

MGMT 610 - Sustainable Business Development

Spring, 2010

Mondays and Wednesdays 10:00 pm – 11:20 pm, in 225 Chiles

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Office Hours: Mondays, 3:45 - 5:45 pm and by appointment

Course Description

Public support for a cleaner environment, even in a recession, remains significant. The mandate for corporations to excel not only economically, but also environmentally, remains in place. Yet, many businesses still are not well prepared to take up the cause of environmental stewardship. Their collective problem, in a nutshell, is that environmental awareness, sensitivity, and literacy are often lacking in the modern corporation. This is ironic, because in many respects, the environmental movement represents an enormous opportunity for business, both domestically and globally.

The purpose of this course is to bring together students from varied backgrounds to appreciate how economic activity impacts the natural environment, to understand the evolution and role of institutions that influence corporate environmental behavior, and to learn how a firm can manage its way to better environmental performance. Thus, we confront questions such as:

- How has the pursuit of environmental quality changed over time?
- Is the discipline of economics part of the problem or part of the solution?
- What is the proper role for governments and private initiative in addressing and reversing environmental impacts of enterprise?
- What role are consumers playing in this evolution?
- What environmental strategies make sense for a company, given the realities presented by its organization and the marketplace?
- How are entrepreneurs changing the marketplace for green products?

By the conclusion of the course, students will have gained an understanding of how they can assist any organization that they join in responding proactively to the environmental imperatives that it faces. In many cases, this response will lead to a “win-win” outcome, wherein companies can win in the marketplace *and* promote environmental quality.

Class Materials

The central source for the course is *Environmental Management: Readings and Cases*, 2nd Edition, denoted by “EMRC” in the daily lists of readings. We will also review *Vital Signs 2010*, which has just been published by the WorldWatch Institute. These two books are now at the bookstore. Two cases that will be discussed on April 14 can be downloaded from Harvard at <http://cb.hbsp.harvard.edu/cb/access/5889729>. Finally, we’ll read *Companies on a Mission*, scheduled for publication on April 15. It should be in the bookstore in time (If not, chapters will be placed on Blackboard until it is). It is denoted by “COAM” in the daily lists of readings.

Course Requirements

1. Class Preparation and Participation (15% of course grade for class)

Heavy emphasis will be placed on daily class preparation and participation. Preparation should include a thorough reading of the assigned material, and an analysis of the linkages between the readings and the cases being considered in class. Good participation grades are given to those who demonstrate mastery of the concepts, integration between the readings and the cases, and an ability to build on the comments and contributions of others. Pushing or refuting a line of argumentation from a previous comment can also be most helpful. Achievement of a high participation grade is impossible through simply attending class, but rather necessitates regular, high quality contributions. Comments can also be provided by email to the address provided above. Participation grades are given on a class-by-class basis.

2. Two Case Analyses (30% of grade)

Students will submit a 2 page, single-spaced paper answering the questions posed in the syllabus (under “Preparation”) for these cases:

- Transforming the Global Fishing Industry: The Marine Stewardship Council at Full Sail?, due April 5
- Environmental Product Differentiation by the Hayward Lumber Company, due May 3

All cases are to be written individually and handed in during class on the proper date.

3. Group Spreadsheet Analysis (15% of grade)

Three or four-person groups formed by the instructor will conduct a financial analysis for the Southern Company case. Details appear in the syllabus. This assignment is due in class on April 19.

4. Consulting Project (40% of Course Grade, with 10% of the 40% for the presentation)

Again this year, students will have the opportunity to work closely with a company facing a real-world issue involving strategic management and the environment. Here are the projects:

Burgerville – Burgerville produced and launched NOMAD, a portable store format useful for bringing Burgerville presence to events and to introduce company to new markets. Student team will provide business development advice on market expansion using NOMAD, including analysis of new markets (e.g., market potential, pragmatic opportunities for introduction via NOMAD, etc.), prioritization of target cities and opportunities, and sustainable operations of the NOMAD.

City of Portland – In 2009, the City of Portland launched Clean Energy Works, an innovative new program for accelerating the pace of building efficiency improvements throughout the city. This program has gained national prominence for its innovations with regard to integration of efficiency and renewable energy in building retrofit projects, and for creating new financing and service delivery tools for building owners. A student team will evaluate the potential for further innovation by analyzing how to increase the regional economic benefit of this activity by identifying and supporting local and regional businesses that provide products or services necessary for building energy efficiency upgrades and renewable energy installations.

Costco Wholesale – Review of prospects for using worms to digest organic waste created at locations of foods retailers and food services, and converting it to rich soil amendments. Project goal is to assemble a workable sustainable business plan that could be used to open a worm farm or network of farms in any location.

Jibe Consulting – Based on results of customer research and analysis (done in BA 453), team will complete a competitive analysis for a new consulting business line for company, focused on providing sustainability-related services to companies looking to produce sustainability reports, satisfy supply chain reporting requirements (e.g., in response to Wal-Mart, Nike and others), meet GRI standards, etc. The team will research and analyze current service offerings, and advise client on how to develop and roll out the new service.

Eugene Water and Electric Board – EWEB has operated a downtown heating system for decades, providing thermal energy for space heating and hot water through a network linked to a central boiler that produces steam for distribution through the infrastructure network. In recent years, the steam infrastructure has begun to show signs of failure and EWEB is considering options in lieu of replacing the infrastructure. A student will conduct a business analysis for EWEB to maintain its role as a service provider to the current buildings connected to the system, which would require establishing a distributed system of heating units. The analysis would require capital planning, pricing analysis and customer service needs related to the system conversion.

Nike – Review and analysis of Nike's new Corporate Responsibility Report (CSR), with specific emphasis on review of detailed performance metrics underneath the broad categories of the CSR framework available through the Website and printed report. Where appropriate, the team will analyze the performance metrics and offer recommendations to Nike management on refinements to the performance management and reporting process within the CSR.

NW Natural Gas – NW Natural Gas is considering new energy services models, including a distributed solar thermal package deployed through a utility structure. A student team would assist with the business development and strategy by analyzing the potential deployment in a specified context (most likely Albany, in conjunction with City). The work would include the financial modeling and analysis, analysis of varying revenue streams back to utility service provider, and development of performance metrics for the project, including efficiency benefits, carbon emission reductions (near term and potential) and end user cost impacts.

Pivotal Investments – Pivotal Investments is a new, early-stage investment firm that focuses exclusively on companies with strong potential to accelerate market transformation and advance sustainability performance. A student team would work with Pivotal to analyze the market potential, key business development strategies, performance benefits of one of their target companies.

ShoreBank Pacific – ShoreBank Pacific provides commercial banking services for companies that are well positioned in markets where sustainability performance is contributing to business growth. ShoreBank assesses the growth potential and sustainability performance of the companies they invest in, and use their own evaluative matrix for assessing business performance. In consultation with ShoreBank executives, a student team would work with a target company that could benefit from the project work. Target companies may include Nature Bake or Panel-Tech, and the work would involve strategic market analysis, business growth strategy and planning, finance and capital planning.

By March 30, students will rank order their preferences for the projects and on March 31, they will be assigned to groups of ~4 with those preferences in mind. On April 1 or 2 or during the second week of class, groups will meet with their company to scope out the project, identify deliverables, and plan for communication. Together, the client and team will develop a scope statement that delineates expectations for the projects. A one-page progress report, including the Statement of Scope for the project is due on April 21. A presentation to the class by the group will take place on May 24, May 26, or June 2.

Students will complete a reflective component of this experiential learning in a one-hour session with the instructor. The fallback time for this is the period during final exam week, Thursday, June 10, at 10:15-11:15 or 11:15-12:15 pm. It is expected that groups will be able to make a time after their presentation and before June 10 to meet with the instructor for a portion of this reflective component of the project. (In fact, we've never had a situation where the group could not meet well before the finals date.)

Group Evaluation Process

Each student will evaluate the contributions group members (including themselves) on the Southern Company analysis and the Consulting project. These evaluations will be considered in the assignment of grades on each of these assignments.

Notes on Student Behavior

I encourage all students to read the following documents, which apply to student behavior in the classroom and to written assignments. First, the LCB Code of Conduct applies to this course. It can be found at: <http://lcb.uoregon.edu/welcome/procode.html>

Second, information about plagiarism can be found at the site below. Sadly, plagiarism has become a significant problem on campus, and often occurs in gray areas that are not obvious to the student. So be sure to read this posted information.

<http://libweb.uoregon.edu/guides/plagiarism/students/>

Third, if you bring a laptop computer, *please do not surf the Internet during class unless your purpose is tied to our discussion*. If you bring a cellular phone, please do not use it for text messaging or anything else during the class. Both of these practices are disrespectful to your fellow students and to the instructor. In general, it is easy for the instructor to detect when a student is idly surfing or texting rather than doing so to add to the class or taking notes on class discussions. So please comply with this request. Thank you.

Topics and Assigned Reading

Part 1 – The Big Picture: Sources and Dimensions of the Problem

March 29 - Welcome and introduction to the class

- Exercise: a fun, non-threatening way to test environmental knowledge

March 31 - The State of the Problem: Taking Stock

Reading

- *Vital Signs 2010*

- Levy, "Measuring Nations' Environmental Sustainability," EMRC #8

Preparation

- What factors determine the relative outcomes for the variables tracked in *Vital Signs*? That is, why are some physical, natural, and human systems doing better than others?
- What are the institutional and technological impediments to achieving sustainability?
- In what ways does Levy succeed in his assessment criteria and in what ways does he come up short of having credible measures?

April 2 – Sustainable Business Symposium, Portland Oregon

If you can, please join us at this year's conference, which has as its theme, "Green Behind the Scenes." The conference is free for students. See

<http://www.uoregon.edu/~gbisa/Symposium2010.html> for more details and registration.

Part 2 – Economics and the Environment

April 5 – The Global Commons

Reading

- Hardin, “The Tragedy of the Commons,” EMRC #5
- **Case:** Transforming the Global Fishing Industry: The Marine Stewardship Council at Full Sail?, EMRC #36

Preparation

- How can the MSC align the conflicting interests of stakeholders?
- Describe how MSC should confront the challenges at the end of the case.

Assignment Due: 2 page, single-spaced paper answering these questions

April 7 – Externalities, Regulation, and Full-Cost Pricing

Reading

- Portney, “EPA and the Evolution of Federal Regulation,” EMRC #6
- EPA, “An Introduction to Environmental Accounting,” EMRC #23
- **Case:** Cost Accounting and Hazardous Wastes at Specialty Glass, Inc., EMRC #31

Preparation

- Answer the questions in the sheet attached to the syllabus for Specialty Glass
- Answers are not to be turned in.

April 12 – Energy Solutions for a Changing World

Reading: Today, we’ll review chapters from David MacKay’s *Sustainable Energy—Without the Hot Air*. The book has been placed on line at www.withouthotair.com. For this exercise, I’m going to allow lots of leeway for you to explore how a physicist sees the energy challenge. The chapters are highly accessible, full of color diagrams, and relatively short. Please read Chapters 1, 2, 18, 27, 28, 29, 30, 31, and 32. This is a total of less than 100 pages, including many footnotes and much additional material, so I hope you will select some other chapters on specific energy sources and uses to read as well. In particular, pick a chapter from numbers 3-17, based on personal interest and explore it.

Preparation

- How does a disciplinary base of physics influence MacKay’s approach?
- How did your perspective on the extent of the energy challenge and the possibilities for addressing this challenge change upon reading his arguments?
- Critically assess MacKay’s discussion of plans for the United Kingdom, Europe, the United States, and the World. How would social, cultural, and demographic differences in countries impact the prospects for a transition to a more sustainable future?

April 14 – Carbon Trading

Reading

- Perold, Reinhardt, Hyman “The Carbon Market” (HBS Reading)
- Lovins, “The Business Case for Climate Protection,” EMRC #2
- **Case:** International Carbon Finance and EcoSecurities (HBS Case)

Preparation

- Describe the economic, environmental and institutional context of carbon trading
- What are the critical risks and opportunities in the carbon market?
- Should Usher give Ho “the green light?” Why or why not?

April 19 – Tradable Permits Application

Reading

- Brennan, “Discounting the Future,” EMRC #7
- **Case:** Acid Rain: The Southern Company, in EMRC #32

Preparation

- Work with others in your group to conduct a cash flow analysis
- Which of the assumptions of Southern Company seem to be most questionable?
- Should any other assumptions or constraints be added?
- What are the differences between this market and the market for carbon?

Group Assignment Due: Cash flow analysis

Part 3 – Strategic Environmental Management

April 21 – The Green Consumer

Reading

- Russo, COAM: Chapters 1-2
- Ottman, Stafford, and Hartman, “Avoiding Green Marketing Myopia,” EMRC #19
- NMI, “Excerpts from the 2006 Understanding the LOHAS Market Report,” EMRC #18

Preparation

- What types of tradeoffs might be inherent in green products? That is, what might be given up for the sake of greenness?
- How does market structure influence green marketing?
- How does the type of product sold influence green marketing?

April 26 – Environmental Differentiation

Reading

- Russo, COAM: Chapters 3-4
- **Case:** Deja Shoe, EMRC #38

Preparation

- In general, what types of tradeoffs might be inherent in green products?
- What company effects can Deja Shoe bring to the marketplace?
- Can Deja Shoe sustain their differentiation-based competitive advantage?
- What do you think of its distribution strategy?

April 28 – Leveraging Competitive Assets for Success

Reading

- **Case:** Coastwide Laboratories: Clean and Green, EMRC #35
- Russo, COAM: Chapter 7

Preparation

- Explain how the element of vertical integration contributes to Coastwide's success.
- Does Coastwide have a sustainable competitive advantage? Why or why not?
- Now assess *either*:
 - a. The three alternatives for licensing presented at the bottom of page 555, as well as the fourth bullet point just below them that deals with retaining control over Sustainable Earth formulations, *or*
 - b. The three alternatives that begin at the top of page 555, which address non-licensing possibilities. (the first of these is selling the Sustainable Earth formulations).

May 3 – Strategic Issues in Standards and Certification - I

Reading

- Posted report: Grewell, "Keeping Forests Green: Certification Competition"
- Posted links to the U S Green Building Council
- **Case:** Environmental Product Differentiation by the Hayward Lumber Company, EMRC #34

Preparation

- How does the supply chain for FSC lumber differ from the supply chain for non-FSC certified lumber?
- How should HLC adapt its operations and supply chain management practices to handle FSC?
- Does the FSC eco-label competitively differentiate HLC in the builder market?
- The options for vertical expansion for HLC are:
 1. Building a truss plant
 2. Building a design center
 3. Purchasing Eco Timber
- Which one of these options or set of these options should HLC pursue, and why?

Assignment Due: 2 page, single-spaced paper answering these questions

May 5 – Strategic Issues in Standards and Certification – II

Reading

- Introduction to ISO 14001 (posted on Blackboard)
- Review ISO's website for further depth:
<http://www.iso.org/iso/en/prods-services/otherpubs/iso14000/index.html>
- **Case:** Benziger Family Winery, EMRC #40

Preparation

- Did it make sense for Benziger to develop a formal EMS at all, let alone one that might be ISO 14001 certified?
- What are the costs and benefits of certification?
- What might a "Plan-Do-Check-Act" cycle look like for Benziger?
- What are the major implementation issues for Benziger?

May 10 – Transparency

Reading

- Rainey, “Transparency, Openness, and Accountability: A New Imperative,” EMRC #15
- Fox, Littlehales, and Keenan, “Primer on the Global Reporting Initiative,” EMRC #16
- **Case:** Seventh Generation: Balancing Customer Expectations with Supply Chain Realities, EMRC #33

Preparation

- Read inspiredprotagonist.com, Seventh Generation’s blog
- What’s behind the rise in the environmentally sensitive segment of the household nondurable goods industry?
- Describe how Seventh Generation’s strategy adds costs to products, as compared to conventional products
- With the information that you have from the case, what decision would you make with respect to the baby wipes? Why?
- Develop a communications strategy for Seventh Generation following its new strategy

May 12 – Transparency – Communications Strategy

Reading

- Russo, COAM: Chapters 6 and 9

Today, we’ll continue the discussion of Seventh Generation by developing a communications strategy for them following their decision in the case. Details will be provided in class.

May 17 – The Geography of Sustainability

Reading

- Russo, COAM, Chapter 8

Preparation

- Can the clustering phenomena be accounted for by economic theory? Why or why not?
- Is it any easier for policy-makers to create values clusters than it is industry-based clusters?
- What impacts the trajectory of clustering across time?
- Is there a necessary order to the four diamond points? That is, must any one or another develop first, in order for the others to follow?

May 19 – Open Class – Topic TBA

Today, we will host a guest speaker who will provide insights from research or professional practice to the class. Alternatively, we can discuss a topic of interest to the class.

May 24 – Student Presentations
All consulting project reports due

May 26 – Student Presentations

June 2 – Student Presentations

June 10 – Experiential Learning Reflection Meetings

We'll discuss preparation for this session, which will take place from 1:00-3:00 pm, in class. The idea is that I'll meet with each group to reflect upon the experiential learning project to complete the cycle of learning. Meetings last 45 minutes. *If the group and instructor can schedule an earlier day and time when all participants are available, they will meet any time starting at least a day after the group's presentation.* For groups unable to schedule in this way, we'll reserve the final examination period.

Specialty Glass Assignment Questions

- Using the EPA reading, find examples of all five types of Environmental Costs (discussed in the text and shown in Exhibit 23.3) that are attributable to the production of ruby red glass at the time of the case.
- Now answer these questions about cost accounting at Specialty Glass
 1. What is the total cost of ruby red to Specialty Glass if all \$32,500 of environmental costs are assigned to it (assuming now that \$32,500 is all of the environmental costs)?
 2. If Specialty Glass prices ruby red at its correct level but does not change the prices of other shades of glass, what is the impact on profits?
 3. Identify and evaluate the strategic options open to Specialty Glass
 4. How might its competitors and customers react to these options?
- Make these assumptions:
 - Specialty Glass enjoys a 10% markup as a percent of the costs of goods sold, or “COGS.” Here, COGS is defined (very broadly!) to include overheads and all other costs and expenses.

Use this simple equation: $\text{Revenues} = ((100\% + \text{Markup})/100\%) * \text{COGS}$

- Ruby red sales are 1% of revenue for Specialty Glass.
- All of the \$32,500 environmental cost is due to ruby red glass.
- In all cases, amounts of glass sold do not change as a result of any new pricing

Each student should try to complete these questions to the best of their ability, or at least try to work through them qualitatively. Students with no prior accounting experience are encouraged to seek assistance from those students that have such experience.

Cash Flow Analysis for Acid Rain: Southern Company (A)

Your team's task is to perform a cash flow analysis to ascertain the after-tax total Net Present Value of the three alternatives open to Southern Company as it tries to meet its goal of compliance with the Clean Air Act Amendments of 1990. As a baseline, 1) assume that Southern Company uses high sulfur coal and no scrubbers. Then evaluate this and the two other options in the case: 2) installing scrubbers to remove sulfur from high-sulfur coal, which go on-line in 1995, and 3) burning low sulfur fuel, beginning in 1996. Run the analysis from 1992 through 2016 inclusive. In all cases, NPV represents a net cost to Southern Company. Use year-end 1992 as your reference point (i.e., 1992 costs are not discounted)

Please include three spreadsheets showing cash flow analyses for the three options, and a one-page cover briefly summarizing your findings, and then identifying and reviewing limitations of the analysis. *Don't worry about the second possibility of installing scrubbers in 1997 noted in Option 2.* It may be useful to discuss some of the issues that may affect the decision for Southern Co., but do not appear in the economic analysis.

A few points of guidance:

1. This is a cash flow analysis, so it is *not* your task to produce financial statements.
2. The depreciation schedule is given in the case. In order to calculate capitalized interest for Option 2, assume that expenditures on new equipment (like scrubbers) are made at year end, and accumulate interest at 10% annually. Assume that capitalized interest does not represent a cash flow. Begin depreciating this total cost (and stop adding interest) when new equipment is placed into service at the beginning of 1995.
3. For Option 3, assume that low sulfur coal is burned throughout 1996, and that capital investment for the fuel switch is also incurred in 1996. Thus, depreciation starts in 1997. That is, for the purposes of fuel choice, the expenditures occurred at the beginning of 1996, but for the purposes of depreciation accounting, capital expenditures are assumed to have occurred at the end of 1996.
4. Any allowances that are not needed can be sold, resulting in a "negative" cost.
5. Start with the after-tax net costs of allowances to Southern Co. (for Option 1, that's all that is necessary!). Then for other options, work into the equation the differential fuel costs as compared to how it is operated now. Then consider additional operating costs, energy usage (for scrubbers), capital costs, depreciation, and tax effects to get an annual PV. Then compute the NPV for the span of years 1992 through 2016. **Do not include total sales of kilowatt-hours (revenues)—either at Bowen or for Southern Co. as a whole—in the analysis.** *Concentrate instead on determining the NPV of changes to how the company operates the Bowen plant now.*

The assignment is due in class on **April 19**. Three groups will be responsible for presenting one scenario in class. Assignments will be made prior to the presentation.