

Environmental Risk and Society

ENVH 472

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Dept of Environmental & Occupational Health Sciences
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Office Hours: to be arranged

Winter 2009
3 credits
MWF, 9:30-10:20
Health Sciences, T-478

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 equity. Specific topics include pesticides, dioxins, Mad Cow disease, and nuclear power.

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 public participation processes aimed at resolving environmental risk conflicts;
- Apply critical thinking to emerging issues in environmental risk;
- Demonstrate "environmental literacy" by being able to evaluate and interpret news media reports of environmental health risk issues.
- Apply risk assessment principles to a specific environmental health risk controversy;

Readings (books available at UW Bookstore in the South Campus Center)

- *Mad Cows and Mother's Milk* (Powell) McGill-Queens University Press, 2nd Ed., 2005
- *Calculated Risks*, JV Rodricks Cambridge University Press, Second Edition, 2007

Assignments and Examinations

- written assignment and presentation – individual/team project (30%)
- midterm exam (25%) and final exam (35%)
- homework (10%)

Students with Disabilities

To request academic accommodations due to a disability, please contact Disability Resources for Students, 448 Schmitz, 206-543-8924 (voice), 206-543-8925 (TTY). If you have a letter from Disability Resources for Students indicating that you have a disability that requires academic accommodations, please present the letter to me so we can discuss the accommodations you might need in this class.

ENVH 472: Environmental Risk and Society

Date	Instructor	Topic	Readings	
<i>January</i>				
5	M	Fenske	Natural and technological risks	Handout
7	W	Fenske	Elements of risk assessment	Rodricks, prologue, 1-2
9	F	Fenske	Does the dose make the poison?	Smith article
12	M	Fenske	Exposure analysis	Rodricks, 3-4
14	W	Fenske	Health effects	Rodricks, 5-6
16	F	Nelson	Animal bioassays	Aldridge article
19	M		<i>Martin Luther King Jr. Day</i>	
21	W	Fenske	Risk and uncertainty	Rodricks, 7-9
23	F	Fenske	Risk perception	Handout
26	M	Nelson	Risk communication: rBST	Leiss, 6:123-152
28	W	Nelson	Risk-trade-offs (discussion)	Gregory article
30	F	Fenske	Risk management	Rodricks, 11
<i>February</i>				
2	M	Fenske	Proposition 65	Handout
4	W	Fenske	Project discussion breakout	
6	F	Fenske	Pesticide risks: alar case study	Handout
9	M	Fenske	Pesticide risk assessment	Handout
11	W	Yost	Incident at Chernobyl	Handout
13	F	Nelson	Risks and benefits of nuclear power	Handout
16	M		<i>President's Day</i>	
18	W	Fenske	Dioxins and risk	Leiss, 3:41-72
20	F	Fenske	Dioxins and Agent Orange	Handout
23	M	Fenske	PCBs and risk communication	Leiss, 8:182-209
25	W	Fenske	Lead exposure in children	Needleman
27	F	Fenske	What is a 'safe' lead level?	Handout
<i>March</i>				
2		Fenske	Genomic risks	Leiss, 7:153-81 & 12:296-340
4	W	Fenske	Mad Cow disease - 1	Leiss, 1:3-25 & 10:229-61
6	F	Fenske	Mad Cow disease – 2	Handout
9	M	Fenske	Student case reports -- 1	
11	W	Fenske	Student case reports -- 2	
13	F	Fenske	Student case reports – 3	
18	W		<i>FINAL EXAM (8:30-10:20 a.m., T-478)</i>	