

TRAINING FOR CLIMATE SOLUTIONS



Rob Jowett

The **University of Toronto** (U of T) is offering a new master's degree program meant offer a new approach to training students seeking to address global climate and sustainability challenges that could offer major benefits to the urban planning field.

U of T is currently accepting applications for its new Master of Environment and Sustainability (MES) program, launching in September 2022 with the goal of preparing students to find innovative solutions to the most pressing challenges of the 21st century through development of an in-depth understanding of issues affecting environmental health and human well-being. The MES will be a 12-month thesis-based degree program available to students from a wide variety of disciplines. The university plans to accept 10 to 15 students in the first year of the program, and aims to accept up to 30 new students annually in the next five years.

"Each student will undertake their own research project, and we'll take them through all the stages of how you design a good research project, from framing a good research question, figuring out what methods to apply to study

it, where to collect data, how to analyze that data, and so on," University of Toronto School of the Environment director **Steve Easterbrook** told *NRU*. "By the end of the program, students will have a strong skill set around doing independent research. And then, of course, all the subject knowledge and the background for key challenges in environmental sustainability."

Easterbrook says the program was conceived to support students invested in addressing the threats posed by global climate change and challenges related to environmental sustainability like pollution and decreasing biodiversity. He says universities need to focus not just on general academic study but on specifically finding ways to address these problems both in order to limit the impacts of climate change and to adequately prepare students for the future they will be living in.

"We've got a massive challenge in that none of our universities really are that prepared for the future that we face," says Easterbrook. "We're staring down the barrel of climate change. We know the future is going to be very different. We know that to tackle climate change it's

going to require fairly radical transformations throughout society, throughout every sector of society."

Easterbrook says the MES will be different than other master's programs the university offers like environmental science and sustainability management because it will take an interdisciplinary approach and will bring together students from different academic backgrounds. He says that rather than focus on building up knowledge in students and then having them apply that knowledge to problems, the MES starts with a problem and then trains students to be able to address it. He says that because of this approach, the MES will be seeking students with an interdisciplinary background, such as those with double-majors, rather than from a specific academic background. He adds that the research projects the

students focus on will address specific real-world challenges, like creating renewable power projects, designing more efficient buildings, or establishing community food programs.

"Say there's an existing group, either on campus, at the university, or perhaps somewhere else in the community that are pushing for a sustainability project," says Easterbrook. "I see our students engaging in those kinds of projects and offering insights as a researcher, helping advise what the research says about what works and what doesn't work in that context, helping the groups collect data, helping measure successes and outcomes... If they're at an early stage, students might help in the planning and background research. If it's a project that's well down the line, then they'll focus much more on outcomes and how

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you assess the outcomes and how you collect knowledge from those projects for others to follow.”

The program offers four concentrations that students can focus on or combine electives from. The concentrations include adaptation and resilience, global climate science, social sustainability, and transitioning to sustainability. Easterbrook says these concentrations will allow students to focus on developing skills related to their academic backgrounds, which are likely to be quite varied.

“We’ve picked these four areas that capture what we think are four key challenges for the future,” says Easterbrook. “If a student is more engaged on the science side, then [global climate science is] the concentration that they might take... [while concentrations like] social sustainability... focuses on the social and cultural aspects of this.”

The program will be an important part of the overall fight against climate change, **DIALOG** founding partner **Craig Applegath** told *NRU*. He believes the program will be

good for students who either want to apply their knowledge in fields like architecture and engineering to addressing problems of climate resilience and sustainability, or to prepare students going deeper into their fields to view everything they learn through a climate and sustainability lens. He adds that planners, architects, engineers, or urban designers who take the program could become especially valuable employees.

“Either way, it strikes me as a good beginning or a good end to professional programs,” says Applegath. “If I saw it on someone’s resume, I’d [think], ‘Well, that’s someone that we want to interview. They’ve obviously spent the time, the energy and the resources to do it.’ It’s proof of commitment.”

Applegath says one of the benefits of the new MES will be helping to provide planning and urban design students with knowledge and experience working on climate challenges early in their careers. He notes that given the breadth of planning-related issues, most bachelor’s degree planning students have a wide range of knowledge that does not go very deep. He says the program

will give students a lot of skills and a deeper knowledge base that they would otherwise have to learn on the job. He adds that planners and others in the urban planning field will have to address climate adaptation and resiliency in a way they have not had to before, and so, this program will be vital for preparing for the future of city planning.

“How do we adapt our cities and how we plan them to [be able to handle climate change]?” Says Applegath. “Not many people are talking about adaptation or they’re talking about it at conferences in a very high-level way... I think you’re going to be looking at planners, all of a sudden when they do a regional plan or an urban plan, having to understand that the plan has to actually have in it an adaptation strategy.”

The university is accepting applications until February 10, 2022 for early admission to the program in the fall 2022 semester. After that, applications will be reviewed on a rolling basis. 🌱

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