

15.878 Capstone Seminar in Sustainability Spring 2017

(H2) Monday, Wednesday 2:30-4, Room E62-262

Instructors:

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Course website: <http://stellar.mit.edu/S/course/15/sp15/15.878/>

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Introduction

This course is designed for students pursuing MIT Sloan's Sustainability Certificate, in their final half semester at MIT. 15.913 Strategies for Sustainable Business is a formal pre-requisite (see instructors for any exceptions). Its purpose is to give students an understanding of what is involved in pursuing a sustainable society, and to support them in envisioning their role as individuals and as a cohort of leaders. We have four learning goals for this course:

- 1) To give students a framework of "leverage points" for achieving a sustainable society and to understand the two most important global initiatives for making this happen: The Paris COP21 Agreement on climate change and the U.N.'s Sustainable Development Goals.
- 2) To understand the existing context of institutions that are key to achieving a sustainable society: government laws and regulations, companies, investors, and civil society.
- 3) To understand forces that can change the existing context for achieving a sustainable society: social movements, NGOs, media and social media, and transformative technologies.
- 4) To help students develop their own plan for how they can contribute to achieving a sustainable society in the short and long term.

Requirements

1. Readings

The readings for the class will be posted on the website. We have designed them to help you effectively prepare for engagement with our guests and each other, and to support your reflection papers. This class will involve substantial learning among peers, which will not function if you do not complete the readings. It is through a combination of the readings and class discussion that you deepen your understanding of key sustainability drivers.

2. Action Papers (500-1,000 words, due at 5PM on the assigned days, 30%)

The class is divided into three sections: Achieving a Sustainable Society; The Powers of Institutions; Changing the Context. During the first two sections, we will ask for a short action paper regarding ideas you've had of things you can do, or influence an organization to do,

based on the readings and discussions. In the paper you should connect the themes to your own experience, career intentions, and the industry and company that will be the focus of your final paper (see below). Please submit the response papers via the course Stellar site in the Homework section.

3. Final Paper (4,000 – 5,000 words, due at 5PM on May 21, 40%)

The principal assignment for the class will be an analysis of the future of sustainability in a particular industry and company that matters to your career. The paper should build directly on the class. First, the paper should articulate a vision of how an industry should evolve to become more sustainable. Second, you should assess combinations of business strategies, institutions, etc. that will lead to distinct pathways for development in the industry. In doing so, you should both identify what has occurred in the industry's recent history (e.g. last 10 years) and then project out into the future. These scenarios may or may not align with your vision for what the industry should do. Finally, you should select a particular company in that industry and make recommendations for what this company should do in light of this scenario to ensure that it has a sustainable strategy. This analysis should include recommendations for how the company can affect how its industry will evolve. You should select your industry and company by Friday, April 10th so you can start the thinking process in your reflection papers. Please submit the response papers via the course Stellar site in the Homework section.

4. Class Participation and Attendance (30%)

Your active participation in the class discussion is integral to the design of this course. Class participation counts for 30% of your final grade. Your classmates and instructors expect you to be fully prepared, to have read the assigned readings, and to fully participate in the discussion. (Those students for whom English is not a first language and/or may have difficulty speaking up in class are encouraged to meet with one of the faculty to discuss how your participation in class can be ensured.) We will send out mid-way evaluation notices to let you know if you are in need of participation improvement. Finally, we have designed this class as an integrated whole and expect regular attendance. Absences will count against your participation.

Sessions

Section 1: Achieving a Sustainable Society

Class 1: Creating and participating in system-level change Apr 3

How can we understand system level change? What are the leverage points to bring about system level change?

Required Reading:

Meadows, Donella. 1999. Leverage Points: Places to Intervene in a System

Class 2: COP 21
Apr 5

The single biggest threat to achieving a sustainable society is climate change. The Paris Agreement of COP21 signed in December of 2015 is a global agreement to address this problem. What are the goals of COP21? How did it come about? Why this was international agreement successfully achieved when previous ones weren't? How important is the work done of the Task Force on Climate-related Financial Disclosures? To what extent does the Trump administration threaten COP21?

Required Reading:

[French government COP21 website](#)

[Ceres on COP21](#)

Class 3: The Sustainable Development Goals
Apr 10

The 17 Sustainable Development Goals were ratified by all the Member States of the United Nations in September 2015. They cover the entire range of environmental, social, and governance issues that must be addressed to achieve a sustainable society. What are the roles of governments, companies, investors, NGOs, and others for achieving the SDGs? What is the level of resources that will be required? How will progress on these goals be measured? Can all of them be achieved or will trade-offs have to be made? What is the relationship between COP21 and the SDGs?

Required Reading:

TBA

Section 2: The Powers of Institutions

Class 4: Laws and Regulations
Apr 12

The public sector obviously plays an important role in achieving the goals of COP21 and the SDGs through laws and regulations. For the most part, these laws and regulations are country-based but it is important to understand the legal status of international commitments and how they can be enforced at the country level. This class will explore the role of the public sector at the international and country level by taking COP21 and the Trump Administration as a case study. To what extent can President Trump and the Executive Branch unilaterally back of the U.S.'s commitment to COP21? What changes to this commitment would be required by Acts of Congress and the Courts?

DUE AT 5 PM: Action paper 1 on Section 1
Friday, April 14

NOTE: NO CLASS APRIL 17 FOR PATRIOT'S DAY HOLIDAY

Class 5: Companies
April 19

While companies control vast resources, they are also under short-term pressures from the capital markets, raising the fundamental question of the role of the corporation in society. Key leverage points include clarifying the role of company boards of directors, corporate forms, and corporate disclosure. What actions can companies take on their own in the existing context of law and regulation? What laws and regulations should be changed? How can investors support companies' efforts?

Required Reading:

[In Pursuit of Inclusive Capitalism: Business and Approaches to Systemic Change](#), Said Business School, Oxford University

[Why GE's Integrated Report Makes A Powerful Statement](#) - Forbes.com

Chow, Christine. "[In Conversation: Insights into Integrated Reporting](#)". *CSj Viewpoint*, (August 13, 2016).

[Shifting the Dialogue to the Long Term](#) - top1000funds

[The Board That Embraced Stakeholders Beyond Shareholders](#) - MIT Sloan Management Review

[Why It's Time For Boards To Take A Stand On Sustainability](#) - Forbes.com

Class 6: Investors

Apr 24

Compared to companies, the world's largest investors are relatively new to "sustainability" although their influence is rapidly growing, particularly the world's largest asset owners and asset managers since there is such a high degree of concentration. Key leverage points for investors are encouraging companies to adopt longer-term time frames; engagement with senior management and the board on corporate governance, executive compensation, and other issues; and the growth of variously named types of "sustainable investing."

Required Reading:

Verheyden, Tim, Eccles, Robert G. and Feiner, Andreas ["ESG for All? The Impact of ESG Screening on Return, Risk and Diversification"](#) *Journal of Applied Corporate Finance* 28, no. 4 (Spring 2016):47-56.

All of the articles below are short.

[Why Private Equity Can Take A Lead In ESG](#) - Forbes.com

[Investor Leadership: the Unfinished Story of ExxonMobil and Chevron](#) - Institutional Investor

[Why Investors Should Care About the Next Generation of Accounting Standards](#) - Institutional Investor

Class 7: Individuals, communities, and networks

Apr 26

Achieving a sustainable society ultimately comes down to the daily choices individuals make as employees (in both the public and private sector), investors, and consumers. These individuals span generations, countries, ethnicities, and religious affiliations. What is their level of awareness about the importance of achieving a sustainable society, the challenges of doing so, and how they can contribute to it for their own sake and the sake of their offspring? How are their attitudes, behaviors, and habits shaped by their communities and social networks?

Required Reading:

TBA

DUE AT 5 PM: Action paper 2 on Section 2
Friday, April 28

Section 3: Changing the Context

Class 8: Transformative New Technologies
May 1

There are a vast number of technologies that will be important to achieving a sustainable society--physical (e.g., renewable energy), financial (e.g., block chains), and information (e.g. big data). But many factors (law and regulation, economics, consumer interest, etc.) determine whether a technology fulfills its potential. There are also unintended consequences of transformative technologies, both positive and negative. What are the most important transformative technologies for achieving a sustainable society? What must be done to spur their adoption? What are the potential negative unintended consequences and how can they be avoided?

Required Readings:

[Master Plan, Part Deux](#) – Elon Musk

Brynjolffsen & McAfee's, *The Second Machine Age*, Ch. 4

Class 9: Social movements and activism
May 3

Social movements form when a large enough group of actors coalesce around a common objective. The “Civil Rights Movement” is a classical example. How do social movements form? What must they do to be effective? How do social movements and activists shape business practices? What strategies do these actors adopt to influence business? This session puts a focus on social movements that pursue a grassroots approach to activism.

Required Readings:

TBA

Guest (Bio on Stellar):

Geoffrey Supran, Fossil Free MIT leader

Required Reading:

New York Times. “Colleges Use Anti-Apartheid Strategies to Battle Fossil Fuels.” February 10, 2015.

Supran, Geoffrey. “A View from the Front. The People's Climate March.” The Tech. September 30, 2014.

Supran, Geoffrey and Ploy Achakulwisut. “Fossil fuel companies grow nervous as divestment movement grows stronger.” Grist. December 12, 2014.

Websites:

Fossil Free MIT <http://www.fossilfreemit.org/>

Class 10: NGOs
May 8

NGOs are the voice of civil society and an increasingly important one in achieving a sustainable society. They are the “canaries in the coal mine” that often identify issues before the public and private sector fully recognize them. NGOs mobilize resources around the issues of concern to them and engage with both the public and private sector to get greater attention and subsequent action on a range of environmental, social, and governance issues. They sometimes build information infrastructures that help individuals and organizations make sustainability-relevant decisions. This work involves a combination of confrontation and collaboration tactics. They are becoming increasingly sophisticated in their engagement practices and use of social media. What makes an NGO effective? How critical are NGOs for achieving a sustainable society relative to government, companies, and investors? Will their influence grow or diminish in the years ahead?

Required Readings:

TBA

Class 11: Media and Social Media
May 10

Media, “The Fourth Estate,” has always played an important role in shaping public opinion. Traditional media is being challenged and even supplanted by a wide range of social media technologies which are being used very effectively by groups across the political spectrum and on the sides of various issues related to achieving a sustainable society. How is the media and social media being used to achieve a sustainable society, as well as to interfere with this objective? What can be done to strengthen the former?

Required Readings:

[“Is there a climate “spiral of silence” in America?”](#) Yale Program on Climate Change Communication

TBA

Class 12: Educational Institutions

May 15

Educational institutions play a fundamental role, from teaching children how to recycle, to (hopefully!) teaching business students to be leaders for sustainability. What are the possibilities and limits of education for sustainability? How can we maximize the impact of our cohort and alumni network, building on what staff and faculty are doing at MIT Sloan?

Required Readings:

TBA

Class 13: Personal Reflections
May 17

The last class will be devoted to personal commitments. How optimistic or pessimistic are you that a sustainable society can be achieved? Which leverage points are most important and who is pulling the levers? How can you best contribute?

Required Readings:

Student short pieces / final paper abstracts

DUE AT 5 PM: FINAL PAPER
Sunday, May 21