

# Environmental Risk and Society

ENVH 472

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Nanoengineering & Sciences Building, Room 181

Autumn 2018  
3 credits  
MW, 10:00-11:20

## Course Description

This course examines the development and uses of environmental risk analysis, particularly in regard to public health concerns. Environmental risk analysis is practiced within a context of social and cultural values, leading to differing perceptions, rankings of risks, and challenges in effective risk communication. Risk assessment and risk management procedures will be examined in light of several themes, including the relationship between natural and technological hazards, the long-term consequences of environmental contamination, public participation processes, and movements towards environmental justice. Specific topics include pesticides, dioxins, climate and health, children's exposure to lead, and Mad Cow disease.

## Learning Objectives

At the end of this course, students will be able to

- Describe the primary components of current risk assessment and risk management procedures used for environmental health hazard evaluation and resolution;
- Explain how social and cultural values shape perceptions and communication of environmental risks;
- Identify the key aspects of public participation processes aimed at resolving environmental risk conflicts;
- Apply critical thinking to emerging issues in environmental risk;
- Demonstrate "environmental literacy" through analysis of news media reports of environmental health risk issues;
- Apply risk assessment principles to a specific environmental health risk controversy.

## Required Readings

- All required readings will be available through the Canvas site

**Recommended** Readings (chapters from these texts will be available through the Canvas site)

- *Calculated Risks*, JV Rodricks, Cambridge University Press, 2nd Edition, 2007
- *Mad Cows and Mothers Milk*, W Leiss & D Powell, McGill-Queens UP, 2<sup>nd</sup> Edition, 2004

## Assignments, Examinations, and Grading

- Pre-class reading reflections = 10%
- In-class activity participation = 10%
- In-class quiz or exercise = 15%
- Homework = 10%
- Midterm exam = 20%
- Project paper draft = 5%
- Project paper = 25%
- Poster = 5%

**Academic Integrity**

Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity.

The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). We expect you to know and follow the university's policies on cheating and plagiarism, and the SPH Academic Integrity Policy.

<http://sph.washington.edu/students/academicintegrity/>

Any suspected cases of academic misconduct will be handled according to UW regulations. For more information, see the UW Community Standards and Student Conduct website.

**Access and Accommodation**

Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or [uwdrs@uw.edu](mailto:uwdrs@uw.edu) or [disability.uw.edu](http://disability.uw.edu). DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. For more information:

<http://depts.washington.edu/uwdrs/faculty-resources/syllabus-statement/>

## COURSE SCHEDULE

<b>Date</b>	<b>Day</b>	<b>Session</b>	<b>Theme</b>
<i>September</i>			
26	W	1	Environmental health risks
<i>October</i>			
1	M	2	Risk assessment overview
3	W	3	Exposure assessment
8	M	4	Dose-response analysis
10	W	5	Risk perception and communication
15	M	6	Environmental justice
17	W	7	Risk management
22	M	8	Proposition 65
24	W	9	Risk management trade-offs
29	M	10	Climate change: risks and equity issues
31	W	11	MIDTERM
<i>November</i>			
5	M	12	Pesticide risk: Alar case study
7	W	13	Pesticide risk assessment
12	M	14	<i>VETERANS' DAY HOLIDAY</i>
14	W	15	Pesticide application safety in WA State
19	M	16	Dioxins and risk
21	W	17	Dioxins and Agent Orange
26	M	18	Health risks of lead
28	W	19	Children and lead exposure
<i>December</i>			
3	M	20	Mad Cow Disease risk communication
5	W	21	Graduate Student Presentation
10	M	22	Poster Session