Associate/Full Professor and Canada Excellence Research Chair, Accessibility, Arctic Security/Diplomacy, Cybersecurity/Quantum Computing, OR Experimental Particle Physics

Associate/Full Professor and Canada Excellence Research Chair, Accessibility, Arctic Security/Diplomacy, Cybersecurity/Quantum Computing, OR Experimental Particle Physics - Office of the Deputy Provost (Academic Operations and Planning)

About the Position

Fields of Specialization: Accessibility, Arctic Security/Diplomacy, Cybersecurity/Quantum Computing, OR Experimental Particle Physics
Academic Unit(s): Faculty of Engineering and Design, Science or Public and Global Affairs
Category of Appointment: Tenured
Rank/Position Title: Associate/Full Professor and Canada Excellence Research Chair
Start Date: 1 July 2027
Date Posted: March 14, 2025
Closing Date: Complete applications will be considered starting 30 April 2025 and continue until the position is filled

Carleton University invites applications from outstanding researchers for up to two tenured appointments as a Canada Excellence Research Chair in the following research areas: Accessibility, Arctic Security and Diplomacy, Cybersecurity and/or Quantum Computing, and Experimental Particle Physics.

The Canada Excellence Research Chairs (CERC) Program seeks to strengthen Canada's ability to attract the world's top researchers and build a critical mass of expertise in Canada's science, technology and innovation priority areas (https://www.cerc.gc.ca/program-programme/priority_areas-domaines_prioritaires-eng.aspx). Awarded Chairs are valued at either $500,000 or $1 million per year for a period of 8 years, including salaries and benefits for the Chairholder and their personnel. Appointment is conditional on the approval of the Tri-Agency Institutional Programs (TIPS) Secretariat through a separate application process, and results are expected in Spring 2027. The successful candidate will then have up to 12 months to take up the award and the duties of the position. Further information about the Canada Excellence Research Chair program is available at https://www.cerc.gc.ca/program-programme/competitions-concours/2026/index-eng.aspx.

Chairholders are expected to initiate and develop new directions of research that will complement and expand upon current research activity at Carleton, and actively

contribute to knowledge mobilization within and beyond the academic community. CERCs at Carleton will teach at the undergraduate and graduate levels and will be involved in graduate supervision. As members of Carleton University Faculty, they will also provide service to the University. Applicants from outside the academic sector will be considered but must possess qualifications for a full-time academic appointment at the Associate or Full Professor level.

The appointments will be made to the most appropriate academic unit depending on the expertise and qualifications of the successful candidates.

We encourage applications from candidates from underrepresented, equity-seeking, rights-seeking populations.

Research Areas for the CERCs at Carleton:
Carleton University is interested in recruiting CERCs in the research areas identified below. Applicants should explain how the proposed research program will advance one or more of the government's science, technology and innovation priority areas (https://www.cerc.gc.ca/program-programme/priority_areas-domaines_prioritaires-eng.aspx) within the selected research area.

i) Accessibility (Faculty of Engineering and Design – https://carleton.ca/engineering-design)
The successful candidate will be an internationally leading scholar with a record of impactful scholarship in the interdisciplinary field of accessibility research. This position would advance the study of accessibility in design and engineering, with a particular interest in candidates proposing research programs that prioritize the design and delivery of products, facilities, and services to be independently used by people, regardless of ability. A wide range of barriers prevent people from fully participating in society, especially persons with disabilities. User informed approaches advance research on building accessibility, technology development and adoption, transportation systems, and healthcare, among others, while fostering an inclusive research environment. The candidate will be distinguished research leader who can catalyze the critical mass of researchers from various disciplinary backgrounds who investigate a wide variety of topics related to accessibility, disability, and person-centred care at Carleton University.

ii) Arctic Security and Diplomacy (Faculty of Public and Global Affairs – https://carleton.ca/fpga)
The successful candidate will be an internationally leading scholar with a record of impactful research on Arctic security and/or the exercise of diplomacy to secure Arctic sovereignty. This position will advance interdisciplinary research on security and diplomacy

challenges in the Arctic region, addressing national and international concerns related to sovereignty, environmental change, geopolitical tensions, and/or Indigenous rights, while fostering innovation in policy development, technological solutions, and international cooperation. With melting ice, new shipping routes, resource exploration, and shifting geopolitical dynamics, the Arctic is at the forefront of global security discourse. The candidate will be a distinguished researcher who can engage with policymakers, industry leaders, and Indigenous communities to develop innovative solutions for safeguarding Canadian interests and strengthening its position in the Arctic.

iii) Cybersecurity and/or Quantum Computing (Faculty of Engineering and Design – https://carleton.ca/engineering-design OR Faculty of Science – https://science.carleton.ca) The successful candidate will promote synergy between Carleton's established research strengths and promote interdisciplinary research that will address the intersecting challenges posed by the next generation of cybersecurity concerns and/or quantum computing. Rapid technological advancements have increased vulnerabilities in computing and communication networks. Quantum computing is also on the cusp of revolutionizing technological capabilities with unprecedented computational power. The successful candidate will be an internationally leading researcher investigating areas including cryptographic software engineering, software security and programming languages, software security and testing, privacy, surveillance, censorship, computer forensics, cybersecurity incident analysis, quantum algorithms, quantum networks, and/or quantum machine learning. Post-quantum cryptography is a particular area of interest.

iv) Experimental Particle Physics (Faculty of Science – https://science.carleton.ca) The Carleton University Particle Physics Group has an established track record of developing and implementing sensors and detectors for particle physics research. This includes the large-volume liquid argon dark matter search detectors, DEAP- 3600, located at SNOLAB, DarkSide-20k under construction at LNGS in Italy, and ARGO; thin-gap gas ionization detectors (NSW) and radiation-resistant silicon strip detectors (ITK) for ATLAS at the LHC at CERN; and multi-PMT photon detectors for the long-baseline neutrino project, HyperKamiokande, in Japan. The successful candidate will be an internationally leading researcher in particle physics with a demonstrated track record in research with world-class particle physics experiments. Applicants should demonstrate strong potential for obtaining significant research funding and attracting world-class research personnel. The successful candidate will take leadership on the development and implementation of the next generation of particle physics experiments in key research fields such as neutrino properties, dark matter, and physics beyond the standard model.

Candidates who are unsuccessful in a CERC selection process or application may be considered as a nominee for one of up to four Tier 1 Canada Research Chairs in the above research areas. Tier 1 Chairs are intended for outstanding researchers acknowledged by their peers as world leaders in their fields. All CRC appointments are conditional on the approval of the CRC Secretariat. For more details, please see the Canada Research Chairs Secretariat at https://www.chairs-chaires.gc.ca and the Carleton Office for Research Initiatives and Services at https://carleton.ca/coris.

Qualifications
Applications for a CERC at Carleton will be evaluated, regardless of award value and/or the career stage of the nominee, building on the CERC program selection criteria (https://www.cerc.gc.ca/program-programme/definition_ratings-eng.aspx). The evaluation criteria are as follows:

- Research/academic merit and leadership skills of the nominee
- Record of attracting and mentoring students, trainees and research personnel
- Commitment to establishing an equitable and inclusive research environment
- Quality of the research program, including potential to leverage of Carleton's research strengths in the selected area
- Potential contribution to the excellence of the Canadian and international research ecosystem

In addition, Carleton University requires applicants to:

- Have a PhD or equivalent terminal degree
- Currently hold a position in academic, non-profit, government, or industry
- Currently hold the rank of full or associate professor (with the expectation of promotion to full professor within one or two years of nomination) – Note: Applicants from outside the academic sector will be considered and must possess qualifications for a full-time academic appointment at the Associate or Full Professor level.
- A willingness to comply with funders' terms and conditions for research security compliance.
- Experience teaching courses at the undergraduate and/or graduate level.

As per the CERC eligibility requirements, researchers who hold a full-time academic appointment at Carleton University may not be nominated for a CERC by Carleton University.

The program imposes no restrictions on nominees regarding nationality or country of residence. Employment and Social Development Canada (https://www.canada.ca/en/employment-social-development.html) and Immigration, Refugees and Citizenship Canada (https://www.canada.ca/en/immigration-refugees-citizenship.html) have established procedures to allow non-Canadian chairholders to work in Canada.

For more information and any questions, please contact: cerc@carleton.ca

Application Instructions
Applications must be sent electronically to cerc@carleton.ca in one single PDF file which includes the following:

- maximum two-page signed letter of application expressing interest in being nominated for a Canada Excellence Research Chair, specifying the research area, and describing how Carleton University provides an ideal research environment;
- an up-to-date curriculum vitae;
- maximum three-page statement of contributions to research and leadership in the area that also identifies strengths in and/or experience in advancing equity, diversity, and inclusion (EDI) in your teaching, service, and/or scholarly activities;
- maximum three-page summary of the proposed research program, including description of potential contribution to knowledge in the field, the potential contributions to the government's science, technology and innovation priority areas (https://www.cerc.gc.ca/program-programme/priority_areas-domaines_prioritaires-eng.aspx), and integration of EDI considerations in the research design or justification for why EDI consideration are not relevant to the research design
- three sample research publications.

In Canada, both the Government of Canada and the Ontario Ministry of Colleges and Universities have introduced research security policies and guidelines to protect Canada's world-class research. To ensure candidates are able to meet the federal and provincial research security requirements for external research funding, research security will be considered as part of the adjudication process. Carleton University encourages all applicants to review the federal Policy on Sensitive Technology Research and Affiliations of Concern, the federal National Security Guidelines for Research Partnerships and the provincial Research Security Guidelines for Ontario Research Funding Programs.

To help us develop our equity programs, a confidential equity and diversity self-identification survey will be sent to all applicants separately.

Carleton University recognizes that life circumstances related to health (and/or disability), administrative, family, cultural or community responsibilities, socio-economic context, COVID-19, the introduction of research security measures or other factors are often part of life and are likely to have an impact on an applicant's record of research achievement. We invite all applicants to provide an optional Career Interruption Statement outlining any career interruptions https://carleton.ca/deputyprovost/?p=1784. These impacts will be taken into careful consideration during the assessment process.

Successful candidates will be required to work with the Carleton Office for Research Initiatives and Services to submit a registration (due January 21, 2026) and prepare the full nomination package (due March 18, 2026) for submission to the TIPS Secretariat.

About Carleton University
Located in Ottawa, Carleton is an innovative teaching and research institution with a tradition of leading change. Internationally recognized academics, staff, and researchers engage more than 31,000 students in over 100 programs of study. Learn more about our university and the city of Ottawa at https://carleton.ca/deputyprovost/jobs.

We are strongly committed to equity, diversity, and inclusion in the nomination and appointment process.

Carleton University is committed to fostering diversity within its community as a source of excellence, cultural enrichment, and social strength. We welcome those who would contribute to the further diversification of our university including, but not limited to: women and gender equity-seeking groups; racialized individuals; Indigenous Peoples; persons with disabilities; and persons of any sexual orientation and/or gender expression. Carleton understands that career paths vary and interruptions will not prejudice the assessment process. We invite you to review our revitalized Indigenous strategy, Kinàmàgawin at https://carleton.ca/indigenousinitiatives/cu-files/kinamagawin and visit our Department of Equity and Inclusive Communities at http://carleton.ca/equity for information about our commitment to leadership in the areas of equity, diversity, and inclusion.

Accessibility is a university strategic priority and applicants selected for an interview who require accommodations or adaptive measures are invited to contact Sue Geffken-Graham at cerc@carleton.ca as soon as possible to ensure that appropriate arrangements may be made.

All positions are subject to budgetary approval.