

COURSE HOURS	Thursdays: 4:10-7:00pm in Cornell Hall, Room D-301
COURSE URL	https://ccle.ucla.edu/course/view/17S-MGMT246A-1
INSTRUCTOR	Professor Magali (Maggie) Delmas Gold Hall, B-504 Phone: (310) 825-9310 E-mail: delmas@ucla.edu https://twitter.com/@maggiedelmas
OFFICE HOURS	Thursdays: 12:00pm-2:00pm or by appointment
TEACHING ASSISTANT	Paloma Giottonini E-mail: mpgiotto@ucla.edu

COURSE DESCRIPTION

Today, we are faced with important environmental problems: climate change, the destruction of natural habitats and the continuing loss of species, degradation of our water, soil and air...Businesses are playing a major role in contributing to these environmental problems, at the same time businesses can play a major role in attempting to create a sustainable planet earth.

This course considers major questions about the role of business in mitigating environmental degradation. We will put emphasis on corporate strategies that deliver value to shareholders while responding to environmental concerns. For example, some firms successfully adopt environmental differentiation strategies to respond to customers environmental concerns; other firms use environmental concerns as a way to generate costs savings within the business; yet other firms seek to influence government regulation in order to impose their standard on competition. We will examine environmental issues in each of the main areas of the MBA program: finance, marketing, operations, supply-chain management, accounting, entrepreneurship and strategy.

Through a combination of cases, readings, lectures, videos and simulations, class sessions will engage students in discussions of management tools that incorporate principles of environmental management and corporate performance. A group project is a major component of the course.

COURSE OVERVIEW

SESSION	DATE	TOPIC
1	April 6	Introduction To The Course <ul style="list-style-type: none"> ▪ Fishbanks Simulation Game ▪ Tragedy of the Commons
2	April 13	Environmental Regulation And Strategy <ul style="list-style-type: none"> ▪ Climate Change ▪ Emission Trading Markets
3	April 20	Environment and Finance <ul style="list-style-type: none"> ▪ Does It Pay To Be Green? ▪ [Case] Socially Responsible Investing: Data-Driven Decision Making ▪ How To Measure Environmental Performance
4	April 27	Environment and Accounting: Sustainable Reporting <ul style="list-style-type: none"> ▪ Global Reporting Initiative ▪ Carbon Disclosure Project ▪ B Corporation
5	May 4	Environment, Operations and Life Cycle Analysis <ul style="list-style-type: none"> ▪ Life Cycle Assessment For Greener Products ▪ [Case] Alpha Motors ▪ Energy Efficiency in the commercial sector
6	May 11	Environment, Operations and Supply Chain Management <ul style="list-style-type: none"> ▪ Green Supply Chain Management ▪ [Case] Walmart
7	May 18	Environmental Marketing <ul style="list-style-type: none"> ▪ Environment As A Basis For Differentiation ▪ [Case] Tesla Motors
8	May 25	Environment Communication, Ethics and Organizational Behavior <ul style="list-style-type: none"> ▪ The Risks Of Greenwashing ▪ [Case] Lululemon ▪ Employee engagement
9	June 1	Environment, technology and entrepreneurship <ul style="list-style-type: none"> ▪ Information Technologies and Energy Conservation ▪ Start-up Simulation
10	June 8	Project Presentations

READINGS

All, but one, of the required materials for the course are available online either through the UCLA Library or posted on the class website. To access them, you will need to have [properly configured proxy browser](#) settings and/or use the [UCLA VPN](#).

For your convenience, I have provided links to the readings in this syllabus. Each week make sure you read the required material. I strongly recommend that you start downloading the readings well ahead of time; coming to class unprepared "because I couldn't access the readings" is not an acceptable excuse.

GRADING

There will be no final exam. The final grade will be determined as follows.

Class Participation	20%	
Group Presentation & Group Assignment	20%	(3 Group assignments)
Individual Assignments	30%	(2 Individual assignments)
Group Project	30%	(Report and presentation)

Grading will follow, to the extent possible and reasonable, the suggested distribution of grades for MBA elective courses.

A+, A, A-	No more than 50% of the class
B+ or below	At least 50% of the class

Class Participation

This course will be heavily discussion-based, as is inevitable given the nature of the topic. As a result, you should be well prepared to participate in these discussions. This means reading the materials for that session, thinking about them and being creative and entrepreneurial in finding and digesting other relevant material from whatever sources you like to use. Based on feedback from past students, I will frequently cold call during the course, but as a rule you should be proactive in participating and not wait to be cold called. You will also receive considerably more participation brownie points for disagreeing with a previous comment than by saying "I agree with everything that's been said so far and just want to add one small point..." Class participation applies also to sessions that have guest speakers.

Attendance is mandatory. One absence is permissible for good cause; additional absences will adversely affect your grade regardless of the cause for those absences. Repeated absences will lead to a failing grade. If for any reason you will miss class or will be late for class, send me an e-mail (delmas@ucla.edu cc mpgiotto@ucla.edu) before class explaining the absence or tardiness. If you know in advance that you will miss a class, we will consider a written analysis of the missed day's case when assigning the final course class participation grade, if it is submitted to me before the missed class. Such written work will mitigate, but not eliminate the adverse effects on your classroom performance grade of missing class. If the absence is unanticipated, send me e-mail explaining the absence within 72 hours of the absence. Because entering or leaving the classroom during class is disruptive to the learning environment, your fellow classmates and I expect that you will not do so, except in an emergency.

Group Presentation (Or "Mini-Briefing")

Most sessions will include a brief presentation by a group of students on either the case study or a class assignment. The presentation should be absolutely no more than 10 minutes.

Individual Assignments

The two individual write-ups are due in weeks 4 and 7. The assignments are described in the course outline. Be concise and precise. I look for quality of reasoning and logical consistency, not work based on "stream of consciousness." Use 12-point font, single spaced. Individual assignments should be performed entirely individually; you may only discuss your work with others after submitting it. Always cite your sources carefully; see for instance <http://guides.library.ucla.edu/citing/plagiarism/avoid> for detailed guidelines on how to cite correctly. Also see [UCLA Academic Integrity](#) or the [UCLA Anderson Student Honor Code](#) for more information on academic conduct. All work should be submitted electronically through the course website. I will use Turnitin.com to verify originality.

Individual Assignment 1 Due date May 1 before 10:00pm

According to you, what are the main screening challenges associated with Socially Responsible Investing and what should be the principles of a good screening methodology? Please use the suggested readings as well as your ranking of the chemical companies to build your argument (two pages maximum).

Individual Assignment 2 Due date May 31 before 10:00pm

Assume you work for a company that is considering applying for an eco-label. Pick any company and product you wish, and write a detailed proposal to your superior (one-page maximum) outlining how you assess the costs and benefits of acquiring the eco-label in question. Be precise: describe the governance and criteria for this specific eco-label. Describe competing eco-labels. What are the cost and benefits of adopting this eco-label to the company? Explain how you will quantify the value of the eco-label to your firm, don't just say "it will be good for our image and market share."

Group Project

Each group (of four to five members) will produce a final report analyzing the link between the business strategy and the corporate strategy of a firm of your choice. Imagine that a company has hired you as a consultant and that you need to provide recommendations to the CEO on how to adopt a "successful environmental strategy." It is expected that you will send your final report to the company of your choice and that this report will help them improve their environmental strategy.

The environmental corporate strategy can encompass compliance strategies, environmental differentiation strategy, adoption of self-regulation practices or participation in voluntary agreements. The final product should consist of a report that responds to the following questions for the company you have selected.

1. What type of corporate environmental strategy is the company pursuing? Describe the strategy from the perspectives that we have used in the course. Characterize environmental management practices as well as environmental performance. Evaluate a) the strengths and liabilities of the strategy given the firm's current and prospective operating environment and b) how successfully you believe the firm has been at implementing its chosen environmental strategy.
2. How could this company improve its environmental performance while improving its bottom line? For example, could this company offer environmental products or services? Would there be a market for these products or services? Prepare a list of one or perhaps more recommended strategic changes and a plan to implement them.

The final product should be more than simply a paper; it should be an "object of persuasion" that includes analysis, text, figures, illustrations, flowcharts, whatever you believe would be necessary to convince the board of directors that your strategy is the right path to follow. You will need to get information (i) from publicly available databases such as the U.S. EPA Toxic Release Inventory (ii) from the company through interviews and (iii) as much as possible from consumers, suppliers, distributors, etc.

The report should have a table of contents, as well as a bibliography with references and be no longer than 10 pages excluding pictures and tables (12 point font, double spaced with 1 inch margins).

Project Due Dates and Presentations

A few weeks into the course we will briefly evaluate your progress on the final project. We will ask you to submit a one-page overview of your final project on Monday, April 17, 2017 before 10:00pm uploaded on the class website (12-point font, single spaced with 1 inch margins). The overview should identify the name of the author(s) of the project and the company that you will study. It should also include a short description of your project, list the information sources you will use to prepare your report, and the name of your contact at the company of your choice. It is particularly important that you have established direct contact with the company by that time.

Due date for the final report is Tuesday, June 6, 2017 before 10:00pm by e-mail; no late assignments will be accepted. Each group will also submit a short blog (300 to 500 words) about their project before Tuesday, June 6, 2017 @ 10:00pm that will be used to stimulate class discussion during the last session. All executive summaries will be posted on the class website. If the company requests confidentiality, the name of the company can be disguised. The last session of the course will be devoted to project presentations. In grading the group projects, I will solicit peer evaluations from all group members, and will assign individual grades based on your relative contribution to the group's work.

Blog

Each week, one group or two will have the opportunity to blog about the theme of the week. Individuals are encouraged to post comments to respond to the weekly blogs. This is a group assignment. Each group will have the opportunity to write a blog from Week 2 to Week 9. The blog posts will be posted on an external site (<http://envUCLA.blogspot.com>) and will be open to the public. When posting, please make sure to list all group members' names on the post.

In this blog (400 words maximum), express your opinions on a subject or event related to the theme of the week. Other students in the class will be able to comment on the blog and these comments will be used for class participation. You should focus on writing a blog that reflects an opinion, but make sure that you acknowledge other sides of the issue. For example, if you are writing a blog about solar panels and incentivizing their installation, think about perspectives that may be in opposition of this perspective. The idea is to provide informed perspective and evoke responses from your fellow classmates.

Session	Date	Class title	Assignments
1.	April 6	Introduction to the course	Please read assigned articles and syllabus before class. Fishbanks simulation (at Computer Lab) Watch the instructional video before class
2.	April 13	Environmental Regulation and Strategy	Group Assignment 1 due Wednesday, April 12. Upload to CCLE before 10:00pm 4 group presentations
	April 17	Final Project overview (1-page)	Due Monday, April 17 by 10:00pm. Upload to CCLE Session 3
3.	April 20	Environment and Finance	Group Assignment 2 due Wednesday, April 19. Upload to CCLE before 10:00pm 2 group presentations
4.	April 27	Environment and Accounting: Environmental Reporting	Group Assignment 3 due Wednesday, April 26. Upload to CCLE before 10:00pm 2 group presentations
	May 1	Individual Assignment 1	Due Monday, May 1 by 10:00pm. Upload to CCLE, Week 5
5.	May 4	Environment, Operations and Life Cycle Analysis	Case Study: Alpha Motors
6.	May 11	Environment, Operations and Supply Chain Management	Case Study: Wal-Mart 1 group presentation
7.	May 18	Environmental Marketing	Case Study: Tesla Motors 1 group presentation
8.	May 25	Environmental Communication, Ethics and Organizational Behavior	Case Study: Lululemon 1 group presentation
9.	June 1	Environment, Technology and Entrepreneurship	Clean Start Simulation (at Computer Lab). Watch the instructional video before class
	May 31	Individual Assignment 2	Due Wednesday, May 31 before 10:00pm. Upload to CCLE, Week 9
	June 6	FINAL REPORT AND ONE PAGE ARTICLE	DUE by 10:00 PM
10.	June 8	Final Project Presentations	2-3 group presentations Peer evaluations due before Midnight on Friday, June 9. Upload to CCLE

COURSE OUTLINE**Session 1****Introduction to the Course**

This session will serve as an introduction to the course. In the first part of the class, we will discuss the concept of the "Tragedy of the Commons" and the economic rationale for beyond compliance behavior. In the second part of the class, you will play the simulation game.

Exercise

You will play a simulation game called "FishBanks." The FishBanks game was developed by Dr. Dennis Meadows. This game will allow you to experience managing your own fishing company and competing with other fishing companies in an attempt to maximize your profit.

The game allows participants to experience many of the decisions and problems that "real life" fishing companies must face. Like real business executives, the teams of students need to seek out and make strategic use of available information. A computer program calculates all their financial transactions and tracks the status of the fish population based on fish catches, births and deaths. The company managers must contend with ecological, economic and psychological forces. The object of the game is to maximize your assets at the end of the game, which is at the end of 10 rounds.

Watch the instructional [video](#) before class.

Readings

- "Market Failure and the Environmental Policies of Firms: Economic Rationales for 'Beyond Compliance' Behavior." Reinhardt. *Journal of Industrial Ecology*. 3(1): 9-21. 1999. [\[link\]](#)
- "Does It Pay to Be Green? A Systematic Overview." Ambec and Lanoie. *The Academy of Management Perspectives*. 22(4): 45-62. 2008. [\[link\]](#)
- "The Tragedy of the Commons." Garrett Hardin. *Science* 162: 1243-1248. 1968. [\[Link\]](#)
- The Tragedy of the High Seas. *The Economist* Feb 2014 [\[Link\]](#)
- Video Elinor Ostrom Nobel Prize [\[Link\]](#)

Session 2**Environmental Regulation; Environment and Strategy**

In this class, we will discuss the different voluntary and regulatory approaches available to mitigate climate change. We will focus on emissions trading, an economic policy instrument used to control emissions by providing economic incentives for achieving emission reductions.

Group Assignment 1

Each group prepares a 5 minute PowerPoint presentation of one of the following cap and trade programs (presentation submitted on class website before class):

- U.S. Acid Rain Program [\[Link\]](#)
- Emission Trading in the E.U. [\[Link\]](#), [\[Link\]](#)
- South Air Quality Management District Reclaim Program [\[Link\]](#)
- California Cap and Trade [\[Link\]](#)

This presentation must include the following information: short history of the creation of the program, number of participants, describe how the program works including the initial allocation mechanism for credits/permits, and the price fluctuation of the credits/permits. Is the program effective?

Readings

- Firms' choice of Regulatory Instruments to Reduce Pollution: A Transaction cost approach. Delmas M and A. Marcus *Business and Politics*. 2004 [\[Link\]](#)
- Video: Cap and trade Annie Leonard [\[Link\]](#)
- Cap and Trade. Center for Climate and Energy Solutions. 2001[[link](#)]

In Class Discussion

How do trading permit systems work? What are the challenges associated with AB32? Do voluntary initiatives work?

Session 3

Environment and Finance

In this session, you will get familiarized with publicly available U.S. databases on environmental performance. We will discuss the relationship between environmental and financial performance and survey the principles and objectives of Socially Responsible Investing.

[Case] Socially Responsible Investing: Data-Driven Decision Making

This case examines 13 publicly traded chemical companies in order to understand the various measures and dimensions of corporate environmental performance used by Socially Responsible Investors. Students are presented with real-world data on corporate environmental performance (including pollutants released and third-party corporate social responsibility ratings) and asked to incorporate environmental and social performance into investing decisions. This case highlights the challenges of evaluating corporate environmental performance.

Group Assignment 2

Evaluate the environmental performance of the 13 firms in the case using data from MSCI (<http://www.kld.com/>) and the EPA Toxic Release Inventory (<http://www.epa.gov/tri/>) provided on the class website. Describe the criteria you choose and why. Before class, each group must upload a five-slide PowerPoint presentation of your findings and an Excel spreadsheet with your ranking on the class website.

Readings

- Familiarize yourself with the Toxic Release Inventory (TRI) data by looking at UCLA Cal EcoMaps [\[Link\]](#)
- "Triangulating Environmental Performance: What do Corporate Social Responsibility Ratings Really Capture?" Delmas, M., Etzion, D., & Nairn-Birch, N. *Academy of Management Perspectives*. 2013 [\[Link\]](#). See Corporate Knights article in CCLE.
- "Measuring Corporate Social Performance: An Efficiency Perspective." Chen and Delmas. *Production and Operations Management*. 2013. [\[Link\]](#)

Session 4

Environment and Accounting: Environmental Reporting

In this session, we will discuss the principles of environmental accountability.

We will discuss the Carbon Disclosure Project (<https://www.cdp.net/en>), a non-profit based in the United Kingdom that works with institutional investors to promote greater transparency in climate change and other environmental issues. The CDP asks companies for data on their environmental performance in climate change, supply chain, water, and forests. We will also discuss integrated reporting initiatives.

Group Assignment 3

Use the CDP and Lobbying data from the companies provided on the class website.

- Which companies would you invest in? Describe the criteria you choose and why.
- Please compare your rating of firm's climate change performance to your previous rating based on KLD and TRI. How do these differ? Which data do you think is the most valuable for investment purposes?

The day before class, submit a five-slide PowerPoint presentation of your findings and the Excel spreadsheet that contains your data analysis.

Readings

- CDP questionnaire [\[Link\]](#)
- Corporate Sustainability or Greenwashing? Delmas, M. *Huffington Post* 2014 [\[Link\]](#)
- Delmas, Magali A., Nicholas Nairn-Birch, and Jinghui Lim. "Dynamics of environmental and financial performance: The case of greenhouse gas emissions." *Organization & Environment* 28.4 (2015): 374-393. [\[Link\]](#)
- Who is Lobbying Congress on Climate Change? Magali Delmas. HRB.org 2016. [\[Link\]](#)

In Class Discussion

What should be done to improve the comparability and transparency of environmental reporting? What is the rationale for the Global Reporting Initiative and the UN Global Compact? What are the rationales for firms to participate in these initiatives?

Session 5

Environment, Operations and Life Cycle Analysis

In this session, we will discuss Life Cycle Assessment methodologies.

[Case] Alpha Motors, Ltd: Integrating Life Cycle Environmental Concerns into Product Design (WRI) [\[link\]](#)

The objective of this case is to get a basic understanding of life cycle analysis and the issues involved when integrating life cycle tools into the product design process. (The Alpha Motors Case Spreadsheet is available on the class website.)

Case Questions

1. Barns' primary task was to draft a report to the XL2000 project manager outlining his material choice for the hood assembly. What should Barns' final recommendation be? Explain assumptions, describe the scenarios considered and discuss the sensitivity of results.
2. Should Barns use EPS in his decision making? Was it useful? What were its weaknesses?
3. Compare EPS to other life cycle analysis methods and discuss ways in which EPS is better or worse for use in product design.
4. Based on Barns' experiences, what should he recommend for utilizing life cycle methods and models into the design process? What characteristics would an ideal decision tool have?

Readings

- "Life Cycle Assessment: Measuring Environmental Impact." LeVan. Forest Products Society. [\[link\]](#)
- "Note on Life Cycle Analysis." Svoboda. National Pollution Prevention Center for Higher Education. [\[link\]](#)
- Top Management Involvement in the Adoption of Energy Efficiency Projects. Blass, V. Corbett, C., Delmas, M. & Muthulingam, S. 2013. *Energy*.65: 560-571 [\[Link\]](#)

In Class Discussion

Comparison of LCA methods. Environmental performance and efficiency.

Session 6**Environment, Operations and Supply Chain Management**

In this session, we will discuss green supply chain management.

[Case] Wal-Mart's Sustainability Strategy [HBSP OIT71]

In October 2005, in an auditorium filled to capacity in Bentonville, Arkansas, Lee Scott, Wal-Mart's president and CEO, made the first speech in the history of Wal-Mart to be broadcast to the company's 1.6 million associates (employees) in all of its 6,000+ stores worldwide and shared with its 60,000+ suppliers. Scott announced that Wal-Mart was launching a sweeping business sustainability strategy to dramatically reduce the company's impact on the global environment and thus become "the most competitive and innovative company in the world." The case describes Wal-Mart's efforts to accomplish this, focusing on three of the company's primary focus areas (seafood, electronics and textiles) and their effect on the company's operations, supplier relationships and results. It also explores how Wal-Mart is measuring and communicating its ideas about sustainability to its suppliers, associates, customers and the public.

Case Questions

1. Given the fact that Wal-Mart's customers generally are unwilling to pay a premium for environmentally friendly products, how is the company deriving business value from its sustainability strategy, or if not, how can it ensure that it does?
2. Imagine that you are Andy Rube or Tyler Elm, evaluating the progress of the electronics, seafood, and textiles networks. Which networks have been most successful? What factors explain the success (or lack of success) of these networks?
3. How is Wal-Mart motivating its suppliers to share information about and continuously reduce the environmental impacts of products and processes? How can the company stimulate the development of disruptive, breakthrough innovations?

Readings

- "Greening the Supply Chain: When is Customer Pressure Effective?" Delmas and Montiel. *Journal of Economics and Management Strategy*. 18(1): 171-201. 2009. [\[link\]](#)

Session 7**Environmental Marketing**

In this session, we will discuss environmental differentiation strategies and green marketing.

In this session we will discuss the conditions that make environmental differentiation strategies successful for industrial and consumer products.

[Case] Tesla Motors: A case study in disruptive innovation [Link]

Tesla Motors has been continuously innovating the car industry since its foundation in 2003. Tesla is recognized not just as an automaker, but also a technology and design company with a focus on energy innovation. According to its CEO Elon Musk, Tesla Motors embarked on a plan to commercialize an affordable electric vehicle in efforts to “help expedite the move from a hydrocarbon economy towards a solar electric economy.” We will explore how Tesla has been able to create a new market sector for ‘fun-to-drive’ electric cars, lured buyers from luxury brands such as BMW and Mercedes, diverged from entrenched supply chains to develop technology fast and in-house, and created a product that now guides the electric car industry as a whole.

Case Questions to be discussed in class:

1. Describe how Tesla was able to disrupt the car market
2. Is Tesla a green product? Who are Tesla consumers and why do they purchase the Tesla? Is Tesla pursuing an environmental differentiation strategy?
3. Discuss which complementary assets are necessary for Tesla to expand its market.

Readings

- “Accidental Environmentalists? Californian Demand for Teslas and Solar Panels”. Magali A. Delmas, Matthew E. Kahn, Stephen Locke. 2014. National Bureau of Economic Research. Working Paper No. 20754 [\[Link\]](#)
- Why electric cars aren’t always environmentally sound. Stephen P. Holland, Erin T. Mansur, Nicholas Z. Muller and Andrew J. Yates. 2016 [\[Link\]](#)
- "Environmental Product Differentiation: Implications for Corporate Strategy." Reinhardt. *California Management Review*. 40(4): 43-73. Summer 1998. [\[link\]](#)
- "Avoiding Green Marketing Myopia: Ways to Improve Consumer Appeal for Environmentally Preferable Products." Ottman, Stafford and Hartman. *Environment*. 48(5): 22-36. 2006. [\[link\]](#)
- “Choosing the right eco-label for your product” Delmas, M., Nairn-Birch, N and Balzarova, M. Summer 2013, *Sloan Management Review* [\[Link\]](#)
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In Class Discussion

What are the most important factors for a successful environmental differentiation strategy? Who do you think the "green consumers" are? Where are they? Where do you believe the most opportunities exist for green marketing (product types, consumer types, geographic areas, etc)? What should the message be? What successful and unsuccessful "green marketing" campaigns are you familiar with? Why were they (un)successful?

Session 8**Environmental Communication, Ethics and Organizational Behavior**

In this session, we will discuss the ethical dimensions of environmental communication, and the risks associated with greenwashing. We will also discuss how employee engagement with sustainability might reduce greenwashing and enhance employee productivity.

[Case] Lululemon's Commitment to the Environment: A Tangle of Seaweed Suppliers, and Social Responsibility [Available on class website]

This case introduces Lululemon, an athletic and yoga wear retailer, and its commitment to the environment. The company was founded on its Corporate Social Responsibility (CSR) initiative, and took pride in its innovative approach towards the environment. The company trusted the suppliers with which it had relationships, and believed the products it was purchasing were as the suppliers described. Lululemon, faced with pressure to expand and maximize profits while maintaining its CSR pledge to the environment, found itself in a difficult position when an environmentally-friendly fiber it used for a clothing product was determined to be marketed falsely.

Case Questions

1. Describe Lululemon's competitive strategy and the factors that explain Lululemon's greenwashing.
2. How would those few days in November 2007 affect Lululemon's strategy going forward?
3. What should Lululemon do?
4. Would Lululemon have to implement a random testing process to ensure the truth of its claims?
5. Should Lululemon continue to carry the VitaSea line?
6. How would Lululemon repair its tarnished image?
7. Lululemon's grassroots marketing strategy – focused on conveying a message of health, happiness and environmental awareness through its clothing to customers – needed to be re-vamped, but how?

Readings

- "Greenwashing Report 2009." TerraChoice Marketing. 2009. [\[link\]](#)
- "The Drivers of Greenwashing." Delmas, M and Cuerel Burbano, V. 2011. California Management Review. [\[Link\]](#)
- "Environmental Standards and Labor Productivity." Delmas, M. and Pekovic, S. 2013. *Journal of Organizational Behavior*. 34(2): 230-252. [\[Link\]](#) See [UCLA today article](#).

Session 9

Energy, Technology and Entrepreneurship

Electricity generation accounts for over 40 percent of the carbon dioxide emitted by the United States, with residential and commercial buildings collectively accounting for over two-thirds of electricity usage (EPA 2010, EIA 2010). In this session, we will discuss the recent research describing how behavioral changes can reduce energy consumption at the individual and organizational level.

We will also play a simulation to allow you to experience the challenges of building a clean tech startup company in a demanding competitive environment, including financial, human resource, strategic and other decisions.

CleanStart: Simulating a Clean Energy Startup ([John Sterman](#), David Miller and Joe Hsueh MIT)

Link to simulation: <https://mitsloan.mit.edu/LearningEdge/simulations/cleanstart/Pages/default.aspx>

In this live, web-based simulation, participants play the role of the founder of a new startup company in the exciting and competitive clean tech sector. Can you develop your technology into a successful company? Each quarter you must set prices, decide how many engineers and sales people to hire, and set compensation, including salary, stock, options and profit sharing. Will you pitch your firm to venture capitalists or bootstrap and remain 100% employee owned? Will you win customers and become cash flow positive before you run out of funds? Will you succeed and take your firm public?

Before class, watch the instructional [video](#) here.

We will play the simulation in class and in groups. Class will meet in the computer lab.

Readings

- “Saving Power to Conserve Your Reputation? The effectiveness of private versus Public Information.” Delmas, M. and Lessem, N. 2014, *Journal of Environmental Economics and Management*. [\[Link\]](#) See UCLA Newsroom article [\[Link\]](#)
- “NonPrice Incentives and Energy Conservation.” Asensio, O. I. and Delmas, M. A. 2015. . *Proceedings of the National Academy of Sciences*. January. 112(6): E510-E515. [\[Link\]](#). See UCLA Newsroom article [\[Link\]](#) and UCLA Engage website [\[Link\]](#).
- “The Effectiveness of US Energy Efficiency Building Labels.” Asensio, O.I., & Delmas, M.A. 2017. *Nature Energy*. 2(17033) [\[Link\]](#). See UCLA Newsroom article [\[Link\]](#)

Session 10

Project Presentations

In this session, you will present the results of your group projects to the class.

MAGALI A. DELMAS

Magali Delmas is a Professor of Management at the UCLA Institute of the Environment and the Anderson School of Management. She is the director of the UCLA [Center for Corporate Environmental Performance](#). Her research interests are primarily in the areas of Business strategy and Corporate Sustainability. She has written more than 70 articles, book chapters and case studies on business and the natural environment. She works on developing effective information strategies to promote conservation behavior and the development of green markets. Her current work includes the investigation of the barriers and incentives to the adoption of energy efficient solutions. She is also engaged in refining current methodologies to measure and communicate firm's and products' environmental performance.