

"HUMAN HEALTH AND THE ENVIRONMENT"
(EESA10H3)

Instructor: Dr. Silvija Stefanovic

Lecture: Wednesday 7–9pm; AC223
Office: SW-648
Office hours: Monday 6-7pm
Friday 3-4pm
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TAs: Aman Saini
Peter Quincy Ng
Steven Huryn

Office: SW511A
Office hours: TBA
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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.

Text:

"Life support: The environment and human health". Michael McCally, 2002, MIT press, Cambridge (available from the bookstore and on short term loan in the library).

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).

Course email policy:

Email is not an effective way of teaching and email inquiries regarding course materials will not be answered. Dr. Stefanovic will also be available during designated office hours to answer questions regarding course material. Teaching assistant will be available during specified office hours to answer questions pertaining to the term assignments. If you have questions, then please see instructors during office hours – this time is for you so please do not hesitate to use it.

Grading:	Assignments (2):	30 % (15% each)
	Mid-term Examination:	30%
	Final Examination:	40%

Assignment:

There are no tutorials in this course. TAs will hold office hours to help with assignments. See the Blackboard to find out who is your TA. I would suggest you to attend your TA's office hours (*always the same TA*) regularly since she/he will mark your assignments. If you have conflict you can see another TA but you have to submit the

assignment to your, designated, TA. Students are encouraged to actively consult with the TA regarding any problems or questions about the preparation of the assignment.

You will have two assignments during the term, worth 30% of the final grade (15% each). You will be able to access the problem sheets on the Blackboard at the times detailed below. The marking rubric will be also posted on the Blackboard and should be printed and attached to the assignment before submission. Completed exercises must be placed in the box of the appropriate TA, outside SW-511A, by 5 pm on the dates shown. TAs will mark the assignments. More details on the assignments will be circulated during the term.

<i>Topic</i>	<i>On the Blackboard</i>	<i>Submission Due</i>
Assignment #1 (Related to Lecture 1-5)	Jan. 27 th	Feb. 10 th , 5pm sharp
Assignment #2 (Related to Lecture 6-11)	Mar. 10 th	Mar. 24 th , 5pm sharp

You should use a word processor for your written responses. The document must bear a name, student number, date and TAs name. Calculations if any maybe handwritten.

Midterm

The 1-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 30% of the final grade. The midterm will draw from lectures and assignments and includes lecture notes and *any* material presented in the classroom. Information from the textbook and other resources not directly covered in class will not be tested on exams. More details about the exams will follow. **Questions about the videos will be on the exams.**

Final Exam

The 1 hour final examination is worth 40% 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 and assignments and includes lecture notes and *any* material presented in the classroom. Information from the textbook and other resources not directly covered in class will not be tested on exams. More details about the exams will follow. **Questions about the videos will be on the exams.**

Other Course policies:

Late assignments will not be accepted and assigned a grade of zero. Extensions will be granted ONLY with medical note or under exceptional circumstances. Your TA must be informed about that immediately.

Plagiarism will not be tolerated. Students are expected to submit **individual work** for grading. It is an academic offense to plagiarize and those who do, will be subjected to University procedures (see the University calendar).

Lecture topics:

1. Introduction, ground rules, expectations and course structure.
Understanding the Health Effects of Environmental Hazards
Video: "Living Downstream" Featured by Dr. Sandra Steingraber Jan 8th
2. Airborne Hazards and Human Health Jan 15th
3. Waterborne Hazards and Human Health Jan 22nd
4. Assignment #1 Tutorial;
Chemical Hazards and Human Health
Video: "The Disappearing Male" Jan 29th
5. Heavy Metals and Human Health.
Case study: CCA (Chromated Copper Arsenate) wood preservative Feb 5th
6. Radiation and Electromagnetic Hazards and Human Health Feb 12th

7. READING WEEK	Feb 19 th
8. Biological Hazards and Human Health Video: "Black dawn: the next pandemic"	Feb 26 th
9. Foodborne Hazards and Human Health Video: "Diet and Disease in Modern Society"	Mar 5 th
10. Assignment #2 Tutorial; Toxicology, the Science of Risk Assessment, Precautionary Principle	Mar 12 th
11. Environmental Hazards to Specific Populations: Children, Women, Occupational Hazards; Growing Population, Overconsumption, War and Human Health	Mar 19 th
12. Climate change, Ozone depletion, Species Loss and Ecosystem Disruption and Human Health.	Mar 26 th
13. Final Exam Preparation	April 2 nd

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 Textbook:

Week 1 - Lec 1- Chapter 1(pp 1-6, pp 10-12)
Week 2 - Lec 2- Chapter 2
Week 3 - Lec 3- Chapter 3
Week 4 - Lec 4- Chapters 9, 10
Week 5 - Lec 5- Chapter 4
Week 6 - Lec 6- Chapter 12
Week 7- READING WEEK
Week 8 - Lec 7- lecture notes only
Week 9 - Lec 8-lecture notes only
Week 10 - Lec 9- Chapters 13, 14
Week 11- Lec 10- Chapters 5, 15, 16
Week 12 - Lec 11- Chapters 6, 7, 8

