

**Environment, Health, and Society
Sociology 350**

**University of Arizona
School of Sociology
Spring, 2013**

Instructor: Professor Brian Mayer

Office Hours: Mondays 10:00am-11:00am and Fridays 1:00pm-2:00pm

Office: 427 Social Science

Phone: (520) 621-3804

Email: brianmayer@email.arizona.edu

Course Description and Purpose

This course examines the relationships between human health and the environment from a sociological viewpoint. Using an interdisciplinary sociological perspective, we will explore the increasing number of illnesses linked to environmental contamination and disasters. Since this is a course in the social sciences, only a basic understanding of the biological and chemical nature of environmental pollution will be needed. Our focus will be on the socioeconomic production of environmental health risks and how science and public policy are contested by various stakeholders.

The course will draw on the fields of medical and environmental sociology to explore environmental health problems such as asthma, cancer, and emerging infectious diseases potentially linked to global climate change. Using these perspectives, we will examine how social structures influence the relationship between human health and the environment.

Learning Objectives

By the end of the course, students will be expected to achieve the following:

- 1) Demonstration of familiarity with the major causes and contributors of environmental health problems,
- 2) Understand the basic science and controversies involved in the science of environmental health,
- 3) Critically assess environmental health issues and the social and political structures that determine their distribution in society,
- 4) Understand how individuals and communities respond to environmental health problems and identify the potential challenges they face in remediating and preventing those problems,
- 5) And to develop a comprehensive account in written and oral form of a particular environmental health issue by linking the science, policy, and public involvement in that particular problem.

Assignments

1. **Class Participation (8%)** Because a large portion of this course involves in-class discussion and activities, your participation in class is an important part of your grade. Participation will be assessed by the instructor through a combination of materials turned in during class throughout the semester. Everyone gets 1 free participation in case of absence.
2. **Reading Memos (20%)**: For each of the five books we will read, there will be a series of questions answered and submitted through D2L. Average length of the reading memos will be 2-3 pages.
3. **Current Events Presentation (4%)** : Each student will present a short (~5 minute) presentation at the beginning of class on a current event in the field of environmental health. Students may search online in major news outlets or environmental health sites such as environmentalhealthnews.org for stories. Students must use Power Point, or related presentation software, to develop 3-5 slides and email them to the instructor the night prior to their presentation.
4. **Research Portfolio (32%)** : The main assignment for this course is the completion of a multi-part research portfolio examining the scientific evidence and public policy regarding a contemporary environmental health problem.
 - a. **Hazards in my Neighborhood (4%)**: Students will utilize online tools to assess the presence of environmental health hazards in the zip code of the home they have lived in the longest in the United States. Instructions will be provided with specific links and steps to complete this assignment. 2-3 pages.
 - b. **Environmental Hazard Identification (6%)**: Based on the findings from the “Hazards in my Neighborhood” assessment, students will select a particular chemical present in their neighborhood, or with approval from the instructor select an alternative chemical. Using online tools, students will then develop a health profile of that chemical using information provided through official websites. 3-4 pages.
 - c. **Environmental Hazard Exposure (4%)**: Using a new set of online tools, students will next assess the level of exposure to their chemical across the United States, looking for geographic variations in potential exposures and beginning to develop hypotheses to explain those variations. 2-3 pages.
 - d. **Vulnerable Populations (6%)** : Building on the previous component, students will once again utilize the various online tools to assess whether particular populations in the United States are more or less exposed to their chemical. 3-4 pages.
 - e. **Environmental Hazard Management (6%)** : This portfolio component will examine existing strategies for managing the student’s chemical. Examples might include pollution reduction technologies, personal safety equipment, or pollution prevention approaches. 3-4 pages.
 - f. **Op-Ed (6%)** : Based on all the previous components, each student will write an 800 word opinion piece of a quality akin to a national newspaper’s requirements. The

Op-Ed will present an argument as to why the chemical should or should not be considered dangerous and what further action may be necessary to manage the chemical.

5. **Exams (16% + 20%):** A mid-term and final exam will cover all the course material including lectures, readings, videos, and handouts. The exam dates are listed below.

<u>Assignment</u>	<u>Points</u>	<u>Percent of Grade</u>
Class Participation	40	8%
Reading Memos	100	20%
Current Events	20	4%
Research Portfolio		
Neighborhood	20	4%
Identification	30	6%
Exposure	20	4%
Vulnerable	30	6%
Management	30	6%
Op-Ed	30	6%
Mid-Term Exam	80	16%
Final Exam	100	20%

Total	500	100%

Course Policies

Missed Exam

A make-up exam will be scheduled for students who have talked with the professor before the exam and have an approved absence, or have had a documented illness/family emergency.

Late Work

Late work will be accepted but will drop one letter grade for each day past the due date that the assignment is turned in. For example, a memo due on Thursday that would have received an A if turned in on time on Thursday, will receive a B if turned in Friday and a C if turned in Saturday.

Classroom Courtesy and Respectful Discussion

Students are expected to arrive to class on time and to turn off any personal electronic devices (cell phones) during class. During class, students are expected to be respectful by listening carefully to others and not engaging in disruptive or distracting behavior. Every student has the right to disagree with opinions expressed by the professor or other students, however the student must respond in a

courteous, respectful way that ensures a safe and tolerant classroom environment. Hostility, intimidation or derogatory comments absolutely will not be tolerated, and students who do not act in a respectful manner will be asked to leave the class.

Academic Integrity

Any form of academic misconduct will not be tolerated. Students are expected to observe the University's Code of Academic Integrity. This Code can be found at <http://w3.arizona.edu/~studpubs/handbook/policyframe.html>.

Students with disabilities

Students with disabilities who require reasonable accommodations to fully participate in course activities or to meet course requirements must register with the Disability Resource Center. If you qualify for services through DRC, bring your letter of accommodations to me as soon as possible.

Grading Structure:

All grades are individually assessed on a 500 point basis. Weights for individual assignments are listed above.

Grading scale for course

90-100%	A
80-89%	B
70-79%	C
60-69%	D
59% or below	E

Required Readings:

Five books are required for this course and are available at the University Bookstore.

Silent Spring (40th Anniversary Edition). Rachel Carson. 2002. New York: Houghton Mifflin Company.

Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment. By Sandra Steingraber. 1996. New York: Vintage Press.

Our Stolen Future: Are We Threatening Our Fertility, Intelligence, and Survival? – A Scientific Detective Story. Theo Colburn, Dianne Dumanoski, and John Peter Meyers. 1997. New York: Plume.

Heat Wave: A Social Autopsy of Disaster in Chicago. Eric Klinenberg. 2002. Chicago: University of Chicago Press.

High-Tech Trash: Digital Devices, Hidden Toxics, and Human Health. Elizabeth Grossman. 2007. Washington, DC: Shearwater.

All other readings will be made available online, on the course website, or as handouts.

Assignment Schedule

Hazards in my Neighborhood	January 31
Silent Spring Reading Memo	February 7
Environmental Hazard Identification	February 14
Living Downstream Reading Memo	February 21
Environmental Hazard Exposure	February 28
Our Stolen Future Reading Memo	March 7
Vulnerable Populations	March 14
Midterm Exam	March 14
Environmental Hazard Management	April 4
Heat Wave Reading Memo	April 11
Op-Ed	April 18
High Tech Trash Reading Memo	April 25
Final Exam:	May 7

Reading Schedule

Students should come prepared each day having read all of the readings assigned for that particular day.

Week One: Introduction; What is Environmental Health?

1/15 Welcome!

1/17 *Silent Spring* Introduction – Chapter 3

Week Two: The Social Production of Disease

1/20 Martin Luther King, Jr. Day, No Class

1/22 *Silent Spring* Chapters 4 – Chapter 6

1/24 *Silent Spring* Chapters 7 – Chapter 9

Week Three: Air, Health, & Pollution

1/27 *Silent Spring* Chapters 10 – Chapter 12

1/29 *Silent Spring* Chapters 13 – Chapter 14

1/31 *Silent Spring* Chapters 15 – Chapter 17

Due: Hazards in my Neighborhood

Week Four: Water, Health & Pollution

2/3 *Living Downstream:* Chapters 1 - 2

2/5 *Living Downstream:* Chapters 3-4

2/7 *Living Downstream:* Chapters 5-6

Due: Silent Spring Reading Memo

Week Five: Cancer and the Environment

2/10 *Living Downstream*: Chapters 7-8

2/12 *Living Downstream*: Chapters 9-10

2/14 *Living Downstream*: Chapters 11-12

Due: Environmental Hazard Identification

Week Six: Hormones and the Environment

2/17 *Our Stolen Future*: Chapters 1-2

2/19 *Our Stolen Future*: Chapters 3-5

2/21 *Our Stolen Future*: Chapters 6-7

Due: Living Downstream Reading Memo

Week Seven: Toxics in our Bodies

2/24 *Our Stolen Future*: Chapters 8-9

2/26 *Our Stolen Future*: Chapters 10-11

2/28 *Our Stolen Future*: Chapters 12-14

Due: Environmental Hazard Exposure

Week Eight: Disasters and the Environment

3/3 *Heat Wave*: Prologue

3/5 *Heat Wave*: Introduction

3/7 *Heat Wave*: Chapter 1

Due: Our Stolen Future Reading Memo

Week Nine: Vulnerability and the Environment

3/10 *Heat Wave:* Chapter 2

3/12 **Review**

3/14 **Midterm Exam**

Due: Vulnerable Populations

Week Ten: Spring Break

Week Eleven: Politics of Environmental Health

3/24 *Heat Wave:* Chapter 3

3/26 *Heat Wave:* Chapter 4

3/28 *Heat Wave:* Chapter 5 - Conclusion

Week Twelve: Technology and the Environment

3/31 *High Tech Trash:* Chapter 1

4/2 *High Tech Trash:* Chapter 2

4/4 *High Tech Trash:* Chapter 3

Due: Environmental Hazard Management

Week Thirteen: Flame Retardants and the Environment

4/7 *High Tech Trash:* Chapter 4

4/9 *High Tech Trash:* Chapter 5

4/11 *High Tech Trash:* Chapter 6

Due: Heat Wave Reading Memo

Week Fourteen: Consumerism Environmental Health

4/14 **High Tech Trash:** Chapter 7

4/16 **High Tech Trash:** Chapter 8

4/18 **High Tech Trash:** Chapter 9

Due: Op-Ed

Week Fifteen: The Precautionary Principle

4/21 ***"The Precautionary Principle in Environmental Science"*** – D2L

4/23 ***"Why is it so Difficult to Choose Safer Alternatives for Hazardous Chemicals?"*** – D2L

4/25 Review paralyzingprecautionprinciple.com

Due: High Tech Trash Reading Memo

Week Sixteen: Power and Uncertainty

4/28 ***"The Social Production of Toxic Uncertainty"*** – D2L

4/30 ***"The Politics of Plastics: The Making and Unmaking of Bisphenol A 'Safety'"*** – D2L

5/2 No Reading

Week Seventeen: Wrap Up and Final

5/5 Review

5/7 **Final Exam.**