

**ESP 203w**  
**Environmental Communications**  
Department of Environmental Science  
Spring 2005

**Instructor:**

Travis Wagner, Ph.D.

OFFICE: 105c Bailey Hall

TELEPHONE: 228-8450 (DES Main Office: 207.780.5390)

FAX: 207.780.5251

EMAIL: twagner@usm.maine.edu

**Class Meetings:**

Tuesdays and Thursdays 11:00 to 12:15, 402 Bailey Hall, Gorham.

**Office Hours:**

Tuesdays, 1:00 to 2:00

Thursdays, 1:00 to 4:00

Or by appointment

**Course Objectives:**

The objectives of this course are to understand:

- The influence of socio-economic, political, and scientific factors in the social construction of environmental problems.
- Basic communication theory and its application to the perception and communication of risk.
- How communication is used to persuade/dissuade the public regarding environment problems.
- How the environment is used to manipulate consumer behavior and the potential environmental impacts.
- The basics of social science research and its application to environmental communications.

The USM General Education Council designated this course as writing-intensive (w). Learning how to write effectively is an iterative process, which means many written assignments will be treated as drafts. Drafts will be reviewed, critiqued, and graded. Students may resubmit reviewed draft assignments to respond to writing deficiencies to improve their writing and their grade. Students are expected to possess and use the required writing manual (Hacker, 2003) and commit to improve their writing proficiency.

## **Introduction:**

Our values, attitudes, ideas, experiences, and perceptions influence what we define as an environmental problem. Communication, the process of supplying meaning and understanding, is instrumental in comprehending and clearly communicating complex and technical information from/to the non-scientific public, decisionmakers, and colleagues.

Environmental professionals must be cognizant that audiences may perceive environmental problems differently. Perceptions are shaped by scientific evidence, politics, ethics (e.g., beliefs, values, and cultural differences), experience, education, and economic factors. An important influencer of perception is the media, which plays a major role in identifying, constructing, filtering, defining, categorizing, and solving environmental problems.

This course is not merely an exploration into theory, but has a major applied component. In this course, you will examine how actual, local environmental problems are perceived and thus constructed. For this semester we will conduct a study in Gorham, Maine to identify environmental problems of public concern based on scientific evidence and the environmental and public health risks as perceived by residents, businesses, and public officials. Students will study problem identification, communication theory, risk perception, and the role of the media and apply these to the Gorham project by conducting original research. In your research, you are expected to answer the following questions using valid research methods:

What are the environmental problems in Gorham?

What problems are perceived to be the most serious?

How has this perception been shaped?

How does perception compare amongst public officials, businesses, and the public?

For DES majors, Environmental Communications is the starting point in the DES core curriculum's cohort, project-based learning sequence. Consequently, one of the final products of this course will be the identification of an environmental problem of interest to teams and/or small groups. This problem will be the focus for the four remaining courses in the sequence.



## Spring 2005 - Scheduled Topic Outline:

Class	Topic	Activities & Assignments Due	Readings
Jan. 18	Course Introduction		Hacker
Jan 20	Communication Theory		Jacobson
Jan 25	Environmental Problems		Fiorino
Jan 27	<i>Workshop: Conducting Literature Reviews</i>	Workshop held in 219 Bailey <b>Assignment 1</b>	Patten, Part 1
Feb 1	Power of Communication	Video: "Silent Spring" <i>In class assignment</i>	<ul style="list-style-type: none"> <li>▪ Brooks</li> <li>▪ Wang</li> </ul>
Feb 3	Issue Attention Cycle		Downs
Feb 8	The Role of Science	Video: "In Search of the Edge" <i>In class assignment</i> <b>Assignment 2</b>	<ul style="list-style-type: none"> <li>• Houck</li> <li>• NRC</li> </ul>
Feb 10	Scientific Evidence	Video: "Scientific Spin Doctors" <i>In class assignment</i>	Mazur
Feb 15	Risk Perception	<b>Assignment 3</b>	Slovic
Feb 17	Risk Communication	Case Study: Dioxin <b>Assignment 4</b> <i>In class assignment</i>	Powell & Leiss
<b>FEBRUARY 22 &amp; 24 - WINTER BREAK</b>			
Mar 1	Introduction to the CRS Project	<b>Assignment 5</b>	Konisky
Mar 3	Mass Media and Environmental Science I	Video: "TV News on Trial" <i>In class assignment</i>	Karlberg
Mar 8	Survey Design		<ul style="list-style-type: none"> <li>• Petersen</li> <li>• Sudman &amp; Bradburn</li> </ul>
Mar 10	Mass Media and Environmental Science II	Video: "Media and the Environment" <i>In class assignment</i>	Salomone
Mar 15	CRS Project Briefing	<b>Assignment 6</b>	Patten, Part 2
Mar 17	Mass Media and Environmental Science III	<b>Assignment 7</b> <i>Student Video presentations</i>	
Mar 22	Project Research	<i>*In the field</i>	<ul style="list-style-type: none"> <li>• Gorham Bypass Study</li> <li>• Gorham Comprehensive Plan (on reserve at Gorham Library)</li> </ul>
Mar 24	Project Research	<i>*In the field</i>	
<b>MARCH 29 &amp; 31 - SPRING BREAK</b>			
Apr 5	Project Research	In the <u>classroom</u> Project update and evaluation	
Apr 7	Project Research	<i>*In the field</i>	



Class	Topic	Activities & Assignments Due	Readings
Apr 12	Project Research	<i>*In the field</i>	
Apr 14	Analyzing Survey Data		
Apr 19	Environmental Justice	<i>In class assignment</i>	Assigned Readings (TBA)
Apr 21	Advertising and the Environment	Video: "The Persuaders" <i>In class assignment</i>	Banerjee, <i>et al.</i>
Apr 26	Green Washing	<b>Assignment 8</b>	
Apr 28	Group Presentations	<b>Assignment 9</b>	
May 3	Group Presentations	<b>Assignment 10</b>	
May 5	Course Conclusion	<b>Assignment 11</b>	
	Final Exam	Make-up Class	(If needed due to weather cancellation or other problem.)

\*These four class meetings are allotted to conducting the research project in the field.

### Course Assignments:

- Electronic submissions will not be accepted--no exceptions.
- Written assignments denoted with a (D) are treated as drafts. Students may resubmit assignments to respond to writing deficiencies to improve their grade. (Submittals must be resubmitted within one week from the day the corrected assignment is returned.) The coding scheme in Hacker's book, *A Writer's Reference*, will be used to identify writing deficiencies. (For example, W2-a refers to wordiness, specifically redundant words, and P1-c refers to the incorrect use of commas in a series.) You are expected to read the background material associated with Hacker's code and correct the text.
- All citations must adhere to APA style. See: <http://dianahacker.com/writersref/pdf/Hacker-DocSources.pdf>
- Written assignments must use 12-point type, 1.5 spacing, and one-inch margins

### 1. Environmental Problem Identification (D)

In two pages, identify and describe three environmental problems facing Maine. For each problem, explain why it is a problem, briefly identify (e.g., bullet list) the empirical evidence that indicates it as a problem. And briefly describe why you are interested in each problem. Be sure to provide citations using APA format. (NOTE: Even though bullet lists are requested, all writing needs to be done in grammatically correct sentences.)



## 2. Literature Review (D)

Select an environmental problem from Assignment 1 and conduct a literature review of your problem based on five sources. Sources must be from peer-reviewed journals. Internet, non-peer-reviewed, and popular sources are **not** allowed. Attach the cover page for each article used.

## 3. Memorandum

Select a problem (can be the same as for Assignment 2) and prepare a two-page (no less, no more) memorandum to the Commissioner, Maine Department of Environmental Protection. In the memorandum, clearly state the problem and summarize the empirical evidence. Then, present the likely public and business perspectives as to whether the problem is of sufficient concern to warrant state action. In this latter section, you can use ethical, economic, and equity perspectives as necessary. (*This is not a draft.*)

## 4. Analyzing Poor Risk Communication – Dioxin Case Study (D)

Using the dioxin case study, in descending order of importance, write the most important concepts from the article with regards to environmental communications (risk communication) and their impact. Be sure to cite the page number and paragraph location of the concept. Based on this list, students will be asked to lead a group discussion. Late submittals will NOT be accepted.

## 5. NIH Training Module

Complete the on-line National Institute for Health (NIH) training module for research using human subjects. The training takes approximately 40-60 minutes. Be sure to print out and submit your certification of completion. <http://www.usm.maine.edu/orc/irb/faq.htm>. (NOTE, this requirement is not optional; it is a university requirement to engage in the field-based study.)

## 6. Comparative Risk Survey Proposal

Prepare a ±4-page proposal to conduct a comparative risk survey of the public, businesses, and public officials in Gorham. The proposal must have the following headings and associated descriptions:

1. Title
2. Introduction (i.e., what, why, and where)
3. Methodology (i.e., how, who, and when)
4. Data Collection Instrument (survey)
5. Proposed Analysis (i.e., how you will analyze your data)
6. References cited

(*This is not a draft.*)

## 7. Reporting Scientific Evidence

In approved teams, you will produce a 150 second (no more, no less) videotaped presentation of an environmental problem designed for a local television news report.



Videos will be shown and analyzed in class. Grades will be based on adherence to the time requirement and communication efficacy.

## 8. In Class Presentation

(See Assignment 10) In approved teams of two to three, you will give an oral presentation summarizing your problem proposal using PowerPoint. (Each student must participate equally in the presentation.) The presentation should follow the same format as discussed in Assignment 10, but should include graphical descriptions (e.g., photographs, maps, or diagrams) to support your proposal.

## 9. Comparative Risk Survey Analysis

Prepare an analysis and discussion of the comparative risk survey for each sector: the public, business, and public officials. In the analysis section, present the data graphically. In the discussion section, interpret the results and discuss the limitations of the study and resulting data. That is, discuss what you would do differently if you were going to conduct the same study.

## 10. Problem Proposal

DES Majors: You will need to propose a specific Gorham environmental problem for further study. This one-page proposal is to include: (a) title and description of the problem, (b) summary of available evidence establishing it as a problem worthy of further study, and (c) a description of why you want to study the problem. The submittal is not as individuals, but as an approved team or group. Team/group composition will be based on mutually shared interests with fellow students and instructor feedback and approval.

Non-DES Majors: Your final report will be similar to the requirement for DES students, but you must do this as an individual. Your one-page proposal should include (a) a description of the problem, (b) available evidence establishing it as a problem worthy of further study, and (c) a description of why the state should study the problem.

## 11. Concept Map

The final course project is to review and reflect on the various factors that influence the construct of an environmental problem. The course syllabus identified numerous objectives regarding the construct of environmental problems. Using a computer, you need to generate a concept map depicting the various factors influencing environmental problems and their relative contribution. (If you need further information, conduct an Internet search on Concept Maps.) This assignment is based on previous assignments and your research project. To depict relative contribution, consider altering the size of the boxes or arrows or other graphical depictions.



## Course Materials:

- Hacker, Diana, *A Writer's Reference*, Fifth Edition (Boston: Bedford/St. Martin's, 2003). Companion site for the Hacker Manual: <http://dianahacker.com/writersref/>
- Required readings are available on electronic reserve <http://docutek.ursus.maine.edu> (password is **wagesp203**)
- Selected materials will be posted on Blackboard including:
  - Course PowerPoint slides
  - Course Research Guide
  - Supplemental materials/readings
  - Grades

## Required Readings: (All readings are available on electronic reserve.)

Banerjee, Subhabrta; Gulas, Charles C.; and Easwar Iyer, "Shades of Green: A Multidimensional Analysis of Environmental Advertising," *Journal of Advertising*, Vol. 24, No. 2, Summer 1995, pp. 21-31.

Brooks, Paul, "Courage of Rachel Carson," *Audubon*, January 1987, pp. 12, 14-15.

Bullard, Robert D., ed., *Confronting Environmental Racism: Voices from the Grassroots*, (Boston, South End Press, 1993).

Downs, Anthony, "Up and Down With Ecology: The Issue-Attention Cycle," *Public Interest*, 28, 1972, pp. 38-51.

Fiorino, Daniel J. *Making Environmental Policy* (Berkeley, CA: University of California Press, 1995) pp. 133-166.

Goldfarb, Theodore D., *Taking Sides: Clashing Views on Controversial Environmental Issues*, 7<sup>th</sup> Edition, (Guilford, CT: Dushkin, McGraw-Hill, 1997), pp. 60-82.

*Gorham Bypass Study*, Environmental Assessment, U.S. Department of Transportation, Federal Highway Administration and Maine Department of Transportation and, June 2003.

*Gorham Comprehensive Plan*, Gorham, Maine. Adopted May 4, 1993, and amended August 2, 1994.

Houck, Oliver, "Tales from a Troubled Marriage: Science and Law in Environmental Policy," *Science*, Vol. 302, December 1, 2003, No. 5652, pp. 1926-1929.

Jacobson, Susan K., *Communication Skills for Conservation Professionals*, (Washington, DC: Island Press, 1999), pp. 1-28.



- Karlberg, Michael, 1997. "News and Conflict: How Adversarial News Frames Limit Public Understanding of Environmental Issues," *Alternatives Journal*, Vol. 23(1), 22-27.
- Konisky, David M., *Comparative Risk Projects: A Methodology for Cross-Project Analysis of Human Health Rankings*, Discussion Paper 99-46 (Washington, DC: Resources for the Future, 1999), 35 pp.
- Mazur, Alan, *A Hazardous Inquiry: The Rashomon Effect at Love Canal* (Cambridge, MA: Harvard University Press, 1998), pp., 1-7 & 200-207.
- NRC, *Building a Foundation for Sound Environmental Decisions*, (Washington, DC: National Academy Press, 1997).
- Patten, Mildred L., *Understanding Research Methods*, Third Ed., (Pyrzczak Publishing, Los Angeles: 2002).
- Peterson, Robert A., *Constructing Effective Questionnaires* (Thousand Oaks, CA: 2000), pp. 13-28 & 45-60.
- Powell, Douglas and William Leiss, *Mad Cows and Mother's Milk: The Perils of Poor Risk Communication* (Montreal: McGill-Queen's University Press, 1997), pp., 41-76.
- Rea, Louis M. and Richard A. Parker, *Designing and Conducting Survey Research*, (San Francisco, Jossey-Bass Publishers, 1992).
- Salomone, Kandice L.; Greenberg, Michael R.; Sandman, Peter M.; and David B. Sachsman, "A Question of Quality: How Journalists and News Sources Evaluate Coverage of Environmental Risk," *Journal of Communication*, Vol. 40, 1990, No. 4, pp., 117-133.
- Slovic, Paul, Fischhoff, Baruch, and Sarah Lichtenstein, "Facts and Fears: Understanding Perceived Risk," in *Societal Risk Assessment: How Safe is Safe Enough?*, Richard C. Schwing and Walter A. Albers, Jr., eds. (New York: Plenum Press, 1980), pp. 181-208.
- Sudman, Seymour and Norma M. Bradburn, *Asking Questions: A Practical Guide to Questionnaire Design* (San Francisco, CA: Jossey-Bass Publishers, 1988), pp. 1-19.
- Wang, Zuoyue, 1997. "Responding to *Silent Spring*," *Science Communication*, Vol. 19(2), 141-163.

## **Course Policies:**

### *GRADING*

You will be graded based on your performance throughout the course. Not only are you expected to come to class, you are expected to contribute to discussions; it is your responsibility to yourself, to your fellow classmates, and to me. If you miss class, obtain the notes from a classmate and keep up on the readings. If you are having any difficulty in the course, see me during my office hours or make an appointment.



## GRADING VALUES:

Assignment	Title	Points
1	Environmental Problem Identification	10
2	Literature Review	20
3	NIH Training Module	5
4	Memorandum	10
5	Risk Communication	10
6	Comparative Risk Survey Proposal	30
7	Reporting Scientific Evidence	10
8	Green Marketing	5
9	In Class Presentation	10
10	Comparative Risk Survey Analysis	30
11	Problem Proposal	10
12	Concept Map	10
	In class assignments	40
	Extra Credit	(10)
	<b>TOTAL</b>	<b>200</b>

Attendance and participation are essential components of the class and are embodied in the "In Class Assignments" portion of your grade. To maximize the use of the lecture meetings, it is essential that you complete the assigned readings before the class meeting. Lectures are designed based on the presumption that you have done the background reading and have a basic understanding of the material. I reserve the right to use quizzes on the readings if it is apparent that you are not completing the reading as required.

Although there is no final exam for this class, the designated final exam date will be used for a make-up class should class be cancelled due to snow or other external force.

### *MISSED CLASSES, LATE ASSIGNMENTS, ETC.*

Late assignments and papers are not accepted unless it is arranged in advance or it is necessary due to a documented emergency. And, acceptance of a late assignment is at my discretion. Remember, if you miss a class in which there is a quiz or an in-class assignment, your grade will be affected twice (attendance and quiz scores). Thus, it is imperative to contact me about problems before they arise. I have voice mail and email so I can be reached day or night (note: both voice mail and email time and date your message.) If you start to feel like you are falling behind, see me immediately.

### *INCOMPLETES*

Life presents unexpected surprises and an incomplete is sometimes a necessary choice. I will only give an incomplete for reasons that arise in the last two weeks of the semester. If you need to take an incomplete, you must meet with me before the end of the semester. According to University guidelines, if you take an incomplete, you must complete the course by the end of the following semester or your grade automatically becomes an F.



*THE AMERICANS WITH DISABILITIES ACT*

The Americans with Disabilities Act of 1992 mandates the elimination of discrimination against persons with disabilities. If you need course adaptations or accommodations, please see me as soon as possible. Only students who are registered with the Office of Academic Support for Students with Disabilities (237 Luther Bonney, 780-4706) are eligible for accommodation.

If you have trouble in this courses see me. USM also provides support. For problems in writing skills and time management, make an appointment to see a student tutor at the Academic Support Center, 242 Luther Bonney (780-4470). Help is also available through the Counseling Center, 106 Payson Smith (780-4050).

