Climate Risks and Opportunities
MGB 415-001 (Bay MBA Program)

Summer 2013

Professor: Emilie Mazzacurati  
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Office hours: by appointment

Schedule:
Sun, June 23rd from 9:30 – 12 & 1 – 3:30
Sun, June 30th from 9:30 – 12 & 1 – 3:30

Course overview: The objective of this course is to provide a working knowledge of the risks and opportunities arising from climate change and climate policy for businesses. We will examine how carbon regulations and cap-and-trade affect companies, and the tools and strategies to manage these risks. We will study how climate change may change the way we do business, looking at the physical, operational and financial impact of climate change, and discuss the emerging tools to foster business resilience. The course has a practical focus and will use real-world case studies to highlight different market and regulatory approaches, and to learn from past and current business ventures in the broader climate sector.

Learning objectives:
Upon completion of this course, students will be able to:
  • Identify key areas of vulnerability to climate risk for their company
  • Build a basic GHG inventory and develop a mitigation plan
  • Understand carbon market dynamics and the use of market instruments to hedge risks
  • Assess adaptation options and foster business resilience

Course structure: this course will run for two five-hour sessions, and will include a mix of lectures, case studies and hands-on exercises.

Pre-requisite: basic knowledge of economics and business

Evaluation and grading:
Students will be graded as follows:
In-class participation – 20% (demonstrate proficiency in assigned readings during class, participate constructively in class discussions and exercises)
Assignment #1 – 40% (group presentation)
Assignment #2 – 40% (individual written assignment)
Sun, June 23: Identifying and Managing Climate Risk and Carbon Exposure

- Climate risk: Introduction and definition
- Measuring a company's carbon footprint
- How cap-and-trade works – case study of California's carbon market
- Managing carbon exposure: tools and best practices

In-class exercises:
- Perform a GHG inventory
- Trading game

Select case for assignment #1.

Required readings:
- Global Risks 2013, Eighth Ed., World Economic Forum, January 2013 (read Section 1 and 2: Testing Economic and Environmental Resilience)
- Working 9 to 5 on Climate Change: an Office Guide, Samantha Putt del Pino and Pankaj Bhatia, World Resources Institute, 2002

Session 2: Climate Change & Business

- Financial and legal risks, role of investors
- Physical, operational and supply chain risks
- Disclosure and reporting requirements
- Building business resilience: tools and concepts

In class exercises:
- Student presentations on climate risk strategy (assignment #1)
- Case study: entrepreneurship of climate change

Select topic for assignment #2

Required readings:
Commission Guidance Regarding Disclosure Related to Climate Change, Securities and Exchange Commission, February 2010
Corporate Climate Risk Disclosure: an Executive Guide to Monitoring and Disclosing Climate Risk, Edited by Felicia Jackson, Environmental Finance Publications. (Read Section I. chap. 1, Section II: Chap. 7 and Section III: chap. 10.)
Physical Risks from Climate Change: A guide for companies and investors on disclosure and management of climate impacts, Calvert Investment Fund, Ceres and Oxfam, May 2012
Reducing Risk And Driving Business Value; Carbon Disclosure Project Supply Chain Report, 2013
Assignment description:

Assignment #1 (group work): students will pick from a selection of cases provided by the instructor. For the selected company, students will have to identify the climate risk, carbon exposure, main sources of vulnerabilities, and develop and risk management plan for the company. Students will present their findings on June 30, and turn in their Power Point presentation or other written support material.

Assignment #2 - choice of:
   a. Develop a business plan for a new venture offering climate-related services
   b. Research paper on student-selected topic (with instructor’s approval). This is an opportunity to focus on a climate-related topic you find interesting.
Power point presentation (choice a) or paper (choice b, 10 pages double-spaced max) will be due 2 weeks after the last class. Students may work in pair for the business plan.
Assignment #2 is due on July 8 by email.

About the instructor: Emilie Mazzacurati is the Managing Director of Four Twenty Seven, a research and advisory firm specialized on California climate mitigation and adaptation policies. She has published extensively on climate policy, carbon markets and the interaction of carbon with other commodities. She has taught on carbon markets at Johns Hopkins University School of Advanced International Studies and is a frequent public speaker at academic and industry events. Previously, Emilie was Head of Carbon Analysis for Point Carbon in North America from 2007 through 2012. Emilie holds a MA in political science from the Paris Institute of Political Studies and an MPP from the Goldman School of Public Policy at UC Berkeley. For more details go to www.427mt.com