Sustainability Course Inventory

John Robinson

Uf T Sustainability Celebration
Live Panel Session

"The SDGs Paradigm at U of T:
An Exploration of SDGs Embedding in Courses and Activities"

Oct 6, 2020

U of T and the SDGs







































Panel

SDG course inventory

Student-focussed SDG programming

OISE Climate Action Plan

Times Higher Education Impact **Ranking System**

'17 Tables' event, Nov 2020



U of T Home



Researcher Educator & Learner Operator Citizen Leader Investor Tags Contact

President's Welcome

Universities have a crucial and unique role to play in helping to meet the global challenges of sustainability.

Motivated by the United Nations' Sustainable Development Goals

The 2030 Agenda for Sustainable Development was adopted by all members of the United Nations in 2015, placing the seventeen Sustainable Development Goals at the centre of a global sustainability accord. Universities have a crucial role to play in achieving these goals.

The University of Toronto has made major contributions to advancing research and education, and to informing concrete actions and public policy - not just in the sphere of climate change, but throughout the broad and varied field of sustainability more generally.

Faculty, staff, and students across our three campuses are working on - and learning about - every aspect of sustainability, in the sciences, social sciences, humanities, and professional disciplines.

A Low Carbon Action Plan

Moreover, we have dramatically increased the number and scope of sustainability-focussed operational initiatives on our campuses over the past decades. U of T is now recognized as a leader among our North America peers - in everything from design standards and retrofitting to waste reduction and composting.

An important highlight in this effort is the University's new Low Carbon Action Plan aims to reduce the institution's greenhouse gas emissions by 37 per cent from 1990 levels by the year 2030 and put it on a path to becoming a "net-zero" institution. It is a remarkable and ambitious initiative.

A global citizen

The University is taking an ever more significant leadership role as an influential local, national, and global citizen. Our academic community is contributing to coalitions, partnerships, and collective actions all with the aim of averting or mitigating the catastrophic threats we face from climate change and advancing global sustainability

Similarly, the University of Toronto Asset Management Corporation (UTAM) has assumed a prominent role in the global investment community incorporating environmental, social, and governance (ESG) factors in its investment decisions.

The President's Advisory Committee on the Environment, Climate Change and Sustainability

The President's Advisory Committee on the Environment, Climate Change and Sustainability (CECCS), is helping to lead, catalogue, or coordinate many of these efforts.

This site collects together examples of the University's commitment to the environment, climate change, and sustainability and organizes them around the headings you see at the top of the page. As I hope you will find, the University's is a valuable and effective partner in the global pursuit of sustainability.

New sustainability website at U of T (https://sustainability.ut oronto.ca/)



Sustainability Home

Living Lab -

Agent of Change

Curriculum Innovation

Resources & Events -

Opportunities

CECCS Contacts

Sustainability Course Inventory

University of Toronto's 2020-2021 Undergraduate Sustainability Course Inventory

The Sustainability Course Inventory gathers information about all sustainability-related undergraduate courses at the University of Toronto. Our understanding of sustainability englobes both human and environmental concerns, and the inventory was created based on keywords from the United Nations' Sustainable Development Goals (SDGs) (see below). It includes 2,233 sustainability-oriented courses, representing approximately one-quarter of all undergraduate courses at U of T. The Inventory now includes a column for the Instructors who have provided consent via faculty survey to publish their names in the Sustainability Course Inventory. There are now 587 courses with Instructor names in the Inventory. The purpose of the sustainability course inventory is to increase the visibility of such courses, making it more accessible for students to add sustainability content to their educational experience.

We hope to encourage deeper understanding of the societal shift towards sustainability, to contribute to the creation of a culture of sustainability at the university. The SDGs were chosen as a basis for the inventory due to their comprehensiveness and widespread usage in the sustainability field. The first inventory was created in 2017 by the Expanded Student Engagement (ESE) Project, which supports the the President's Advisory Committee on the Environment, Climate Change, and Sustainability (CECCS)'s Subcommittee on Curriculum Innovation, and this new version was made by the CECCS' Adams Sustainability Champion Interns in August 2020. The ESE team collaborated with the CECCS to select which keywords would be used to represent each of the first 16 SDGs. (SDG 17, "Strengthen the means of implementation and revitalize the goal partnership for sustainable development," was excluded from the methodology, as it encompasses the act of achieving the other goals rather than bringing a new perspective to sustainability).

Committee on the Environment, Climate Change, & Sustainability

Sustainability St. George

Sustainability UTM

Sustainability UTSC

Keywords from 16 SDGs

SDGs	Keywords:	SDGs	Keywords:
1 NO POVERTY	Poverty; income distribution; wealth distribution; socio economic	5 GENDER EQUALITY	gender; women; equality; girl
2 NO HUNGER	agriculture; food; nutrition	G CLEAN WATER AND SANITATION	water; sanitation
3 GOOD HEALTH AND WELL-BEING	health; well being	7 AFFORDABLE AND CLEAN ENERGY	energy; renewable; wind; solar; geothermal; hydro electric
4 QUALITY EDUCATION	educat*; inclusive; equitable	8 GOOD JOBS AND ECONOMIC GROWTH	employment; economic growth; sustainable development; labour, worker; wage

SDGs	Keywords:	SDGs	Keywords:
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	infrastructure; innovation; industr*; buildings	13 CLIMATE ACTION	climate; greenhouse gas; environment; global warming; weather
10 REDUCED INEQUALITIES	trade; inequality; financial market; taxation	14 LIFE BELOW WATER	ocean; marine; water; pollut*; conserv*; fish
11 SUSTAINABLE CITIES AND COMMUNITIES	cities*; urban; resilien*; rural	15 LIFE ON LAND	forest; biodiversity; ecology; pollut*; conserv*; land use
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	consum*; production; waste; natural resources; recycl*; industrial ecology; sustainable design	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	institution; justice; governance; peace; rights

Inventory compiled

Using keywords, titles and descriptions of undergraduate courses searched

• through U of T's Course Finder website (<u>www.coursefinder.utoronto.ca</u>).

Then reviewed to remove inapplicable courses

Following information was documented: course code, course title, credits, campus, department, term, academic division, instructor and the SDG(s) to which the course is related

Division	Department	Code	Course Name	Credit Campus	Term	SDGs covered
Faculty of Arts and Science	Anthropology	ANT198H1	Nature: A Cultural Introduction	0.5 St. George	2019 Fall	SDG 13, SDG 15
Faculty of Arts and Science	Anthropology	ANT199H1	Living on the Water in Toronto	0.5 St. George	2019 Fall	SDG 6
Faculty of Arts and Science	Anthropology	ANT200Y1	Introduction to Archaeology	1 St. George	2019 Fall +	SDG 2, SDG 5, SDG 10, SDG 11
Faculty of Arts and Science	Anthropology	ANT204H1	Social Cultural Anthropology and Global Issues	0.5 St. George	2020 Winter	SDG 3, SDG 5, SDG 10, SDG 16
Faculty of Arts and Science	Anthropology	ANT208H1	Medical Anthropology: an Evolutionary Perspective on Human Health	0.5 St. George	2020 Winter	SDG 3, SDG 5
Faculty of Arts and Science	Anthropology	ANT329H1	Language & Power Structure	0.5 St. George	2019 Fall	SDG 5
Faculty of Arts and Science	Anthropology	ANT336H1	Evolutionary Anthropology Theory	0.5 St. George	2020 Winter	SDG 15
Faculty of Arts and Science	Anthropology	ANT343H1	Social Anthropology of Gender	0.5 St. George	2020 Winter	SDG 5
Faculty of Arts and Science	Anthropology	ANT345H1	Global Health: Anthropological Perspectives	0.5 St. George	2019 Fall	SDG 3, SDG 15
Faculty of Arts and Science	Anthropology	ANT347H1	Metropolis: Global Cities	0.5 St. George	2019 Fall	SDG 11, SDG 16
Faculty of Arts and Science	Anthropology	ANT348H1	Medical Anthropology: Social-Cultural Perspectives	0.5 St. George	2019 Fall	SDG 3
Faculty of Arts and Science	Anthropology	ANT358H1	Medical Anthropology and Social Justice	0.5 St. George	2019 Fall	SDG 3, SDG 5, SDG 16
Faculty of Arts and Science	Anthropology	ANT362H1	Sports and Play	0.5 St. George	2019 Fall	SDG 5
Faculty of Arts and Science	Anthropology	ANT362H1	Sports and Play	0.5 St. George	2020 Winter	SDG 5
Faculty of Arts and Science	Anthropology	ANT368H1	Nature Culture Human	0.5 St. George	2020 Winter	SDG 5
Faculty of Arts and Science	Anthropology	ANT370H1	Introduction to Social Anthropological Theory	0.5 St. George	2020 Winter	SDG 5
Faculty of Arts and Science	Anthropology	ANT386H1	Global Catholicism: Anthropological Approaches	0.5 St. George	2020 Winter	SDG 5
Faculty of Arts and Science	Anthropology	ANT409H1	Landscape Archaeology	0.5 St. George	2020 Winter	SDG 15
Faculty of Arts and Science	Anthropology	ANT420H1	Archaeology of Inequality	0.5 St. George	2020 Winter	SDG 5, SDG 10
Faculty of Arts and Science	Anthropology	ANT430H1	Primate Conservation Biology	0.5 St. George	2019 Fall	SDG 14, SDG 15
Faculty of Arts and Science	Anthropology	ANT434H1	Health, Diet & Disease in the Past	0.5 St. George	2020 Winter	SDG 3
Faculty of Arts and Science	Anthropology	ANT435H1	Anthropology of Childhood and Childcare	0.5 St. George	2019 Fall	SDG 2
Faculty of Arts and Science	Anthropology	ANT435H1	Anthropology of Childhood and Childcare	0.5 St. George	2020 Winter	SDG 2
Faculty of Arts and Science	Anthropology	ANT436H1	Primate Ecology & Social Behavior	0.5 St. George	2020 Winter	SDG 14, SDG 15
Faculty of Arts and Science	Anthropology	ANT450H1	Nature, Culture and the City	0.5 St. George	2019 Fall	SDG 11
Faculty of Arts and Science	Anthropology	ANT455H1	Ethnographic Approaches to the Middle East and North Africa	0.5 St. George	2019 Fall	SDG 5
Faculty of Arts and Science	Anthropology	ANT462H1	Anthropology of Affect	0.5 St. George	2020 Winter	SDG 12

Searchable database

https://sustainability.utoronto.
ca/home/ceccs/sustainabilitycourse-inventory/, and

http://www.fs.utoronto.ca/Sus tainabilityOffice/Resources/Su stainabilityCourses

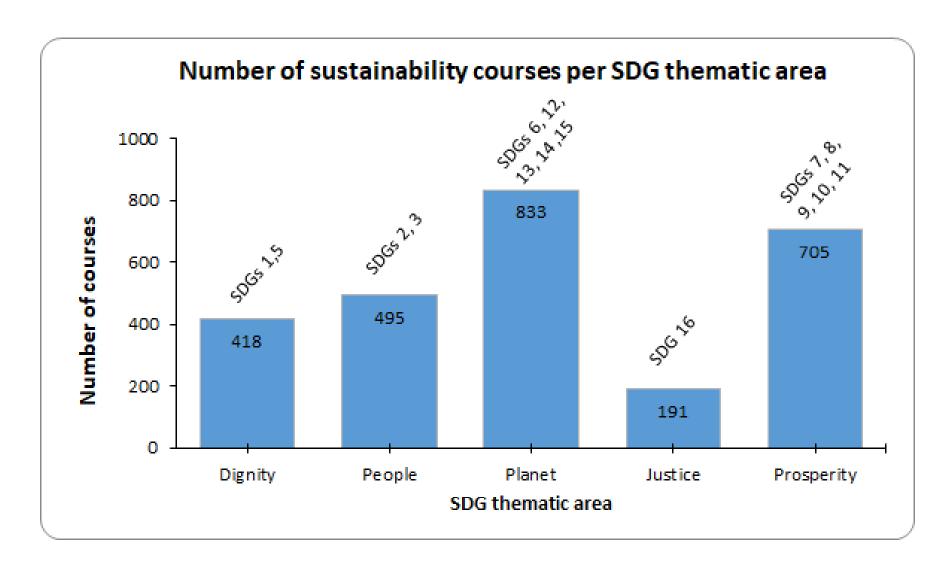
Show 10 V en	tries				Search:		
Code \$ Cou	urse	Course Description	\$ Campus	♦ Term ♦	Division	♦ Department ♦	Credit \$ 1

Sustainability-Related Course Inventory (2020-2021)

University Divisions	Unique Sustainabilit y Courses
ARTSCI- UTSG	947
UTSC	450
UTM	598
APSE	156
FALD	38
KPE	37
MUSIC	7
Total	2233

This represents
26% of 8523
undergraduate
courses at U of T





Based on 2017-18 inventory

SDGs in Sustainability Courses (2017-18)

SDG	No. of courses	%				
SDGs with the highest share of su	SDGs with the highest share of sustainability courses					
SDG13 (take action to combat climate change)	441	28%				
SDG5 (achieve gender equality, empower all women and girls)	398	25%				
SDG3 (ensure healthy lives and promote well-being)	311	20%				
SDGs with the lowest share of su	stainability courses					
SDG7 (ensure access to affordable, reliable, sustainable and modern energy for all)	76	5%				
SDG6 (ensure availability and sustainable management of water and sanitation for all)	74	5%				
SDG12 (ensure sustainable consumption and production patterns)	54	3%				

Documentation of Results: 5 undergraduate students

Presentation at 2018 ISCN conference in Stockholm

Publication of refereed journal article:

Brugmann, R., Côté, N., Postma, N., Shaw, E. A., Pal, D., & Robinson, J. B. (2019). Expanding Student Engagement in Sustainability: Using SDG-and CEL-Focused Inventories to Transform Curriculum at the University of Toronto. *Sustainability*, 11(2), 530

Aug 28, 2019: won Association for the Advancement of Sustainability in Higher Education (AASHE) 2019 Campus Sustainability Research Award

Nathan Postma went to a special award ceremony at AASHE annual conference in Spokane, Washington on Oct 27, 2019





Artic

Expanding Student Engagement in Sustainability: Using SDG- and CEL-Focused Inventories to Transform Curriculum at the University of Toronto

Rashad Brugmann ¹, Nícolas Côté ², Nathan Postma ², Emily A. Shaw ^{3,*}, Danielle Pal ² and John B. Robinson ⁴

- Faculty of Applied Science and Engineering, University of Toronto, Toronto, ON M5S 1A4, Canada abruemann@mail.utoronto.ca
- Faculty of Arts and Science, University of Toronto, Toronto, ON M5S 3G3, Canada; nicolas.cot@mail.utoronto.ca (N.C.); nathan.postma@mail.utoronto.ca (N.P.); danielle cal@mail.utoronto.ca (D.P.)
- London School of Economics and Political Science, London WC2A 2AE, UK
- 4 Munk School of Global Affairs & Public Policy, University of Toronto, Toronto, ON MSS 1H8, Canada; John Prohipson@utrompto.ca
- Correspondence: emily.shaw@mail.utoronto.ca; Tel.: +44-7789-992729

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Abstract: The Expanded Student Engagement Project (ESE) has developed three comprehensive inventories which aim to increase student knowledge of sustainability-related course content and increase student engagement in on- and off-campus, curricular, and non-curricular sustainability projects at the University of Toronto (U of T). The first is a sustainability course inventory (SCI) generated using keyword search based on the UN Sustainable Development Goals (SDGs). This is the first SCI that has been based on the SDGs. The inventory identified 2022 unique sustainability courses and found that SDG 13 had the greatest representation and SDG o had the least. The second inventory is a community-engaged learning (CEL) sustainability inventory which found 154 sustainability-focused CEL courses and identified 86 faculty members who teach sustainability CEL Finally, an inventory of sustainability co-curricular and extracurricular opportunities revealed that U of Thas 67 sustainability-focused student groups and identified 263 sustainability-focused opportunities. These inventories are an important foundation for future initiatives to increase student engagement in sustainability on campus and in the community. The ESE will integrate this data into U of Ts course management system and use the inventories to develop a new sustainability partways program.

Keywords: sustainable development goals; SDGs; higher education institutions; sustainability in higher education; agent of change; curriculum innovation; sustainability course inventory; student engagement

1. Introduction

The University of Toronto's President's Advisory Committee on the Environment, Climate Change, and Sustainability (CECCS) has developed a project intended to support undergraduate student engagement with sustainability issues that challenge the university and its neighbouring communities. This project, titled the Expanded Student Engagement Project (ESE), is working to expand student knowledge of sustainability-related course content and increase both on- and off-campus student engagement through sustainability focused curricular and non-curricular projects. The ESE's work presented here was conducted by five undergraduate research assistants and their supervisor, chair of the CECCS, over a period of 14 months.

Sustainability 2019, 11, 530; doi:10.3390/su11020530

www.mdpi.com/journal/sustainability

Three-level Sustainability Pathways Framework

Sustainability Citizen (acknowledgement of sustainability-related co-curricular activities, recorded on Student Co-Curricular Record (CCR)

Sustainability Scholar (sustainability curricular pathways certificate or minor, recorded on transcript)

Sustainability Leader (Citizen + Scholar + designated capstone or community-engaged learning course)

Offered to all undergraduate students at the university No mandatory component



Pathways Implementation

Division	Status	Launch
Applied Science and Engineering	Minor approved	Fall 2020
Architecture, Landscape and Design	Certificate approved	Fall 2020
UT Mississauga	Certificate in development	Expected Fall 2021
UT Scarborough	Certificate in development	Expected Fall 2021
Arts and Science	Certificate in development	Expected Fall 2021

