

**PPOL5520- Green and Sustainable Finance
(Fall 2025)**

Tuesdays, 02/09/2025-25/11/2025
1:30-4:20pm, Rm 1, 30/F, Tower 1, Millennity

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Course description:

The impact of climate change on humanity and ecosystems is broader and more severe than anticipated. Urgent and systemic transitions are required to ensure a future with net zero emissions and climate resilience, aiming to limit global warming to 1.5 °C. However, achieving climate goals faces significant challenges, one of most important being the investment gap. First, existing funding flows fall far below the required scale for the future. Second, the growth momentum of the private sector remains insufficient. Third, limitations in fund allocation result in inadequate support for the most vulnerable sectors, industries and groups of population, with over 90% of funds directed toward climate mitigation and less than 10% toward adaptation. In short, accelerating climate action is only feasible with a several-fold increase in financing.

The first part of this course introduces students to the foundations of green and sustainable finance, such as its definition, markets and instruments, and common sustainable business practices, and ways to measure and manage climate risks. The second part of this course follows the first half of CFA Institute's Certificate in ESG Investing curriculum to make sure that the students are equipped with the most up to date information on green and sustainable finance. At the end of the semester, students should have a strong background to be able to study for the CFA Institute's Certificate in ESG Investing and the Global Association of Risk Professionals (GARP)'s Sustainability and Climate Risk (SCR) Certificate, which will give them a cutting edge when applying for jobs related to ESG and sustainable finance in general.

Course objective:

The course is designed to give students a thorough overview of green and sustainable finance. Students should have learned the following outcomes by the end of the course:

1. Understand why green finance is crucial for sustainable development and climate action
2. Define what constitutes green and sustainable finance and what are common sustainable and green finance instruments and products
3. Identify and discuss motivations for firms to adopt green strategies

4. Define different types of climate risks and describe how climate risks affect individual corporates and the financial system
5. Explain how climate risk is measured and managed, covering both physical and transition risks
6. Understand the general methodology and application of ESG investing, including common ESG ratings, metrics and indexes.
7. Know the steps to prepare an ESG report according to the HKEX ESG reporting guide
8. Propose recommendations as to how to develop Hong Kong into a global green finance centre

Assessment

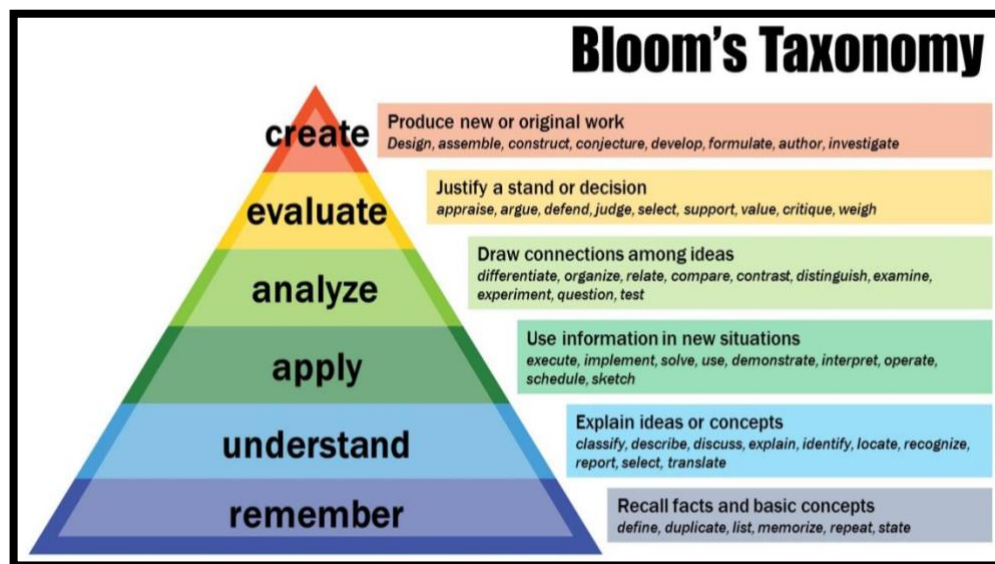
The assessment of student performance in the course is primarily based on four individual assignments (case analyses) and a group project. The following weights will be used to determine course grades:

- Four case analyses (60%): Students will be asked to write four case analyses based on cases discussed in class, each worth 15% of your final grade.
- Group Project (40%): students will be working on a group project (up to four people in each group) about developing Hong Kong into a green finance center. Each group may choose from a list of potential project topics, including but not limited to identifying the policy gaps and institutional barriers preventing Hong Kong from becoming a green finance leader despite its status as a global finance center, analyzing the strengths, weaknesses, opportunities and threats for Hong Kong's development of a global green finance center in comparison to global leading green finance centers, and assessing Hong Kong's role as a green finance center in supporting the green development in the Greater Bay Area. 10 % of the grade will be based on a project proposal explaining 1) the research question and its significance, 2) a brief literature review, and 3) the research plan and methodology; 15% based on the final presentation; and 15% determined by the quality of a research poster that summarizes their findings.
- Class participation (5% bonus): Students who actively contribute to in-class case discussion and to Canvas discussion forums will be awarded up to five bonus points for participation. Please note that when grading participation we take into account both quality and quantity of your comments.

Component	Weight	Due Date
Case Analysis (4)	60% (4 x15%)	21 September, 5 October, 9 November, and 30 November
Final group project	40% (10% for project proposal, 15% for final presentation + 15 % for poster)	26 October (proposal), 25 November (presentation) and 10 December (poster)
Participation*	5% (in-class and after-class participation)	

GRADING:

For each assignment, we will provide the outline and general marking rubrics. But for all assignments, it will be helpful to keep Bloom's Taxonomy in mind.



In general, the different levels relate to grades as follows (but keep in mind, different assignments may have particular requirements that need to be met which may change this a bit):

Create: 100%

Evaluate: 90%

Analyze: 80%

Apply: 70%

Understand: 60%

Remember: <60%

ACADEMIC INTEGRITY CODE

All work must be entirely your own. Please cite the relevant work whenever you borrow ideas from others, using the proper reference format (e.g., APA, MLA). Examples of violations of the academic integrity code include but are not limited to: failure to use quotation marks when quoting, failure to give full credit when paraphrasing, use of others' ideas or work products, submission of work prepared through impermissible collaboration, and submission of work prepared by you for another class. (Your work in this class may be related to your work in another class, but the work you submit for this class should not duplicate that submitted for another class. If you anticipate an exception, please do not hesitate to ask.) Violation of the Academic Integrity Code may result in failure in the course, as well as more serious academic sanctions. For details about the academic integrity code, please refer to <https://acadreg.ust.hk/generalreg.html>.

Please check for plagiarism before you turn in each homework, for example using the anti-plagiarism software Turnitin available on Canvas. **A rule of thumb is that the similarity score should not exceed 15% excluding references.**

LATE HOMEWORK POLICY

The only legitimate justification for late homework submission is sick leave or family emergency. For sick leave, you need to present proof of sickness such as a “certificate of sickness” which is obtainable from the doctor. In any other case, extensions on homework due dates are granted only on a case-by-case basis, and you will need to request extensions from the instructor at least five days before the due dates. For instance, if you have several assignments due at the same time, you may request an extension, which may or may not be granted.

The “hard deadline” for each assignment is 2 days past the original due date. Late submissions are penalized if extensions are not granted beforehand: your grade will be reduced by 30% if the homework is one day overdue, and by 50% if two days overdue. Any submissions are not accepted beyond the hard deadline.

POLICY ON GENERATIVE ARTIFICIAL INTELLIGENCE IN ASSIGNMENTS

Given the evolving landscape of GenAI tools, HKUST allows faculty members the flexibility to set their own course-level policies. In this course, we have adopted the policy of “Restricting all use of generative AI for assessment.” This means that the use of generative-AI in any academic work, including but not limited to essays, presentations, and reports, is strictly prohibited. We appreciate your understanding and cooperation in upholding the values of academic honesty and originality. Should we find any student has used generative-AI in work submitted for assessment for this course, we will treat such cases as plagiarism (as it is not work done by the student himself/herself). This will apply during the semester that the course is offered and up to one year thereafter.

TOPICS AND READING ASSIGNMENTS

*Note: All course readings can be accessed through Canvas. Readings marked with * at the beginning and the case materials are the high-priority ones. Others are optional. This list is preliminary and subject to adjustment. Policy is constantly evolving – so we will adjust accordingly. Up to date reading lists, assignments, and announcements will all be posted on Canvas.*

PART I. SUSTAINABILITY, CLIMATE CHANGE AND FINANCE (7 weeks)

Week 1 (2 September) Introduction to Green and Sustainable Finance: Climate Change, Net Zero, and Finance

Readings:

1. *IPCC (2023). Summary for Policymakers. In: *Climate Change 2023: Synthesis Report*. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001.
2. IPCC (2018). Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels*

and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-24. <https://doi.org/10.1017/9781009157940.001>.

3. *UNDP (2023). *What is climate finance and why do we need more of it?* <https://climatepromise.undp.org/news-and-stories/what-climate-finance-and-why-do-we-need-more-it#:~:text=How%20much%20financing%20is%20needed,to%20an%20analysis%20by%20UNFCCC>.
4. *European Parliament. (2021) *Briefing: Green and Sustainable Finance*. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/679081/EPRS_BRI\(2021\)679081_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/679081/EPRS_BRI(2021)679081_EN.pdf).

Week 2 (9 September) Foundations of Green Finance: Markets and Instruments

Readings:

1. *UNEP Inquiry (2016). Design of a Sustainable Financial System. Definitions and Concepts Background Note. Sep 2016.
2. Climate Bonds Initiative (2022). Sustainable Debt Global State of the Market.
3. People's Bank of China (2015). Establishing China's Green Financial System. Chapter 2 "Theoretical Framework."
4. Climate Bonds Initiative (2022). Global Green Taxonomy Development, Alignment and Implementation.
5. IPSF (2021). *Common Ground Taxonomy – Climate Change Mitigation*.

Case 1: Climate Risk and Banking: Citi's Net-Zero Future (case analysis 1)

Come to class prepared to discuss the following questions:

- Why has Citi decided to issue/underwrite \$1 trillion in sustainable finance by 2030?
- Understanding different debt instruments:
 1. What are green bonds? What are their benefits and risks? Why should a company issue them?
 2. What are social bonds? What are their benefits and risks?
 3. What are sustainability-linked bonds? Are they better than green bonds?
- Why did Citi/Fraser decide to announce a net-zero target by 2050? Do you agree? Why or why not? Do you think everyone in the bank would be excited with the announcement?

Week 3 (16 September) Sustainability and the UN Sustainable Development Goals (SDGs)

Readings:

1. World Commission on Environment and Development (WCED). 1987. Our Common Future. Oxford University Press, Oxford, UK.
2. Jérôme Pelenc, Jérôme Ballet, and Tom Dedeurwaerdere. 2015. Weak Sustainability versus Strong Sustainability.
3. *United Nations (UN). 2023. The Sustainable Development Goals Report 2023: Special Edition.

Case Analysis No.1 is due 21 September.

Week 4 (23 September) Green Business Strategy

Readings:

1. *John Elkington. (2013). Chapter 1: Enter the Triple Bottom Line. In Adrian Henriques and Julie Richardson (Eds), The Triple Bottom Line: Does It All Add Up (pp. 1-16). Routledge.
2. *Miller, K. (2020, December 8). The Triple bottom line: What it is & why it's important. Harvard Business School Online Business Insights Blog. Retrieved from <https://online.hbs.edu/blog/post/what-is-the-triple-bottom-line>
3. Bateman, T.S., Snell, S.A., & Konopaske, R. (2019). Chapter 5 (pp. 144-150) on the triple bottom line and Chapter 7 (pp.197-209, pp. 234, 259) on social entrepreneurship. Management: Leading and Collaborating in a competitive world (13th edition), McGraw-Hill.

Case 2: SimplyGood: From a mission to rescue waste to a passion for reducing single-use plastics (Case Analysis No. 2)

Come to class prepared to discuss the following questions:

- How does SimplyGood apply the Triple bottom line? Explain using examples from the case to support your answers.
- Evaluate the extent to which SimplyGood aligns with the UN SDGs.
- What are some common challenges faced by social enterprises like SimplyGood?
- What are the motivating factors/drivers of social entrepreneurs? Perform a self-assessment to ascertain whether you have these motivating factors or drivers. Based on the available evidence, evaluate whether Jeremy from SimplyGood demonstrated these motivating factors/drivers.

Week 5 (30 September) Climate Change Risk (I)

Readings:

1. *TCFD (June 2017) Recommendations of the Task Force on Climate-related Financial Disclosures, section A “Introduction” and Section B “Climate-Related Risks, Opportunities, and Financial Impacts” (pages 1-11).

2. *TCFD (October 2021) Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures. Sections B “Recommendations” and C “Guidance for All Sectors” (pages 14-22)

Case Analysis No.2 is due 5 October.

Week 6 (7 October) Public holiday; no class

Week 7 (14 October) Climate Change Risk (II)

Reading:

1. Bank of England (September 2015). Breaking the Tragedy of the Horizon – climate change and financial stability, Speech given by Mark Carney (Governor of the Bank of England)
2. Bank of England (April 2019). Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change. Supervisory Statement 3/19

Case 3: Royal Dutch Shell and Beyond: Strategizing the Future of ESG Compliance

Come to class prepared to discuss the following questions:

- The Shell Case in Legal Memo (1): What was the issue? What were the key findings of the court? What actions undertaken by Shell had either increased or mitigated its risk exposure? What lessons will AZE take from this case, and how might these lessons drive specific strategic discussions at AZE?
- Shareholder activism cases in Legal Memos (2) and (3) involving Chevron, Exxon, and against Shell: In each of these cases, what did the shareholders demand? How did the company respond in each case? What was the outcome? What lessons can AZE draw from these cases?
- What action needs to be taken at AZE?

Week 8 (21 October) Climate Risk Measurement and Management

Reading:

1. *Network for Greening the Financial System (April 2019). A call for action: climate change as a source of financial risk.

Final Project Proposal is due 26 October.

PART II. FOUNDATIONS OF ESG INVESTING (4 weeks)

Week 9 (28 October) ESG Investing: Method and Applications

Readings:

1. *CFA Institute (2023). ESG Investing Textbook, Chapter 1 “Introduction to ESG Investing” and Chapter 2 “The ESG Market.”

2. *McMahon, Simon (2020). “The Challenge of Rating ESG Performance,” Harvard Business Review, September-October 2020, HBR Reprint R2005B.
3. Allen, Kate (2018). “Lies, damned lies and ESG rating methodologies” *Financial Times* (December 6, 2018). <https://www.ft.com/content/2e49171b-a018-3c3b-b66b-81fd7a170ab5>.
4. Huber, B.M.; Comstock, M (2017). “ESG Reports and Ratings: What They Are, Why They Matter.” Harvard Law School Forum on Corporate Governance. July 27, 2017. <https://corpgov.law.harvard.edu/2017/07/27/esg-reports-and-ratings-what-they-are-why-they-matter/>.

Case 4: Impaakt: Harnessing Collective Intelligence to Improve ESG Ratings (Case analysis No.3)

Come to class prepared to discuss the following questions:

- How relevant, consistent and valid are current ESG practices and benchmarking? Are these ESG-related measurements statistically relevant and do they deliver the investment performance expected by financial professionals?
- Has Impaakt found a valid model to answer those issues related to ESG’s relevance?
- How can collective intelligence provide accurate and valid Impact Notes?

Week 10 (4 November) ESG Investing: Environmental Factors

Readings:

1. *CFA Institute (2023). ESG Investing Textbook, Chapter 3 “Environmental Factors.”
2. Hong Kong Exchanges and Clearing Limited (HKEX) (2020) “How to Prepare an ESG Report: A Step-by-Step Guide to ESG Reporting,” March 2020.
3. Hong Kong Exchanges and Clearing Limited (HKEX), “Appendix C2 Environmental, Social and Governance Reporting Guide.”

Case 5: SOGO Department Store, Hong Kong: Integrating Environmental Sustainability into a Retail Store's Operations

Complementary case readings:

1. *Lifestyle International Holdings Limited (2018). Annual Report 2017. “Environmental, Social and Governance Report” (pages 23-44).

Come to class prepared to discuss the following questions:

- What role did HKEX play at the beginning of SOGO’s ESG journey?
- What are the strengths and weaknesses of Lifestyle International’s ESG report as found in their 2017 Annual Report?
- Who are Lifestyle International’s primary stakeholders? Which stakeholder has the company engaged with to date? What have been the results of this engagement?
- What are some of the factors that determine to what extent a retailer can impose sustainability standards on a brand name vendor?

- What influence do consumers have on sustainability standards in the retail sector?

Case Analysis No.3 is due 9 November.

Week 11 (11 November) ESG Investing: Social Factors

Readings:

1. *CFA Institute (2023). ESG Investing Textbook, Chapter 4 “Social Factors.”

Case 6: ESG at WeChat Pay to Support SMEs (Case analysis No.4)

Come to class prepared to discuss the following questions:

- How important are SMEs to WeChat?
- What are the pain points of SMEs that WeChat Pay should help to address?
- How should WeChat Pay try to meet these needs of SMEs?
- How may WeChat persuade SMEs into using its services?

Week 12 (18 November) ESG Investing: Governance Factors

Readings:

1. *CFA Institute (2023). ESG Investing Textbook, Chapter 5 “Governance Factors.”
2. David Larcker and Brian Tayan, (2021) “Chapter 1: Introduction to Corporate Governance,” “Chapter 2: International Corporate Governance,” and “Chapter 3: Board of Directors – Duties and Liability,” in Corporate Governance Matters: A Closer Look at Organizational Choices and Their Consequences, 3rd ed. (Hoboken, NJ: Pearson Education), pages 1-78.

Case 7: Asian Paints Limited: Corporate Governance Blues

Complementary case readings:

1. InGovern Research Services (Nov 2021). Asian Paints Limited: Saving the Company from Promoter Shareholders. <https://www.ingovern.com/post/asian-paints-limited>
2. Asian Paints Limited (2021). Clarification on a news item published in the Hindu Businessline and Business Standard on 24th and 25th November, 2021 concerning Asian Paints Limited.

Come to class prepared to discuss the following questions:

- What issue do APL’s independent directors face in the case? Why is a response necessary?
- Given the context of India, why are related-party transaction (RPTs) a corporate governance issue?
- What options should APL’s independent directors consider? How should they evaluate the options?

- What should APL's independent directors do to address InGovern's charges?

Week 13 (25 November) Final group project presentations and course summary

Presentation slides are due 25 November.

Case Analysis No.4 is due 30 November.

Final project poster is due 10 December.