

Syllabus

Class Meets:
Tuesday and Thursday
8:50 a.m. – 10:20 a.m.
September 6 – October 17
12 sessions

Professor Andrew Hoffman
Room E2603, Ross School
Email: ajhoff@umich.edu

Course Overview

Annual costs for pollution control in the US rose from \$27 billion in 1972 to more than \$155 billion in 2000. The impact of such expenditures on economic competitiveness is clear. Or is it? There is little disagreement that environmentalism affects corporate management, altering profit and loss statements and influencing both domestic and international strategy. Yet, while many within industry and government are vilifying environmentalism as a threat to economic growth, others are taking advantage of the economic opportunities it can reveal. The Carrier Corporation invested \$500,000 to eliminate the use of toxic solvents in the manufacture of air conditioners. By the end of one year, it had recouped \$1.2 million in reduced manufacturing costs. DuPont undertook a \$500 million capital improvement plan at three North and South Carolina plants, which will reduce air emissions by 60 percent and increase production by 20 percent. What allows these companies to see an opportunity while other see only a threat?

The goal of this course will be to explore this question from a political, managerial and technological perspective. It is not our intention to make students fully proficient in the structure of environmental law or the scope of global environmental hazards. As needed, class discussions will be augmented to provide necessary background. We will focus instead on the significance of these developments for corporate organization, markets, and operations. We will look at both established industries and emergent companies employing cutting edge technologies, and consider both national and international implications. This class is not aimed at the environmentalist. There is ample reason for critical thinking in an era when political correctness can cloud the logic of rational discourse. What the student should take away from the course is a grasp of the emerging complexity of the environmental issue, its opportunities and limitations for the corporate enterprise. In the final analysis, environmentalism is a fact of the business environment, like it or not. To successfully address this fact, one needs to see that it offers a new lens with which to view taken-for-granted conceptions of basic products and processes.

Some particular questions we will address are:

- Does the so-called "win-win scenario" really exist? Can production efficiency and bottom-line profits be increased through the introduction of new technologies and management systems that are sensitive to environmental considerations?
- How does one evaluate the technical, financial and political aspects of corporate environmental strategy?
- What effects do environmental concerns have on patterns of international trade, marketing, accounting, financial markets, public relations, product development and process design?

Class Format

The course will meet fourteen times during the fall term. These sessions are divided into two sections. The first deals with the key drivers of corporate environmental management: regulation, international standards and policy, investors, consumers, industry trade groups and natural resource scarcity. The second section considers how these drivers alter the basic "rules of the business environment. The final session will be a wrap-up that considers what we have covered and where the issue may be heading in the future. In class, we will utilize a variety of teaching methods: lectures, case studies, video, in-class exercises, and computer simulations.

Assignments

Readings and case preparation *are to be completed before* the class meets. Each session's reading assignments will present a variety of viewpoints. While reading these materials you should continually ask yourself: Do I understand the issue being discussed? Can I frame the issue in the perspective of both the environmental critic and the environmental proponent? How might this affect my decision-making as a manager?

Position Papers. For most sessions, students will compose a one-page position paper on a broad topic related to the evening's readings. The topics are listed at the bottom of each week's assignment. These papers are meant to challenge you on some fundamental aspects of the environmental issue. Treat them as such. They need not be pro-environment. They must simply present a sound argument taking a stand on the issue. Think of it as something that you might submit to the *Wall Street Journal* or *New York Times* op/ed page. Students can skip seven (out of twelve) papers for the semester without penalty. I strongly suggest that you look at **all** the paper topics before choosing which, if any, to drop.

Class Participation. The environment is a topic on which everyone has an opinion. It is pervasively covered in the news, movies, TV etc. However, we want to keep the discussion grounded in rational debate and avoid a tendency towards extemporaneous philosophizing in class. Excellent comments possess one or more of the following attributes: (1) they offer an original and relevant perspective on the issue, (2) they move the analysis forward by building on previous contributions or by revealing fresh insights, (3) they transcend the "I feel" syndrome by including evidence that is based on more than personal experience — in other words, your thinking should reflect and integrate examples from other contexts.

Final Project. You have two options:

- 1. Climate Change Strategy Report:** Perhaps no other environmental issue perplexes business managers today than climate change. Beyond the scientific questions of the nature of the issue, corporations are trying to decide whether to engage in voluntary reductions in greenhouse gas emissions. Some are embracing the issue as a strategic concern (i.e. BP and DuPont) and others are holding back (i.e. Exxon Mobil). The objective of your final project is simple and straightforward – if you were a corporate manager, can you convince your senior management team that there is a strategic reason to adopt voluntary reductions in greenhouse gas emissions? Structure your argument around the strategic goals of: regulatory compliance, operational efficiency, risk management, capital acquisition, market demand, strategic direction and/or human resource management. More can be read about these seven strategic goals on pages 131-136 and the opening article in session 1. Your argument should include specific examples of companies gaining strategic advantage from greenhouse gas emissions and your examples should be properly cited in footnotes at the end of the text. (Please use the style guide at the end of this syllabus.) Your paper should not be more than 10 pages (not including footnotes and up to two attachments), double spaced, 12 point, times roman font with one inch margins.

2. **Environmental Business Analysis:** A technical and financial analysis of an environmental challenge faced by a business, including a detailed explanation of a strategic response that benefits both business performance and the environment. You will be matched with a real company in China or Latin America through the World Resources Institute's Environmental Enterprise Corps (<http://www.new-ventures.org/eec.html>). There you will find several available projects from which you can pick. The project will be a consulting project to your client, so the terms of the project will vary. But you should plan to cover the environmental and economic aspects of the project per the material presented in the course. If you choose this option, you must act quickly to secure your project and identify your scope of work. Your paper should be properly cited in footnotes at the end of the text. (Please use the style guide at the end of this syllabus.) Your paper should not be more than 10 pages (not including footnotes and up to two attachments), double spaced, 12 point, times roman font with one inch margins.

Final grade is composed of:

- Position papers (5) 30% Due **IN CLASS** on the assigned day.
- Class participation 30%
- Final project 40% Due **IN CLASS** on the last day.

Course Material

There is a course packet of cases and a required text for this course. This reading should be supplemented by steady reading of contemporary environmental issues as published in *The New York Times*, *Wall Street Journal*, *Business Week* etc.

- Required:**
- Hoffman, A. (2000) *Competitive Environmental Strategy*, (Washington DC: Island Press) (CES in the syllabus)
 - Reading Packet

CSIB 564/SNRE 513: Class Schedule

Session #1	<i>Introduction & Overview</i>
READINGS:	CES Preface (pages xv-xvii) CES Chapter 1 (pages 3-26) Howard-Grenville, J. & A. Hoffman (2003) "The importance of cultural framing to the success of social initiatives in business," <i>Academy of Management Executive</i> , 17 (2): 70-84.
CASE:	Molten Metal Technology (A), 1999, Boston University Case 99-03A.
QUESTIONS:	What was the overall business model for MMT: (a) from 1989 to 1995, (b) from 1995 and beyond? Are there any peculiarities about the hazardous waste market that make this start-up company different from other high-tech start-ups? What were the toughest challenges and greatest uncertainties/risks as the company was poised for commercialization at the end of 1995? How well had MMT protected itself from these risks? Looking to the future, if you were Bill Haney, what would you do? If you were Chris Nagel, what would you do? Is this technology an example of a win-win scenario?
POSITION PAPER 1:	<i>Can Business Management Be Completely Compatible with Environmental Protection?</i> (CES 1.1, page 25).
DUE:	Complete and hand-in survey in syllabus

DRIVERS OF CORPORATE ENVIRONMENTAL STRATEGY

Session #2	<i>Regulatory Drivers</i>
READINGS:	CES Chapter 2 (pages 27-51).
CASE:	Acid Rain: The Southern Company (A) and (B), 1993, HBS Cases 9-792-060 and 9-793-040.
QUESTIONS:	How will the market for tradable sulfur dioxide allowances evolve? What should the Southern Company do? What problems would you anticipate in the implementation of a compliance strategy? Given your analysis of this situation, do you think markets are likely to emerge for other forms of pollution, such as carbon dioxide?
POSITION PAPER 2:	<i>Is It Immoral to "Buy the Right to Pollute"?</i> (CES 2.1, page 40).
Session #3	<i>International Drivers</i>
READINGS:	CES Chapter 3 (pages 52-69).
CASE:	Conoco's Green Oil Strategy (A), 1995, HBS Case 9-394-001
QUESTIONS:	What conflicts must Conoco resolve in deciding whether or not to develop Block 16 in Ecuador's tropical rain forest? What objectives and whose interests appear to be carrying the most weight in this case? Which should dominate? How can Conoco achieve the necessary consensus to move forward? Would you recommend that Conoco do so on this basis?
POSITION PAPER 3:	<i>How Far Should Free Trade Go with Respect to the Environment?</i> (CES 3.1, page 53).

Session #4	<i>Resource Drivers</i>
READINGS:	CES Chapter 4 (pages 70-84).
EXERCISE:	Fishbanks
QUESTIONS:	Read the simulation's instructions and come prepared to manage "one of the principal fishing companies in the country."
POSITION PAPER 4:	<i>Can the Market System Protect the Commons?</i> (CES 4.1, page 83).

Session #5	<i>Market Drivers</i>
READINGS:	CES Chapter 5 (pages 85-104).
CASE:	Rainforest Crunch, 1991, HBS Case 9-391-132.
QUESTIONS:	What is the primary motivation behind Rainforest Crunch? To preserve the rainforest, help indigenous harvesters or sell products with "green" marketing veneer? Which should take precedent: environmental concerns or societal concerns? What are the dangers/benefits of being closely associated with a supplier? (ex: Ben & Jerry's and Community Products Inc., maker of Rainforest Crunch butterscotch candy.). What are the dangers/benefits of doing business with progressive suppliers? (ex: Greyston employs local people who are underemployed, undertrained, unemployed.). What are the dangers/benefits of using responsible initiatives as part of marketing/public relations programs? How can companies effectively and credibly measure social initiatives to determine their viability?
POSITION PAPER 5:	<i>Is "Green" Marketing Really Greenwashing?</i> (CES 5.1, page 95).

Session #6	<i>Value in Nature</i>
IN-CLASS VIDEO:	<i>The Wilderness Idea</i> (57 minutes)
POSITION PAPER 6:	<i>Is There Inherent Value in Nature?</i> (CES 6.1, page 124).

Session #7	<i>Social Drivers</i>
READINGS:	CES Chapter 6 (pages 105-126).
CASE:	Champion International Corporation: Timber, Trade and the Northern Spotted Owl, 1993, HBS Case 9-792-017.
QUESTIONS:	How do you explain the government's interventions in northwestern timber markets? Do you think this is a good policy? What have the government's actions in this case done to the market for forest products in the northwest? How should Champion respond? To whom is the company responsible?
POSITION PAPER 7:	<i>Are There "Limits to Growth" in the World Economy?</i> (CES 3.2, page 67).

**CORPORATE ENVIRONMENTAL STRATEGY:
THE NEW "RULES OF THE GAME"**

Session #8	<i>Altering Strategic Objectives</i>
READINGS:	CES Chapter 7 (pages 127-159).
CASE:	Xerox: Design for the Environment, 1995, HBS Case 9-794-022.
QUESTIONS:	How did Xerox reach its objective? Is it an appropriate goal? What must Xerox do to its product delivery system if the goal is to be achieved? What changes will Xerox have to make in goals and

incentives to achieve this? Without legislation, will this ever pay off for Xerox? Will it, in fact, be possible for Xerox to achieve?

POSITION PAPER 8: *Is Technology the Solution or the Cause of Environmental Problems?* (CES 7.1, page 154).

Session #9 *Technological Solutions*

IN-CLASS VIDEO: *Rachel Carson's Silent Spring* (56 minutes)

POSITION PAPER 9: *Do the Solutions to Environmental Problems Lie in Technological or Organizational Innovation?* (CES 8.1, page 161).

Session #10 *Strategy & the Organization*

READINGS: CES Chapter 8 (pages 160-182).

CASE: McDonald's and the Environment (A), 1993, HBS Case 9-391-108.

QUESTIONS: Why would McDonald's undertake its collaboration with the EDF? What is your evaluation of this collaboration? From EDF's perspective, was the collaborative project with McDonald's a success? How about the same questions from the point of view of McDonald's? How should EDF follow up with the McDonald's project? How should McDonald's proceed next?

POSITION PAPER 10: *Do the Obstacles to Environmental Strategy Lie on the Organizational or Individual Level?* (CES 8.2, page 177).

Session #11 *The Institutional Context*

READINGS: CES Chapter 9 (pages 183-199).

CASE: Plum Creek Timber (A), 2000, HBS Case N9-801-131.

QUESTIONS: What are the central issues confronting Kraft and his colleagues? What is the role of the government in this process? How do they perceive Plum Creek? How has Plum Creek acted strategically in dealing with the restrictions on their land? What impact has this had? What would you advise Plum Creek Timber to do in connection with the Bull Trout listing? Are Habitat Conservation Plans an opportunity for competitive advantage? Why or why not? What are the potential risks?

POSITION PAPER 11: *How Do You Change Institutions?* (CES 9.1, page 197).

Session #12 *Corporate Strategies and Wrap-Up*

READINGS: CES Chapter 10 (pages 203-227).

CASE: Deja Shoe (A), 1996, World Resources Institute

QUESTIONS: What is your evaluation of Deja Shoe's environmental business strategy? Who are their competitors? What is their core competence and competitive advantage? Can they sustain it?

POSITION PAPER 12: This is an *optional* position paper. If your thinking has shifted, you may write another paper on paper topic number 1: *Can Business Management Be Completely Compatible with Environmental Protection?* (CES 1.1, page 25).

DUE: Final Project

Twenty Questions on Environmental Issues
Hand-In at First Class

1. Which of the following groups do you think has the greatest responsibility for achieving our environmental goals? (a) government , (b) business , (c) community leaders , or (d) individuals .
2. Who do you trust more on environmental issues: (a) the federal government or (b) private business ?
3. Do you feel that the Environmental Protection Agency is: (a) very necessary , (b) fairly necessary , (c) just somewhat necessary , or (d) not that necessary ?
4. Sometimes there are arguments between people who want to protect their jobs (in industry or in logging for example) and those people who want to protect the environment. In general, do you feel that government policy tends to (a) favor jobs too much , (b) favor the environment too much , or (c) has got the balance about right ?
5. Do you feel that the current laws for protecting the environment: (a) place an unfair burden on businesses , (b) balance the needs of businesses and the public , or (c) do not require businesses to do enough to protect the environment ?
6. How much progress has been made in dealing with environmental problems in your country since 1970? Would you say we have made: (a) a great deal of progress , (b) only some progress , or (c) hardly any progress at all ?
7. Here are two statements which people sometimes make when discussing the environment and economic growth. Which of these statements comes closer to your own point of view?
(a) Protection of the environment should be given priority, even at the risk of curbing economic growth , or (b) economic growth should be given priority, even if the environment suffers to some extent .
8. Which of these two statements comes closer to your own views, even if neither is exactly right:
(a) my country should do whatever it takes to protect the environment , or
(b) my country has gone too far in its efforts to protect the environment .
9. How strongly do you feel about your answer? (a) strongly , or (b) not strongly .
10. Thinking about the overall quality of the environment where you live, that is, the overall health and quality of the air, water, land, and wildlife, would you rate it as: (a) excellent , (b) good , (c) only fair , or (d) poor .
11. All in all, which of the following best describes how you feel about the environmental problems facing the earth? Life on earth will continue without major environmental disruptions only if:
(a) we take additional, immediate, and drastic action concerning the environment , (b) we take some additional actions concerning the environment , or (c) we take just the same actions we have been taking on the environment .
12. By the year 2010 do you think that the quality of the environment in your country:
(a) will get better , (b) will get worse , or (c) will stay about the same .
13. Which most agrees with your viewpoint? Business can make money protecting the environment (a) always , (b) usually , (c) sometimes , or (d) never .
14. Do you believe that: (a) we are capable of understanding the full complexities of the natural environment so as to manage it to our own purposes. Or, (b) it is so complex as to forever be beyond human comprehension and control? .
15. Is the ecosystem: (a) to be protected for its own sake? Or, (b) is it to be protected to enhance the welfare of the human beings who depend upon it? .
16. Do you think that market economics and environmental protection are compatible?
yes , no , not sure .
17. Do you believe that there are limits to the ability of the earth's ecosystem to sustain human life?
yes , no , not sure .
18. Do you consider yourself to be an environmentalist? yes , no .
19. Would you say you are a strong environmentalist? yes , no .
20. Do you belong or contribute to any environmental or conservation groups? yes , no . If yes, how many do you support? 1 , 2 , 3 , 4 , 5 .

Style Guide for References

Please use endnotes for all references in your papers. The form of entries should fit the following format.

Book entries follow this form: Authors' or Editors' Last Names, Initials. Year. *Title of book*. (Italic, lowercase except for the first letter of the first word and the first word after a long dash or colon). City Where Published, with abbreviation for state or province (North America) or full name of country, only if needed to identify a small city: Name of Publisher. Examples:

Granovetter, M.S. 1965. *Getting a job: A study of contracts and careers*. Chicago: University of Chicago Press.

Kahn, R. L., & Boulding, E. (Eds.). 1964. *Power and conflict in organizations*. Glencoe, IL: Free Press.

R. Harbridge (Ed.) *Employment contracts: New Zealand experiences*. Wellington, New Zealand: Victoria University Press.

National Center for Education Statistics. 1992. *Digest of education statistics*. Washington DC: National Center for Education Statistics.

Periodical entries follow this form: Authors' Last Names, Initials. Year. Title of article or paper (in lowercase letters except for the first letter of the first word and the first word after a long dash or colon). *Name of Periodical*, volume number (issue number, *if needed*—see below): page numbers. Examples:

Shrivastava, P. 1995. The role of corporations in achieving ecological sustainability. *Academy of Management Review*, 20: 936-960.

Nonaka, I. 1991. The knowledge-creating company. *Harvard Business Review*, 69(6): 96-104.

Include an issue number *only* if every issue of the referenced periodical begins with a page numbered 1. (Look at more than one issue to check.)

If an article has no author, the periodical or producing body is referenced:

BusinessWeek. 1998. The best B-schools. October 19: 86-94

Chapters in books (including annuals) follow this form: Authors' Last Names, Initials. Year. Title of chapter (in lowercase letters except for the first letter of the first word and first word after a colon). In Editors' Initials and Last Names (Eds.), *Title of book*: page numbers. City Where Published, State or Country (only if necessary to identify the city): Name of Publisher. Examples:

Levitt, B., & March, J.G. 1988. Organizational learning. In W.R. Scott & J.F. Short (Ed.), *Annual review of sociology*, vol. 14: 319-340. Palo Alto, CA: Annual Reviews.

Dutton, J., Bartunek, J., & Gersick, C. 1996. Growing a personal, professional collaboration. In P. Frost & S. Taylor (Eds.), *Rhythms of academic life*: 239-248. Newbury Park, CA: Sage.

For *unpublished* papers, dissertations, and papers presented at meetings:

Duncan, R. G. 1971. *Multiple decision-making structures in adapting to environmental uncertainty*. Working paper no. 54-71, Northwestern University Graduate School of Management, Evanston, IL.

Smith, M. H. 1980. *A multidimensional approach to individual differences in empathy*. Unpublished doctoral dissertation, University of Texas, Austin.

Wall, J. P. 1983. *Work and nonwork correlates of the career plateau*. Paper presented at the annual meeting of the Academy of Management, Dallas.

For an *electronic document*, include the author's name, if known; the full title of the document; the full title of the work it is part of; the ftp, http, or other address; and the date the document was posted or accessed.