



Engineering and Design

Ottawa, Canada
carleton.ca/engineering-design

Carleton
University



A community with solid foundations

Carleton University has a rich history rooted in community spirit. Choosing Carleton for Engineering, Architectural Studies, Industrial Design or Information Technology means you'll thrive among a smart, caring and connected peer network. Through integrated, hands-on learning experiences you'll explore complex, real-world challenges while benefiting from strong industry and government connections in Canada's capital.



5,831

2025-26
undergraduate
student body



93%

Retention rate
after first year



4th

4th largest co-op
program in Ontario



500+

Proximity to 500+
companies in Canada's
largest tech park



Direct-Entry

Enter your program of choice
in first-year

Supporting your goals from day one

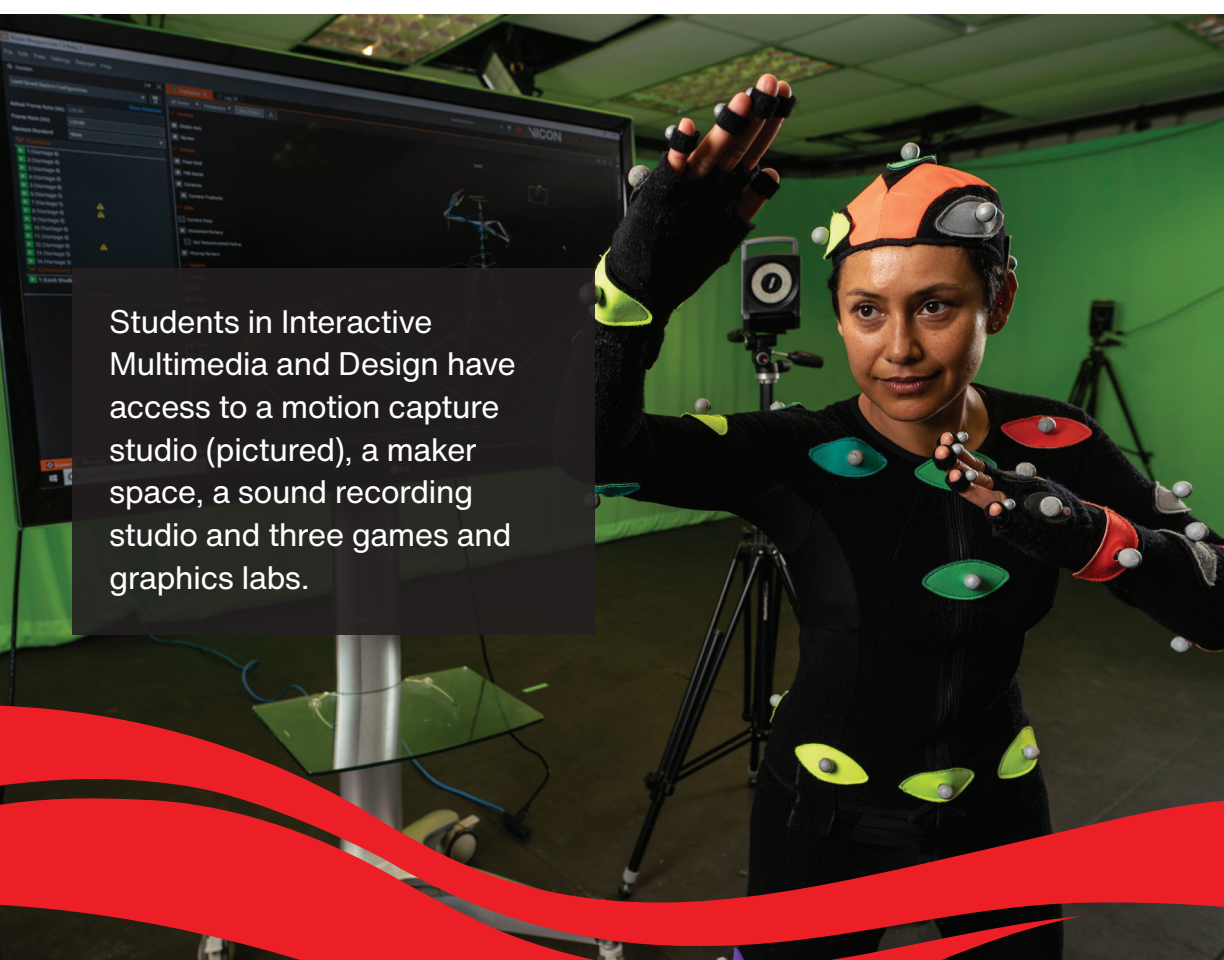
Our direct-entry programs allow you to explore your passions, develop your peer network and hone discipline-specific skills from the first year onwards. Learn from our multi-faceted and award-winning professors and tailor your studies to your interests through interdisciplinary programs and unique pathways.

Helping you succeed

Enter a diverse support network that includes professors, teaching assistants, staff and peers who enable a collaborative and innovative culture. You'll receive guidance through a dedicated Academic Support Office, in addition to many Carleton-wide services.

Industry-standard labs

Through coursework, research, team projects and more, you'll have access to labs, studios, makerspaces and career-ready software tools. These hands-on experiences begin in year one, allowing you to build confidence through the practical application of theoretical concepts.

A female student is wearing a black motion capture suit with orange and green reflective markers. She is also wearing a black head-mounted display (HMD) and black gloves with markers. She is standing in a motion capture studio with a green screen background. To her left is a large computer monitor displaying a 3D model of a character. A camera on a tripod is positioned in front of her.

Students in Interactive Multimedia and Design have access to a motion capture studio (pictured), a maker space, a sound recording studio and three games and graphics labs.



During my co-op, I supported the implementation of new technologies that improved safety, efficiency and communication using building information modelling and digital construction management software. I enhanced my ability to interpret structural and architectural drawings, strengthened my modelling proficiency, and deepened my understanding of how design decisions, scheduling and safety considerations impact real-world construction. They were always willing to provide guidance, and it was rewarding to know that my contributions were used to resolve on-site issues.

Toniloba Kumapayi, Architectural Conservation and Sustainability Engineering student, co-op with PCL Construction

Kick-start your career with co-op

Carleton boasts the fourth largest co-op program in Ontario, with access to almost 3,000 employers in the National Capital Region and beyond, plus flexible work terms of 4, 8, 12 or 16 months.



\$23.⁷⁶

Average hourly co-op wage in 2025. Highest hourly wage: \$45.35

A tech, culture and sustainability powerhouse

Ottawa is a world-class destination for innovation, with rich cultural ties and strong public and private sector networks. Through our programs, you can make the most of Carleton's connections to the cultural sector, federal government departments and agencies, NGOs and Kanata North — Canada's largest technology park with more than 500 cutting-edge companies.

Life outside the lecture hall

Our extracurricular student life and supportive culture include everything from top-performing competition-style clubs to student societies' social gatherings.

Engineering Design Centre

Carleton's new Engineering and Design Centre (EDC) offers a space to enhance your hands-on experience while working with technical staff and industry standard equipment. Book a tour to visit our EDC design bays, where you'll see how students are using 3D printers, CNC machines and more to complete capstone and competitive design projects.

Women in Engineering and IT program

Supported by industry partners at leading engineering and IT organizations, this program is one of the first of its kind in Canada. The program offers students networking, mentorship, career-ready skill development opportunities and peer-to-peer academic support.



The CUonOrbit CubeSat team with the recovered payload and parachute used on their third high-altitude balloon launch.

Capstone and studio projects

Carleton was one of the first universities in Canada to adopt team-style, hands-on capstone projects. Designed to mimic engineering, design and IT workplaces, capstone and studio projects serve as an opportunity for final year students to engage with innovative ideas and respond to societal concerns, all while developing teamwork skills and career-readiness.

Students participating in the Autonomous Vehicle Capstone team are developing a full-scale autonomous vehicle platform. The team is gaining hands-on experience with the technologies shaping the future of intelligent mobility, preparing them for emerging roles in autonomous systems engineering.



The team's platform integrates LiDAR, radar, vision, IMU and speed sensors, digital-twin simulation, real-time operating systems, touchscreen navigation and several cooperating onboard computers.



My program reshaped how I see the world, showing me that good design starts with understanding people and their needs. Through faculty mentorship and the collaborative studio culture, I developed ideas from early design concepts into purposeful, user-focused solutions. That environment directly influenced my award-winning capstone project, the AmrBar+, where I set out to create something that meaningfully improves everyday experiences.

Nicco Timpano, Industrial Design graduate, 2024 James Dyson Award National Winner



PROGRAMS

Bachelor of Architectural Studies (BAS)

- Conservation and Sustainability*
- Design*
- Urbanism*

Bachelor of Engineering (BEng)

- Aerospace Engineering
- Architectural Conservation and Sustainability Engineering
- Biomedical and Electrical Engineering
- Biomedical and Mechanical Engineering
- Civil Engineering
- Computer Systems Engineering
- Electrical Engineering
- Engineering Physics

- Environmental Engineering
- Mechanical Engineering
- Mechatronics Engineering
- Software Engineering
- Sustainable Electrical Power Engineering
- Sustainable Energy Engineering
- Systems Security Engineering
- Telecommunications Engineering

Bachelor of Industrial Design (BID)*

Bachelor of Information Technology (BIT)

- Information Resource Management
- Interactive Multimedia and Design
- Network Technology

* Portfolio submission required. Learn more at admissions.carleton.ca

Co-operative education is available for all programs.

WE'D LIKE TO MEET YOU!

Explore our events and opportunities on campus, online or in your city! Scan to explore our events:



LEARN MORE AND APPLY

Visit Carleton's Admissions page to learn more about specific requirements for all Engineering, Architectural Studies, Industrial Design and Information Technology programs and get information on how to apply.

admissions.carleton.ca

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