial time by the Registrar's Office. Attendance at tutorials is mandatory. **The first tutorial will be during the week of January 16<sup>th</sup>.** A complete schedule is attached.

The deliverables of the course will be introduced by your Teaching Assistant (TA) during the

tutorials. Each tutorial will have a space on the Discussion board on Avenue to Learn assigned to it, where your TA will answer common questions. The tutorials also will be an opportunity to gain feedback from your colleagues and your TA as you are working on the deliverables for the course. There will also be Group Discussions based on questions announced at the end of live lectures.

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**. The same applies to the feedback you are expected to provide during this process: it has to be provided during the tutorial in order to count. 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.**

## Term Paper

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Various deliverables will be expected during the write-up of the Term Paper (see the attached *Schedule of Activities*), as part of a review process. The specific expectations for each deliverable will be presented during your tutorial, and posted on Avenue to Learn. **Please note that MSAFs will NOT be accepted for any missed step of the review process.**

The Final Term Paper will be due **no later than 4:30 p.m. on Wednesday March 8<sup>th</sup>**, and should be submitted to your assigned Dropbox on Avenue to Learn.

Submissions as hardcopies, or electronically via email, will **NOT** be accepted

## Missed or Late work

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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.** DELIVERABLES 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.

The weight for a missed midterm will automatically 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

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Students with learning challenges may receive accommodations. Please contact Student Accessibility Services (SAS): <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>

## McMaster Student Absence Form (MSAF)

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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](mailto:berniejm@mcmaster.ca)**. You must then contact your instructor immediately (normally within 2 working days) by email at **[berniejm@mcmaster.ca](mailto:berniejm@mcmaster.ca)** to learn what relief may be granted for the work you have missed, and relevant details such as revised deadline.

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)

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URL: <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 LIFE SCI 2X03 to assist you with A2L issues.*

## Marks and Grades on A2L

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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.

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

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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 LIFE SCI 2H03.

## Academic Dishonesty

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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](http://www.mcmaster.ca/academicintegrity).

## Acknowledgement of Course Policies

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Your registration and continuous participation (e.g. on A2L, in the classroom, etc.) to the various learning activities of LIFE SCI 2X03 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.*



# Schedule of Activities

Week Beginning	Weekday <sup>1</sup>	Lecture Topic	Tutorial	Readings from:
Jan. 2	Th	<b>NO LECTURE</b>	<b>NO TUTORIAL</b>	<b>No readings</b>
Jan. 9	M Th	Introduction to the Course Global Change and Human Health	<b>NO TUTORIAL</b>	Article 1
Jan. 16	M Th	Ecosystems and Human Well-Being Climate Change and the Future	Introduction to Term Paper (T.P.); Group Discussions	Article 2 Article 3
Jan. 23	M Th	Climate Change and Human Health Impacts on Health of Climate Extremes	T.P. Outline due in class + <i>Feedback</i> ; Group Discussions	Article 4 Article 5
Jan. 30	M Th	Climate Change and Infectious Diseases Climate Change and Ecosystem Impacts	T.P. Annotated Bibliography due in class + <i>Feedback</i> ; Group Discussions	Article 6 Article 7
Feb. 6	M Th	Climate Change and Indirect Impacts <b>First Midterm</b>	Gr. Discussion on News Articles	Article 8
Feb. 13	M Th	Stratospheric ozone depletion and UV radiation Air Quality and Human Health	Introduction to Group Presentations + Group Contracts due at the end	Article 9 Article 10
Feb. 20	M Th	<b>MID-TERM RECESS</b>	<b>NO TUTORIAL</b>	<b>No readings</b>
Feb. 27	M Th	Ecosystem Services: Wetlands Ecosystem Services: Biodiversity	Draft of T.P. due in class + <i>Feedback</i> ; Group Discussions	Article 11 Article 12
Mar. 6	M Th	Globalization and Human Health Ecosystem Services: Water <b><u>March 8: Term Paper due in Dropbox, on A2L, by 4:30 p.m.</u></b>	Work session in preparation for Gr. Presentations; Group Discussions	Article 13 Article 14
Mar. 13	M Th	Globalization and Infectious Diseases <b>2nd Midterm</b>	Gr. Presentations Week #1	Article 15 Article 16
Mar. 20	M Th	Globalization and Antibiotic Resistance Human Activity and the Spread of Antibiotic Resistance	Gr. Presentations Week #2	Article 17 Article 18
Mar. 27	M Th	The Rise of Modern Cities Urbanization and Human Health	Gr. Presentations Week #3 (if necessary)	Article 19 Article 20
Apr. 3	M Th	GIS, Environment and Health Course Wrap-Up- <i>Marks for Term Paper released</i>	<b>NO TUTORIAL</b>	<b>No readings</b>

<sup>1</sup>**Please note:** M = Monday, Th = Thursday

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