

**"HUMAN HEALTH AND THE ENVIRONMENT"  
(EESA10 H3-Y L99)**



**Instructor:** Dr. Silvija Stefanovic

**Lecture:** web offering (no live lectures)

**Office:** EV366

**Office hours:** Wed. 12-1pm

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**TAs:** Ghazal Fazli (Lectures 1-6)  
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**Office hours:** NA

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**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 the 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.

**Sustainability:**

This course is recognized as a UTSC Green Course which has steps in place to reduce the amount of course-generated paper, encouraging students to print multiple slides per page, double-side printing or using scrap paper.

**Text:**

“Understanding Environmental Health: How We Live in the World” Nancy Irwin Maxwell, 2014, Jones & Bartlett Learning (available from the bookstore)

**Lecture notes:**

The lecture slides will be posted in \*.pdf format on the Blackboard. You will require Adobe Reader to open the files (available free of charge at [www.adobe.com](http://www.adobe.com)).

**Web-offering Lectures**

This course is web offering course (NO LIVE LECTURES). The videos will be posted weekly, normally on Mondays. You can access the online videos by logging in at: <https://lecturecast.utsc.utoronto.ca/login.php>. using your UTSC ID or UTOR ID and password. All lectures will remain posted until the end of the semester.

**Very Important note:**

**The lectures you will watch online are recorded during the 2017 Winter term so PLEASE DISREGARD ANY DISCREPANCIES (possibly some technicalities such as dates, wrong TA' names, midterm marks discussion etc.) found on the current course and this past course.**

**Additional Readings and Discussion Board**

TAs will post supplemental new media resources (e.g. videos, articles) on Blackboard weekly for the students to review. TAs will initiate and regularly monitor Discussion Board linked to the posted material. *This will be your weekly homework so please take it seriously. The student participation in Discussions is strongly encouraged.* Questions about the posted material will be on the exams.

**Grading:**

Mid-term Examination:	50%
Final Examination:	50%

**Course email policy:**

It is completely understandable that this course is offered as a web offering course and some of you may not be able to attend Dr. Stefanovic office hours. However, email is not the most effective way of teaching so if you have questions, please try to see instructor during office hours – this time is for you so please do not hesitate to use it. Dr. Stefanovic will be responsible for answering questions related to the lectures (midterm and final exam). TAs will not hold office hours but they will answer the questions pertaining to supplemental materials through Discussion Board.

**Midterm**

The 1.5-hour mid-term examination will be held during the mid-term period, exact time, date and room TBA. The exam will consist of multiple-choice and true-false choice and will be worth 50% of the final grade.

The midterm will draw from lectures 1-6 and includes lecture notes, associated readings in Maxwell's Text and supplemental material posted on Blackboard (your weekly homework: videos, articles). Information from the textbook not directly covered in class will not be tested on the exam. More details about the exams will follow.

**Final Exam**

The 1.5-hour final examination is worth 50% of the final grade for the course. It will be a combination of multiple-choice and true-false choices. *The final exam is NOT cumulative.*

The final exam will draw from lectures 7-12 and includes lecture notes, associated readings in Maxwell's Text and supplemental material posted on Blackboard (your weekly homework: videos, articles). Information from the textbook not directly covered in class will not be tested on the exam. More details about the exams will follow.

**Lecture topics:**

1. Introduction, ground rules, expectations and course structure.  
Understanding the Health Effects of Environmental Hazards
2. Airborne Hazards and Human Health
3. Waterborne Hazards and Human Health
4. **VICTORIA DAY - University Closed**
5. Chemical Hazards and Human Health
6. Heavy Metals and Human Health.  
**Case study:** CCA (Chromated Copper Arsenate) wood preservative
7. Radiation and Electromagnetic Hazards and Human Health
8. Biological Hazards and Human Health
9. Foodborne Hazards and Human Health
10. **CANADA DAY - University Closed**
11. Toxicology science
12. Science of Risk Assessment, Precautionary Principle
13. Environmental Hazards to Specific Populations: Children and Women; Occupational Hazards;  
Growing Population and Overconsumption and Human Health, War and Human Health
14. Climate change, Ozone depletion, Species Loss and Ecosystem Disruption and Human Health;  
Final exam preparation

**Week of**

May 1<sup>st</sup>  
May 8<sup>th</sup>  
May 15<sup>st</sup>  
May 22<sup>nd</sup>  
May 29<sup>th</sup>  
  
June 5<sup>th</sup>  
June 12<sup>th</sup>  
June 19<sup>th</sup>  
June 26<sup>th</sup>  
July 3<sup>th</sup>  
July 10<sup>th</sup>  
July 17<sup>th</sup>  
  
July 24<sup>th</sup>  
  
July 31<sup>st</sup>

**Associated Readings in Maxwell's Text:**

- 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- Chapter 4 (pg.143-156), Chapter 5 (205-206)