

**Department of Physical & Environmental Sciences
University of Toronto
Scarborough**

Course: ESTC34H3/EESC34H3 - Sustainability in Practice

Term: Winter 2021

Calendar Description: This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.

Prerequisite: EESA06H3 and an additional 9.5 credits

Exclusion: EESC34H3

Breadth Requirements: Natural Sciences

Course Director: Dr. Ana Maria Martinez, anam.martinez@utoronto.ca

Course Consultation Hours: By appointment, Wednesdays, 12-1 pm (online)

Course TA: Ichha Ravinderpal Kaur Kohli, ichhakaur.kohli@mail.utoronto.ca

Time and Location: Wednesdays, 9 am -12 pm (Online, Bb Collaborate, Course Room)

Student Learning Outcomes

This course will provide students with both theoretical understanding and practical experience in sustainability project research, planning and development, as well as with skills, tools and guideline applications for their professional practices.

Specific outcomes of the course include:

1. Students will understand how the concept of sustainability applies within their academic programs.
2. Students will be able to explain and evaluate how environmental sustainability, economic opportunities and social systems interact to foster or halt sustainability.
3. Students will be able to apply principles, best practices and processes related to sustainability analysis, management and implementation.
4. Students will consider sustainability principles while working with peers in developing multidisciplinary approaches to sustainability and at different scales (individual, local, regional, national, and global).

Organization of the course: The course involves formal lectures by the Course Director, followed by class presentation and exercises led and supervised by the Course Director and/or TA. The lectures will

cover topics related to sustainability theory and praxis, including management, assessment, challenges, etc.

Evaluation: The grade for the course will be based on the following items weighted as indicated:

| <u>Evaluation Point</u> | <u>Value (%)</u> | <u>Date</u> |
|-------------------------------------|------------------|--------------------|
| Project Part 1 (Proposal) | 10 | 10 February |
| Project Part 2 (Poster/Infographic) | 10 | 24 March |
| Project Part 3 (Presentation) | 15 | 31 March & 7 April |
| Project Part 4 (Report/Paper) | 25 | 7 April |
| Paper Presentation/Discussion | 15 | Ongoing |
| Participation & Attendance | 10 | Ongoing |
| Quizzes | 15 | Ongoing |

Note: This evaluation scheme may be altered based on consultation with course participants during the first session of the course. An updated syllabus will be distributed and/or posted on the Course's Quercus website to reflect any changes in the evaluation scheme. Descriptions, tasks and evaluation associated with assignments and project tasks will be detailed in the documents distributed to the class during the term.

Schedule of Topics and Readings

The following list of lecture topics and readings is subject to change, based on guest lectures and project group work. The lectures are intended to show students the range of applications of sustainability principles at different levels. Topics covered in each week of the course are presented below:

Date: Wednesday, January 13, 2021 | Week 1

Title: Introduction to the course and sustainability project ideas. Review of sustainability concepts and principles

Date: Wednesday, January 20, 2021 | Week 2

Title: From the Global to the Individual

Required Reading: The Sustainable Development Goals Report 2020, United Nations, available at: <https://sdgs.un.org/sites/default/files/2020-09/The-Sustainable-Development-Goals-Report-2020.pdf>

Required Reading: 170 Daily Actions to transform our world (UN), United Nations, available at: <https://drive.google.com/file/d/1iMde6DLLuCqwq3K9U-DaTUWB6KyMa8QG/view>

Date: Wednesday, January 27, 2021 | Week 3

Title: Education, Ethics & Social Development

Required Reading: Galetto, L., Torres, C. & Martínez Pastur, G.J. (2019). Variable retention harvesting: conceptual analysis according to different environmental ethics and forest valuation. *Ecological Processes* 8, 40. <https://doi.org/10.1186/s13717-019-0195-3>

Date: Wednesday, February 3, 2021 | Week 4

Title: Challenges in Sustainability: Policy

Required Reading: Carter, A.V., Fraser, G.S. and A. Zalik. (2017). Environmental Policy Convergence in Canada's Fossil Fuel Provinces? Regulatory Streamlining, Impediments, and Drift. *Canadian Public Policy*, 43(1): 61-76 <https://utpjournals.press/doi/10.3138/cpp.2016-041>

Date: Wednesday, February 10, 2021 | Week 5

Title: Resources, Ecosystems and Habitats

Required Reading: Tu, C., Suweis, S. & D'Odorico, P. (2019). Impact of globalization on the resilience and sustainability of natural resources. *Nature Sustainability*, 2, 283–289.

<https://doi.org/10.1038/s41893-019-0260-z>

Due: Project Part 1 (Proposal)

Date: Wednesday, February 17, 2021 | Week 6

Reading Week – No Class

Date: Wednesday, February 24, 2021 | Week 7

Title: Climate Change and Sustainability

Required Reading: Tozer, L. (2018). Urban climate change and sustainability planning: an analysis of sustainability and climate change discourses in local government plans in Canada, *Journal of Environmental Planning and Management*, 61(1): 176-194.

<https://doi.org/10.1080/09640568.2017.1297699>

Date: Wednesday, March 3, 2021 | Week 8

Title: Food Systems and Sustainability

Required Reading: Shiva, V. (2005). Earth democracy: Justice, sustainability, and peace. Cambridge, Mass: South End Press. [Chapter 4]

Date: Wednesday, March 10, 2021 | Week 9

Title: Products, Waste and Recycling

Required Reading: Das, S., Lee, S.-H., Kumar, K., Kim, K-H., Lee, S.S. & S.S. Bhattacharya. (2019). Solid waste management: Scope and the challenge of sustainability, *Journal of Cleaner Production*, 228, 658-678. <https://doi.org/10.1016/j.jclepro.2019.04.323>

Date: Wednesday, March 17, 2021 | Week 10

Title: Organizations & Individuals

Required Reading: Benton M.C. & Radziwill N.M. (2018). Designing Personal Sustainability into Organizational Culture: The Case of Burning Man. In: Brinkmann R., Garren S. (eds) *The Palgrave Handbook of Sustainability*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-71389-2_17

Date: Wednesday, March 24, 2021 | Week 11

Title: Sustainability Assessments & Cities, Sustainable Design & Transportation

Required Reading: Valencia, S.C., Simon, D., Croese, S., Nordqvist, J., Oloko, M., Sharma, T., Buck, N.T. & I. Versace. (2019). Adapting the Sustainable Development Goals and the New Urban Agenda to the city level: Initial reflections from a comparative research project, *International Journal of Urban Sustainable Development*, 11(1): 4-23, DOI: 10.1080/19463138.2019.1573172

Due: Project Part 2 (Poster/Infographic)

Date: Wednesday, March 31, 2021 | Week 12

Project Part 3 (Presentations, day 1)

Date: Wednesday, April 7, 2021 | Week 13

Project Part 3 (Presentations, day 2)

Due: Project Part 4 (Report/Paper)

Class exercises will provide the building blocks of your project. Groups will work each week on their project drawing ideas from the readings, lectures, and presentations.

In class quizzes (15%) will be based on the readings, lectures, and your colleagues' presentations. I have planned 4 quizzes in total, and each will be worth 3.75% of 15%.

The 10% participation and attendance grade will be divided as follows: 5% for in-class participation and 5% for attendance. Make sure that you read all 'required readings' before the class as your contributions in the discussions (in class and on the discussion board) will count towards your participation mark.

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment. On tests and exams cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

Student Accessibility Services

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible.

AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or emailability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Recording in the Classroom

Recording or photographing any aspect of a university course -lecture, tutorial, seminar, lab, studio, practice session, field trip etc. -without prior approval of all involved and with written approval from the instructor is not permitted.

Grading Scheme and Submissions

Project work, quizzes and presentations will bear either a letter grade designation (e.g., A, B, C+, etc.) or an equivalent percentage grade. The final grade for the course will be calculated using the weighting

formula established above for this course. Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

All submissions must be uploaded electronically done on PDF format (unless stated otherwise) through the course's Quercus canvass by the due date. Proper academic performance depends on students doing their work not only well, but on time. Accordingly, the course submission must be received by the Course Director or Teaching Assistant on the due date specified above.

Lateness Penalty

Work received later than the due date will be penalized 5% of the value of the assignment *per day*. For example, if an assignment worth 20% of the total course grade is a day late, 1 point out of 20 (or 5% per day) will be deducted. Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc. will be entertained by the Course Director only when supported by written documentation (e.g., a doctor's letter).

Academic Learning Support

The Centre for Teaching and Learning (CTL) is available to support you in your writing, English language, and math and stats needs. It offers online tutoring and consultations, and has a variety of helpful online resources. For more information, please visit CTL's Academic Learning Support site at <http://uoft.me/AcademicLearningSupport>.

Additional Information

This course requires group work. Group work, when done well, can teach collaborative skills that are essential in many work contexts. It can enrich everyone's learning by making all students resources for each other, and can create a synergy based on the diversity of histories and perspectives of the group members. To ensure that group work is a positive experience, each group should first discuss and agree to ground-rules for effective group work such as: 1) active listening and facilitating equal participation of all; 2) respecting different opinions and different ways of knowing or communicating; 3) considering issues of power, difference and discrimination; 4) identifying a clear path of communication with Course Director should there be issues/concerns; and 5) making clear a path of action for issues regarding equity-related or harassment concerns.

Religious Observance Days

The Course Director will make accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for in-class presentations pose such a conflict for you, contact the Course Director within the first three weeks of class. See the University of Toronto's Policy on Scheduling of Classes and Examinations and Other Accommodations for Religious Observances (<https://governingcouncil.utoronto.ca/secretariat/policies/religious-observances-policy-scheduling-classes-and-examinations-and-other>).