

Strategic Sustainability Management

Course Syllabus

APS1038H, University of Toronto, Winter 2018 Session

Course Description:

This cross-disciplinary graduate course provides a holistic overview of the environmental, social, economic and governance (ESEG) aspects of sustainability management and how to address them strategically to maximize business and product performance to meet changing stakeholder expectations. You will have the opportunity to learn about a variety of sustainability challenges faced by a variety of industry sectors, such as:

- mitigation and adaptation to climate change;
- energy, water, materials and resource management;
- minimizing supply chain risks that can derail business continuity.

The need to approach these broad challenges in a strategic manner is discussed, along with best practices that include:

- going beyond corporate social responsibility;
- sustainability reporting frameworks to manage and communicate performance; and
- the importance of life cycle thinking for credible environmental marketing activities.

You will gain a cross-sector, cross-functional, cross-disciplinary perspective that will prepare you to lead and facilitate sustainability management programs in virtually any industry. The importance of integrating strategic sustainability management into the interconnected network of systems that make up the business-to-business value chain will be discussed. The value of strategically managing sustainability impacts throughout the full life cycle of products will also be addressed. Internationally recognized frameworks, best practices, methodologies, tools and standards will be introduced as vehicles to tie the concepts together for practical application of solutions that support leadership in sustainability performance improvement.

Who This Course Is For:

This course is for aspiring sustainability change agents who wish to gain a broader and deeper understanding of business and product strategic sustainability management from multiple stakeholder perspectives that make up the business-to-business value chain. This course is for you--- if you believe that businesses can and should be a thriving force for good in the world with products that do not harm the environment or social wellbeing. As an engineer, you seek to understand, facilitate and influence how stakeholders can collaborate to lead the development and implementation of transformative management systems and programs for a sustainably prosperous world for all.

Course prerequisites:

Prior experience in the workforce or business/entrepreneurship, familiarity with environmental management systems and basic concepts of economic, environmental and social sustainability is an asset. Proficiency in the English language is recommended as a prerequisite to maximize benefit from interactive class discussions.

Learning outcomes:

At the end of this course, you will be able to:

- Identify the drivers, risks, challenges and opportunities associated with addressing sustainability management challenges.
- Apply the guiding principles and values that are a foundation for a holistic mindset that guides an effective sustainability vision, strategy and implementation plans.
- Identify the factors in developing a credible business case for common sustainability management approaches that deliver actual improvements and breakthrough sustainability performance.
- Navigate common and conflicting needs, perspectives and interests of multiple stakeholder groups, cross-sector, cross-disciplinary, cross-functional and industry-specific perspectives.
- Promote strategic benefits of integrating and engaging the business value chain from suppliers through to end customers for achieving and communicating breakthrough sustainability outcomes.
- Link systems thinking and life cycle thinking to core business strategy and decision-making using product life cycle assessment based on international ISO standards.

Course Duration and Format (dates of weekly sessions TBC):

12 weeks: Weekly class discussions - Tuesdays 5-7 pm (in-class, UC144)
Weekly lecture material - Thursdays 3-4 pm (webinar, online)

What Will Be Covered in this Course:

Key strategic sustainability management approaches will be introduced from the business value chain context, illustrating the importance of a holistic, systems perspective and product life cycle thinking.

Module 1 – Business Sustainability Management

Week 1: Why Sustainability Matters

- State of the World
- Sustainability Pillars (Environmental, Social, Economic, Governance)
- Redefining Capitalism

Week 2: Integrating Sustainability into Business

- Systems Thinking for Sustainability
- Value Chain perspective
- Beyond Corporate Social Responsibility
- Sustainability Strategy and Planning
- Stakeholder Engagement

Week 3: Integrated Sustainability Management

- Sustainability Performance Management
- Continuous Improvement
- Integrated Sustainability Management Systems

Week 4: Sustainability Reporting

- Sustainability Reporting Frameworks
- Materiality Assessment

Week 5: Review Module 1, Assignment and Case Study Project Requirements

Module 2 – Product Sustainability Management

Week 6: Product Life Cycle Management

- Life Cycle Thinking
- Environmental Life Cycle Assessment
- Life Cycle Costing

Week 7: Sustainability Management Approaches

- Eco-business and Environmental Management
- Lean Manufacturing
- Social Sustainability Management

Week 8: Product Sustainability Frameworks and Tools

- Sustainable Procurement
- Supply Chain Sustainability
- Product Stewardship, Extended Producer Responsibility

Week 9: Environmental claims and marketing

- Environmental Claims, Labels and Declarations
- Environmental Marketing

Week 10: Review Module 2 and project preview discussion

Weeks 11-12: Final project presentations, group discussion and feedback

Course Materials:

Course materials and readings will include industry examples, excerpts from textbooks and other books, webinars, documentary films, articles from journals, news and business media and consensus standards. Most of this material will be readily available online or posted on Blackboard. Library course reserves will be made available for the course. Course readings related to each week's topics will be assigned and, at times, may be announced to support the direction of discussions in class.

Please respect the copyright protection of the case studies, readings and other items provided. Please do not distribute copyrighted materials in any form and reference them appropriately in your work.

Course Assessment:

Assignment 1 (20% of course grade, 3-page report - Due at start of Week 5)

This assignment consists of research and a short report related to the lecture content on the subject area of integrating strategic sustainability management into the business-to-business value chain. *Select a business organization within an industry of your choice and report on their environmental or social sustainability impacts and how they have successfully or unsuccessfully addressed them within their value chain.* Please do not merely summarize the content of the lectures, but demonstrate how business sustainability concepts, frameworks and tools have been integrated and are applied in practice.

Assignment 2 (20% of course grade, 3-page report - Due at start of Week 9)

This assignment consists of research and a short report related to the lecture content of the subject area of integrating product life cycle management for sustainability. *Select a product or group of products within a manufacturing industry of your choice and report on management of their environmental and/or social sustainability impacts from a life cycle thinking perspective.* Please do not merely summarize the content of the lectures, but demonstrate how product life cycle management concepts, frameworks and tools have been applied in practice for product sustainability management.

Case Study Project (40% of course grade, 3 parts)

The project consists of creating a case study, presentation and report that will allow you to demonstrate the application of multiple business and product sustainability management approaches and practices from a multi-stakeholder perspective. *Select an existing cross-disciplinary or cross-sector strategic sustainability management challenge within a product manufacturing industry sector for your case study project.*

The breakdown of grading for the project is as follows:

1. Project Proposal: 20%, 2 pages - Due end of Week 7

The project must be pre-approved based on a successful project proposal.

2. Project Presentation: 30%, 10-15 minutes + 5 mins. discussion - to be scheduled

You will present the project case study results to the class in Weeks 11 or 12. It is mandatory to attend all project case study presentations and to participate in interactive discussions, to learn about multiple industries and perspectives from your peers.

3. Project Report: 4-5 pages, 50% - Due end of Week 11

You will submit a final project report summarizing the sustainability initiative or challenge, objectives, stakeholder analysis, collaborative solutions applied, demonstrating the methodology, tools and practices used, results and conclusions.

In-class participation: (20%)

The weekly foundational lecture material will be presented by webcast or webinar during the scheduled class time on Thursdays. The weekly lecture material and selected course readings will subsequently be discussed in class on Tuesdays. Please strive to attend all in-class sessions and participate in class discussions each week. Repeated absences during scheduled in-class times will not work for this course.

Mandatory and optional weekly course readings will require 2-4 hours of time outside of class each week. Extract the key information, describe the cross-cutting challenges, issues and insights and make notes for sharing and critical discussion in class and by commenting online. You will be required to participate in group discussions, breakout sessions, debates, case study review and other facilitated discussions in class. You will also be graded on the frequency and quality of your online participation in the course discussion forum.

- 1. Participate in weekly class discussions, Q&A on mandatory assigned readings: 40%**
- 2. Comment online on 2 or more optional course readings/materials each week: 30%**
- 3. Share your work, comment and initiate relevant discussions in course forum: 10%**
- 4. Contribute to class discussions on final project presentations by peers: 20%**

Instructor Bio

Jabeen Quadir, P.Eng. has over 30 years of experience in strategic, management and technical positions with various organizations in diverse industry sectors, including: industrial chemicals, advanced manufacturing, pulp and paper, plastics injection moulding systems, construction standards development and sustainability of businesses, buildings and products. As founder of Sustainability Edge Solutions, she is active in the development of national, North American and international standards for sustainability in the construction sector, green building rating systems, as well as facilitating programs for sustainable procurement and environmental claims based on product life cycle assessment.

Ms. Quadir is passionate about building the capacity of sustainability champions and teams to facilitate the adoption of strategic sustainability management principles, practices, processes, technologies and products that encompass environmental, economic and sociocultural aspects, based on systems thinking and a foundation of sound life cycle considerations.

Ms. Quadir is also consults for organizations facing disruptive technological, social and business model change using the exponential organizations methodology and cities seeking to fast-track solutions to major urban challenges.

She is a licensed professional engineer with a B.A.Sc. in Chemical Engineering from the University of Waterloo.

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