Master of Science in Sustainability Management

COURSE SSM1020H – Decision Making for Sustainability Management

Fall 2022

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Course Objectives:

This course explores corporate sustainability reporting practices and the usefulness of sustainability performance information to investors, managers, and non-profit stakeholders. The course will also examine decision-making tools in contemporary sustainability management and sustainability performance indicators in different business and industry contexts.

After taking the course, students are expected to

1. Gain a solid understanding of theories and key concepts underlying corporate sustainability management and sustainability reporting
2. Develop familiarity with existing sustainability reporting frameworks and contemporary sustainability reporting practices
3. Apply relevant sustainability management and decision-making tools
4. Evaluate corporate sustainability performance and the quality of sustainability reports in different industrial contexts.

Course Materials:

This course is of a multi-disciplinary nature. It will examine contemporary sustainability reporting practices and sustainability management issues from different stakeholder perspectives. The course readings consist of academic papers, research reports, government publications, case studies, and chapters from various sources. All the readings can be found on the Quercus site. Please visit the course homepage and click on the link marked "**Class Schedule & Weekly Readings**" to download and read the required readings before attending lecture. If there are any errors with the reading links, please contact Jae so that she may fix the issue.

For students who do not have any accounting background, it is recommended that they obtain the following book in order to develop a basic knowledge about accounting reporting framework and financial analysis.

How to Keep Score in Business: Accounting and Financial Analysis for the Non-accounting, by Robert Follett, second edition, 2012, Pearson Education, ISBN-10: 0-13-284915-9.

Instructional Approach:

This course will be delivered via lectures, case analysis, class discussions, group research projects, and group presentations at the end of the course. I may also invite industry experts to deliver guest lectures on certain topics whenever appropriate. Students are required to read the assigned readings prior to coming to the class and participate actively in each class.

Course Evaluation:

Component	Evaluation	Weight (%)	Due Date
1. Class Participation	Individual	15%	N/A
2. Individual Assignment	Individual	15%	Oct 17, 2022
3. Life Cycle Assessment Assignment	Individual	15%	Nov 23, 2022
4. Group Research Proposal	Group	10%	Oct 11, 2022
5. Group Research Report	Group	25%	Nov 28, 2022
6. Group Research Presentation	Group	20%	Dec 5, 2022
Total		**100%**	

Class Participation (15%)

Students are expected to participate actively in class discussion. Class participation is evaluated based on individual contributions to class discussions and both quality and quantity will be considered. Participation in synchronous lectures will be monitored and recorded to assess the contributions by individual students.

Two Assignments at 15% each

There is no final exam or term test in this course. Instead, two individual assignments will be given throughout the course to assess students' understanding of course materials and ability to apply their learnings to solve business issues related to sustainability management. Detailed instructions and specific requirements will be given for each assignment in due time.

Group Research Proposal (10%)

The group research project is an integral component of the learning process in this course. The overarching objective of the research project is to gain first-hand experience on how to assess the quality of sustainability reports in a specific industrial context, and detailed knowledge about the existing sustainability reporting framework.

Each group will choose one industry (such as mining, oil and gas, chemicals, pulp and paper, transportations, steel and metals, utilities, etc.) and examine current sustainability reporting practices in this industry. The groups should obtain sustainability (or CSR) reports of a sample of firms in the industry (10 firms are a

manageable sample size for this project) and conduct an in-depth analysis of the sustainability reports. For industrial sectors with many firms, it is acceptable to use the ten largest companies as the study sample. Groups should also review the relevant business publications and research studies to support their analysis and methodology.

Students are welcome to consult with the instructor and the TA, Praveen Siluvai Antony, if they have any questions about the research project. Praveen Siluvai Antony may hold a separate Zoom session for student consultation if needed. Praveen can also assist you on how to conduct a literature review using UofT Library resources and share practical tips and feedbacks on how to prepare a high quality research report from his experiences both as a TA and as a Ph. D. candidate in the Department of Civil Engineering.

The group research proposals are due at 10 PM on Thursday. October 14, 2021 and should be submitted to Quercus course portal. The group research proposal should not exceed five pages, including the cover page, and it should include the following elements (not in the exact order):

1. A clear statement of the research objectives
2. Choice of the industry and why
3. Discussion of the environmental and social impacts of the chosen industry
4. Review of related publications and relevant research studies
5. Discussion of research methodology (i.e. how to analyze the information disclosed in the sustainability reports in terms of quantity, quality, reliability, and usefulness to different stakeholders)
6. A list of sample firms with available sustainability reports
7. A list of relevant publications and research studies (to support your research methodology)

Tips on Choice of Industry

The idea of this research project is to identify a group of companies with homogenous business operations. Companies using similar technologies and natural resources to produce similar products will likely have similar social and environmental impacts. That way, you can compare their environmental disclosures or performance using the same performance measures or benchmarks. It is not a meaningful exercise (or impossible in some cases) to compare the environmental performance of companies in different industrial sectors with different pollution propensity, simply because their environmental impacts may differ dramatically.

- Choose an industry that is well defined according to the following weblink about Standard Industry Classification;
- https://en.wikipedia.org/wiki/Standard_Industrial_Classification#:~:text=The%20Standard%20Industrial%20Classification%20(SIC,United%20Kingdom%27s%20Companies%20House.
- Make sure you have a sufficient number of companies in the industry that are public companies, i.e. listed in a stock exchange so that we can access their financial and CSR reports. A sample of 10 companies would be a good start.
- Choose an industry that you are familiar with in terms of their business operations and their social and environmental impacts
- Also, make sure the companies you choose are big enough to publish a separate CSR or sustainability report. Smaller firms may not do so due to resource constraints.

Please email me and copy Praveen your choice of industry before the second class on September 19, 2020. Ideally, each study group will examine a different industry for this research project.

Final Group Research Report (25%)

The final group research reports are due at 10 PM on November 28, 2022 and they should be submitted to Quercus course portal. The final research report should not exceed 25 pages excluding annexures; using 1.5 line-spacing, 11 font size, 2 cm margins on all four sides. The final reports should be prepared professionally with a cover page, an executive summary, a table of contents, subtitles, conclusions, and a list of references.

The final research reports should discuss the following;

1. The applicable and relevant sustainability reporting standards or frameworks for the industry
2. Degree of compliance with the existing sustainability reporting frameworks by the sample companies
3. Key stakeholder groups (intended readers of the CSR reports) and the degree and mechanisms of stakeholder engagement as disclosed in the sustainability reports
4. Usefulness of the information disclosed in the sustainability (CSR) reports with respect to assessing a firm's progress in sustainability management over time and relative to its industry peers
5. Usefulness of the sustainability reports to investors
6. Mechanisms employed by the firms to enhance the credibility and reliability in their sustainability (CSR) reports and the effectiveness of these mechanisms
7. A critical assessment of the sustainability reporting practices in the industry and implications / recommendations for managers, investors, sustainability reporting standard setters, non-profit stakeholders (i.e. the key take-aways from the research study).

Group Research Project Presentation (20%)

Each group will prepare a presentation based on the final group research report and deliver the presentation on December 5, 2022. The presentation should last no more than 20 minutes and the order of the presentation by different groups will be determined at the beginning of the class randomly. An evaluation rubric for the group presentation will be provided later.

Late submissions:

Assignments, research proposals, final research reports, and other course works must be submitted by the due date and time. Late submissions will be penalized. Please consider the fact that it may take a few minutes to upload your work.

Academic Integrity:

Academic integrity represents a set of morals relating to honesty, trust, fairness, respect, responsibility, and courage in our learning environment.

Students should note that cheating, plagiarizing, and usage of unauthorized electronic devices are considered academic offences and **will not be tolerated**. Any student caught engaging in such activities will be subject to academic discipline ranging from a mark of zero on the assignment, test or examination to dismissal from the university. Any student abetting or otherwise assisting in such misconduct will also be subject to academic penalties.

Moving to remote learning and online courses, students are expected to adhere to the Code of Behaviour on Academic Matters regardless of the course delivery method. Students should maintain the same academic honesty and integrity that they would in a classroom setting. Potential academic offences in a digital context include, but are not limited to:

- Accessing unauthorized resources (search engines, chat rooms, Reddit, etc.) for assessments.
- Using technological aids (e.g., software) beyond what is listed as permitted in an assessment.
- Posting test, essay, or exam questions to message boards or social media.
- Creating, accessing, and sharing assessment questions and answers in virtual "course groups."
- Working collaboratively, in-person or online, with others on assessments that are expected to be completed individually.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources.

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (https://uoft.me/pdt-faq).

Class Schedule

Week	Week starting (MM/DD/YY)	Topic
1	09/12/22	**Sustainability Management and Accounting Reporting Framework** **Readings:** 1. Introduction to the issues – an overview by Martin Houldin in Accounting for the Environment, edited by Rob Gray, PCP Ltd, 1993. 2. Business and the Environment: the Challenge for Accounting and Finance, Chapter 1 in Accounting for the Environment, edited by Rob Gray, PCP Ltd, 1993. 3. The Accounting Framework, Financial Statements and Some Accounting Concepts, in Accounting for Managers: Text and Cases, third edition by William J. Bruns, JR., Thomson/Southwestern, 2005.
2	09/19/22	**Financial Statement Analysis and Sustainability** **Readings:** 1. Environmental Issues in Financial Accounting and Reporting, Chapter 7 in Contemporary Environmental Accounting: Issues, Concepts and Practice, by Stefan Schaltegger and Roger Burritt, Greenleaf Publishing, 2000. 2. Introduction to Financial Ratios and Financial Statement Analysis, in Accounting for Managers: Text and Cases, third edition by William J. Bruns, JR., Thomson/Southwestern, 2005. 3. "An Empirical Examination of Factors Affecting the Timing of Environmental Accounting Standard Adoption and the Impact on Corporate Valuation," Li, Y. and B. McConomy, *Journal of Accounting, Auditing, and Finance*, Vol. 14, No. 3, Summer 1999, pp. 279-313.

3	09/26/22	**Corporate Social Responsibility and Business Innovation** **Readings:** 1. The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders, Archie B. Carroll, Business Horizons, July-August 1991, pp. 39-48. 2. Description, development and explanation of social, environmental and sustainability accounting and reporting, Chapter 4, in Accountability, Social Responsibility and Sustainability: Accounting for Society and the Environment, B. Gray, C. Adams and D. Owen, Pearson, 2014.
4	10/03/22	**Principles and Framework for Sustainability Reporting** **Readings:** 1. A Starter's Guide to Sustainability Reporting, CPA Canada, 2013. 2. How to read a Corporate Social Responsibility Report: a User's Guide, Institute for Responsible Investment, Boston College, 2010. **Guest lecture:** Matthew Zarmati (more detail to follow)
5	10/10/22	Thanksgiving Holiday, University closed.
6	10/17/22	**Full Cost Accounting for Sustainability** **Readings:** 1. Green Ledgers: an Overview, by Daryl Ditz, Janet Ranganathan and R. Darryl Banks, in The Green Bottom Line: Environmental Accounting for Management, Current Practice and Future Trends, Edited by Martin Bennett and Peter James, Greenleaf Publishing, 200. 2. Cost Behavior and Using Costs in Decision Making, Chapter 3, Management Accounting, 6th edition, Atkinson, Kaplan, Matsumura and Young, 2012, Prentice Hall. 3. Accumulating and Assigning Costs to Products, Chapter 4, Management Accounting, 6th edition, Atkinson, Kaplan, Matsumura and Young, 2012, Prentice Hall.
7	10/24/22	**Relevant Cost Analysis for Sustainability** **Readings:** 1. An Introduction to Environmental Accounting as a Business Management Tool: Key Concepts and Terms, U. S. Environmental Protection Agency, 1995. 2. ABC and Life-Cycle Costing for Environmental Expenditures, by Jerry G. Kreuze and Gale E. Newell, in Reading in Management Accounting, fifth edition, edited by S. Mark Young, Pearson Prentice Hall, 2007

8	10/31/22	**Life Cycle Costing and Life Cycle Assessment** **Readings:** 1. Life Cycle Assessment: Principles and Practice, Scientific Applications International Corporation, 2006 2. Comparative LCA of treatment options for US scrap tires: material recycling and tire-derived fuel combustion, Rebe Feraldi, Sarah Cashman, Melissa Huff and Lars Raahauge, *International Journal of Life Cycle Assessment* (2013) 18:613 – 625. **Capital Budgeting Decisions and Sustainability Management** **Readings:** 1. Capital Investment Decisions, Chapter 11 in Management Accounting, Canadian Sixth Edition, Hansen, Mowen, Senkow and Pollanen, Thomson, 2004. 2. Integrating Environmental Impacts into Capital Investment Decisions, Chapter 4, in the Green Bottom Line: Environmental Accounting for Management, Current Practice and Future Trends, Edited by Martin Bennett and Peter James, Greenleaf Publishing, 2000. 3. Guidelines for Life Cycle Cost Analysis, Stanford University Land and Buildings, 2005
9	11/07/22	**Capital Budgeting Decisions and Sustainability Management** **Readings:** 1. Capital Investment Decisions, Chapter 11 in Management Accounting, Canadian Sixth Edition, Hansen, Mowen, Senkow and Pollanen, Thomson, 2004. 2. Integrating Environmental Impacts into Capital Investment Decisions, Chapter 4, in the Green Bottom Line: Environmental Accounting for Management, Current Practice and Future Trends, Edited by Martin Bennett and Peter James, Greenleaf Publishing, 2000. 3. Guidelines for Life Cycle Cost Analysis, Stanford University Land and Buildings, 2005
10	11/14/22	**Sustainability Performance Measures and Key Performance Indicators** **Guest Speaker: TBD** (detail to follow) **Readings:** 1. Environmental Key Performance Indicators: Reporting Guidelines for UK Business, Department for Environment, Food and Rural Affairs, U. K., 2006
11	11/21/22	**Carbon Accounting** **Readings:** 1. "Carbon footprint: current methods of estimation" 2. "The Greenhouse Gas Protocol" 3. "The valuation Relevance of Greenhouse Gas Emissions under the European Union Carbon Emissions Trading Scheme," Peter Clarkson, Yue Li, Matthew Pinnuck, and Gordon Richardson, forthcoming, *the European Accounting Review.*

12	11/28/22	**Sustainability Reporting Assurance** Readings: 1. Causes and consequences of voluntary assurance of CSR reports: International evidence involving Dow Jones Sustainability Index Inclusion and Firm Valuation, Clarkson, Li, Richardson, and Tsang, *Accounting, Auditing and Accountability Journal*, Vol. 32 No. 8, pp. 2451-2474. December 2019. 2. Benchmarking Global Practice: the State of Paly in Sustainability Assurance, International Federation of Accountants, 2021. 3. Energy GHG Assurance Statement (Canadian Tire 2020), DNV Business Assurance, USA, 2021. **Guest Speaker: TBD** (detail to follow) **Group Research Reports due today**
13	12/05/22	**Group Research Presentations** (20 minutes each)