

United Nations Sustainable Development Goals Report

YORK UNIVERSITY 2022



**RIGHT
THE
FUTURE™**

Introduction

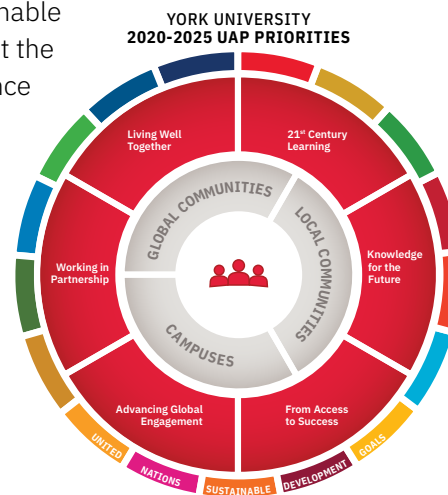
In June 2020, York University launched its new University Academic Plan 2020-2025 (UAP), which included a university-wide challenge to elevate York’s contributions to the United Nations Sustainable Development Goals. The new [UAP](#) serves as a blueprint for action, positioning York University as an agent of positive change in a world facing a convergence of unprecedented trials from climate change, a global pandemic, poverty, systemic inequality and political polarization.

The University has taken action by developing frameworks to address racial inequality and by expanding access to higher education for more students, with plans for a medical school and the building of a new Markham Campus. It has also supported the community’s ability to remain safe during the global pandemic, with 97% of students vaccinated against COVID-19 in 2021 and many international students receiving a safe passage to Canada.

In October, 2022 York announced plans to build on these efforts, with the expansion of its Office of Sustainability. This includes the appointment of a new Chief Sustainability Officer, the creation of a \$1 million fund for Sustainability Innovation, an open access micro-lecture series and a badge in Sustainable Living along with a pledge to reduce direct and indirect emissions by 45% by 2030.

As a Canadian university that is leading on the United Nations Sustainable Development Goals (SDGs), York is committed to action that will right the future. Our research, academic innovation, student learning experience and global partnerships are catalyzing positive change for local and global communities.

This year’s report highlights the University’s progress throughout 2020-2021, selecting some meaningful stories and metrics that demonstrate how Canada’s 3rd largest university is advancing the 17 SDGs and tackling the biggest challenges of our times.



“As an international leader in sustainability, York is catalyzing positive change through groundbreaking research, pedagogical innovation and global partnerships. Our students, staff, faculty and course instructors are committed to working together to build a more sustainable, equitable and inclusive world for future generations and for the planet.”



Rhonda Lenton, President and Vice-Chancellor

About the Report:

The source for the UN SDG descriptions is from [The Global Goals](#).

All bibliometric indicators are based on publication data from SciVal/Elsevier for the 2019-2021 timeframe. Elsevier SDG mapping methodology details can be located at: <https://elsevier.digitalcommonsdata.com/datasets/9sxdykm8s4>.

For metrics on academic programs related or relevant to specific SDGs, they cover any undergraduate degree, undergraduate certificate, graduate degree and graduate diploma programs that offer content related or relevant to tackling SDGs within and or outside the classroom.

Facts and Figures

THE IMPACT RANKINGS 2022

Top 6%

of universities worldwide
for **4** years in a row

33rd

out of

1,410

universities

from **110** countries
in 2022

3rd in Canada

9th in the world



3rd in Canada

23rd in the world



1st in Canada

21st in the world



4th in Canada

10th in the world



\$4.4B

contributions to
Ontario economy



2049

net zero
carbon emissions



43,904

scholarships awarded totalling
\$114,449,359 for undergraduate
and graduate students (2020-2021)



300+

global partnerships in
60+ countries



York degree and non-degree
programs offered on

3 continents

(North America, Asia and Africa)



One Eco-Campus

that sits on **400+** acres of
land in Costa Rica
(including many conservation areas)



10 consecutive years

as one of Canada's top 100
greenest employers



11,360+

students are first in their
family to attend university



End poverty in all its forms everywhere.

SDG 1: No Poverty

Eradicating poverty is not a task of charity. It is an act of justice and the key to unlocking enormous human potential. Still, nearly half of the world's population lives in poverty, and lack of food and clean water is killing thousands every single day of the year. Together, we can feed the hungry, wipe out disease and give everyone in the world a chance to prosper and live a productive and rich life.

TECH SOLUTIONS FOR CITIES

Twelve groups of York University students worked for six weeks in partnership with IBM and the Canadian Civil Liberties Association to create a workable solution that smart cities like [Markham](#) could use to better address SDG 1 and the needs of residents from lower-income households.

“It was a six-week sprint,” says **Taha Sajjad**, a PhD candidate in engineering and computer science who joined the [Cross-Campus Capstone Classroom \(C4\)](#) intensive summer project to get a taste of real-world projects that require teamwork and working with stakeholders.

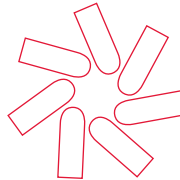
In exploring the use of digital technologies to manage city services, each team aimed to break the cycle of poverty for Canadian newcomers. [Learn more about this C4 project.](#)

ASSISTANCE FOR STUDENTS WHO OVERCOME BARRIERS

York University's motto, created in the 1950s, “*Tentanda Via: The Way Must Be Tried,*” represents the timeless notion of pursuit, perseverance, resilience and innovation. Tentanda Via awards are entrance scholarships based on merit and financial need. Launched in 2021, they were created to recognize undergraduate students who have faced significant personal barriers and who have overcome these challenges through perseverance and by demonstrating fortitude and resilience in the pursuit of a university education.

The award also recognizes student leaders or changemakers who are pushing boundaries and demonstrating a commitment to progressive and sustainable development initiatives. It was also designed to attract changemakers from low- and lower-middle-income countries.

These prestigious awards are available to both domestic and international students and are renewable annually if awardees maintain good grades. [Learn more about the Tentanda Via awards.](#)



Cross-Campus Capstone Classroom (C4) students created “Smart City” solutions to support Canadian newcomers.

CONTINUING STUDIES BURSARY

Gautham Kolluri, a thought leader and international education and student recruitment expert, has endowed the first-ever bursary at the School of Continuing Studies. Introduced in 2021, the bursary will support two domestic and two international students in financial need in 2023.

Many of the school's students are newcomers to Canada who are looking to apply their existing educational and career experience towards an in-demand field locally, or advance their English language and academic skills to thrive in degree studies. These students are rarely eligible for educational funding due to their immigration and employment status, yet the financial challenges they face can be significant.



Kolluri, who first came to Canada as an international student from India, said, "Canada has welcomed me, Canada has embraced me, and I want to give back to Canada for welcoming us and embracing us." [Learn more about this bursary.](#)



60+

Programs relevant or related to SDG 1



Canadian Observatory on Homelessness and the Homeless Hub led by York Faculty

101

publications



34 28 39

(2019-2021)



40%

of publications co-authored with international collaborators



11,360+

students are first in their family to attend university



REFUGEES FRONT AND CENTRE

The **Centre for Refugee Studies** at York is an interdisciplinary community of researchers dedicated to advancing the well-being of refugees and others displaced by violence, persecution, human rights abuses and environmental degradation. The Centre focuses on innovative research, education and policy engagement. Since its inception in 1988, it has been recognized as an international leader in the creation, mobilization and dissemination of new knowledge that addresses forced migration issues in local, national and global contexts. It continues to have a vibrant research program.

The Centre also aims to educate future generations about refugee issues through its undergraduate certificate program, its Graduate Diploma in Refugee and Migration Studies, a summer professional development course and an online series of videos introducing interested viewers to refugee issues. [Learn more about the Centre for Refugee Studies.](#)





End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

SDG 2: Zero Hunger

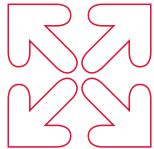
Hunger is the leading cause of death in the world. Our planet has provided us with tremendous resources, but unequal access and inefficient handling leaves millions of people malnourished. If we promote sustainable agriculture with modern technologies and fair distribution systems, we can sustain the whole world's population and make sure that nobody will ever suffer from hunger again.

CREATING A FULL-CYCLE COMPOSTING SYSTEM

An interdisciplinary team from the [Cross-Campus Capstone Classroom \(C4\)](#) has created a [full-cycle composting system](#) at the Maloca Community Garden on campus. The students proposed a three-tiered compost system which requires three separate bins and only uses organic material. They realized that the system would be easy to operate and could be turned over to other students once they graduated. Putting their plan into action, however, required unanticipated legwork. For example, they met with personnel from various faculty buildings with kitchens, as well as food service and campus grocery staff to ensure an ongoing supply of organic matter. [Learn more about this student-driven project.](#)

COOKS FEED THE HUNGRY

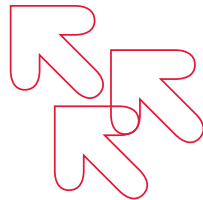
Credit alumna **Seema Sanghavi** (International MBA '10) for helping to eliminate hunger. Sanghavi partnered with three charities dedicated to reducing food waste – Rescuing Leftover Cuisine, Second Harvest and Feeding India – to create **Cooks Who Feed**, a business that helps those in need. Working with trained seamstresses, Cooks Who Feed produces aprons that are sold to provide meals for the hungry; profits from the sale of a single apron provide 100 meals. Sanghavi praises the Schulich School of Business for a solid foundation. “I have been able to leverage a lot of the skills I gained in my management and marketing classes at Schulich, and the networks I gained from being a Schulich alum have been invaluable.” [Learn more about this initiative to eliminate hunger.](#)



Cross-Campus Capstone Classroom (C4) students behind “Digestion in York’s Living Lab: A Full-Cycle Composting Project”

STUDENT GROUP PROMOTES AWARENESS ABOUT HUNGER

Glendon Campus has an active student chapter of **Action Against Hunger**, the international humanitarian organization that tackles this global challenge. The chapter's focus is on fundraising events and educating students and leaders about hunger, malnutrition and its causes. Although the pandemic slowed down club activities, the group held a movie screening of *The Hunger Games*, along with a discussion of the impact of living in famine. For Black History Month in February, they ran a social media campaign highlighting Black activists and organizations that are helping to curb starvation in local communities. Student **Jazmine Webb** is leading the team this year. [Learn more about Glendon's Action Against Hunger chapter.](#)



30+

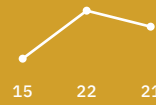
Programs relevant or related to SDG 2



Home to the
Centre for
Bee Ecology Evolution
and Conservation

58

publications



(2019-2021)



55%

of publications co-authored with international collaborators

2 ZERO HUNGER



GUIDANCE TO FOOD POLICY-MAKERS

John McRae, an associate professor in the Faculty of Environmental and Urban Change, would like to see Canada implement a national food policy and is offering officials tools to create an effective one through his [Food Policy for Canada website](#). This ongoing project is a hands-on guide for policymakers at all levels of government. It is easily accessible and allows readers to consider various levels of detail according to their needs. It focuses on the components of good food policy and offers aid to anyone motivated to participate in food system change. The site features goals, solutions and various instruments to bring about a better system, including legislation, regulation, subsidies and international agreements. [Learn more about John McRae's work on improving Canadian food policy.](#)



3 GOOD HEALTH AND WELL-BEING



Ensure healthy lives and promote well-being for all at all ages.

SDG 3: Good Health and Well-Being

Over the last 15 years, the number of childhood deaths has been cut in half. This proves that it is possible to win the fight against almost every disease. Still, we are spending an astonishing amount of money and resources on treating illnesses that are surprisingly easy to prevent. Goal 3 promotes healthy lifestyles, preventive measures and modern, efficient healthcare for everyone.

MODELLING GOOD HEALTH

Two Faculty of Science researchers received federal funding to lead national disease modelling efforts. Mathematics Professor **Huaiping Zhu** is leading the One Health Modelling Network, which received \$2.5 million over two years from the Ministry of Health and the Ministry of Innovation, Science and Industry. Zhu and his collaborators are designing the new network for emerging infections using multidisciplinary knowledge about the connections between environmental, animal and human health to refine the disease modelling used to identify pathogens early.

Mathematics for Public Health (MfPH), led by University of Toronto mathematics Professor V. Kumar Murty and co-led by York University mathematics Professor **Jianhong Wu**, received \$3 million to establish a pan-Canadian, **Emerging Infectious Disease Modelling** (EIDM) network that aims to apply advanced mathematical techniques to achieve public health objectives. [Learn more about York's leadership on national disease modelling.](#)

INTERNATIONALLY EDUCATED NURSES WORK WITH YORK STUDENTS

Who is better suited to understand the health concerns of York University's international students than internationally educated nurses (IENs)? York International (YI), the university's home base for international students, arranged to have 10 IENs do their community nursing placements at York International during the 2022 winter semester. The nurses were students in York's [Post-RN Internationally Educated Nurses \(IEN\) Program](#). For many, the YI practicum was their first community nursing experience. The placement not only gave nurses the Canadian experience deemed necessary by the College of Nurses of Ontario, but helped them understand the complexities of Canada's health-care systems. [Learn more about these grants.](#)



Jianhong Wu

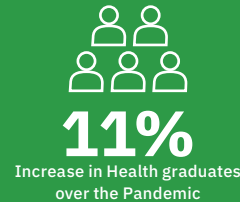
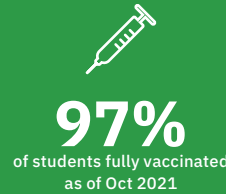
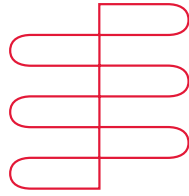


Huaiping Zhu

YORK RECEIVES \$9M IN FUNDING FROM CANADA FOUNDATION FOR INNOVATION

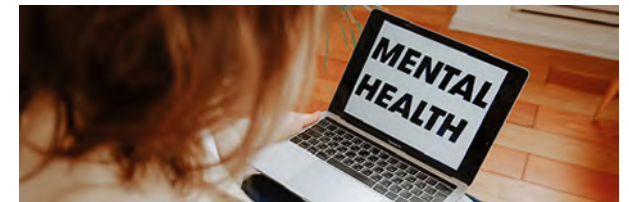
The Canada Foundation for Innovation award will be used to fund three major projects. Professor **George Zhu** will lead a transformation in mass and volume reduction for rocket launching satellites and self-sustained medical support for human spaceflight.

Professor and York Research Chair **Derek Wilson** and York University Distinguished Research Professor **Sergey Krylov** will create a globally competitive hub for technological innovation in biopharmaceuticals research that will entice businesses to the area. The CFI investment also supports basic sciences at York University. [Learn about these new grants.](#)



SUPERIOR STUDENT SUPPORT

Two units from the Division of Student Services, Student Counselling & Development (SCD) and Health Education & Promotion (HEP) are now operating as one under the new name [Student Counselling, Health & Well-being \(SCHW\)](#). Student Counselling, Health & Well-being now offers a range of services including training programs, workshops and peer-to-peer consulting in addition to traditional counselling services, such as walk-in counselling, short-term therapy, emergency support, group counselling, informational sessions and more. The team aims to continue educating in the areas of physical health, nutrition, sleep, sexual health and the use of alcohol, cannabis and other drugs. [Learn more about how Student Counselling, Health & Well-being is supporting students.](#)





Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

SDG 4: Quality Education

Education liberates the intellect, unlocks the imagination and is fundamental for self-respect. It is the key to prosperity and opens a world of opportunities, making it possible for each of us to contribute to a progressive, healthy society. Goal 4 is about ensuring access for all along all educational levels, and ensuring relevant skills for sustainable development and financial success.

BRINGING HIGHER EDUCATION OPPORTUNITIES TO REFUGEES IN KENYA

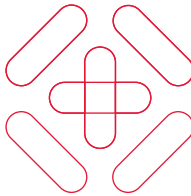
For the past two years, York University’s Faculty of Education, Centre for Refugee Studies, and the [Borderless Higher Education for Refugees \(BHER\) Project](#) have co-sponsored a speaker series with Windle International Kenya. The series features experts from York University and institutions that support refugees.

BHER is a consortium of Kenyan and Canadian universities – including York University – and NGOs that aims to make educational programs available where refugees need them. The project’s goal is to provide free accredited university programs to working, untrained refugee and local

teachers on the ground in Dadaab, Kenya – one of the world’s largest and long-standing refugee encampments. Through its work in countries that are adjacent to regions where people have been displaced, BHER’s work is critical to advancing UNHCR’s goal of enrolling 15% of refugee youth in higher education by 2030. [Learn more about BHER’s pioneering work.](#)

SUPPORT NURSING DOCTORATES IN GHANA

Ascend@York is a collaborative partnership between York University’s [School of Nursing](#) in Toronto and the [School of Nursing and Midwifery at the University of Health and Allied Sciences \(UHAS\)](#) in Ho, Ghana. It is working to give highly qualified and talented young people access to advanced education. The partners are taking a two-pronged approach to building up the African country’s nursing educators and researchers. This is achieved by increasing the number of nursing faculty at UHAS with a doctoral education as well as by developing a joint PhD program to further expand nursing education and research capacity at both institutions. [Learn more about the Ascend@York program.](#)

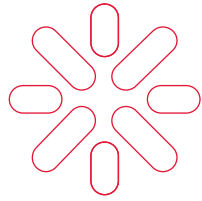


Borderless Higher Education for Refugees Project students in Kenya

GO GLOBAL, SUSTAINABLY

York University launched its inaugural **Go Global Student SDGs in Action Challenge** in January 2022 – the first of a series that will unfold over four years. In 2021 this program was funded by York and the federal government’s [Global Skills Opportunity](#) program, which offers \$500,000 over a period of four years. It aims to empower York students to work toward achieving [United Nations Sustainable Development Goals \(SDGs\)](#) each year through community action projects that they design in collaboration with students from York’s global partner institutions. Students also receive support from faculties and mentors.

The program is intended to engage under-represented students to contribute to the SDGs and participate in study or work abroad opportunities. Twelve teams of students took part in the 2022 program, which was overseen and co-ordinated by York International. [Learn more about the SDGs in Action Challenge.](#)



30+
Programs relevant
or related to SDG 4



UNESCO Chair,
the world’s first and longest-
serving in Education for
Sustainable Development
(SDG 4.7)

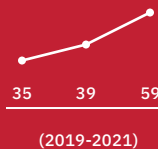


27%
of alumni more civically active
because they attended York U



4
SDG-focused
Faculty Provostial Fellows

133
publications



32%
of publications
co-authored with
international collaborators

INCORPORATING SUSTAINABLE DEVELOPMENT GOALS INTO COURSES

York University’s Academic Plan includes a commitment to the United Nations Sustainable Development Goals (SDGs), challenging the university community to take action. Now, a new [SDGs-in-the-Classroom toolkit](#) is available to faculty to help them weave SDGs into their courses. Inspiration for the toolkit came from a 2021-22 Provostial Fellowship, where **Cheryll van Daalen-Smith** saw this as a living resource that could continue to provide resources, materials and collaborative opportunities to support educators.

Relevant to many programs, it gives faculty members different routes for identifying how their classrooms can welcome SDG discussions, activities or lessons within their course. [Learn more about the Sustainable Development Goals-in-the-Classroom toolkit.](#)



The SDGs-in-the-Classroom Community of Practice at York University
Les ODD en classe, une communauté de pratique à l'Université York





Achieve gender equality and empower all women and girls.

SDG 5: Gender Equality

Gender bias is undermining our social fabric and devalues all of us. It is not just a human rights issue; it is a tremendous waste of the world's human potential. By denying women equal rights, we deny half the population a chance to live life at its fullest. Goal 5 is about ensuring political, economic and social equality for women, and eradicating prejudice in all forms.

GLENDON PROFESSORS EXPLORE WOMEN'S EXPERIENCES IN NEW BOOKS

New books by Glendon College professors [Gertrude Mianda](#) and [Jacinthe Michaud](#) discuss women's experiences in two very different ways. Mianda's book *V.Y. Mudimbe: African women, gender and social order* (Editions du Cygne, 2022) is an examination of the novels of renowned Congolese philosopher V.Y. Mudimbe and his insights into gender and women in Africa. "Mudimbe, who was born in Congo in 1941, is a man who was ahead of his time in his beliefs about women and society," said Mianda. Meanwhile, Michaud's work *Frontiers of Feminism: Movements*

and Influences in Québec and Italy, 1960-80 (UBC Press, 2021) analyzes the feminist movements occurring in two disparate environments. The book examines the influence of American and French feminisms on the evolution of these two movements. [Learn more about these scholarly works.](#)

WOMEN IN SPORT

Pandemic notwithstanding, York University Athletics & Recreation held its third annual Women and Girls Leadership and Sport Conference virtually. The 2022 theme was Leadership Communication: Language, Crucial Conversations and Using Your Voice. The virtual format made the event accessible to women and girls in sport across Canada. The lineup of speakers included **Betsy Butterick**, a coaches' coach and communications specialist, and renowned, long-time Florida Gators soccer coach **Becky Burleigh**, as well as two-time Olympian and mental performance specialist **Shawnee Harleigh**. [Learn more about the Women and Girls Leadership and Sport Conference.](#)



Jacinthe Michaud



Gertrude Mianda

HELPING WOMEN WITH COVID-19 RECOVERY

A York multidisciplinary research project, “Creating Space: Precarious Status Women Leading Local Pandemic Responses,” received approximately \$665,000 in funding from Women and Gender Equality Canada’s Feminist Response and Recovery Fund. The two-year collaborative effort brings together six researchers from five faculties, along with 10 partner organizations.

The project aims to support self-determination and accelerate systemic change to reduce gender-based violence, promote workplace health and safety and increase economic security. It is led by Osgoode Hall Professor **Heidi Matthews**, co-principal investigator along with Professor **Luann Good Gingrich**, director of the Global Labour Research Centre. [Learn more about Creating Space: Precarious Status Women Leading Local Pandemic Responses.](#)



Ashani Missier, YSpace Ella participant



Entrepreneurial Leadership & Learning Alliance
ELLA
is a York University entrepreneurship program created by women, for women – in 2020

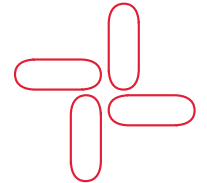


ELLA’s Impact

\$15.7M
Revenue generated by ventures

MAKING SPACE FOR WOMEN ENTREPRENEURS

Two years after becoming Ontario’s first women-focused business accelerator, **YSpace ELLA** has met its goal to help reduce the gap in gender equality in entrepreneurship – and it has done so during the challenging COVID-19 pandemic. **Nicole Troster**, ELLA’s entrepreneurship manager, says the pandemic served as a catalyst for many women to start their own businesses and ELLA was right behind them to offer support. ELLA offers three programs: [ELLA Express](#), a two-week bootcamp that offers support and guidance to female business leaders from the inception of their business; [ELLA Ascend](#), a five-month accelerator that supports early-stage companies making at least \$50,000 in revenues to build a strong foundation for growth; and [ELLA Altitude](#), a four-month accelerator program to help later-stage entrepreneurs valued at \$200,000 scale up their companies. [Learn more about how YSpace ELLA is reducing the gap in gender equality in entrepreneurship.](#)





Ensure availability and sustainable management of water and sanitation for all.

SDG 6: Clean Water and Sanitation

One in three people live without sanitation. This is causing unnecessary disease and death. Although huge strides have been made with access to clean drinking water, lack of sanitation is undermining these advances. Goal 6 is about providing affordable equipment, management and education in hygiene practices, to stop this senseless suffering and loss of life.

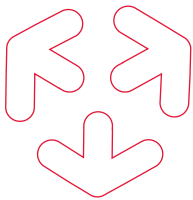
INDIGENOUS PERSPECTIVES VITAL TO WATER GOVERNANCE

Susan Chiblow, a PhD student in the Faculty of Environmental and Urban Change affirms the importance of including knowledge from Elders, Indigenous language speakers and Indigenous women in decision-making about water governance. Her research, published in the journal *Water*, incorporates Indigenous worldviews and examines humanity’s relationship to water and efforts on improvement for humans, animals and the waters themselves. Broadly speaking, Chiblow drew on Indigenous theoretical frameworks that emphasize responsibility and relationships. She also consulted with the teachings of her ancestors and spoke with Anishinaabek Elders,

language speakers and women from the Great Lakes territory. Her study effectively ties together decolonializing methodologies with Indigenous methodologies in an ingenious and original way. [Learn more about this research on sustainable water governance.](#)

USING SATELLITES TO IMPROVE WATER QUALITY

In a six-week pilot project, students worked with **Franz Newland**, associate professor of space science and engineering, to design a system that monitors water quality in remote communities across the country. It then relays important information back to the residents of those regions using a cube satellite.



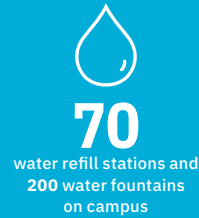
The long-term goal for the project is to work in partnership alongside these communities to develop solutions that work for them by listening to their concerns and adapting the mission to meet their needs. This pilot program also challenged the traditional classroom learning experience by showcasing the impact that project-based education can make. [Learn more about this space engineering challenge.](#)



Susan Chiblow

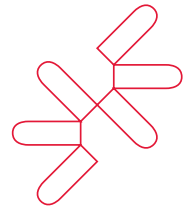
SOLUTIONS FOR CLIMATE CHANGE IMPACTS ON GLOBAL FRESH WATER SUPPLY

Sapna Sharma co-hosted an event on World Water Day to build partnerships and exchange knowledge on this pressing global issue. The event was part of her 2021-22 Provostial Fellowship commitment on: “Improving access to clean water.” Her goal was to build a University-wide engagement strategy that supports partnerships focused on access to clean water. This event engaged external communities alongside York’s students, faculty and staff. [Learn more about the World Water Day event.](#)



A TOOL FOR SAFE WATER OPTIMIZATION

Master of Science candidate **Michael DeSanti** presented a York-developed Safe Water Optimization Tool (SWOT) to the 2022 Emergency Environmental Health Forum in Budapest, Hungary, in May 2022. Building on years of water safety research, SWOT takes a risk-based approach to generating guidance on chlorination to ensure safe water in humanitarian settings. It was developed by **Syed Imran Ali**, a Dahdaleh Institute research fellow. The tool uses machine learning and numerical modelling to generate site-specific, evidence-based chlorination targets that ensure safe water for the entire duration of household storage and use at any field site. [Learn more about the Safe Water Optimization Tool \(SWOT\).](#)



7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable and modern energy for all.

SDG 7: Affordable and Clean Energy

Renewable energy solutions are becoming cheaper, more reliable and more efficient every day. Our current reliance on fossil fuels is unsustainable and harmful to the planet, which is why we have to change the way we produce and consume energy. Goal 7 is about implementing these new energy solutions as fast as possible to counter climate change, one of the biggest threats to our own survival.

MARKHAM CAMPUS ASPIRES TO LEED GOLD CERTIFICATION

York University's new Markham Campus, slated to open in Spring 2024, is being designed and constructed to achieve LEED Gold certification. Leadership in Energy and Environmental Design (LEED) certification recognizes building projects for sustainable actions taken in interior and exterior design and construction, operations and management. Thanks to Diamond Schmitt Architects and sustainability consultant Footprint, the building's design and construction incorporates demand and occupancy controlled ventilation and lighting as well as sustainable building materials. The heating and cooling plants

for the campus are connected to Markham District Energy, enabling efficient, cost-effective energy management. The building will feature water metering, the installation of low-flow plumbing fixtures and outdoor landscaping that uses local plant species. [Learn more about the sustainable design at the Markham campus.](#)

REDUCING GREENHOUSE GAS EMISSIONS

York plans to shift its electricity supply toward the 93 per cent emission-free Ontario power grid and away from its on-site electrical production at the co-generation plant, which consumes natural gas. The plant produces approximately 60 per cent of Keele Campus's electricity requirements and has offered financial savings at a time when that was a paramount concern. However, **Steve Prince**, the university's director of utilities and energy management, says the electricity production from the co-generation plant is also responsible for 24,000 tonnes of greenhouse gases (GHGs). As a result, York plans to transition to purchased electricity by July 2023, using the co-generation plant largely for cost savings during peak periods and as a backup in the event of a disruption. [Learn more about York's plan for a greener, more sustainable energy supply.](#)



Gordon Binstead, Deputy Provost, Markham Campus

GO GREEN IN TENDING YOUR LAWN

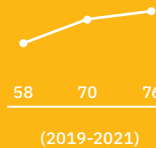
An interdisciplinary team of York students in the Cross-Campus Capstone Classroom (C4) program worked with the Markham Environmental Advisory Committee on a fossil fuel and CO₂ reduction initiative. Initially, the focus was on supporting the community’s transition from fossil fuel property maintenance devices (i.e., lawnmowers, snow-blowers, etc.) to devices powered by renewable energy sources, including a trade-in program for gas-powered mowers.

Over time, they began to consider alternatives to simply switching over to electric-powered machinery. The team created an online video promoting the project and used social media to spread the word. They also helped encourage homeowners to [consider eco-friendly alternatives](#) to traditional lawns as a way to reduce CO₂ emissions, labour and supplies needed to keep spaces tidy and attractive. [Learn more about how this project is tackling emissions.](#)



20+
Programs relevant
or related to SDG 7

204
publications



47%
of publications
co-authored with
international collaborators

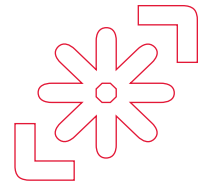


3+
Canada Research Chairs
Engaged in Sustainable Energy
Solutions Research

INTERNATIONAL RENEWABLE ENERGY ACADEMY PROVIDES STUDENTS WITH EXPERIENTIAL EDUCATION

Founded with seed funding from York U’s Academic Innovation Fund, the International Renewable Energy Academic (IREA) is designed to meet the growing need to nurture future leaders who are focused on the use of 100 per cent renewable energy. It is led by **José Etcheverry**, an associate professor in the Faculty of Environmental and Urban Change. IREA has a strong community focus emphasizing experiential education, work-integrated learning and constant innovation.

Since early 2021, IREA began offering students paid work-integrated-learning (WIL) opportunities each term. These “WIL projects” are based on local partnerships examining regenerative agriculture, permaculture, value-added food production, sustainable building construction, renewable energies and electric mobility, Indigenous knowledge, environmental education and arts-based learning. IREA is also in the process of building two Climate Solutions Parks (living laboratories): one in Toronto and one in Penetanguishene, Ontario. [Learn more about the International Renewable Energy Academy \(IREA\).](#)



8 DECENT WORK AND ECONOMIC GROWTH



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

SDG 8: Decent Work and Economic Growth

Economic growth should be a positive force for the whole planet. This is why we must make sure that financial progress creates decent and fulfilling jobs while not harming the environment. Goal 8 is about protecting labour rights and once and for all putting a stop to modern slavery and child labour, promoting job creation with expanded access to banking and financial services, and to ensure all have access to the benefits of entrepreneurship and innovation.

CAREER BRAIN

To help York students and alumni navigate the ever-changing job landscape, the School of Continuing Studies (SCS) partnered with Lightcast Data to create [CareerBrain](#), a data-driven career navigator.

CareerBrain draws its insights from the world's largest and most sophisticated database of labour market data. It uses a proprietary data-driven algorithm to match a user's experience and transferable skills to in-demand roles, adjacent roles and non-intuitive career paths. Using CareerBrain, a student's background may lead them to career ideas they never would have imagined for themselves, because artificial intelligence and big data offer insights from patterns that they, themselves, can't identify.

"CareerBrain will complement your own intuition and understanding and give you a broader view of the opportunities available to you," says **Tracey Taylor-O'Reilly**, director of the School of Continuing Studies. [Learn more about Career Brain.](#)

CREDENTIALS FOR INTERNATIONALLY EDUCATED NURSES

With nurses exiting the profession in Ontario daily due to pandemic burnout, York's **post-RN program for Internationally Educated Nurses (IEN)** has taken on a more important role than ever before. The program is specifically designed for internationally educated nurses who are not currently registered in Ontario. It takes 20 months to complete as a full-time student and includes English language support and mentorship. Graduates earn a BScN degree and are qualified to take the Canadian Registered Nurses Exam. In addition, the School of Nursing trains its nurses for leadership positions in Canadian healthcare, preparing them for careers in hospitals, community health settings and leadership on public health promotion, health-care management and education. [Learn more about this program for internationally trained nurses.](#)



Tracey Taylor-O'Reilly

HELPING PROFESSIONALS TRANSITION TO CANADA

Canada is currently facing a major workforce crisis. Newcomers and their in-demand skills are a vital asset to supporting our immediate labour market needs and long-term economic prosperity. York assists professionals who are new to Canada with integrating into the workforce through its **Bridging Program for Internationally Educated Professionals** (IEP).

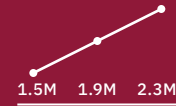
The IEP Bridging Program helps ensure that newcomers have appropriate knowledge and skills to adapt to the Canadian workplace. It also helps participants improve language and professional skills, grow their network, and offers support during a career search. [Learn more about the Bridging Programs for Internationally Educated Professionals.](#)



YU Mitacs Interns (Accelerate, Elevate & Globalink Programs)

90
(2018-2019)
132
(2019-2020)
129
(2020-2021)

Funding secured from Mitacs Canada for training students and postdoctoral fellows in Canada and abroad with university and industry partners



(2018-2019 to 2020-2021)



8,860
faculty/staff employed (2020)
5,116 FTEs in 2021



30+
Programs relevant or related to SDG 8



50%
of publications co-authored with international collaborators

174
publications

Year	Publications
2019	45
2020	62
2021	67

(2019-2021)

CONNECTING BLACK STUDENTS WITH ALUMNI

Advancing YU is a unique program that matches select alumni, who are achieving success in their chosen fields, with third- and fourth-year students who are Black and or female to provide mentorship and skills development. This pilot program celebrates the many successful York University Black alumni and creates an opportunity to meet and invest in the next generation of Black professionals and scholars.

Students invest 20 hours in the program, exploring personal and professional development, coaching and personal reflection. In addition to professional coaching, each student receives a \$1,000 scholarship. The Advancing Black Students stream of the program welcomed 78 students and 26 alumni mentors in its pilot year. [Learn more about Advancing YU.](#)



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

SDG 9: Industry, Innovation and Infrastructure

A functioning and resilient infrastructure is the foundation of every successful community. To meet future challenges, our industries and infrastructure must be upgraded. Goal 9 ensures the promotion of innovative sustainable technologies and ensures equal and universal access to information and financial markets, bringing prosperity, creating jobs and making sure that we build stable and prosperous societies across the globe.

CLIMATE CHANGE AND REAL ESTATE

“Climate Risk and Commercial Property Values: A review and analysis of the literature” is a recent report from the **United Nations** that was written in partnership with York University’s Schulich School of Business and Britain’s Henley Business School. The piece discusses the physical climate risks that real estate investors should consider. Given recent extreme weather events, it aims to identify patterns in the reduced price of assets and behaviour change in the real estate market resulting from acute and chronic climate risk. It is worth noting that the researchers found little information that is available to investors and other market participants that clearly outlines the interaction between climate hazard exposure, market sentiment, and asset value and pricing.

[Learn more about how Schulich is partnering with](#)

[the United Nations to study how climate change is impacting real estate values.](#)

YORK PARTNERSHIP SUPPORTS BLACK ENTREPRENEURS

As part of the federal government’s first-ever Black Entrepreneurship Program (BEP), York University’s YSpace, Schulich Executive Education Centre (SEEC) and TD Community Engagement Centre are joining forces with the local Black Creek Community Health Centre (BCCHC) and the Black Creek Community Farm to support Black-Canadian entrepreneurs and businesses in Humber River-Black Creek.



Under this \$3-million grant, BCCHC in partnership with York University will launch an agri-food program called the **Black Entrepreneurship Alliance (BEA)**, which offers a full spectrum of education, mentorship and acceleration supports to Black entrepreneurs who are looking to establish or grow agri-food businesses. [Learn more about this partnership and the support it will provide to Black-Canadian entrepreneurs.](#)



Jim Clayton, Director, Brookfield Centre in Real Estate and Infrastructure

AIDING INTERNATIONAL STARTUPS

YSpace, York’s hub for entrepreneurs and startup businesses, has successfully helped many Canadian startup enterprises launch and gain traction; now, it is offering the same assistance to international startup companies. YSpace began its international outreach in 2020 with an accelerator program for Chilean food and beverage companies and realized that it was applicable to other international companies.

During the 2021-2022 academic year, staff hosted an accelerator program for Korean companies. The 12-week program focused on helping them validate an approach to the Canadian marketplace, engage in conversations with potential investors and understand the appropriate way to sell products to local consumers. The program also included a mentorship component. Two of the five participating startups found great partners and business connections in Canada by joining this program. [Learn more about how YSpace is helping startups ease into the marketplace.](#)



Startup ventures supported:

179
(2020-2021)

165
(2019-2020)

Increase of **8.5%**



Funding/Investment received
by startups

\$16.8M
(2020-2021)

\$11.4M
(2019-2020)

Increase of **47%**



Revenue generated
by Startups

\$18.1M
(2020-2021)

\$8.5M
(2019-2020)

Increase of **113%**

216
publications



57 77 82

(2019-2021)



50%

of publications
co-authored with
international collaborators

RESEARCH INFRASTRUCTURE GETS A BOOST

Thanks to the Canada Foundation for Innovation’s (CFI) John R. Evans Leaders Fund (JELF) program, in 2021 researchers at York University received \$1.5 million in research infrastructure funding. Professors Ali Asgary, Marcus Brubaker, Solomon Boakye-Yiadom, Liam Butler, Taylor Cleworth, Claire David, Shital Desai, Matthew Keough, Christine Le, Ozzy Mermut, Arturo Orellana, Enamul Prince, Jennifer Pybus and Emilie Roudier are the beneficiaries. “This vital funding helps ensure we attract and retain the very best researchers who are undertaking truly innovative work,” said **Amir Asif**, vice-president of research and innovation.



[Learn more about the research this funding will support.](#)



Reduce inequality within and among countries.

SDG 10: Reduced Inequalities

Too much of the world's wealth is held by a very small group of people. This often leads to financial and social discrimination. In order for nations to flourish, equality and prosperity must be available to everyone – regardless of gender, race, religious beliefs or economic status. Goal 10 is all about addressing income inequality, social, economic and political inclusion and creating policies that promote equality.

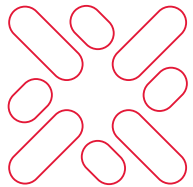
ADDRESSING RACISM IN ONTARIO'S CULTURAL ARTS CURRICULA

Research by **Collette Murray**, a PhD student in dance studies at the School of the Arts, Media, Performance & Design at York University, determined that despite Ontario's mandate to implement culturally responsive pedagogy, Black cultural arts educators face significant challenges when they implement culturally responsive teaching in Greater Toronto Area schools. The cultural arts play a critical role in shaping identities and offering intergenerational values, specifically to Black and diverse students. However, cultural arts educators often face Anti-Black racism,

institutional unpreparedness, cultural appropriation and delegitimization of Black Canadian cultural artistry from school administrations. [Learn more about recommendations to improve culturally responsive teaching.](#)

INTERNATIONAL INDIGENOUS STUDENT EXCHANGE PROGRAM

York International, the Faculty of Liberal Arts & Professional Studies (LA&PS), the Robarts Centre for Canadian Studies, and the Centre for Aboriginal Student Services (CASS) created the University's **first-ever international Indigenous student exchange program**. The initiative brings together Indigenous students from York and partner institutions from a variety of countries for shared virtual lectures and projects. The program, which has now been delivered twice, runs for eight weeks and has involved Indigenous students and faculty from Australia, Canada, Costa Rica, Ecuador, Mexico and the Philippines.



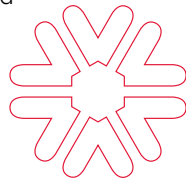
Supported by Canada's Outbound Student Mobility Innovation Fund, the program covers topics such as Indigenous knowledge and histories, language and cultures, the land, disrupting colonial spaces and re-indigenization, spirituality and current issues that Indigenous students and communities face in Canada and globally. [Learn more about the international Indigenous Student Exchange Program.](#)



Collette Murray

HELPING TO ELIMINATE RACIAL PROFILING

York human rights experts **Lorne Foster** and **Les Jacobs** joined forces with the Waterloo Regional Police Service to collect and analyze race-based data to further their research on anti-racism in policing. The multi-year collaboration will develop an extensive data collection system across all police-citizen interactions, focusing on the use of force, stop and question, traffic stops, charges, arrests and releases to support a more holistic approach to addressing instances of systemic racism within the service.



Foster is a professor in the School of Public Policy & Administration and the York Research Chair in Black Canadian Studies & Human Rights. Jacobs is a professor emeritus at York's Faculty of Liberal Arts & Professional Studies (LA&PS). They are [principal architects](#) behind the 2017 Ontario Anti-Racism Act. [Learn about how researchers are addressing racial profiling in policing.](#)



21,226

people ages **25 to 64** who earned university degrees from York that they would not otherwise have



11,360+

students are the first in their family to attend university

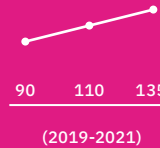


34+

years of work with refugees at York at the Centre for Refugee Studies

335

publications



36%

of publications co-authored with international collaborators



60+

Programs relevant or related to SDG 10

YORK NAMES INAUGURAL VICE-PRESIDENT, INDIGENOUS INITIATIVES

Professor **Susan Dion**, a Lenape and Potawatomi scholar with mixed Irish and French ancestry, was appointed in 2021 as York University's inaugural associate vice-president, Indigenous initiatives. Her role will be crucial as York works to decolonize and address issues of racism, including anti-Indigenous racism, and strengthen the community to be more welcoming, equitable and inclusive.

Dion will draw on her expertise, experience and energy to drive the further implementation of York University's Indigenous Framework, support the implementation of the Decolonization of Research Administration Report recommendations, and several other Indigenous Initiatives across all three campuses. [Learn more about this new appointment.](#)

11 SUSTAINABLE CITIES AND COMMUNITIES



Make cities and human settlements inclusive, safe, resilient and sustainable.

SDG 11: Sustainable Cities and Communities

The world's population is constantly increasing. To accommodate everyone, we need to build modern, sustainable cities. Goal 11 is about using new, intelligent urban planning to create safe, affordable and resilient cities with green and culturally inspiring living conditions.

TESTING AND SCALING UP ELECTRIC VEHICLES ON CAMPUS

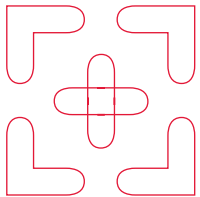
A partnership inspired in 2021 between auto magnate and former York University governor **Frank Stronach** and Professor **Andrew Maxwell**, Bergeron Chair in Technology Entrepreneurship at the Lassonde School of Engineering, turned York into a testing site for Stronach's new three-wheel electric vehicle, known as SARIT (Safe, Affordable, Reliable, Innovative Transit). The four-year partnership includes the establishment of a campus dealership to explore ideal pricing. Staff are running real-life tests of the cars through their work in areas like maintenance, security and

parking, while students – both undergraduate and graduate – are testing applications for the vehicles beyond campus staff transportation, including their suitability for ride sharing and for use by people with disabilities. [Learn more about how York is a living lab for SARIT vehicles.](#)

A NEW VISION FOR KEELE CAMPUS

York University has reimagined its Keele Campus with the release of [Living Well Together](#). This foundational document proposes development that will include partnerships and leases that stay true to the University's values and academic mission. The University will retain ownership of lands, partnering in the development of structures and amenities that benefit students, community members and neighbours, and will consider land disposition only to achieve significant strategic benefit.

The plan includes the reinvigoration of the Harry W. Arthurs Common, home to the York University subway station, and proposes four new neighbourhoods within the campus including: a commercial centre; a high-tech district; a primarily residential district; and a second residential, commercial and athletic neighbourhood around the Pioneer Village subway station. [Learn more about the Living Well Together plan.](#)



Andrew Maxwell and students from the Lassonde School of Engineering involved in testing SARIT vehicles.

MOVE AROUND CAMPUS WITH BIKE SHARE

York University has partnered with the City of Toronto to install three Bike Share stations on the Keele and Glendon campuses. The program provides community members with 24-7 convenient access to bikes and a variety of payment options. Their availability is one more way that York is fulfilling the United Nations Sustainable Development Goal to make cities safer and more sustainable. This program also helps uphold the University's commitment to sustainable transportation and reducing carbon emissions on its campuses, as York works toward its goal of carbon neutrality on or before 2049. [Learn more about sustainable travel on York's campuses.](#)



40+
Programs relevant or related to SDG 11



42%
of publications co-authored with international collaborators

300+
Event days during the pandemic

Music, drama and other performing arts events open to the public (in-person/virtual and free & paid), hosted by the School of the Arts, Media, Performance & Design:

- 200+** event days (2018-2019)
- 500+** event days (2019-2020)
- 150+** event days (2020-2021)
- 150+** event days (2021-2022)

Asante Soccer Academy, Union Basketball Canada Academy, Key Hoops, Active Scholars, and the Junior Provincial Wheelchair Basketball Team are just some of the **community sporting groups and teams** hosted by York Lions at our athletic facilities

1,000+
Public event days for music, drama and other performing arts (2019-2022)

DESIGN JUSTICE SPEAKER SERIES IS INTERNATIONAL

Professors from Canada, New Zealand and the United Kingdom delivered the 2021 Wendy Michener Memorial Lecture, a discussion titled "Art, Design, and Climate Justice." The lecture and discussion explored the role of art and design in climate justice. **Ian Garrett** (York University), Rachel Hann (Northumbria University) and Huhana Smith (Massey University) offered their perspectives in the first event of the 2021 Design Justice Speaker Series, which explored how design can challenge social inequities, empower marginalized communities, and engage in world-building that supports cultural and ecological survival. [Learn more about the participants and the annual lecture.](#)



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensure sustainable consumption and production patterns.

SDG 12: Responsible Consumption and Production

Our planet has provided us with an abundance of natural resources. But we have not utilized them responsibly and currently consume far beyond what our planet can provide. Goal 12 is about sustainably managing natural resources, reducing and managing waste better, and promoting sustainable lifestyles and company practices.

IMPROVING WASTE MANAGEMENT

Managing waste in Ontario is very expensive and it's time to rethink our provincial strategy, according to **Calvin Lakhan**, PhD and co-investigator of the "Waste Wiki" project. The [Waste Wiki](#) is an online, open-access resource that houses data, research and literature that is pertinent to Canada's waste management sector. It's also a research initiative designed to advance understanding surrounding waste diversion behaviour and the impacts of waste management policy. "The Blue Box program costs \$400 million each year in Ontario and municipal waste management runs to more than a billion dollars each year," says

Lakhan. "However, our research shows that not all recycling is created equal and we need to prioritize what to recycle and why." [Learn more about rethinking waste management in Ontario.](#)

SMARTER SUPPLY CHAIN MANAGEMENT

[The George Weston Ltd. Centre for Sustainable Supply Chains](#) is a recognized Centre of Excellence at the Schulich School of Business that was launched in 2021 with Professor **David Johnston** as its inaugural director. It is made possible with a gift from George Weston Ltd. The Centre supports innovation in management education as well as academic and industry research.

The Centre has focused on creating experiential learning for graduate students, giving them hands-on experience working with organizations that are grappling with the costs, opportunities and trade-offs involved in making supply chains part of a lean and circular economy. The Centre is also advancing a portfolio of research programs in leading-edge, non-competitive areas of priority to advance the long-term sustainability of supply chains. [Learn more about York's work in advocating for sustainable supply chains.](#)



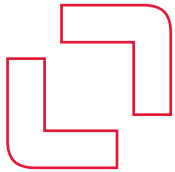
Calvin Lakhan

CONSUMERS CAN REDUCE GLOBAL WARMING

Research co-authored by York University's **Ellie Perkins** shows that changing consumer behaviour can go a long way towards mitigating climate change, while still giving people a sense of well-being. The study was published in *Nature Climate Change* in November 2021.

Perkins, a professor in the Faculty of Environmental and Urban Change, and her fellow authors demonstrate how shifts in behaviour can help countries, including Canada, meet their goal of limiting global warming to 1.5 C.

Researchers found that modifying demand and consumption of goods and services, switching to a flexitarian, vegetarian or vegan diet, and employing food waste reduction strategies can all help the environment through reduced emissions. [Learn more about how changing consumer behaviour can reduce emissions.](#)



15+
Programs relevant or related to SDG 12



2+
K-12 Outreach Programs
focused on environment & sustainability



62%
of publications co-authored with international collaborators



77%
Waste Diversion from landfills
(up from 66% previous year)



2,135
tonnes of waste recycled

NEW SCHOOL OF CONTINUING STUDIES BUILDING AIMS FOR LEED GOLD STANDARD

The new School of Continuing Studies building situated on York University's Keele Campus has been designed by architectural firm Perkins+Will to achieve LEED (Leadership in Energy and Environmental Design) Gold status, and meet the City of Toronto's new Green Standard for new Greater Toronto Area buildings. The building design explores the potential for Net-Zero Energy and Net-Zero Carbon. Strategies include a building envelope designed using Passive House standards; heat recovery ventilation; and integrated photovoltaics to generate electricity on-site. A high-performance prismatic facade composed of photovoltaic panels and glazed openings will also bring natural light into the building. [Learn more about the features of the School of Continuing Studies building.](#)





Take urgent action to combat climate change and its impacts.

SDG 13: Climate Action

Climate change is a real and undeniable threat to our entire civilization. The effects are already visible and will be catastrophic unless we act now. Goal 13 is about invoking climate action through education, innovation and adherence to climate commitments, to make the necessary changes to protect the planet. These changes also provide huge opportunities to modernize our infrastructure, which will create new jobs and promote greater prosperity across the globe.

ORGANIZED RESEARCH UNITS HOLD CLIMATE CHANGE RESEARCH MONTH

In an effort to promote the climate change research happening at York and mobilize the community to take action, the University’s Organized Research Units (ORUs) held their first Climate Change Research Month in March 2022. This initiative is tied to the University Academic Plan that was launched in 2020. It featured more than a [dozen public events](#) that demonstrated how climate change impacts every facet of life – including child development, mental health, faith, employment, equity and the economy. “York University researchers are at the forefront of disciplinary and interdisciplinary investigations

into what climate change means today and how to create a more sustainable future,” says **Elaine Coburn**, an associate professor and director of the Centre for Feminist Research. [Learn more about York’s Climate Change Research Month.](#)

YORK SPEARHEADS CLIMATE REPORT GIS PROJECT

Mark Terry, a research fellow with York’s Dahdaleh Institute of Global Health Research and a lecturer from the Faculty of Environmental and Urban Change, is the co-founder and curator of the Youth Climate Report. The report is a multilinear, interactive, database documentary film project that uses a Geographic Information System (GIS) map platform to showcase almost 500 videos of climate research produced by youth from around the world.

The project was adopted in 2016 as an official education and outreach program under Article 6 of the **United Nations Framework Convention on Climate Change** (UNFCCC). It is currently used as a data delivery system for the delegates attending the COP (Convention of Parties) conferences as a resource in their policy creation sessions. [Learn more about the Youth Climate Report GIS Map Project.](#)



Organized Research Unit Directors who presented at Climate Change Research Month: Angele Alook, Joel Ong & Byomkesh Talukder.

PROVOSTIAL FELLOW OFFERS CLIMATE CHANGE SOLUTIONS

Provostial Fellow **Burkhard Eberlein** is eager to see reduced CO₂ emissions on York University's campuses. Eberlein, a professor of public policy and sustainability at the Schulich School of Business, is focusing on emissions from commuting and travel related to studying, research and carrying out other University business activities. Firmly based in data, the goal is to match innovative ideas and best practices with York's emissions profile so that proposals for action target relevant areas and achieve significant impact. A community survey will be the next phase of the project. [Learn more about this work to reduce emissions at York.](#)



Youth Climate Report
partnering with UNFCCC since 2011



Bike Share comes to York



10
consecutive years
as one of Canada's top 100 greenest employers



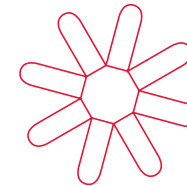
Catalyzing Interdisciplinary Research Cluster on Indigenous Climate Leadership and Self-Determined Futures



Home of the Ontario Climate Data Portal

PLANETARY HEALTH ON FILM

Three York faculty members and a documentary filmmaker ran the third edition of the Planetary Health Film Lab in 2022 for Indigenous youth in Ecuador. The lab is an interdisciplinary program featuring a week-long, intensive workshop designed to provide participants with the knowledge, skills and tools to make short documentary films for the United Nations.



This year's 20 Indigenous youth participants learned to effectively tell stories from their communities that reveal data, research and life experiences related to global and planetary health.

These films were presented at the United Nations climate conference, **COP27**, in Sharm el-Sheikh in Egypt in November. Their films are being produced in the Indigenous languages of Kichwa and Shuar with English subtitles, paying homage to the **UN's International Decade for Indigenous Languages** (2022-32). [Learn more about the Planetary Health Film Lab.](#)



Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

SDG 14: Life Below Water

Healthy oceans and seas are essential to our existence. They cover 70 percent of our planet and we rely on them for food, energy and water. Yet, we have managed to do tremendous damage to these precious resources. Goal 14 is all about reversing this damage and protecting oceans and seas by eliminating pollution and overfishing and immediately starting to responsibly manage and protect all marine life around the world.

PLANETARY HEALTH IMPACTS OF CLIMATE CHANGE

The [Dahdaleh Institute for Global Health Research](#) at York University is calling urgent attention to the human health cost of environmental degradation, inviting deeper reflection on the relationship between human and environmental well-being. Research led to a groundbreaking study by Dahdaleh faculty and staff that demonstrates just how interdependent humans are with oceans and marine life.

“We set out to establish a research agenda that would illuminate the relationship between human civilization and the biosphere,” said Dr. James Orbinski, director of the Institute. “It is quite clear

to us in research and policy work that while there is an interdependent relationship, the biosphere will adapt and survive, but human civilization may not. We must approach the relationship to our planet with a higher degree of humility.” [Learn more about the research involved in the study.](#)

REDUCING MICROPLASTIC POLLUTION

Shooka Karimpour, a professor at the Lassonde School of Engineering, is working with a team that includes Professors Raymond Kwong and Satinder Kaur Brar to tackle the spread of plastics in aquatic systems, where their decomposition is having a major impact on aquatic health. They will examine the physical processes that lead to the transport and ecotoxicology of microplastics across the Niagara Basin of Lake Ontario, as well as two rivers in the Greater Toronto Area. Ultimately, their goal is to develop an understanding of how currents, gravity and weathering influence the transport of microplastics in aquatic environments, and how this affects aquatic life. [Learn more about this research to reduce microplastic pollution.](#)

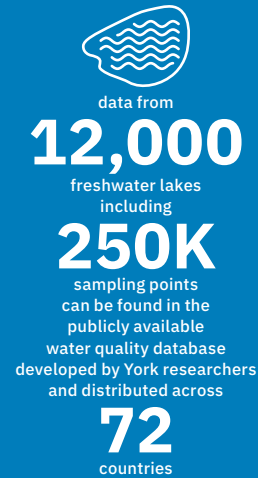


Byomkesh Talukder, James Orbinski & Nilanjana Ganguli

TRADITIONAL KNOWLEDGE ABOUT WATER

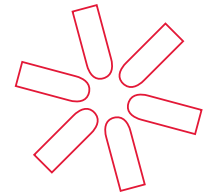
A paper by **Deborah McGregor**, Canada Research Chair in Indigenous Environmental Justice, published in the *International Indigenous Policy Journal*, discussed the traditional knowledge considerations in protecting Ontario’s water, a precious resource in this era of drought and climate change.

McGregor is Anishinaabe from Whitefish River First Nation, Birch Island, Ontario, and advocates for the inclusion of traditional knowledge in policy-making. As a summary of her work relates: “The indiscriminate and narrow application of Western science and technologies has prevented full and equal participation of Indigenous peoples in water management and is contributing to the loss and degradation of water around the world.” [Learn more about the role of Traditional Knowledge in protecting Ontario’s water.](#)



CLEANING OUR GROUNDWATER

Professor **Satinder Kaur Brar**, the James and Joanne Love Chair in Environmental Engineering at York, is developing an enzyme-based technology for addressing emerging contaminants. She and her team were successful in removing petroleum hydrocarbons – a naturally occurring chemical that presents in crude oil – petroleum-based fuels and lubricant oils from groundwater. The research has significant implications for Canada’s oil and gas industry, since Canada is among the world’s top producers. [Learn more about this research on removing harmful waste in Canada’s groundwater.](#)





A flourishing life on land is the foundation for our life on this planet.

SDG 15: Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and land degradation and halt biodiversity loss. We are all part of the planet's ecosystem and we have caused severe damage to it through deforestation, loss of natural habitats and land degradation. Goal 15 is about promoting a sustainable use of our ecosystems and preserving biodiversity, which is the key to our own survival.

BEE ECOLOGY

In recent decades, there has been evidence of declines in the health and diversity of wild bees. Principal investigators at York University's [Centre for Bee Ecology, Evolution & Conservation \(BEEc\)](#) have joined together to apply their collaborative efforts to the development of policies and environmental management for the long-term sustainability of bees and the vital ecosystem services they provide. They explore bee health through the lenses of biology, diversity, ecology, mathematics, statistics and socio-ecological systems. As they study wild and managed bee populations, the researchers hope to "support evidence-based decision-making

and recommendations for sustainable practices in agricultural, urban and natural ecosystems."

[Learn more about ensuring the survival of bee populations.](#)



ECOCAMPUS BACK IN ACTION

Following a two-year pandemic hiatus, York University's EcoCampus at Las Nubes, Costa Rica, offered nine courses this past summer. The campus is run by the Faculty of Environmental and Urban Change, but also featured courses from Glendon College and the Faculty of Health. The 115 registered students were a record for the campus's summer program.

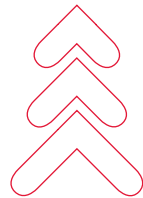
The courses taught at Las Nubes, as always, were experiential education (EE) classes that drew on the setting – 427 rural acres that sit on the slope of the Talamanca Range in Southern Costa Rica. The EcoCampus courses draw on long-standing relationships with diverse communities and groups in the area. [Learn more about York's EcoCampus at Las Nubes, Costa Rica.](#)



Amro Zayed, Principal Investigator and Director of the Centre for Bee Ecology, Evolution & Conservation (BEEc), and student researchers.

LEARNING THE BRUCE

Richard Bello, a climatologist, and **W. Steven Tufts**, a human geographer, took 16 students to Ontario's Bruce Peninsula to study both the natural features and the human landscape during a six-day, intensive summer course. The area is a **UNESCO World Biosphere Reserve** containing the largest continuous forest in southern Ontario, as well as beaches, Indigenous communities and small towns. Physical geography students worked to determine if climate change is affecting the forest's ability to remove carbon dioxide from the atmosphere. They explored the impact of COVID-19 on businesses in the community, designing and distributing a survey among stores and restaurants in the town of Sauble Beach. Bello called the immersive aspect of the course invaluable. [Learn more about how the Bruce Peninsula has become a living lab for Faculty of Environmental and Urban Change students.](#)



Catalyzing Interdisciplinary Research Cluster on Partnership for Youth & Planetary Well-being



Indigenous Peoples and Environmental (In)Justice Project



Las Nubes EcoCampus

sits on **427.7** acres of land that include the Lillian Meighen Wright Centre landmark building, the Casita Azul community library, and several conservation areas, including the Las Nubes Biological Reserve.



Home to the Centre for Bee Ecology, Evolution & Conservation

122

publications



40 48 34

(2019-2021)



15+

Programs relevant or related to SDG 15



66%

of publications co-authored with international collaborators

GREENING THE CAMPUS AS A COMMUNITY

Pandemic notwithstanding, the Office of Sustainability, Facilities Services and Regenes@York (a student environmental group), held tree planting events on both the Keele and Glendon campuses during the 2021-22 academic year. "It was a great opportunity for students, faculty and staff to get involved and to de-stress," said **Nicole Arsenault**, program director of the Office of Sustainability. "Being in touch with nature has so many well-being benefits."

She also noted that "regenerating our ecosystems on campus is important and plays a big role in getting to Net Zero by 2049." As trees grow, they help mitigate the effects of climate change by removing carbon dioxide from the air, storing that carbon within the trees and soil, and releasing oxygen into the atmosphere. [Learn more about this community sustainability effort.](#)



15

LIFE ON LAND





Compassion and a strong moral compass are essential to every democratic society.

SDG 16: Peace, Justice and Strong Institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels. Yet, persecution, injustice and abuse still run rampant and are tearing at the very fabric of civilization. Goal 16 ensures that we tackle abuse, organized crime, corruption and violence through strong institutions and global standards of justice.

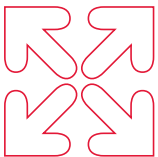
YORK RESEARCH CHAIR IN ENVIRONMENTAL LAW & JUSTICE IN THE GREEN ECONOMY

Professor **Dayna Nadine Scott** of Osgoode Hall Law School was appointed as York University’s [Research Chair in Environmental Law & Justice in the Green Economy](#) in 2018. Scott, who is cross-appointed to the Faculty of Environmental and Urban Change, is a co-Director of Osgoode’s Environmental Justice and Sustainability Clinic and a co-coordinator of the joint MES/JD program. Scott’s research interests focus on contestation over extraction, the distribution of pollution burdens affecting marginalized communities and vulnerable populations, and the justice dimensions of the transition to a greener economy.

She is currently co-Principal Investigator for a SSHRC-funded project that is pursuing research oriented towards how the “just transition” to sustainable economies can be imagined and infrastructured to restore Indigenous jurisdiction, laws and governance systems. [Learn more about Dayna Nadine Scott’s research.](#)

SUPPORT FOR DECOLONIZATION

Rhonda Lenton, York University’s president and vice-chancellor, reaffirmed the University’s commitment to its Indigenous Framework. The [Framework](#), created in 2017, identified 10 principles on which the University needed to take action to advance the goals of the Truth and Reconciliation Commission. She noted that “York acknowledges the implications of the lack of attention and recognition that was given to the legitimacy of Indigenous knowledge in the past.” In her May 22 statement, Lenton also commended the Indigenous Council, the Office of the Vice-President Research & Innovation, and the Division of Equity, People and Culture for “their progress to date, and for their unwavering commitment to supporting Indigenous research and the work of Indigenous scholars.” [Learn more about York’s multi-year commitment to the Indigenous Framework and decolonizing research.](#)



Dayna Scott

BLACK ALUMNUS CITES MOTHER AS ROLE MODEL

Michael H. Tulloch, a York alumna and justice of the Ontario Court of Appeal, was the keynote speaker at the 2021 McLaughlin College Year-End Student Special Event. The title of Tulloch’s keynote address was “Be an Agent of Change.” Tulloch noted that he came from a humble family background in Jamaica, but his family believed that education was the way to a better life. His mother had to interrupt her education when they immigrated to Canada, but she returned to her studies to become a nurse while also working part-time, achieving high honours and making the Dean’s list. [Learn more about Justice Tulloch.](#)



Indigenous Framework developed in partnership with York’s Indigenous Council

Major Scholarships for students who are **SDG Leaders/Global Changemakers:**

Undergraduate:
 President’s International Scholarship of Excellence
 Global Leader of Tomorrow Award for International Students
 Tentanda Via Scholarship

Graduate:
 Graduate Fellowship for Academic Distinction



EMERGENCY STUDENT SUPPORT FUND IS ESSENTIAL

York University’s new Emergency Student Support Fund provides essential financial assistance to students affected by conflicts (e.g., Afghanistan, Ukraine and Syria), natural disasters and other geopolitical events and crises. It helps ensure that at-risk and affected students can pursue or continue their education safely and with much-needed financial aid. There are three million refugees that are university age worldwide, but only five per cent of them have access to a university education, according to **Vinitha Gengatharan**, assistant vice-president, global engagement & partnerships. Gengatharan, who had previously fled a violent conflict before coming to Canada, co-ordinated student aid during the Syrian refugee crisis, working with the Provost and the Division of Advancement to create this fund as one remedy for students in crisis. [Learn more about York’s Emergency Student Support Fund.](#)



17 PARTNERSHIPS FOR THE GOALS



The Global Goals can only be met if we work together.

SDG 17: Partnerships for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development. Goal 17 is about fostering global partnerships, international investments, and support to ensure innovative technological development, fair trade and market access, especially for developing countries. To build a better world, we need to be supportive, empathetic, inventive, passionate and, above all, cooperative.

COVID-19 COLLABORATION

The success of a 2021 agreement between York University and the University of Witwatersrand in South Africa to tackle COVID-19 across Africa has led to a grant expanding the scope of the project and extending it throughout the Global South. It has led to the creation of an [international consortium](#) of experts in disease modelling; artificial intelligence (AI); clinical global health; disaster management; veterinary health care; citizen science; community engagement; participatory research; software engineering; AI governance; policy; and sex, gender intersectionality and decolonization. “We started with little seeds and they are growing,” said [Jude Dzevela](#)



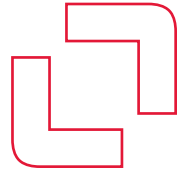
Jude Kong

[Kong](#), a York assistant professor of mathematics and the executive director of the consortium.

[Learn more about this proactive initiative.](#)

MEASURING OUR FOOTPRINT

The **Ecological Footprint Initiative**, based at York University, tells us that our ecological footprint as measured by our use of natural resources has tripled since 1961. In fact, we have exceeded Earth’s biocapacity – or ability to regenerate what is used – each year since 1971. As of 2018, the latest year for which data are available, the ecological footprint of humans was 75 per cent greater than biocapacity. This means that it would take 21 months to provide the natural resources needed to sustain humanity for just 12 months. This initiative produces the ecological footprint and biocapacity accounts of all nations annually for the [Footprint Data Foundation](#), using international datasets. [Learn about York’s Ecological Footprint Initiative.](#)



IMPROVING VAUGHAN'S HEALTHCARE

York University and its partners, the City of Vaughan, Mackenzie Health and VentureLab, are working to establish the **Vaughan Healthcare Centre Precinct**. Anchored around the Cortellucci Vaughan Hospital, the Vaughan Healthcare Centre Precinct has the potential to connect those from different sectors to look at preventive medicine and treatment from diverse professional lenses. As a leader in education that prepares the health workforce of tomorrow, York University is committed to a model where students and faculty work closely with clinicians and community agencies to improve health outcomes and health systems overall. [Learn about the Vaughan Healthcare Centre Precinct.](#)



300+
Global Experiential Learning Partners



345
MOUs with global partners in 2020-21 in **60+** countries (up from **313** in 2019-20)



5+
Joint Collaborations with Intergovernmental Organizations:
 UNESCO Chair in Reorienting Education towards Sustainability
 CIFAL-UNITAR
 WHO Collaborating Centre on Global Governance of Antimicrobial Resistance (WHOCC)
 UNECE-Toronto Centre of Excellence on Youth Homelessness Prevention
 Schulich-G7 Partnership

544

joint publications with low & lower middle-income countries



\$8M+
in external funding from 2020-2022 to leverage AI & Big Data to fight pandemics in and with the Global South

FIGHTING ANTIMICROBIAL RESISTANCE

York University's Global Strategy Lab celebrated its success as the **WHO Collaborating Centre** on Global Governance of Antimicrobial Resistance (WHOCC) by hosting a panel of experts on the topic. The WHO Collaborating Centre is focused on global governance of antimicrobial resistance, developing new ideas to rally political support and accountability related to global commitments, and providing policy analysis and legal advice on global governance arrangements to protect antimicrobials. The WHOCC has brought together an interdisciplinary group of researchers, including epidemiologists, ethicists, lawyers, political scientists, sociologists and policy experts, based at York and around the world. [Learn more about the event and the centre.](#)



