University of Toronto **Summer 2024**
Scarborough

"HUMAN HEALTH AND THE ENVIRONMENT"
(EESA10 H3-Y L01)

Instructor: Dr. Silvija Stefanovic **Email:** silvija.stefanovic@utoronto.ca

Lectures and term work: online asynchronous (no live lectures; pre-recorded)
Midterm and final exams: in – person; day and time TBA
Weekly office hours in person: Dr. Stefanovic (TAs do not have office hours) – every Thu.12:30-1:30pm in EV366 (starting May 16)

TAs: Rosen Mi Chang (Lectures 3-7) **Email:** rosen.chang@mail.utoronto.ca
Jessica Kathleen Armstrong (Lectures 8-12) **Email:** jessi.armstrong@mail.utoronto.ca

The Intent of the Course:
Because of pollution, our surroundings are becoming increasingly hazardous to our health. The past century has seen intense industrialization characterized by the widespread production and use of chemicals and the intentional and unintentional disposal of a wide range of waste materials. This course explores the relationship between the incidence of disease in human populations and environmental pollution. Emphasis will be placed on understanding where and what pollutants are produced, how they are taken up by humans and their long-term effects on health; the role of naturally-occurring carcinogens will also be examined. The course will include a view of risk assessment and toxicology using case studies. No prior knowledge of environmental or medical science is required.

Suggested readings *(not required for the exams):*
"Maxwell's Understanding Environmental Health, How We Live in the World" 3rd Edition, Deborah Alma Falta, 2022, Jones & Bartlett Learning (any addition of the text is acceptable).

Lectures *(required for the exams):*
This course will be delivered in online asynchronous (no live lectures) teaching mode. The videos will be posted weekly on Mondays at 10am on Quercus in the course My Gallery (note: there is no lecture on May 20, July 1 and Aug. 5 due to holidays). All lectures will remain posted until the end of the semester.
Important: The lectures you will watch online are recorded during 2024 Winter term so PLEASE DISREGARD ANY DISCREPANCIES (possibly some technicalities such as dates, wrong TA's names, midterm marks discussion etc.) found on the current course and this past course.
The lecture slides will be posted in *.pdf format on Quercus on Mondays at 10am too. You will require Adobe Reader to open the files (available free of charge at www.adobe.com).

Course Email Policy and Office Hours:
Email is not an effective way of teaching and email inquiries regarding course materials will not be answered.
Dr. Stefanovic will be available during designated in-person office hours to answer questions regarding course material. If you have questions, please see instructor during office hours – this time is for you so please do not hesitate to use it.

Grading:

Discussion assignment	20%
Midterm Exam	40%
Final Exam	40%

Supplemental Material and Discussion Board *(required for the exams):*
The discussions will start on Monday May 27 at 12pm (after the lecture). TAs will post supplemental media resources (e.g., videos) weekly on Quercus for the students to review. These resources will be related to the lecture taught on that day (also called "topic of the week"). It is strongly suggested you watch the lecture before you participate in your discussion assignment. TAs will also post the questions you are expected to discuss in your response and they will regularly monitor the Discussion Board linked to the posted material.

In order to incentivize your efforts on the discussion board, you will be divided into ten groups. **Every week people in ONLY ONE particular group will be required to answer the questions on the discussion board to get their mark. For the mark, you need to participate in discussion only ONCE for the whole term.**

The groups will be available on Thursday, May 23 at 12pm. You will need to check Quercus to find out your group number (When you go into the People tool you will see a tab called Groups. Click into the tab and you will see a list of different groups).

Below are the lecture/week numbers and dates when each group should participate in discussions.

Group #	Lecture #	Week #	Issue Date: Monday @ 12pm	Due Date: Friday @ 11:59pm
Group 1	Lecture 3	Week 3	May 27	May 31
Group 2	Lecture 4	Week 4	June 3	June 7
Group 3	Lecture 5	Week 5	June 10	June 14
Group 4	Lecture 6	Week 6	June 17	June 21
Group 5	Lecture 7	Week 7	June 24	June 28
Group 6	Lecture 8	Week 8	July 8	July 12
Group 7	Lecture 9	Week 9	July 15	July 19
Group 8	Lecture 10	Week 10	July 22	July 26
Group 9	Lecture 11	Week 11	July 29	Aug. 2
Group 10	Lecture 12	Week 12	Aug. 5	Aug. 9

The discussion will be available to the **assigned group on Mondays at 12pm.** You can post only your opinion on the question asked for 5 days **(until Friday at 11:59pm)** after the supplementary material is posted. Everyone needs to write their answer in the designated place in the Quercus and do not upload any word/PDF file for your discussion answer. Please make sure you post the specific answer and not your notes in the response. You have to submit your discussion first and then you will be able to see what other students wrote. You will not be able to delete or edit your comments once they are submitted but you can feel free to enter more NEW points (copying and pasting opinions of others or being repetitive will not be considered as a substantial contribution) if you like before the due date. **However, ONLY first submission will be marked**.

Missed Discussion Assignment Policy:
You will be credited only for the week when it was mandatory for you to take part in the discussion. For example, people in a group of Lecture 7 will not receive their mark if they miss answering during the week of Lecture 7 and then request the accommodation to answer during the week of Lecture 8.
The extension will be granted only if you formally self-declare absences through DPES on-line self-declaration form (https://www.utsc.utoronto.ca/physsci/self-declaration-absence-form-0). These on-line requests will be sent directly to your instructor, as well as to the department.
The form is conveniently placed on the front page of DPES website, just underneath the picture with the "smiley faces" during the groundbreaking of our EV building (https://www.utsc.utoronto.ca/physsci/welcome-physical-environmental-sciences).
Please note that you still have to submit your absence on-line requests through ACORN.

Both submissions have to be done **within 5 business days** after the regular discussion due date. The self-declarations submitted after this time will not be considered.
After the due date, all students are responsible to watch ALL supplementary (discussion) videos from lecture 3-12, as they will be testable for your midterm and final exam. **The students' responses will not be available for class to review and they are not testable material.**

Midterm:
The exams are in person, time and day TBA. The students from other campuses should be aware of the possibility of conflicts.
The 1h 20min mid-term examination will be held during the mid-term period, exact time, date and rooms TBA.
The exam will consist of 80 multiple-choice and true-false choice; **60 questions from the lectures and 20 questions from the supplementary material.** The midterm will be worth 40% of the final grade.
The midterm will draw from lectures 1-6 and includes lecture notes and supplemental material posted on Quercus (videos). The suggested readings are not for the exam. More details about the exams will follow.
The midterm will be closed book and scantrons will not be available for students to review after the exam. The students will be able only to view electronic file with their results and correct answers.
The midterm will be held in multiple rooms and it will not be possible to ask questions related to the course material during the exam. The invigilators are not competent to answer it.

Missed Midterm Policy:
If you miss midterm due to illness, emergency, or other mitigating circumstances you have to formally self-declare absences through DPES on-line self-declaration form (https://www.utsc.utoronto.ca/physsci/self-declaration-absence-form-0). These on-line requests will be sent directly to your instructor, as well as to the department. The form is conveniently placed on the front page of DPES website, just underneath the picture with the "smiley faces" during the groundbreaking of our EV building (https://www.utsc.utoronto.ca/physsci/welcome-physical-environmental-sciences).
If you miss the midterm with a verifiable reason (i.e. you have a doctor's note or have made provisions for a VERY good reason with the professor PRIOR to the mid-term), please submit the proof for your absence. If the reason is medical, an official UTSC medical note must be completed by a doctor who examined you while you were ill/injured. The medical note can be downloaded at
http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf.
Please note that you still have to submit your absence on-line requests through ACORN.
Both submissions have to be done **within 5 business days** after the day of the regular midterm. The self-declarations submitted after this time will not be considered.
After checking the validity of your self-declarations, the day and time of the makeup midterm will be announced on Quercus. If you simply "miss" the mid-term, you will receive a mark of zero for it.

If you miss the makeup midterm with a verifiable reason after you submit the self-declarations again **new document with the new date)**, the weight of the midterm will be transferred to the final exam (in this case your final will be worth 80%).

Final Exam:
The exams are in person, time and day TBA. The students from other campuses should be aware of the possibility of conflicts.
The 1h 20min final examination is worth 40% of the final grade for the course. The exam will consist of 80 multiple-choice and true-false choice; **60 questions from the lectures and 20 questions from the supplementary material. The final exam is NOT cumulative.**
The final exam will draw from lectures 7-12 and includes lecture notes and supplemental material posted on Quercus (videos). The suggested readings are not for the exam. More details about the exams will follow.
The midterm will be held in multiple rooms and it will not be possible to ask questions related to the course material during the exam. The invigilators are not competent to answer it.

Accessibility Statement:
Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Access*Ability* Services Office as soon as possible. I will work with you and Access*Ability* Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC Access*Ability* Services staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations at (416) 287-7560 or ability@utsc.utoronto.ca.

Academic Integrity Statement:
Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:
In papers and assignments:
1. Using someone else's ideas or words without appropriate acknowledgement;
2. Submitting your own work in more than one course without the permission of the instructor;
3. Making up sources or facts;
4. Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:
1. Using or possessing unauthorized aids;
2. Looking at someone else's answers during an exam or test;
3. Misrepresenting your identity; and
4. When you knew or ought to have known you were doing it.

In academic work:
1. Falsifying institutional documents or grades;
2. Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes; and
3. When you knew or ought to have known you were doing so.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If students have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, they are expected to seek out additional information on academic integrity from their instructors or from other institutional resources.

Recording of Classroom Material by Students:
Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted.

Use of Generative Artificial Intelligence Tools:
The use of generative artificial intelligence tools or apps for any evaluations in this course, including tools like ChatGPT and other AI writing or coding assistants, is prohibited. This course policy is designed to promote your learning and intellectual development and to help you reach course learning outcomes

Lecture Topics:

1. Course outline: introduction, ground rules, expectations and course structure.
Understanding the Health Effects of Environmental Hazards — May 6
2. Airborne Hazards and Human Health — May 13

Victoria Day (no classes) — **May 20**

3. Waterborne Hazards and Human Health — May 27
4. Chemical Hazards and Human Health — June 3
5. Heavy Metals and Human Health. — June 10
6. Radiation and Electromagnetic Hazards and Human Health — June 17
7. Biological Hazards and Human Health — June 24

Canada Day (no classes) — **July 1**

8. Foodborne Hazards and Human Health — July 8
9. Toxicology science — July 15
10. Science of Risk Assessment, Precautionary Principle — July 22
11. Environmental Hazards to Specific Populations: Children and Women; Occupational Hazards; Growing Population and Overconsumption and Human Health, War and Human Health — July 29
12. Climate change, Ozone depletion, Species Loss and Ecosystem Disruption and Human Health; Final exam preparation — Aug. 6

I will follow this schedule as closely as possible, but things being what they are, some of these topics may "overflow" over into other time slots.

Associated Readings in Maxwell's Text (2nd Edition):

Lec. 1- Chapter 1
Lec. 2- Chapter 4 (pg. 128-143), Chapter 5 (pg. 211-213), Chapter 7 (pg. 328-335)
Lec. 3- Chapter 7 (pg. 303-309)
Lec. 4- Chapter 5 (196-205)
Lec. 5- Chapter 4 (pg. 139-143), Chapter 5 (pg. 207-210)
Lec. 6- Chapter 3 (pg. 106-114), Chapter 2 (pg. 20-23), Chapter 7 (pg. 335-337)
Lec. 7- Chapter 3 (pg. 72-104)
Lec. 8- Chapter 6 (pg. 239-250, 268-270)
Lec. 9- Chapter 2 (pg. 18-37)
Lec. 10- Chapter 2 (pg. 52-66)
Lec. 11- Chapter 5 (214-216), Chapter 7 (337-339)
Lec. 12- Chapters 4 (pg.143-156), Chapter 5 (205-206)