

SCHOOL OF THE Environment



THE TRENT SCHOOL OF THE ENVIRONMENT Nelcome

WE ARE THE UNIVERSITY OF CHOICE FOR FUTURE ENVIRONMENTAL LEADERS

Our prestigious School of the Environment has the reputation as a leader in Canada for good reason: we are one of the country's most sought-after locations for environmental research and innovation. Discover our unparalleled and guaranteed career and hands-on learning opportunities, world-class laboratories, and second-to-none on-campus nature areas. Numerous and varied degree options are taught by renowned faculty, who are global and national leaders in areas like climate change, water guality, renewable energy, biodiversity, and food security – just to name a few.

The philosophy

"The Trent School of the Environment is one of the largest and most established undergraduate environmental institutions in the country. We offer 13 different degree programs that are interdisciplinary, action-oriented, and fun-we study outside in forests, wetlands, and rivers on campus every chance we get. As a student here, you have access to world-class facilities, resources, and expertise to support your learning because the work you do and the experience you gain at Trent is important to the world."

Dr. Stephen Hill, associate professor and director of the Trent School of the Environment



THE TRENT ADVANTAGE

No other university offers you more ways to study the environment

What makes the Trent School of the Environment (TSE) so exceptional? There's a long list, but let's start with the top five:

- **01 Respected credentials** We are the first university in Canada to achieve accreditation from ECO Canada. With six ECO Canada accredited degrees, the TSE is widely recognized by the world's top environmental employers. Our accreditation can give you an advantage landing that perfect summer job through wage-funded co-ops and employment opportunities (ask us how!). Degrees from the TSE are also respected world-wide as credentials for some of the most prestigious postgraduate and professional schools.
- **02 Expert faculty** The TSE is home to globally-recognized experts tackling the world's most complex challenges including climate change and pollution, environmental policy, food security, the health of freshwater ecosystems, energy security, and urban planning. These respected profs – including prestigious Canada Research Chairs – will know you by name and interact with you one-on-one as you work together to make a positive impact on the health of our planet. You might even get involved in their research.
- 03 We are the school with the widest variety and depth of environmental programming in Canada – The School's degree options are as distinctive as you are. Our 13 degree offerings, including eight B.Sc. programs, four B.A. programs and one combined B.E.S.S. program, cover a unique range of subjects such as Environmental Geoscience: Sustainable Agriculture & Food Systems: Indigenous Environmental Studies, as well as an option in Climate Communication. The TSE also boasts more than 140 courses across multiple disciplines in the arts and sciences. Browse our programs on pages 4/5.
- TSE proudly offers the highest number of experiential learning opportunities of any department at Trent. Apply your environmental
 - knowledge to the real world through co-op, on-campus field and lab work, as well as local and international placements and internships. Our students work with the Ministry of Northern Development, Mines, Natural Resources & Forestry (right here on campus), Ontario Turtle Conservation Centre, and Fisheries and Oceans Canada. Explore the opportunities pages 6/7.
- 05 Go state-of-the-art and back to nature – Imagine studying and learning, hands-on, in one of the world's leading water quality research facilities, examining the effects of soil degradation in a state-of-the-art wind tunnel, conducting research on the rooftop garden, or studying the natural world in 11 on-campus nature areas - at Trent, you have access to it all. Learn more on pages 10/11.

04 **Co-op, internships, placements and experiential learning** – The

#1

UNDERGRADUATE UNIVERSITY IN ONTARIO 13 YEARS RUNNING

CANADA RESEARCH CHAIRS

WORLD-RENOWNED **RESEARCH FACILITIES**

Water Quality Centre; Wildlife DNA Lab; Forensics Crime Scene Facility to name a few

BURSARIES, PRIZES & SCHOLARSHIPS

available to School of the Environment students

Down to EaRTH

Get hands-on experience in research and environmental innovation through the **Environmental and Related Technologies** Hub (EaRTH) District. A collaboration between Trent University and four other postsecondary institutions, EaRTH District aims to fuel sustainable, resilient communities locally and around the world by leveraging the unique expertise and facilities of partner institutions to work on joint interdisciplinary research projects. As a student at Trent, you could work on EaRTH projects led by faculty in the School of Environment, and engage with public and private sector and Indigenous communities.

IN ONTARIO **HIGHEST QUALITY**



TRENT GRADS FMPI OYFD

within two years of graduating



The School of the Environment offers a rich learning environment at every level of study. At the undergraduate level, we offer over a dozen degree programs and more than 140 environment-related courses across multiple disciplines in the arts and sciences. When mapping out a path to your future, you can choose from an existing program of study or design a one-of-a-kind degree around your interests and passions.

Bachelor of Environmental Science/ Studies (B.E.S.S.)

As one of the first ECO Canada accredited environmental programs in the country, this program offers students a holistic understanding of the environment, bringing together topics in science and the arts to solve key environmental issues.

Climate Change Science & Policy (B.Sc.)

As one of the only climate changespecific degree programs offered in Canada, this program educates students through an applied, solutionsoriented approach. By integrating subjects in biology, chemistry, physics, geology, mathematics, politics, and business, this multidimensional degree helps students develop a deeper understanding of this complex and pressing global crisis and its potential solutions.

Circumpolar Studies Diploma (Online)

Be a groundbreaker – study in the first fully-online Circumpolar Studies diploma offered at a Canadian university.

Environmental Geoscience (B.Sc.)

Receive specialized training in environmental techniques used in geotechnical investigations, as you gain the academic requirements to work toward your Professional Geoscientist (P.Geo) accreditation.

Environmental Chemistry (B.Sc.) Learn to understand the big picture of

diverse environments by examining their smallest components. Your studies in Environmental Chemistry will introduce you to contemporary approaches to quantifying contaminants, along with the sources of chemicals, their cycles, and the impact they have on organisms and ecosystems in the environment.

Environmental & Resource Science (B.Sc.) / Studies (B.A.)

Choose to complete a B.A. degree and explore topics in environmental law, environmental policy and management, or business and the environment. With the B.Sc., you'll obtain an advanced scientific understanding of the environment, diving into everything from biomonitoring to toxicology to restoration ecology.

Geography (B.A./B.Sc.)

From migration and urbanization, to the relationship between gender and space, Geography B.A. students focus their studies on human geography, particularly how people encounter and shape their environments. Geography B.Sc. students take a deeper look into the human and natural forces that shape the physical world, studying topics like hydrology, topography, earth materials, and climate.

Sustainable Agriculture and Food Systems (B.A./B.Sc.)

By studying sustainable agriculture, you can learn to create food systems that are responsible, justice-oriented, effective, and viable. In this program, you'll examine the pathways between farm and table and their implications for people, the economy, and the planet.

Distinguish your Degree by Adding a Specialization

Small-Scale Farming

(Specialization) This specialization provides students with a comprehensive background and hands-on experience in growing food and contributing to resilient regional food systems.

Climate Change Science & Policy (Specialization)

This specialization gives students in Geography and Environmental & Resource Science/Studies the opportunity to explore your majors through the lens of climate change, considering the science, policy, and human implications and connections. You will gain first-hand experience developing climate solutions through research and internship opportunities.



Indigenous Environmental Science (B.Sc.) / Studies (B.A.) PAID CO-OP AVAILABLE

Study a unique mix of Indigenous knowledge and Western teachings, learning from Indigenous and non-Indigenous faculty, elders, guest speakers, and other scholars in this first of its kind (anywhere in North America!) program. Choose the competitive co-op stream for the B.A. program and earn 12 months of paid career experience while completing your degree.

Water Sciences (B.Sc.)

The Trent Water Sciences degree gives you the knowledge and skills needed to respond to modern challenges surrounding contributing to water guality decline water in Canada and around the world. With diverse aquatic ecosystems right on campus and a variety of lakes nearby, you will build fundamental knowledge for examining the science of water and the aquatic environment.

your program, your way

Can't decide on a single program? Opt for a joint major instead. Not only can you combine majors from within many of our programs at the Trent School of the Environment, you can venture outside the School, too.

The possibilities are virtually endless, from pairing Environmental Science and Business or International Development Studies, to Geography and Computer Science. Let us work with you to find a joint major that best suits your needs and goals.

With the option in Climate Communication, you will learn to become effective communicators and exemplary storytellers. This option, exclusive to our Trent Durham GTA campus, offers a variety of courses for you to acquire the theory and professional skills to become effective communicators about environmental problems and solutions. Add this Option to any degree at Trent to tailor your expertise.

Unique Law Pathways: Trent/ Swansea Dual Degree (B.A. & LL.B.) Law & Environmental & Resource Studies OR Law & Geography This one-of-a-kind dual degree program allows you to graduate with two degrees in just six years – a Bachelor of Arts from Trent and a law degree from Swansea University's renowned Hillary Rodham Clinton School of Law in the UK.

Climate Communication (Option)

GO FURTHER WITH GRADUATE STUDIES

Ready to take the next step in your academic career? The School of Graduate Studies at Trent University is home to several renowned environmentally-themed graduate programs, including:

Environmental & Life Sciences M.Sc. & Ph.D.

Dive into your graduate degree and study alongside world-renowned researchers in state-of-the-art facilities. These prestigious programs offer students real-world experience working alongside government agencies, industry partners, and leading NGOs as you explore the environmental issues that will shape our future.

Get there sooner with our Accelerated Masters: TSE students can fast-track to a Masters in ENLS after completing an honours undergraduate degree.

Sustainability Studies M.A.

This first-of-its-kind program is renowned for developing leaders in the field who can actively advance research and practice in critical sustainability-based challenges, including environmental protection, resource conservation, and positive social change.

Bioenvironmental Monitoring & Assessment M.Sc., M.BEMA and **Graduate Diploma**

Jump-start your career and build professional experience in the environmental sector. Students can choose from three different dearee options – a thesis-based M.Sc., online course-based Masters degree, and Graduate Diploma options.

trentu.ca/graduatestudies

EXPERIENCE AT YOUR FINGERTIPS: ON CAMPUS, IN THE COMMUNITY, **INTO THE WORLD**

At Trent, you don't have to wait to graduate to start putting your environmental education to work. School of the Environment students have access to a range of on-campus and community-based career-enhancing experiences. Research projects are hands-on, experience-rich, and take full advantage of the local ecology as well as international study opportunities that offer a global perspective on all things environmental.



Did you know?

At Trent, every student is guaranteed to have meaningful and recorded career and experiential learning opportunities that will contribute to success as you enter the workforce or graduate studies.

INTERNSHIPS & PLACEMENTS

Gaining real-world working experience while you study gives you the opportunity to envision your future career and can lead to the development of lasting connections in the workforce. Our ECO Canada-accredited degrees provide dynamic pathways for placements and internships for upper-year and postgraduate students. Here you'll gain program-related experience in a professional work environment for academic credit. Picture yourself working alongside industry leaders at Otonabee Region Conservation Authority, performing data entry and analysis to monitor trends in water quality in cold water streams, or gaining international insight by working with Nature Fiji (through Think Pacific), to learn about conservation in Fiji.

CO-OP: PAID WORK EXPERIENCE

Trent's Indigenous Environmental Studies B.A. degree offers a new paid co-op stream. Through co-op, you can earn an income while exploring your career interests, and graduate career-ready with 12 months of work experience and industry connections.

CONDUCT RESEARCH WITH FACULTY EXPERTS

As early as your first year, you can conduct hands-on research with leading professors and researchers. Our students have measured carbon dioxide emissions from peatlands in northern Canada, investigated how waste from mining operations can be used to capture and store carbon dioxide, monitored water quality from agricultural run-off, tested water samples at our Water Quality Centre, and conducted research on microplastic pollution. What cutting-edge research will you undertake at Trent?

STUDY THE ENVIRONMENT ANYWHERE IN THE WORLD

As part of the Trent School of the Environment, you can take your education global through several study abroad programs at other institutions across the world, field placements, research projects, or intensive language programs.



A Future Shaped By Trent's Educational Ecosystem

"My time at Trent was truly special. The professors and friends that I met, as well as the courses that I took, have defined who I am and what I want out of my career. Going from theory to looking at real world issues around sustainable development, Trent can give you the tools you need to work across so many different and exciting areas of research."

Matthew Brady '07, Environmental Resource Studies and International Development Studies joint major graduate, is a senior advisor at the Privy Council Office in the Government of Canada. Matt is working to advance clean power and electrification projects, with a focus on the Atlantic Loop initiative in Eastern Canada.

HANDS-ON FIELD COURSES

Students in the TSE have numerous opportunities to enroll in a variety of hands-on field courses in your upper years of study. These courses, mostly available in the summer months, allow you to concentrate on an area of study during a time when diverse ecosystems are most active. Learn the practical aspects of agricultural systems; conduct shoreline assessments throughout the Kawartha Lakes Region; take field trips to farms; and work with food organizations in the community; or work with community organizations in the Peterborough or Haliburton area on biomonitoring projects in our lakes and forests.

LEAD A COMMUNITY RESEARCH PROJECT

Students in the Trent School of the Environment can make a difference leading a community-based research project through the Trent Community Research Centre, working with organizations like Peterborough GreenUp, Kawartha Conservation, and numerous lake associations in the region.

ON-CAMPUS WORK EXPERIENCES

As a student in the TSE, you have access to job opportunities that fit your specific interests, schedules, and career goals right on campus. Jobs include research associates in faculty labs and positions at the Trent Market Garden. There are also several undergraduate awards that can provide summer work opportunities. Grow your professional network and gain valuable experience... no commute required.

INVESTING IN YOU: SCHOLARSHIPS

By choosing to study in Trent's School of Environment, you are choosing an education that is not only rich in experience, but also rich in reward. The School of Environment offers 20+ bursaries, prizes and scholarships, which are available to both full-time and part-time students. No application necessary.

YOUR ENVIRONMENTAL CAREER AWAITS

Graduates of Trent's School of the Environment are career-ready – well-positioned to become leaders in environmental research, protection and policy, as well as in emerging fields, such as climate change (analysing impacts and helping advance innovative solutions) and carbon management (finding ways to reduce our environmental impact).

Our graduates pursue careers in: the private sector (employed by companies in the forestry and other resource industries and in environmental consulting firms); the public sector (working for international, federal, provincial, regional and municipal agencies); and with a variety of non-profit organizations, including highly respected environmental agencies. Some take their Trent education down unexpected paths, transitioning to careers in architecture, law, and medicine.

What path will you choose?

Climatologist; Environmental Risk Assessor; Policy Advisor; Urban and Regional Planner; Eco-tourism Planner; United Nations Official; Landscape Restoration Ecologist; Watershed Planning Technician; Wetland Habitat Ecologist; Soil Technician; Ocean and River Chemist; Environmental Toxicologist; Environmental Geoscientist; Geochemist; Hydrogeologist; Shoreline Naturalization Biologist; Ecologist; Population Growth and Migration Specialist; Land Surveyor; Water Resources Manager; Geoscience Consultant; Ecologist; Park Ranger; Meteorologist; Geomatics Specialist; Organic Farmer; Drinking Water Policy Specialist; GIS Specialist; Teacher; Outdoor Educator; Fisheries Manager; Urban Agricultural Coordinator





Study Climate Change with a **Canada Research Chair**

"Being a Canada Research Chair really offers an opportunity to engage with the student body at Trent and bring them into the research that I'm doing and ensure that we're training the next generation of leaders in climate change science and policy."

Dr. Andrew Tanentzap is a professor in the Climate Change Science & Policy degree and the Canada Research Chair in Climate Change and Northern Ecosystems. He is conducting research on how northern soils and freshwaters will respond to climate change and what this means for people.



"Climate change isn't just a scientific issue, it's also deeply tied to cultural norms and the media by which we learn and communicate about this problem and each other. This means that we need to think creatively and socially about what's holding us back and what could move us forward."

As Canada Research Chair in Media, Culture and the Environment. Dr. Anne Pasek studies climate communications and how carbon is represented in different contexts and conversations about the planet and its energy futures. Students, like you, have the opportunity to work alongside Professor Pasek in her low carbon research lab.





Planting Seeds for Student Success

"What my research aims to learn is whether carbon is being sequestered in soils. We're looking at using technologies like radar to image roots of plants, like cover crops, as a more responsive technique in detecting carbon being sequestered by plants and released into the soil. This research is very interdisciplinary, bringing together plant soil scientists, microbiologists, chemists, and other agricultural researchers."

Dr. Kira Borden is an assistant professor in the TSE, she specializes in plant-soil interactions, plant functional ecology, and biogeochemical cycling.



Big Research Opportunities Lead to Study of Small Particles

"I was able to take part in diverse hands-on learning experiences both in the field and in the lab, including using the state-of-theart equipment in the Water Quality Centre for my fourth-year honours thesis research project. Now, I am conducting research on one of our most pressing environmental issues: microplastics."

Hang Nguyen, B.Sc. Environmental Chemistry graduate from Vietnam, is studying microplastic pollution in urban areas.



Transforming Hands-on Learning to Professional Experience

"I got lab and fieldwork experience in chemistry, geography, biology, and environmental science. They take a very multi-disciplinary approach at the Trent School of the Environment. My advice to incoming students is to not be afraid of failure or mistakes, that is the only way that you will learn from your experiences and become a stronger professional."

Freddy Liu, is a Hydrometrics Technologist at Toronto and Region Conservation Authority (TRCA), and a graduate of Trent's Water Sciences program and M.Sc. in Environmental and Life Sciences.

ENVIRONMENT TRANSFER PATHWAYS

Find your unique path to the Trent School of the Environment. Through partnerships with a number of colleges across Ontario, students can complete a college program and apply credits from that program to fast-track earning their bachelor's degree at Trent University.

COLLEGE PROGRAM COMPLETED	TRENT DEGREE OPTION(S)		
CENTENNIA	L COLLEGE		
Environmental Technician Diploma	B.Sc. Honours, Envrionmental and Resource Science	Conservation Biology Diploma	B.Sc. Honours, Conservation Biology
	B.Sc Honours, Indigenous Environmnetal Science	Ecosystem Management Technology Advanced Diploma	B.A. Honours, Indigenous Environmnetal Stuides
Environmental Technology Advanced Diploma	B.Sc. Honours, Envrionmental and Resource Science		B.Sc. Honours, Environmenta and Resource Science
	B.Sc Honours, Indigenous Environmnetal Science	Ecosystem Management Technician Diploma	B.Sc. Honours, Environmenta and Resource Science
CONFEDERATION COLLEGE		Environmental Technician	B.Sc. Honours, Environmenta
Environmental Technician Diploma	B.A. Honours, Environmental and Resource Studies or B.Sc. Honours, Environmental and Resource Science	Diploma Environmental Technology Advanced Diploma	and Resource Science B.A. Honours, Indigenous Environmental Studies
	B.A. Honours, Indigenous Environmental Studies		B.Sc. Honours, Environmenta Resource Science
DURHAM COLLEGE		Fish and Wildlife Technician Diploma	B.Sc. Honours, Environmenta and Resource Science
Chemical Laboratory Technology – Pharmaceutical and Food Science Advanced Diploma (Formally Parmaceutical and Food	B.Sc. Honours, Environmental and Resource Science	Fish and Wildlife Technology Advanced Diploma	B.Sc. Honours, Environmenta and Resource Science B.A. Honours, Indigenous Environmental Studies
Technology) Environmental Technology Advanced Diploma	B.Sc. Honours, Environmental and Resource Science	Forestry Technician Diploma	B.Sc. Honours, Environmenta and Resource Science
Horticulture – Food and Farming Technician Diploma	B.A. Honours, Sustainable Agriculture and Food Systems or B.Sc Honours, Sustainable Agriculture and Food Systems	Geological Technician Co-Op Diploma	B.Sc Honours, Environmenta Geoscience
		Urban Forestry Technician Diploma	BSc Honours, Environmental and Resource Science
Water Quality Technician Diploma	B.Sc. Honours, Water Science		'
LAMBTON	COLLEGE	Fish and Wildlife Conservation Technician Diploma	B.Sc. Honours, Environmenta and Resource Science
Environmental Technician – Water and Wastewater Systems Operations Diploma	B.Sc. Honours, Environmental and Resource Science	Forestry Technician Conservation Diploma	B.Sc. Honours, Environmenta and Resource Science
	B.Sc. Honours, Water Science	Natural Environment Technician	B.Sc. Honours, Environmenta
LOYALIST		Diploma	and Resource Science
Environmental Technology Advanced Diploma	B.Sc. Honours, Environmental and Resource Science	Natural Environment Technologist Advanced	B.Sc. Honours, Environmenta and Resource Science
NIAGARA	COLLEGE	Diploma	
Environmental Technician Diploma	B.Sc. Honours, Environmental and Resource Science	New pathways are constantly being de for a list of current pathways and full pa	

Full details on transfering to Trent can be found by visiting trentu.ca/pathways

WHERE NATURE AND STATE-OF-THE-ART FACILITIES MEET

Work side-by-side with top researchers within our cuttingedge laboratories or in the vast on-campus nature areas (as early as your undergrad!). At Trent, there are many fascinating places to get hands-on experience in research projects.

01 Water Quality Centre

Test the waters – literally – in this world-renowned centre: you'll have the opportunity to use state-of-the-art mass spectrometers in your undergrad and do your own experiments. The WQC is also a great place to make connections (truly linking theory and practice) with researchers from other universities and private companies accessing this space.

02 Environmental Wind Tunnel

Our students get "blown away" by opportunities to conduct research in this award-winning facility, designed to simulate the atmospheric boundary layer both in clean air and with sediment transport.

03 TSE Teaching Greenhouse

Grow your research experience in our on-campus greenhouse. In the greenhouse, temperature, humidity, air velocity, and light intensity are all tightly controlled, but the potential for you to gain career experience is practically limitless.

04 Trent Climate Station

Trent University is contributing to global efforts to track changes in temperature, precipitation, and other meteorological variables right on campus at the Trent Climate Station. The extensive instrumentation and rich data set allow faculty and students to answer important guestions related to climate issues, such as winter warming and urban heat island effects.







05 11 On-Campus Nature Areas

Lush forest, wetlands, drumlins, streams, open fields and creeks. With roughly 1,400 acres of land situated on the banks of the Otonabee River and more than 30 kilometres of nature trails, Trent's campus is not only picturesque but also offers a unique learning landscape for students to collect real data in these natural environments.

















With approximately 3500m² of green roof space on campus, the largest and most notable of Trent's rooftop gardens is on the Environmental Sciences Building. Trent built this green roof into the original plans for the building almost three decades ago.

07 Trent Research Farm

Dig deeper into sustainable, regenerative farming practices as you gain experience growing a range of vegetables and field crops on the Trent Research Farm. Here you'll play an active role in preparing the land for farming by implementing good soil management and other regenerative agriculture practices, which will not only be beneficial to the farm but also the surrounding nature areas.

08 Trent Urban Water Research

In courses like Hydrology, Microclimatology and Water Resources, TSE students take measurements of water and thermal regime at the Symons Storm Water Pond, learning how runoff from urban surfaces impacts our water resources. A recently installed groundwater monitoring well beside the pond allows students to understand interactions between ground and surface water.

09 Ministry of Natural Resources & Forestry Labs

With offices and labs located right on-campus in the state-of-the-art DNA building, MNRF researchers work with TSE students on a variety of leading-edge, real-world environmental research projects.

10 Trent Microenvironment Lab

The most comprehensive research facility of its kind among Canadian universities, this lab supports researchers in their quest to accurately predict the future impact of climate change, pollution, and other negative pressures on biological, physical, and chemical processes in the natural environment. YOU COULD WIN FIRST-YEAR TUITION* Enter our draw every time you visit Trent, in person or virtually

> trentu.ca/wintuition * conditions apply





CONNECT WITH US

We're here to help you navigate your way to Trent. Call us, or ask a question online at:

trentu.ca/connect

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 #TrentU

OPEN HOUSE

Join us on campus for Open House and discover the advantages of studying at Trent University.

FALL OPEN HOUSE

Friday, November 8, 2024

SPRING OPEN HOUSE Friday, March 14, 2025

Visit **trentu.ca/discover** to learn about the many other ways to connect with Trent University – from campus tours to virtual information sessions.





Accessible versions of this document are available upon request at trentu.ca/accessible



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Campus tours are a great way to see the University and explore our environmental labs, classrooms and facilities for yourself. Tours are offered daily, six days a week. Book yours today: **trentu.ca/tours**

CAN'T MAKE IT TO CAMPUS?

Take a virtual tour anytime trentu.ca/virtualtour

