HELPING STUDENTS GRADUATE JOB-READY

ONTARIO'S UNIVERSITIES

As the labour market continues to change and evolve at a rapid pace, Ontario's workforce needs to be equipped with transferrable skills to succeed in the jobs of today, as well as an adaptability that will prepare workers for the future of work.

Through community partnerships, work-integrated learning and entrepreneurship programs, Ontario's universities are providing traditional and non-traditional learners with the hard and soft skills for jobs across high-demand fields, such as health care, engineering, computer science, data analytics and cybersecurity.

Below are just some of the ways universities are ensuring students graduate job-ready and can support an evolving economy.

Preparing students for jobs in high-demand fields

- As cyberattacks become more and more sophisticated, Ontario will need a highly skilled cybersecurity workforce to manage these threats. The **University of Ottawa**, in partnership with IBM Canada, created Cyber Range – a cybersecurity and safety hub – to train students in data analytics, deep learning, ethics and law to help fight cyberattacks affecting both corporate and home networks.

- COVID-19 has demonstrated the importance of digital health data in decision-making at all levels of health care. In response to this fast-growing field, **Queen's University** has received funding to implement an experiential graduate training and research program in medical informatics, providing students the research and industry skills they need to analyze critical data, helping drive informed decision-making in current and future public health responses.

- To help learners and workers from diverse backgrounds and skillsets retrain and transition into high-demand careers in cybersecurity, **Ryerson University** launched the Accelerated Cybersecurity Training Program. Through the program, students gain foundational skills in cybersecurity and incident response methods, helping them enter the sector job-ready and prepared to fill in-demand positions.

- To drastically lower the energy cost of capturing atmospheric carbon dioxide and help advance clean technology, engineering students at the **University of Toronto** developed an innovative electrochemical process that captures and stores CO2 directly from the atmosphere. This means the technology can be powered entirely by renewable energy sources and operates at lower temperatures and pressures than existing methods.

- As data collection becomes increasingly integrated in our society, more skilled professionals will be needed across industries to turn data into business insights. Through an undergraduate data science program, **Western University** is equipping students across disciplines with the skills and knowledge they need to help meet the demand for data scientists in Ontario.

- As more vehicles leverage digital technology for enhanced safety features and connectivity, they become increasingly vulnerable to cyberattacks. Through Canada's first centre for automotive security, the **University of Windsor** is training engineering and computer science students in automobility cybersecurity to help protect personal information and vehicle safety.

Supporting the regional workforce

- To help fill high-demand jobs in the community and address regional workforce development challenges, **Brock University** and the Niagara Workforce Planning Board (NWPB) are connecting students to placements across the Niagara region through work-integrated learning opportunities, such as co-ops, practicums and internships.

- Through community-based programming and engagement, the Centre for Community Engagement (CCE) at **Carleton University** is connecting students with internships and co-ops in high-demand fields in the local community to help retain in-demand talent.

- Attracting and retaining talent in rural and northern communities is critical to fueling a region's workforce, particularly in life sciences and agri-food. To ensure an ongoing supply of veterinary talent across the province, the **University of Guelph** is supporting access to vital veterinary services in Ontario through the Veterinary Capacity Program.

- As migration rates increase across northwestern Ontario, a community legal clinic run by **Lakehead University** and the Thunder Bay Multicultural Association is working to train northwestern Ontario's future lawyers in immigration and refugee law by providing services to eligible residents across the region.

Supporting student entrepreneurship and innovation

To help students and recent alumni turn their ideas into successful businesses, **OCAD University** has created the Seed Fund for Creative Entrepreneurs. The fund provides more than $10,000 to help winning applicants start their business and gain experience in entrepreneurship. It also connects applicants with mentors who help guide them through the submission process.

Access to affordable transportation can be challenging for residents living in northern Ontario communities. An **Ontario Tech University** student developed software that will make it easier and more affordable for residents in Thunder Bay to travel within the city. To help bring the idea to market, the university is providing the student and his team with workspace in its Brilliant Catalyst program, which specializes in supporting business solutions that address rural challenges.

Optical fibre cables are critical to global communication, but can deteriorate over time. It's why a student at **York University** developed a photon detector system – a device that can extend the lifespan of optical fibre cables. The innovation has been recognized on both the national and international stage and is listed as one of the world's top new devices.

To help small businesses reach a wider audience during the pandemic, a student at **Wilfrid Laurier University** developed OptLocal – an e-commerce marketplace. The platform helps residents find goods locally and drives traffic to brick and mortar stores. As part of Laurier's StartUp Lab, the company has plans for expansion to support small businesses province-wide.

Creating job-ready graduates through work-integrated learning

More and more of Ontario's employers are looking for graduates with soft skills, such as leadership, communication and critical thinking. Students in **Algoma University**'s Global Learning Leadership Skills Development Program will have the opportunity to gain these critical skills through work and study abroad experiences. They will also receive co-curricular credit and a transcript notation on their e-portfolio to help make a clear connection between their skills and the needs of an employer.

Occupational health and safety (OHS) processes and procedures can help businesses operate more efficiently. Through a paid health and safety internship program, **Laurentian University** is connecting students with local workplaces to help support businesses and provide students with hands-on experience. Throughout the internship, students help identify and solve OHS challenges – from developing health promotion strategies to analyzing safety data.

Throughout their degree program, arts and humanities graduates develop in-demand skills, such as critical thinking, creativity, communication, research and writing. To help support the needs of local employers and put their critical soft skills to work, the Humanities Career Apprenticeship Program at **McMaster University** is connecting recent arts and humanities graduates with full-time, paid employment opportunities in the local community.

To help support the evolving needs of the local community, **Nipissing University** is partnering to help train Ontario's future police workforce through the OPP Auxiliary Training Program. Through work placements, community engagement and supporting officers in everyday duties, the program helps prepare students for a career in law enforcement.

Creating opportunities for agricultural students to gain practical experience in the field can help learn more about industry challenges, such as sustainability and food security. In response to this need, **Trent University** is partnering with ClearWater Farm to provide students with opportunities that will trian them in environmental sciences, greentech, small-scale sustainable agriculture and Indigenous knowledge and practices, such as co-ops, internships and research projects.

Existing flame retardants can be hazardous. Through work-integrated learning at the **University of Waterloo**, engineering students had the opportunity to help solve this sustainability challenge and apply skills developed in class to a real-world situation. The team developed an innovative biologically based non-toxic flame retardant that received international attention with the students now working towards commercializing their Ontario-made solution.