Topics in Health and Environment: Risk, Health, and Safety  
Fall 2015  
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In this course, we will explore many scientific, cultural, and perceptual aspects of environmental risk issues. We will discuss, in depth, toxicological and epidemiological concepts, psychological aspects of risk perception and coping, and influences on self-protective behavior. We will also spend time discussing risks and the media, and how to communicate with the public about risks.

This course has three main learning goals. When you have completed the class you should have a demonstrable understanding of the basic principles of toxicology and epidemiology. You should be able to analyze the characteristics of a hazard and identify likely influences on perception of risk; and, you should be able to put together a practical plan to communicate about those risks with the public.

The success of the class depends very much on thoughtful discussion, and active participation by the members of the seminar. That, in turn, requires that you have read, and thought about the books and articles assigned. The emphasis in this class is on critical thinking about risk issues.

Attendance  
Class meets Tuesdays from 10:55 to 1:55 in Blake 131. Please arrive on time, and silence your cell phones and put them away for the duration of class time. Attendance is mandatory. Missing more than one class for reasons other those permitted under Rutgers guidelines (serious illness, confidential, or sensitive personal reasons, religious observance, participation in Rutgers-approved activities) can result in a reduction in your final grade. Missing three classes will result in a failing grade. If you will be absent from a class for any reason, please report your absence through the University Absence Reporting Website https://sims.rutgers.edu/ssra/. The University also recommends that you contact your professors directly to let them know of your absence.

Grading  
Grading will be based on class assignments/homework (10%), two exams, (40%), written group projects (40%), and oral presentations (10%).

Books/Readings  
You will need to purchase one book: The Dose Makes the Poison: A Plain-Language Guide to Toxicology, 3rd Edition (Paperback) Publisher: Wiley; (2011). You will read most of the chapters in the book and will answer questions related to them, so this is not simply optional reading material. Used copies are available on Amazon. Just make sure to get the third edition. All other readings are available through the Ecompanion site for the course: https://ecollege.rutgers.edu.

Class Assignments  
Because reading and thinking about the material before class is so important, we are providing some incentive (beyond your own insatiable thirst for knowledge) to do both. As part of your overall grade, you will be required to submit answers to questions about the material using the Ecompanion drop box. You are required to print out your answers and to bring them to class so that you may refer to them and take notes as we talk about important issues. We expect a submission for each chapter or article before the class date assigned. No late assignments will be accepted. All of the articles will be available in electronic form.
**Group Projects**

In addition to the chapters and articles assigned to the entire class, each seminar member will be assigned to a group with a specific risk topic to review, summarize, and discuss with the class on a particular day. The assignment for the group is to prepare a written summary of the main scientific, social, political, and communications issues related to their problem. Based on their written summary, the group will design risk communication materials to address the problem and present these to the class.

We will use American Psychological Association (APA) formatting for references in all written reports. For guidance in how to use APA formatting see: [http://libguides.rutgers.edu/writing](http://libguides.rutgers.edu/writing). Please refer to the group project rubric for other details.

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**Academic Honor and Integrity**

Plagiarism will not be tolerated in any form. This includes the improper citation of materials from any source, including the Internet. If you have any questions about how to properly attribute information, words or ideas produced by others, please bring them up in class; chances are that others have the same questions.

The Rutgers University Policy on Academic Integrity considers cheating, fabrication, facilitation of academic dishonesty, plagiarism, and the denial of access to others of materials or information as violations of academic integrity. All violations will be dealt with according to the procedures described in the policy found at [http://academicintegrity.rutgers.edu/](http://academicintegrity.rutgers.edu/). The consequences of violations of academic integrity range from loss of class credit to expulsion from the University.

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**Contact Information**

Dr. Hallman’s office hours (202 Cook Office Building) are by appointment. Dr. Hallman’s office number is: 848-932-9227. His email is: [hallman@aesop.rutgers.edu](mailto:hallman@aesop.rutgers.edu)

Dr. Robson’s office hours (263 Foran Hall) are by appointment. Please contact Ms. Long at 848-932-6371 or [long@aesop.rutgers.edu](mailto:long@aesop.rutgers.edu) for an appointment. Dr. Robson’s e-mail is [robson@aesop.rutgers.edu](mailto:robson@aesop.rutgers.edu) his number is: 848-932-6276.
Note: Readings and Assignments are DUE in the DROP BOX on the Date Listed.


Sept. 22 Basic Toxicological Concepts II - Robson. Read chapter 4 and chapter 6 of The Dose Makes the Poison. Remember to answer questions related to the chapter and submit to the drop box before class.

Sept. 29 Epidemiological Concepts – McWilliams
Read chapter 10 of The Dose Makes the Poison. Read Introduction to Epidemiology. Complete worksheet on major causes of death in the United States and submit to drop box.

Oct. 6 First hour: Exam 1 – Turn in Bibliography for Paper 1
Second hour: Group work on Student Presentations

Oct. 13 Mutagenesis, Carcinogenesis and Reproductive Toxicity & Regulating Toxins - Robson. Read pages 36-45 from Chapter 3, and Chapters 7, 8, and 9 of Ottoboni, The Dose Makes the Poison. Remember to answer questions related to the chapter and submit to the drop box before class. Read Introduction to the 11th report on Carcinogens. Choose one carcinogen [known or reasonably anticipated] to report on in class. Pick one that begins with the same first letter as your last name. Read (but don’t summarize): The Story of the Laws Behind the Labels Parts I, II, and III; The ‘Poison Squad’ and the Advent of Food and Drug Regulation; Sugar, a Cautionary Tale; and, The Apple Bites Back.

Oct. 20 Student Presentations – Paper 1


Nov. 3 Warnings – Hallman. Read and summarize: Wilde: Intervention by Education; Roser: Is it a Drink? No, it’s Cleaning Fluid; Collins, Why Do We Ignore Safety and Warning Signs – Sometimes With Tragic Results?

*Remember to bring in warning labels*

Nov. 10 Communicating about Risks with the Public - Hallman. Read and summarize: Lindheim, Distress Signals; Weinstein, Optimistic Biases about Personal Risks.

Nov. 17 Communicating about Risks with the Public II - Hallman. Read and summarize: Ropeik, Bounded Rationality.

Nov. 24 First hour: Exam 2

Dec. 1 Risks and the Media – Hallman Read and summarize: The Different Worlds of Scientists and Reporters; Sandman, Telling Reporters about Risk; Adams, The Role of Media Relations in Risk Communication; Weigold, Communicating Science.

Dec. 8 Student Presentations – Paper 2 - Robson