

Environmental Finance and Sustainable Investment: Risk Mitigation and Emerging Opportunities 2017 Course Description

ENV 1707H F

Instructor: Susan McGeachie

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| Time: | Wednesday 6:30 – 8:30 pm |
| Place: | Rotman School of Management, Room 151 |
| Background: | Environmental finance and sustainable investing are fast-emerging fields. They involve the application of new and established financial market instruments and practices to the management of environmental issues, and the incorporation of environmental, social and governance (ESG) factors into asset management and shareholder stewardship. Banks, insurance companies, pension funds, venture capitalists, financial services companies, corporations and governments are becoming increasingly engaged on the topic in order to manage risks and capitalize on new opportunities. This course explores the growing materiality of ESG factors on the bottom line financials, using real case examples of how various companies and investors are driving and responding to this relatively new strategic area. An in-depth knowledge of financial markets is not required. |
| Career Applicability | <p>Students leaving the course will be able to apply their new knowledge to a variety of career paths. The following professions and/or fields have required expertise in the area of environmental finance and/or sustainable investing:</p> <ul style="list-style-type: none"> - Financial analyst, portfolio manager, financial product development - Investment and management consultant - Sustainability specialists (especially for firms in high impact sectors such as oil & gas, forestry, chemicals, metals and mining and utilities) - Commodities trader - Venture capitalist, private equity or real estate investor - Credit and insurance risk analysts - Investor relations, public relations, communications |

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| | - Not-for-profit managers and executives |
| Objectives & Scope: | The objective of the course is to provide students with a firm grounding in the range of issues at stake in environmental finance and sustainable investing and an awareness of their current application around the world. The course will examine how established practices, procedures and tools from within the mainstream financial and corporate markets are being adapted to integrate ESG criteria, in the pursuit of financial performance goals from both an investor and corporate perspective. |
| Reading Materials | Each week has required readings as well as suggested background resources. |

ENV 1707 F: Lecture topics by week

Week 1: September 13

Introduction to Environmental Finance and Sustainable Investing

- Key players and drivers
- Introduction to environmental markets and emissions trading
- Risk management strategies and products
- Lenders and insurers
- Sustainability valuation and ROI
- Materiality and disclosure
- Climate change; costs & drivers; opportunities and threats
- Market dynamics; policy considerations
- Carbon markets, local and global
- Project finance

Introduction to class projects

Week 2: September 20

Climate Change: Overview

- Climate science and its link to social cost of carbon
- Economic models of climate costs
- Risk vs uncertainty
- Improving economic models
- Predictive limits of quantitative climate economic models

Week 3: September 27

Introduction to Sustainable Investing, ESG integration, valuation and reporting

- Evolution of “ethical”, “socially responsible” and “responsible” investment

- Discussion of stakeholders: (pension funds, consultants, asset managers, etc.)
- Fiduciary duty and responsible investment
- Terminology
- UN Principles for Responsible Investment
- RI and the Global Financial Crisis
- Discussion of the approaches to integrating ESG into investment analysis, by asset class
 - Equities (ethical investing, sustainability funds, mainstream ESG analysis)
 - Equities – active versus passive approaches
 - RI fixed income strategies (corporate and sovereign debt), green bonds
- Quantitative analysis
- ESG data inputs (Bloomberg, MSCI, etc.)
- Stakeholder identification, prioritization and management
- Materiality
- Reputation Management
- Reporting frameworks: GRI, GHG Protocol, SASB, etc.
- Liability issues for executives and board Directors
- Securities regulators weigh in

Week 4: October 4

Natural Capital

- Understanding, quantifying and pricing externalities
- Corporate risks and impacts
- Setting boundaries, measurement methodologies and tools, and reporting frameworks
- Public and private sector initiatives to address issues
- Decision-making frameworks

Week 5: October 11

Risk management

- Overview of environmental risks and opportunities to address risks
- Risk identification frameworks and management strategies
- Articulating the business case for sustainability
- Attracting capital
- Qualitative planning of sustainability investments
- Natural capital and externalities

Week 6: October 18

Investment opportunities & market dynamics

- Impact investing
- An investor's perspective on the ESG issues impacting financial value
- Evolutionary Economics: A dynamic systems view of markets
- Opportunities, costs and risks
- Defense (risk avoidance) versus Offense (mitigation)
- Carbon pricing
- Technology, projects, assets

Week 7: October 25

Environmental markets

- Carbon markets: EU ETS, RGGI & WCI
- Carbon calculations and offset funds
- COP21 and bilateral agreements wrt trade and opportunity
- Biodiversity markets

Week 8: November 1

Project finance

- Investing in low carbon projects – opportunities and barriers
- Financing mechanisms – project vs institutional bonds
- Green Bonds and Green Banks
- The global landscape for renewables
- Pulling back the curtain on corporate investment strategies

Week 9: November 8

MID TERM TEST – COVERS ALL CONTENT IN COURSE TO DATE

Week 10: November 15

Project group consultations with corporate sponsors

Week 11: November 22

Update from COP23

Guest speaker: Katie Sullivan, Director, North American Markets, IETA

Group project in-class work

Week 12: November 29

Group project presentations and feedback

Week 13: December 6

Group project reports due

Evaluation:

40% - Group assignment

Small groups will work with real 'clients' to address a research question or practical/implementation challenge around environmental finance or responsible investment. Jane and Susan will oversee these research projects, which will culminate with a final presentation at the end of the course.

25% Participation

Grades will reflect participation in class discussion, preparedness, and attendance (including bringing and displaying your name plate in class). Participation marks will also reflect active involvement and preparation for case study discussions. The course is run as a seminar – your ongoing engagement is critical to its success and your outcome.

35% - Mid-term test

Course material will be assessed in one midterm test, which may include multiple choice, short and/or long answer questions and will include some choice.

About the instructor

Susan enjoys bringing a practitioner perspective to learning professionals. She continues to network with (and in select cases, has hired!) students in the industry after graduation.

Biography

Susan McGeachie is Market Leader for Ernst and Young's Climate Change and Sustainability practice. Susan works with clients to create solutions for sustainability-related challenges, including identifying and reporting on sustainability information that is material to investors and other stakeholders, environmental and social investment valuation, and risk assessments.

Susan was named to Canada's 2014 *Clean 50* and *Clean 16*, which honours outstanding contributors to sustainable development and clean capitalism in Canada.

Prior to consulting, Susan was a Director with Innovest Strategic Value Advisors (now MSCI) where she analysed the environmental, social and governance

performance of large cap global stocks for institutional investors and led the development of bespoke research projects for investors and government. Previous experience includes a role as project manager, researcher and advisor for Sustainable Canada, an initiative that examined the hypothesis that Canadian companies could gain a competitive advantage in the global marketplace through sustainable branding. She also worked at WWF Canada, where she managed relations with companies seeking to develop or enhance their environmental stewardship programs.

Susan is an adjunct professor at the University of Toronto and is a member of U of T's Environmental Finance committee as well as the Toronto Atmospheric Fund's Venture Advisory Committee. She is a former Associate Fellow with the Institute for Research and Innovation in Sustainability out of York University and a former director of the Social Investment Organisation, where she chaired the governance committee. Susan holds an MBA from the Schulich School of Business with a specialization in Finance and Sustainability.