Environmental Sustainability and Value Creation
OIDD-762
Fall 2018-Q2
Monday and Wednesday 10:30am – 12pm
JMHH F94

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Office hours: by appointment (email to schedule)

Course Description
This course provides an overview of topics related to corporate sustainability with a focus on how environmentally sustainable approaches can create value for the firm. We will explore trends in corporate practices and consider specific examples to examine the interactions between the firm and the environment. Several guest lecturers will discuss how they have addressed sustainability within their company. This course has three objectives: to increase students’ knowledge of sustainability practices and their impact on firm performance; to teach students to think strategically and act entrepreneurially on environmental issues; to help students design business approaches to improve environmental outcomes, while simultaneously creating value.

Course Grading
Article presentation 10%
Participation and attendance 15%
Personal case study 20%
Mid-term quiz 20%
Final paper 35%

Assignments

Article presentation: At the beginning of every class, one or two students will give a 5-minute presentation on a recent article related to the topics of the class. The article should be posted on Canvas two days before the class and a one-page discussion turned in the day of the presentation (through Canvas – no later than 5:00pm). Students may use powerpoint for these presentations if they choose. Each student will do one of these, accounting for 10% of their overall course grade. The presentation and the one-page write-up should address:

- How the article relates to ideas or themes discussed in class
- What lessons or new insights can be drawn from the article
- 2-3 questions for class discussion

Participation and attendance: Attending classes and participating fully in class will be 15% of each student’s grade. This means being on time, not leaving early, participating in class discussions, demonstrating that readings and assignments have been completed, and sharing
relevant examples of course themes. Absence in class will be marked as excused or unexcused. Absences will be excused only for advanced notice of family or personal medical emergencies, illness, and religious holidays. Unexcused absences will lower your participation grade.

Please use your name tent for every class. You must turn off all phones and electronic devices. Laptops and tablets are permitted only for note-taking; phones should not be used during class. Texting, emailing or other use of electronic devices for non-course purposes during class time will lower your participation grade.

**Personal case study:** The personal case study is an examination of environmental sustainability in your daily life, used to gain insights and ideas on how companies can contribute to sustainable outcomes. Each student should choose one of the three options listed here and then write a 5-7 page essay (11 or 12 point font; 1.5 spacing) discussing what they learn from the activity that could be applicable to firms considering how to contribute to environmental sustainability. The essay should present a “sustainability plan” with the objective of improving performance on the given sustainability metric. This includes a realistic discussion of the options, the costs, and relative contribution to the goal. The personal case study must be handed in on time. Exceptions will only be made for extreme emergency circumstances since you are given the due date at the start of term for planning purposes. For every 24 hours or portion thereof that a paper is late, it will be docked one-third of a letter grade. **Due November 28, by 5:00pm. Submit in Word via Canvas.**

1. **Zero-trash day.** Try to go 24 hours without generating any trash. Recycling and composting do not count as trash. Any trash that is created should be documented. While doing this exercise for a day, pay attention to the role of company choices and how they influence your ability to eliminate trash (e.g., packaging choices, default options, etc.), as well as your own habits and behavior. Your write up should discuss several activities for you to eliminate trash in your daily life, but also discuss at least two ways companies could make different choices or offer different products that would help you eliminate trash more easily. Note: your grade does not depend on your ability to successfully eliminate trash, but on thoughtful discussion and analysis.

2. **Track your carbon footprint for a week.** Use an online carbon footprint calculator (such as [this one](#) or [this one](#) or [this one](#)) to calculate your carbon footprint for a typical week. In your write-up examine the largest contributors to your footprint and detail steps you could take to reduce your footprint. Consider 4 to 6 possible actions. Evaluate the cost of these steps (including non-financial costs) and compare those to estimates of the social cost of carbon. Choose which steps to implement in a carbon reduction plan for yourself. Note: your grade does not depend on your footprint or your proposed steps but on thoughtful discussion and analysis.

3. **Eco-premiums paid or rejected.** Evaluate your purchases for a week and identify all the times when you did, or could have, paid more money for a more environmentally or socially friendly product. Your paper should discuss 4 to 6 such choices. When did you choose to pay a premium for more sustainable products and when did you reject doing so? What factors influenced your decisions? What would make you choose differently?
Note: your grade does not depend on your actual choices but on thoughtful discussion and analysis.

**Quiz:** There will be one in-class quiz on November 7 testing students on concepts in environmental economics. It will take roughly 20 minutes to complete and will draw on environmental economics concepts from readings and lectures. You will not be permitted to use any notes or electronic devices during the quiz.

**Final paper:**
The final paper is a chance for students to apply what they have learned in the course to a real-world problem. This paper should be 12 – 15 pages long, 1.5 spacing, 11 or 12 point font. References should be included at the end and do not count toward the page guidance.

A one to three paragraph proposal for the final paper is due November 14th, by 5pm (via Canvas). Final paper is due December 17th by 5pm (via Canvas, submit as a Word document).

No excuses for late papers since you have plenty of advance notice on due date. For every 24 hours or portion thereof that a paper is late, it will be docked one-third of a letter grade.

There are two possibilities for the final paper and each student can choose which to pursue:

1. **Propose a potential business opportunity (a new idea or a new version of an existing practice) to improve sustainability.**
   This opportunity should be well-defined and clearly scoped. Students electing this topic need to be clear that the idea is novel, they need to conduct research on the marketability and feasibility of the concept, and present a plan for how the idea could be developed and implemented, including an examination of costs and potential returns (financial and non-financial). Final paper can be structured like a business plan or as a standard research paper. Evidence of deep research and thoughtful analysis will inform your grade.

2. **Analyze a company’s sustainability efforts and make recommendations for improvement.**
   Students selecting this topic need to choose a particular company, gather all the information they can on the company’s sustainability efforts, evaluate them, and make clear recommendations for improvement. Students should contact the company directly to obtain more information, conduct interviews of decision makers, and seek other sources of information. The final paper should also draw on theories and concepts from the course. Evidence of deep research and thoughtful analysis will inform your grade.

**Collaboration and Plagiarism Guidelines**
Students are to work individually on all assignments. Students are encouraged to discuss course themes and topics with each other, but all research, idea generation, and writing for the case study and final paper must be done individually.
All literature or other work used in assignments must be documented using standard author-date parenthetical citations accompanied by a reference list at the end of the paper. See guidelines online here. Plagiarism is taken seriously and will be dealt with according to university policy. Students must adhere at all times to the University of Pennsylvania’s Code of Academic Integrity.

**Course Outline and Readings**

(1) **October 22 – Introduction to the Course and Overview of Environmental Sustainability**

**Readings:**

*Sustainability’s Deepening Imprint*, McKinsey & Company

*Sustainable Development Goals*

(2) **October 24 – Beyond Green: Is Sustainability Value Enhancing?**

**Readings:**


Optional Readings:


(3) **October 29 – Introduction to Concepts in Environmental Economics**

**Readings:**


Optional:

*Economic Invisibility of Nature*, TED Talk

*Market Failure and the Role of Government*, Khan Academy

(4) **October 31 – Guest Lecture: Erica Ocampo, Sustainability Strategy Manager, Dow**

**Readings:**

*2017 Sustainability Report*, Dow
4 ways to increase internal collaboration and advance sustainability objectives, Green Biz

Citrus Heights EnergyBag Pilot Program, Dow

Optional:
Dow Sustainability Academy, ERB Institute

(5) November 5 – The Circular Economy

Readings:
The Circular Economy: From Concept to Business Reality, IGEL, Wharton

Design Innovation, William McDonough talk at World Economic Forum

The End of Garbage, Fortune

Optional Readings:
Toward the Circular Economy, World Economic Forum

(6) November 7 – B Corps

In class quiz on environmental economics.

Readings:


Optional Readings:

(7) November 12 – Guest Lecture: Chris van Bergen, Chief Operating Officer, Nest, Inc.

Readings:
Retailers, NGO Create Standards for Artisans, Wall Street Journal

(8) November 14 – Corporate Social Responsibility

Final paper proposal due.

Readings:

(9) November 19 – NO CLASS

(10) November 26 – Managing Climate Risks

**Readings:**
- *Protecting Our Capital: How Climate Adaptation in Cities Creates a Resilient Places For Business*, CDP
- New York's MTA to sell $125 million 'catastrophe' bond, Reuters
- Axa launches insurance to let farmers protect themselves against the weather; The Telegraph

**Optional Readings:**
- *Economic Risks of Climate Change in the United States*, Risky Business
- *Climate Change Preparedness and the Small Business Sector*, SBM, ASBC

(11) November 28 – Guest Lecture: Lucy Nottingham, Director, Global Risk Center, Marsh & McLennan Companies

**Personal case study essay due.**

**Readings:**
- How Climate Resilient is Your Company?, Marsh & McLennan Companies

(12) December 3 – Sustainable Supply Chains

**Readings:**
- *The State of Sustainable Supply Chains*, EY and the UN Global Compact
- *Greening Global Supply Chains*, The Sustainability Consortium

(13) December 5 – Stakeholders, Activists, and Society’s Problems

**Readings:**

(14)  December 10 – Wrap up

**Readings:**