

Climate Finance

2021 Course Description

ENV 1707 F

Instructor: Susan McGeachie, Adjunct Professor

Time:	Mondays 6:30 – 8:30 pm
Place:	In-person BL 325
Background:	Climate Finance involves the application of new and established financial market instruments and practices to the management of climate change-related risks and investment opportunities, and the incorporation of such factors into stock valuation and selection processes, as well as shareholder engagement strategies. Asset owners and managers, banks, insurance companies, venture capitalists, corporations and government agencies are becoming increasingly engaged in the financing of climate change mitigation and resilience in order to manage risks and capitalize on new opportunities. This course explores the research, projected outcomes and recommendations from the IPCC, multi-stakeholder initiatives and finance collaborations, and assesses signals of future actions to address them. An in-depth knowledge of financial markets is not required.
Career Applicability	Students leaving the course will be able to apply their new knowledge to a variety of career paths. The following professions and/or fields will benefit from a knowledge of climate finance and environmental markets: <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; and, - 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 climate change and the application of finance to address it. The course will examine how established practices, procedures and tools from within the mainstream financial and corporate markets are being adapted to integrate a climate lens in the pursuit of financial performance goals from both an investor and corporate perspective.
Reading Materials	Refer to syllabus for weekly requirements.

ENV 1707 F: Lecture topics by week

Week 1: September 13

Introduction to the Sustainable Finance industry

- Financial concepts relating to sustainable development, including environment, climate change and social issues
- Key drivers and players
- Products and services
- Achieving market scale

Readings:

Sustainable Finance Expert Panel final report:

https://publications.gc.ca/collections/collection_2019/eccc/En4-350-2-2019-eng.pdf

Week 2: September 20

Managing climate change related risks

- Identifying climate change-related risks:
 - Policy changes
 - Technological advancement
 - Access to capital
 - Weather volatility
 - Shifting customer and stakeholder expectations
- Scenario analysis and risk management
- Offsetting risk to the capital markets: Weather derivatives and catastrophe bonds

Readings:

WEF: Global Risks Report 2021

[The Global Risks Report 2021 | World Economic Forum \(weforum.org\)](https://www.weforum.org/publications/global-risks-report-2021)

Week 3: September 27

The science of climate change

- Understanding global warming
- Potential impacts and associated risks
- Low carbon transition pathways
- Actions required and observed to achieve transition
- Where do we go from here?

Assign groups and projects

Guest lecturer: Professor Steve Easterbrook, Director, School of the Environment, U of T

Readings:

IPCC Special Report: Global Warming of 1.5 C https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

Week 4: October 4

Roadmap to financing a global transition

- Keynesian versus free market economics
- Objectives of a national sustainable finance strategy
- Carbon pricing
- Addressing potential challenges
- Next steps

Readings:

Keynes vs Friedman <https://www.ft.com/content/48d6ff46-7994-11db-90a6-0000779e2340>

Week 5: October 11

Thanksgiving: Independent reading (to be discussed)

Week 6: October 18

Capitalizing on opportunities: Financing national climate change commitments

- Financing strategies to achieve national climate change commitments
 - Accelerating climate finance
 - Investment lifecycles: Early stage to mature
 - Overcoming barriers to success

Readings:

UN Green Climate Fund: <https://www.greenclimate.fund/about>

Week 7: October 25

Climate-themed financial products

- Fiduciary duty and responsible investment
- Discussion of the approaches to integrating ESG into investment analysis, by asset class
 - Active vs passive approaches
 - Equities (ethical investing, climate-themed impact funds, mainstream “climate lens” analysis and engagement, low carbon ETFs, “climate smart” benchmarks)
 - RI fixed income strategies (corporate and sovereign debt), green / climate bonds
- Data inputs (Bloomberg, S&P, etc.)
- The evolution of materiality, reporting frameworks (GRI to TCFD), stakeholder engagement and reputation management
- Liability issues for Executives and Boards

Readings:

Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures
<https://www.fsb-tcfd.org/publications/final-recommendations-report/>

CSA Staff Notice 51-354: Report on Climate Change-Related Disclosure Project

http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20180405_51-354_disclosure-project.htm

Week 8: November 1

Incremental vs transformational change: Can we get there?

Case study: Financing the low carbon transition

- Carbon reduction initiatives and ROI under different carbon pricing scenarios
- Incremental investment requirements
- “50 Shades of Green” & the role of Transition Finance

Readings:

<http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/OECD-Blended-Finance-Principles.pdf>

Preparation material

<http://www.climateaction100.org/>

Week 9: November 8

REVIEW: COVER CONTENT IN COURSE TO DATE

Week 10: November 15

MID TERM TAKE HOME EXAM – COVERS ALL CONTENT IN COURSE TO DATE

Week 11: November 22

Group project discussion and in-class work

Week 12: November 29

Group project presentations and feedback (Part 1)

Week 13: December 6

Group project presentations and feedback (Part 2)

Week 15: December 20

Group project written reports due

Evaluation:**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.

15% Debate

Students will be organized into debate teams and positions on the pros and cons of a conscious effort to accelerate climate finance and other strategies to stimulate investment in the low carbon transition.

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. Susan will oversee these research projects, which will culminate with a final presentation at the end of the course.

10% 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.

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 head of the BMO Climate Institute, a virtual hub that brings together science, analytics, expertise, and partners to understand and manage the financial risks and opportunities related to climate change for BMO's clients and the bank. Susan also teaches a graduate course in climate finance at the University of Toronto. She is a member of the Canadian Climate Governance Experts panel and the Global Research Alliance for Sustainable Finance and Investment. She is a former member of the Centre of Excellence in Responsible Business and served as a board member for the Responsible Investment Association. Susan was recently named one of twenty-six Canadian Climate Champions by the Canada Climate Law Initiative and the British High Commission ahead of COP26. In 2014 she was named to the Clean50, an initiative that recognizes contributions to advancing sustainable capitalism.

Prior to BMO, Susan was the global director of the climate change practice at Hatch, where she worked with clients to create solutions for sustainability-related challenges, including the identification and development of climate-related and sustainable development investments for companies and investors. Before Hatch, Susan was the central market leader for climate change and sustainability services with EY.

Susan began her career in sustainable finance with Innovest Strategic Value Advisors (now MSCl) 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 a member of the Canadian Climate Governance Experts consortium. 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 Responsible Investment Association. Susan holds an MBA from the Schulich School of Business with a specialization in Finance and Sustainability.