University of Waterloo
SENATE
Notice of Meeting

Date: Monday 18 October 2021
Time: 3:30 p.m.
Place: Microsoft Teams Videoconference

OPEN SESSION

3:30 Consent Agenda

Motion: To approve or receive for information by consent items 1-6 below.

1. Minutes of the 20 September 2021 Meeting

2. Reports from Committees and Councils
   a. Senate Graduate & Research Council
   b. Senate Undergraduate Council

3. Report of the President
   a. Recognition and Commendation

4. Report of the Vice-President, Academic & Provost
   a. Degrees, Diplomas, and Certificates [list of graduands to be available for review online prior to the Senate meeting]

5. Reports from the Faculties

6. Committee Appointments

Regular Agenda

3:35 7. Business Arising from the Minutes

3:40 8. Presentation – Waterloo Institute for Sustainable Aeronautics – Dr. Suzanne Kearns

Information

3:55 9. Reports from Committees and Councils
   a. Senate Graduate & Research Council
   b. Joint Report from Senate Graduate & Research Council and Senate Undergraduate Council
   c. Senate Undergraduate Council

Information

4:10 10. Report of the President

4:20 11. Q&A Period with the President

Information

4:30 12. Report of the Vice-President, Academic & Provost

Information

4:40 13. Report of the Vice-President, Research & International

Information

4:45 14. Other Business

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<thead>
<tr>
<th>TIME</th>
<th>ITEM</th>
<th>PAGE</th>
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<tbody>
<tr>
<td>4:50</td>
<td>15. Minutes of the 20 September 2021 Meeting</td>
<td>Decision</td>
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<tr>
<td>4:55</td>
<td>16. Business Arising from the Minutes</td>
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<tr>
<td>5:00</td>
<td>17. Report of the President</td>
<td>Information</td>
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<td>5:05</td>
<td>18. Other Business</td>
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KJJ/dg
8 October 2021

Karen Jack
University Secretary
Secretary to Senate
University of Waterloo
SENATE
Minutes of the Monday 20 September 2021 Meeting


Guests: Suman Armitage, Jean Becker, Kathy Becker, Bruno Campbell, Aldo Caputo, Pam Charbonneau, Robert Craig, Adrienne Dwyer, Donna Ellis, Barbara Forrest, Brian Forrest, Amanda Garcia, Diana Goncalves, Ross Johnston, Andrea Kelman, Nick Manning, Norah McRae, Bessma Momani, Fayaz Noormohamed, Alice Raynard, Chris Read, Ian Rowlands, Daniela Seskar-Hencic, Nasim Shojayi, Allan Starr, Kerry Stryker, Brandon Sweet, Mathew Thijssen, Marilyn Thompson

Absent: Dominic Barton, Lisa Bauer-Leahy, Dan Brown, Robyn Clarke, Martha George, Onurcan Gokkaya*, Zabeen Khamisa*, Graham Murphy*, Oudy Noweir, Naima Samuel*, Samer Zu’Mot

*regrets

OPEN SESSION

CHAIR’S REMARKS
The chair welcomed Senators to the first meeting of the fall. He spoke of his pleasure at being at Waterloo, and of his positive impression in his initial few months at the University, particularly as the campus has come back to life recently.

Consent Agenda

Senate heard a motion to approve or receive for information the items on the consent agenda.

Randall and Ward.

1. MINUTES OF THE 21 JUNE 2021 MEETING
Senate approved the minutes of the meeting.

2. REPORTS FROM COMMITTEES AND COUNCILS
   Executive Committee. Senate received the report for information.
   Motion: To approve on behalf of Senate the addition of Sunday, October 24 as a date for convocation ceremonies for the Fall 2021 term. [Secretary’s note: circumstances in the province changed since the committee approved the extra date which is no longer needed.]

   Graduate & Research Council. Senate received the report for information.

3. REPORT OF THE PRESIDENT
   Recognition and Commendation. Senate received the report for information.
4. **REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST**
   Call for Nominations. Senate received the report for information.

5. **REPORTS FROM THE FACULTIES**
   Senate received the reports for information.

6. **COMMITTEE APPOINTMENTS**
   Senate heard a motion to approve the following appointments:
   - **University Committee on Student Appeals:** Sarina Nathoo (undergraduate student) as the Faculty of Health student representative, term to 30 April 2023 and Nicholas Palaschuk (graduate student) as the Faculty of Environment student representative, term to 30 April 2023.
   - **Senate Executive Committee:** Zabeen Khamisa as a graduate student representative, term to 30 April 2022.

   The question was called and carried unanimously.

**Regular Agenda**

7. **BUSINESS ARISING FROM THE MINUTES**
   There was no business arising.

8. **REPORTS FROM COMMITTEES AND COUNCILS**
   - **Executive Committee**
     Senate heard a call for further nominations from the floor for an undergraduate student representative to the Board of Governors. In the absence of further nominations, Senate heard a motion to approve the appointment of Catherine Dong as undergraduate student representative, term to 30 April 2022. Easton and Forbes. It was noted that Dong abstained from the vote, and the motion carried otherwise unanimously.

9. **REPORT OF THE PRESIDENT**
   The president walked Senators through his presentation, highlighting: the Strategic Plan; some pandemic contributions from the Waterloo Community and from Waterloo faculty; the vaccine site at the Health Sciences Campus in Kitchener; the opening of the SLC/PAC; the cluster hiring initiative; an update on the Innovation Arena; recent op-eds he wrote regarding his vision for the post-pandemic University, the importance of an on-campus experience, and the role of universities generally in the pandemic response; some reflections on his initial days as president and the unique opportunities for the University in the future.

10. **Q&A WITH THE PRESIDENT**
    There were no questions.

11. **REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST**
    Rush reported on this year’s student orientation activities; the support available to international students; some of the on-campus activities occurring this fall; enrollment figures; an overview of the proof of vaccination response; supports available to the academic community; and the return to work on campus initiative and its priorities and next steps. In response to a question, Senate heard that the pre-pandemic number of students on campus in the fall term was typically approximately 30,000 compared to this year’s expectation of around 16,800 students. Senate also heard about the approaches that will be taken over the coming weeks to ensure all individuals coming to campus provide proof of vaccination or are otherwise accommodated, in the rare instances where this is necessary.
Fall Reading Week
Following an introduction from DeVidi, Nasim Shojayi of the Student Success Office walked Senators through a presentation about the Fall Reading Week Pilot Project, including an overview of the context, survey results over the course of the pilot, groups and committees that have been engaged, and final recommendations.

Senate heard a motion to adopt a Fall Reading Week, extending from the Saturday before, to the Sunday after the Thanksgiving Day public holiday in October as an ongoing part of its calendar of academic dates.

Rush and Ward.

In discussion: some of the challenges of fixing a firm University-wide rule regarding assignments due the day immediately following the break; an overview of what other universities have in place; how feedback from students and faculty has been incorporated.

The question was called and the motion carried unanimously.

12. REPORT OF THE VICE-PRESIDENT, RESEARCH & INTERNATIONAL
Following an update from Dean about the federal government’s National Security Guidelines for Research Partnerships, Senate received the report distributed with the agenda for information.

13. OTHER BUSINESS
In response to an inquiry about the work of the Policy 76/77 Development Committee, Rush confirmed that the committee had provided a report to the Faculty Relations Committee at the end of August as expected, and advised that the Faculty Relations Committee will discuss it soon per usual practice for “F” class policies.

Senate convened in confidential session.

24 September 2021
Karen Jack
University Secretary
CONFIDENTIAL SESSION

The confidential minutes have been removed.

24 September 2021

Karen Jack
University Secretary
Senate Graduate & Research Council met on 13 September 2021 and agreed to forward the following item to Senate for information as part of the consent agenda.

Further details are available at: https://uwaterloo.ca/secretariat/committees-and-councils/senate-graduate-research-council

FOR INFORMATION

UNIVERSITY RESEARCH ETHICS
On behalf of Senate, council approved the following:
  • Clinical Research Ethics Board – new members (3)
  • Human Research Ethics Board – new member (1) and renewal of members (5)

CURRICULAR SUBMISSIONS
On behalf of Senate, council approved course revisions and minor program revisions for the Faculty of Mathematics (computational math, statistics and actuarial science, data science).

GRADUATE AWARDS
On behalf of Senate, council approved the Political Science Graduate Scholarship (trust), Waterloo.AI GRADflix Award (operating) and the Statistics & Actuarial Science MMath Entrance Scholarships (operating).

/mh kw Jeff Casello
   Associate Vice-President, Graduate Studies and Postdoctoral Affairs

   Charmaine Dean
   Vice President, Research & International
Senate Undergraduate Council met on September 14, 2021 and agreed to forward the following items to Senate. Council recommends that these items be included for information or approval, as noted, in the consent agenda.

Further details are available at: uwaterloo.ca/secretariat/committees-and-councils/senate-undergraduate-council

FOR APPROVAL

ACADEMIC PLAN CHANGES

Faculty of Arts
Sexuality, Marriage and Family Studies

1. **Motion:** That Senate approve the following degree description change, effective 1 September 2022:
   - From: Diploma in Sexuality, Marriage, and the Family
   - To: Diploma in Sexuality, Marriage, and Family Studies

**Background and Rationale:** In the Undergraduate Calendar, the academic plan is listed as “Diploma in Sexuality, Marriage, and Family Studies” (SMF), but it appears as “Diploma in Sexuality, Marriage, and the Family” in Quest and official records and documents. This discrepancy is likely a long-standing error. The plan name change for all SMF plans was previously approved and effective 2006, but the diploma degree change was not mentioned specifically in the submission. Therefore, it did not change what is coded in Quest, which is the version that shows up on diplomas, transcripts, and convocation programs.

PLAN INACTIVATIONS

Faculty of Science
Education Program for Photonics Professionals (EP3)

1. **Motion:** Effective 1 September 2022, Senate approve the inactivation of the Diploma in Education Program for Photonics Professionals.

**Background and Rationale:** In March 2004, SUC approved the Education Program for Photonics Professionals (EP3) Diploma program within the Faculty of Science. This program was introduced to reskill existing scientists and engineers in optics and photonics as there was a lack of specialized optics and photonics programs, and this sector was rapidly growing, outpacing the ability of educators to produce graduates with skills in photonics. The EP3 program was set up as series of six non-degree courses and two laboratory sessions. By the time the program was set up and approved and money received from the Ontario government, the large photonics industry was gone. Only one complete offering of the program was done and then a few more courses were offered after that point. There is no plan to continue offering courses under this diploma program.
ACADEMIC REGULATION CHANGES

Registrar’s Office

1. **Motion:** That Senate approve the proposed central statement regarding the undergraduate communication requirement, effective 1 September 2022.

**Background and Rationale:** It was the recommendation of the Stubley Report in 2012 that the University move from administering the English Language Proficiency Exam (ELPE) to confirm minimum standards of communication proficiency in graduates from degree-granting undergraduate programs, to a course-based system of education of communication competencies, tailored to disciplinary needs and delivered by experts in the field. In July 2020, at the recommendation of the Vice President Academic and Provost, Deans' Council approved a governance, operational, and budgetary framework for the continuing delivery of this education. During winter 2021 term, both SUC and Senate passed motions calling for the development of calendar language that reflects that the Undergraduate Communications Outcomes are an institutional academic priority, and that such language should be brought forward for approval. To mark the commitment and ensure consistency going forward, we seek approval of the proposed academic calendar text describing the common requirement and the particular forms it takes in the six faculties; the proposed is included below. Please note that the exclusion of Renison’s Bachelor of Social Work is intentional; although it is an undergraduate degree, it is also requires a previous degree for admission, and as such the program does not currently include the Undergraduate Communication Requirement.

In addition, existing references in the Undergraduate Studies Academic Calendar will be changed to reflect this new consistent terminology:

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<thead>
<tr>
<th>Faculty</th>
<th>Current terminology</th>
<th>Proposed terminology</th>
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<tbody>
<tr>
<td>Arts</td>
<td>Undergraduate Communication Requirement</td>
<td>No change</td>
</tr>
<tr>
<td>Engineering</td>
<td>Not applicable</td>
<td>Undergraduate Communication Requirement</td>
</tr>
<tr>
<td>Environment</td>
<td>Undergraduate Communication Requirement</td>
<td>No change</td>
</tr>
<tr>
<td>Health</td>
<td>Communication Requirement</td>
<td>Undergraduate Communication Requirement</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Communication Skills Requirement</td>
<td>Undergraduate Communication Requirement</td>
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<tr>
<td>Science</td>
<td>Communication Requirement</td>
<td>Undergraduate Communication Requirement</td>
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**New Undergraduate Calendar text:**
Undergraduate Communication Requirement
All graduates from degree-granting programs must meet minimum standards for written and oral communication proficiency through successful completion of an approved course or set of courses. The requirements for each program are articulated in the program description.

- Faculty of Arts
- Faculty of Engineering (landing page to be created for fall 2022)
- Faculty of Environment
- Faculty of Health
- Faculty of Mathematics
- Faculty of Science

2. **Motion:** That Senate approve the revised Aegrotat (AEG) grade definition and undergraduate transcript legend text, effective 1 September 2022.
Background and Rationale: The definition of the AEG (Aegrotat) grade was changed for September 2018 from “Aegrotat: Credit granted due to illness or extenuating circumstances” to “Aegrotat: Credit granted due to illness or extenuating circumstances. More than 50% of the course work must have been completed with a passing grade.” Although this definition expansion helped, it also created additional confusion regarding its interpretation in and across faculties. Stakeholders from across campus came together to once again attempt to redefine an Aegrotat grade and to develop some harmony regarding the processes used to evaluate and assign the grade, which is rarely granted. The proposed definition below was created in an effort to provide guidance, but keeping some vagueness to allow discretion by the associate dean when reviewing case-by-case scenarios.

Details and information about the processes will be housed on the Registrar’s Office website (for students) and on the Registrar Resources for Staff and Faculty website (for advisors, instructors, and associate deans).

Undergraduate Calendar text:
AEG - Aegrotat: Credit granted due to illness or extenuating circumstances. More than 50% of the course work must have been completed with a passing grade. Credit granted under extraordinary circumstances in which course elements have been substantially completed, the completion of further assessments is not possible, and the student would otherwise receive a passing grade. An AEG is assigned by the associate dean, undergraduate of the student’s faculty and only in rare and persistent circumstances when assigning an INC grade is not appropriate.

The following text will be removed from the Environment section of the Undergraduate Calendar: An Aegrotat (AEG) grade may be awarded in extraordinary circumstances or when a prolonged recovery from illness is expected. Students must submit a Petition for Exception to Academic Regulations to be considered for an AEG grade. Students are normally required to have successfully completed half of the course requirements and demonstrated understanding of the course content to the extent that the instructor is satisfied that the student should receive credit for the course, even though a numerical grade could not be given.

Undergraduate Transcript text:
AEG: Aegrotat, credit granted due to illness or extenuating under extraordinary circumstances

FOR INFORMATION

UNDERGRADUATE SCHOLARSHIPS, AWARDS & BURSARIES
This report was received for information. See Attachment #1.

MINOR PLAN & CURRICULAR MODIFICATIONS
Council approved the following on behalf of Senate:
• minor plan changes for the Faculty of Arts (English-literature; English-literature and rhetoric; English-rhetoric, media, and professional communication; English minor; German; legal studies minor, international studies minor; international trade minor; applied language studies minor; Canadian studies minor; Indigenous studies minor); Faculty of Engineering (nanotechnology engineering, entrepreneurship minor, management studies option); Faculty of Science (environmental sciences/water science specialization, pharmacy, biomedical sciences, joint honours x with biology, with Earth, and with physics).
• new courses for the Faculty of Arts (classical studies, speech communication, English, philosophy, studies in Islam, religious studies, legal studies, sociology, human rights, Indigenous studies); Engineering (nanotechnology engineering); Faculty of Science (pharmacy, science).
• course reactivations for the Faculty of Arts (Russian and east European studies); Faculty of Science (Earth sciences).
• course changes for the Faculty of Arts (music, classical studies, speech communication, English, German, Russian and east European studies, political science, social development studies, social work, Jewish studies, legal studies, sociology, Italian studies, sexuality, marriage and family studies, human rights); Faculty of Engineering (business, entrepreneurship and technology, chemical engineering, nanotechnology engineering, mechanical engineering, management sciences); Faculty of Science (biology, Earth sciences, pharmacy, physics); Renison University College (social work-Bachelor of).
• course inactivations for the Faculty of Engineering (nanotechnology engineering, management sciences); Faculty of Science (biology, pharmacy).
• academic regulations for the Faculty of Science (optometry).

David DeVidi
Associate Vice-President, Academic
NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for the September 14, 2021 meeting of Senate Undergraduate Council -

ENTRANCE AWARDS

Betty Bell Bursary
A bursary, valued at up to $3,000, will be awarded annually to a full-time undergraduate student entering Year One of any program in the Faculty of Engineering who has a demonstrated financial need, as determined by the University of Waterloo. To be considered, students must complete the Waterloo Entrance Bursary application by April 15. This fund was created in memory of Betty Bell, who loved school but was unable to pursue higher education because of financial hardship.

Method of Financing: endowment

Vasu Chanchlani-Canada India Foundation Entrance Scholarship
Scholarships, valued at $1,000 or $2,000, will be awarded annually to international undergraduate students from India entering Year One of any program in the Faculty of Arts (excluding Accounting and Financial Management). Selection will be based on academic excellence (minimum 85% admission average) among students who are studying on an international study permit, are a resident of India, and are not receiving other major entrance scholarship funding. This fund is made possible by the late Vasu Chanchlani, who was a founding member of the Canada India Foundation, an NGO established to promote bi-lateral relations between Canada and India.

Method of Financing: endowment

Class of 1985 Mechanical Engineering Entrance Bursary
A bursary, valued at up to $2,200, is awarded annually to a full-time undergraduate student entering Year One of Mechanical Engineering who has a demonstrated financial need, as determined by the University of Waterloo. To be considered, students must complete the Waterloo Entrance Bursary application by April 15. This fund is made possible by donations from alumni of the Mechanical Engineering class of 1985 to support future generations of Mechanical Engineering students.

Method of Financing: endowment

Stephen Connelly Memorial Scholarship
A scholarship, valued at $2,000, will be awarded annually to a full-time undergraduate student entering Year One of Biomedical Engineering. This fund is made possible by a donation from Jeff and Tina Meisner in loving memory of a friend and colleague, Stephen Connelly, to encourage the next generation of engineers in the field of medicine. Stephen was a proud and successful Waterloo alumnus (BSc ’85 and MSc ’87, Kinesiology) whose passions led him to a career in medical device technology.

Method of Financing: annual donation (five-year pledge)

Engineering Entrance Awards for Black and Indigenous Students
Up to five awards, valued at $5,000 each, will be provided to full-time undergraduate students who self-identify as Black or Indigenous and who are entering Year One of any program in the Faculty of Engineering. To be eligible for consideration, candidates must be Canadian citizens or permanent residents. For the purpose of this scholarship, an Indigenous person is a person who self-identifies as First Nations (Status/Non-Status), Métis, or Inuit as defined in the Canadian Constitution Act 1982. Selection will be based on a combination of academic excellence as well as extracurricular and leadership involvement as assessed through the Admission Information Form (AIF) and the online video interview. Recipients will be encouraged to engage in outreach activities in their community and/or high school to create pathways for future students and additional financial incentives will be provided to support these endeavours. The online application form must be submitted by April 15. This award is made possible by numerous donors that contributed to the Engineering Diversity Fund established by the Faculty of Engineering.

Method of Financing: pooled donations from various donors
NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for the September 14, 2021 meeting of Senate Undergraduate Council -

Hari Johri Entrance Award
An award, valued at $5,000, will be provided annually to a full-time female international student entering Year One of any program in the Faculty of Engineering wherein women are underrepresented. This fund is made possible by a donation from Hari Johri to support and encourage women in the field of Engineering.

Method of Financing: annual donation (five-year pledge)

Kelvyn Lo Memorial Scholarship
One scholarship, valued at up to $8,250, will be awarded annually to an outstanding full-time undergraduate student entering Year One of Electrical Engineering. This fund is made possible by donations from family, friends, and former classmates of Kelvyn Lo in honour of his constant quest for learning.

Method of Financing: endowment

Planning Class of 1995 Entrance Scholarship
A scholarship, valued at $2,000, will be awarded annually to a full-time undergraduate student entering Year One of the School of Planning. Selection will be based on academic excellence combined with extracurricular and leadership involvement as assessed through the Admissions Information Form. This fund is made possible by donations from the Planning Class of 1995 to inspire and support the next generation of students in the School of Planning.

Method of Financing: one-time donation plus additional funding expected through pledges and monthly gifts (to support scholarship for a minimum of 11 years)

Tao Shang Award
An award, valued at $2,000, will be provided annually to a full-time undergraduate student entering Year One of any program in the Faculty of Environment. Selection is to be based on academic achievement combined with extracurricular involvement and participation in volunteer activities as assessed through the Admission Information Form. This fund is made possible by a donation from Dr. Jiali Shang in loving memory of her paternal grandfather, Tao Shang, a medical doctor, to inspire the next generation of students.

Method of Financing: one-time donation plus faculty matching (to support scholarship for ten years)

Thiruchelvam Scholarship for Women in Technology
A scholarship, valued at $1,200, will be awarded annually to a full-time female undergraduate student entering Year One of any program in the David R. Cheriton School of Computer Science in the Faculty of Mathematics wherein women are underrepresented. Selection will be based on academic excellence, the Admission Information Form, and contest scores as assessed through CEMC. This fund is made possible by a donation from Anusha Shanmugarajah (BMath ’01) to honour her father who encouraged her to pursue a career in technology.

Method of Financing: endowment

AWARDS FOR CURRENT STUDENTS

Rod Barr Award
One award, valued at $1,000, will be provided to a returning student enrolled in any program who has contributed to the life of St. Paul’s University College. Rod Barr was a resident of the College in the 1960’s. He went on to become a nationally recognized leader in the field of accounting. In 2009, Mr. Barr was appointed as President and Chief Executive Officer (CEO) of the Institute of Chartered Accountants of Ontario and helped lead the unification of various accounting professional bodies under one designation - the Chartered Professional Accountants of Ontario (CPA). Mr. Barr served on the Board of St. Paul’s for over a decade, including a term as chair.

Method of Financing: St. Paul’s University College funds
Olive Carrick Scholarship in English
A scholarship, valued at $2,000, will be awarded annually to a full-time undergraduate student enrolled in Year Three or Four of the Literature program in the Department of English Language and Literature in the Faculty of Arts. Selection is based on academic excellence (minimum 80% cumulative average) combined with extracurricular involvement in the arts and culture sector. Interested students should submit an application by February 15. This fund is made possible by a donation from Joe and Nancy Mattes (BA’89, MEDI ’21) in honour of Nancy’s mother, in celebration of her 96th birthday, and to honour her passion for higher education.

Method of Financing: annual donation (five-year pledge)

CISC Excellence Award in Steel Design
An award, valued at $3,000, is provided annually to a full-time undergraduate student enrolled in Year Three or Four in the School of Architecture who has demonstrated outstanding work in the area of steel design. Selection will be based on project work in a third- or fourth-year Design Studio course. This fund is made possible by a donation from the Canadian Institute of Steel Construction.

Method of Financing: renewed annual donation (five-year pledge)

Co-operators Award for Black and Indigenous Students
An award, valued at $2,500, is presented annually to a Black or Indigenous undergraduate student who is engaged in activities that are having a positive impact on the sustainability of our future and who is enrolled in Year Three or Four of one of the following programs: Accounting and Financial Management or Economics in the Faculty of Arts, Environment and Business, International Development or Environment, Resources and Sustainability in the Faculty of Environment, Kinesiology in the Faculty of Health, Computer Science or Mathematics/Chartered Professional Accountancy in the Faculty of Mathematics, Biotechnology/Chartered Professional Accountancy in the Faculty of Science, Computing and Financial Management, or Software Engineering. To be eligible for consideration, students must be Canadian citizens or permanent residents of Canada. Selection will be based on academic achievement (minimum 75% cumulative average) combined with an essay wherein students describe three ways they are making a difference today that will make our world a better, healthier place for generations to come through extracurricular and/or volunteer involvement. Interested students should submit an application by October 15.

Method of Financing: annual donation (five-year pledge)

Intellijoint Surgical Capstone Design Award
Five awards, valued at $2,000 each, will be provided to full-time undergraduate students enrolled in Year Four of any program in the Faculty of Engineering and undertaking a fourth-year Capstone Design project. Selection will be based on proposals that, in the opinion of the selection committee, seek to improve patients' musculoskeletal health outcomes (e.g., surgical robotics and navigation, surgical planning, digital health, infection control, implant technology, wearables, rehabilitation, biologics, etc.). Interested students are to apply through the Faculty of Engineering’s Capstone Design website: https://uwaterloo.ca/engineering/capstone-design-awards-application-form. This fund is made possible by a donation from Intellijoint Surgical.

Method of Financing: one-time donation

Konrad Group Digital Innovation Scholarship
A scholarship, valued at $2,000, will be provided annually to a full-time undergraduate student enrolled in Year Three or Four of Computer, Electrical, Management, Software, or Systems Design Engineering. Selection will be based on academic excellence (minimum 80% cumulative average) combined with a demonstrated interest in pursuing a career in digital technology through work-term experiences, extracurricular activities, and/or project work. Interested students should submit an online application by October 1. This fund is made possible by a donation from Konrad Group, a global digital consulting firm with services in strategy, design, and development.

Method of Financing: annual donation (five-year pledge)
Konrad Group Women in Technology Scholarship
A scholarship, valued at $2,000, will be provided annually to a full-time female undergraduate student enrolled in Year Three or Four of Computer, Electrical, Management, Software, or Systems Design Engineering wherein women are underrepresented. Selection is based on academic excellence (minimum 80% cumulative average) combined with a demonstrated interest in pursuing a career in digital technology through work-term experiences, extracurricular activities, and/or project work. Interested students should submit an online application by October 1. This fund is made possible by a donation from Konrad Group, a global digital consulting firm with services in strategy, design, and development.

Method of Financing: annual donation (five-year pledge)

Ethan Latifpoor-Keparoutis Award
An award, valued at $2,000, is provided annually to a full-time female undergraduate student enrolled in Year Two, Three, or Four of the Aviation program in the Faculty of Environment or the Faculty of Science. Selection will be based on academic achievement (minimum 75% cumulative average), successful completion of AVIA 101 and 102, and must be in progress of completing AVIA 203 and their Private Pilot License while enrolled in a Waterloo Aviation program. This fund is made possible by a donation from Vladas Keparoutis and Maryam Latifpoor-Keparoutis to inspire and support the next generation of Aviation students.

Method of Financing: annual donation (five-year pledge renewal)

Ethan Latifpoor-Keparoutis International Award
One award, valued at $2,000, is provided annually to an international undergraduate student enrolled in Year Two, Three, or Four of the Aviation program in the Faculty of Environment or the Faculty of Science. Selection will be based on academic achievement (minimum 75% cumulative average), demonstrated financial need as determined by the University of Waterloo, successful completion of AVIA 101 and 102, and must be in progress of completing AVIA 203 and their Private Pilot License while enrolled in a Waterloo Aviation program. Students must complete a bursary application by February 28. This fund is made possible by a donation from Vladas Keparoutis and Maryam Latifpoor-Keparoutis to inspire and support the next generation of Aviation students.

Method of Financing: annual donation (five-year pledge)

LEA Engineering Award
Two awards, valued at $2,500 each, will be awarded annually to full-time female undergraduate students enrolled in Year One of Civil or Geological Engineering who have either completed or are currently completing their first co-op work term. Selection will be based on academic achievement (minimum 70% cumulative average) combined with extracurricular involvement and work integrated learning aspirations in the area of civil or geological engineering. Preference will be given to students who are enrolled in the WE Accelerate Program. Interested students should submit an online application, including a current resume, by August 1. This award is made possible by a donation from LEA Consulting Ltd. to encourage more women to pursue a career in civil or geological engineering.

Method of Financing: annual donation (two-year pledge)
MHBC Award for Black and Indigenous Students
An award, valued at $2,500, will be provided annually to a Black or Indigenous undergraduate student enrolled in Year One or Two in the School of Planning. For the purpose of the award, an Indigenous person is a person who self-identifies as First Nations (Status/Non-Status), Métis, or Inuit/Inuk as defined in the Canadian Constitution Act 1982. Selection will be based on academic achievement (minimum 70% cumulative average) combined with an essay wherein students describe the positive impact they have had on their community through extracurricular and/or volunteer involvement. Preference will be given to students who have demonstrated involvement in the School of Planning and/or the planning profession. Interested students should submit an online application by March 15. This fund is made possible by a donation from MHBC Planning Limited to support Black and Indigenous students to pursue a career in planning.

Method of Financing: annual donation (five-year pledge)

Bob Rosehart Award
One award, valued at $1,000, will be provided to a returning student in the Faculty of Engineering who has contributed to the life of St. Paul’s University College. Bob Rosehart was a resident at St. Paul’s in the very first year it opened. He holds a doctorate in Engineering and has had a very distinguished career in university administration, including appointments as President of Lakehead University and President of Wilfrid Laurier University. Bob Rosehart also spent over a decade on the Board of St. Paul’s, including a term as chair.

Method of Financing: St. Paul’s University College funds

Pearl Sullivan Hack the North Scholarship
Six awards, valued at $3,333 each, will be provided annually (three awards in Winter term and three awards in Fall term) to undergraduate students enrolled in Year One or Two of any program at the University of Waterloo. Selection is based on participation in or attendance at Hack the North and demonstrated interest and experience in building technology and the potential for helping others in building communities. Interested students should submit an application by February 1 or October 1 to the Faculty of Engineering. This fund is made possible by a donation from Kevin Lau, Kartik Talwar, and Liam Horne in honour of Pearl Sullivan, former Dean, Faculty of Engineering, with the purpose of supporting students in their journey into the technology industry and helping them understand how to form a community around their own interests.

Method of Financing: annual donation (two-year pledge)

Women in Engineering Bursary
A bursary, valued at $2,000, will be awarded annually to a full-time female undergraduate student enrolled in Year Two, Three, or Four of any program in the Faculty of Engineering wherein women are underrepresented, who has a demonstrated financial need. To be considered, students must complete a bursary application by October 15. This fund was created by Alistair Baker to support women in the Faculty of Engineering who need financial support.

Method of Financing: annual donation (five-year pledge)

STUDENT-ATHLETE AWARDS

Matrix Fitness Athletic Excellence Award
One award valued at $2,000, or two awards valued at $1,000 each, will be given to student-athletes on any women’s varsity team, with preference to student-athletes who are employed by the Department of Athletics and Recreation. This award recognizes leadership, athletic talent and contribution to Warrior Athletics and Recreation, their team, the school and their community. This fund is supported by Matrix Fitness.

Method of Financing: annual donation + matching funds (five-year pledge)
Recognition and Commendation

Honours relating to Developing Talent for a Complex Future

The Schulich Leader Scholarships are a national undergraduate STEM scholarship, established by Seymour Schulich to encourage the next generation of entrepreneurial-minded technology innovators. This year, the Schulich Foundation is celebrating their tenth anniversary, and in 2021 they’ve awarded up to 100 scholarships to students across Canada entering university. Since 2012, Waterloo has ranked as the top recipient with the largest number of qualifying applicants. Last year, the Schulich Foundation began providing the University with more than double the number of awards. This year’s Schulich Leaders:

- Shanaya Barreto – Mechatronics Engineering
- Saptarshi Bhattacherya – Software Engineering
- Alicia Bremer – Computer Science
- Andrew Dong – Computer Science
- Heidi Hon – Computer Science
- Aung Khant Min – Computer Engineering
- Kushal Mujral – Software Engineering
- Dina Orucevic – Systems Design Engineering
- Eric Pei – Computer Science
- Brianna Thomas – Life Physics

(Adapted from the Daily Bulletin, 7 September 2021)

Three new AMTD scholars are joining the University postdoctoral community. The three postdocs join four others who began their fellowship in 2020, all funded by the prestigious AMTD Waterloo Global Talent Postdoctoral Fellowship. The AMTD fellowship program, which provides postdocs with an annual salary of $75,000 plus a $7,500 engagement fund, has been made possible by a generous donation from the AMTD Foundation, led by Waterloo alumnus Calvin Choi (BA ’01).

Anwar Jaber is based in the School of Architecture where, with Professor Robert Jan van Pelt, she will pursue research on the role that architecture plays in cities facing political transitions and extreme conditions, focusing on museums that aim to address national narratives of war, memory and violence.

Milad Nazarahari is a part of the Department of Mechanical and Mechatronics, working alongside Professor Arash Arami, to advance the medical community’s capacity to engage intelligent robots and biofeedback in developing affordable and accessible technology to support the rehabilitation of stroke patients in Canada.

Chad Walker conducts interdisciplinary research investigating how Smart Local Energy Systems (SLES) — projects that combine smart technology with sustainable, local energy production and management — can create just and inclusive clean energy systems. Chad will work with Professor Ian Rowlands in the School of Environment, Resources and Sustainability.

(Adapted from the Daily Bulletin, 15 September 2021)
Honours relating to Advancing Research for Global Impact

Jack P. Callaghan, a professor in the Department of Kinesiology and Health Sciences, has been elected as a 2021 Fellow in the Canadian Academy of Health Sciences (CAHS). The Academy brings together and recognizes top-ranked health and biomedical scientists and scholars across Canada to create positive change on the urgent health concerns of Canadians.

Election to Fellowship in the Academy is considered one of the highest honours for scholars in the Canadian health sciences communities. Fellows elected to the Academy are health and biomedical science leaders who have achieved national and international peer recognition for their contributions to the health sciences and demonstrate a history of exceptional accomplishment and impact.

(Adapted from the Daily Bulletin, 16 September 2021)
FOR APPROVAL

 Degrees, Diplomas, and Certificates.
In accordance with the provisions in the University of Waterloo Act, Section 22(g), Senate has the power:

...to confer degrees, diplomas and certificates or other awards in any and all branches of learning and in any subject taught in the University or its federated or affiliated colleges...

 Senate is asked to approve the lists of candidates for degrees, diplomas, and certificates as specified in the document which will be uploaded to Senate’s SharePoint site on 15 October 2021.

 Motion: That Senate approve the lists of candidates for degrees, diplomas and certificates as recommended by the Faculty councils and the associate vice-president, graduate studies and postdoctoral affairs, and to authorize the chair to act on behalf of Senate, based on the recommendation of the registrar or, in the case of graduate students, the associate vice-president, graduate studies and postdoctoral affairs, to add to or change the lists of candidates for degrees, diplomas, and certificates, provided that the chair report back to Senate to advise of any such additions or changes.

 Background: Senate has the final authority to confer degrees, diplomas, and certificates at the University of Waterloo. The registrar, and the associate vice-president, graduate studies and postdoctoral affairs are responsible for ensuring that all appropriate administrative procedures have been followed to confirm the eligibility of the names on the lists for graduate and undergraduate degrees, diplomas, and certificates and so certify on the document uploaded to the SharePoint site. Any additions or changes made to the lists subsequent to Senate approval will be provided in a report to Senate in November under Business Arising.
FOR INFORMATION

The Faculty Reports for Senators’ information regarding the variety of appointments, reappointments, special appointments, leaves, and other matters of interest about individuals in the Faculties are available at the Senate agenda page\(^1\).

\(^1\) https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/reports_from_the_faculties_october_2021_0.pdf
FOR APPROVAL

Committee Appointments

Motion: To approve the following appointments:

- Senate Executive Committee: Michael Beauchemin (alumni Senator) as the alumni representative, term to 30 April 2023, and Oudy Noweir (undergraduate student Senator) as a student representative, term to 30 April 2023.

FOR INFORMATION

Committee Appointments

- Senate Graduate & Research Council: Dr. Maureen Drysdale (St. Jerome’s University) as the faculty representative from the affiliated and federated institutions of Waterloo, term to 30 April 2023.
Senate Graduate & Research Council met on 13 September 2021 and agreed to forward the following item to Senate for approval as part of the regular agenda.

Further details are available at: https://uwaterloo.ca/secretariat/committees-and-councils/senate-graduate-research-council

FOR APPROVAL

GRADUATE STUDIES – ACADEMIC CALENDAR CHANGES

1. **Motion:** To approve updates to the regular full-time graduate students definition regarding the number of hours a student can be employed by the University, effective 1 September 2021, as presented at Attachment 1.

   **Rationale:** In order to increase flexibility in employment options for students, the average number of hours per week that a full-time graduate student may pursue is increasing from 10 to 20 (with approval procedures in place.) Such a change is consistent with practices of other Ontario Universities. Updates to the regular full-time graduate students definition are being made to reflect this change.

/mh kw Jeff Casello
Associate Vice-President, Graduate Studies and Postdoctoral Affairs

Charmaine Dean
Vice President, Research & International
August 10, 2021

TO: Kathy Winter, Privacy Officer and Assistant University Secretary, Senate Graduate and Research Council

FROM: Jeff Casello, Associate Vice-President, Graduate Studies and Postdoctoral Affairs

RE: Graduate Studies Academic Calendar changes

**Item for approval:**

*Updates to the regular full-time graduate students definition regarding the number of hours a student can be employed by the University.*

**Description and rationale for proposed changes:**

*In order to increase flexibility in employment options for students, the average number of hours per week that a full-time graduate student may pursue is increasing from 10 to 20 (with approval procedures in place). Such a change is consistent with practices of other Ontario universities. Updates to the regular full-time graduate students definition are being made to reflect this change.*

**Proposed effective date:** Term: Fall Year: 2021

Current [Graduate Studies Academic Calendar (GSAC) page](https://uwaterloo.ca/graduate-studies-academic-calendar/general-information-and-regulations/full-time-students) (include the link to the web page where the changes are to be made):

<table>
<thead>
<tr>
<th>Current Graduate Studies Academic Calendar content:</th>
<th>Proposed Graduate Studies Academic Calendar content:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular full-time graduate students</strong></td>
<td><strong>Regular full-time graduate students</strong></td>
</tr>
<tr>
<td>Students who have been accepted by the University to study on a full-time basis for a higher degree must meet the following criteria:</td>
<td>Students who have been accepted by the University to study on a full-time basis for a higher degree must meet the following criteria:</td>
</tr>
<tr>
<td>1. Be engaged in studies requiring an Honours undergraduate degree or its equivalent as a prerequisite for admission.</td>
<td>1. Be engaged in studies requiring an Honours undergraduate degree or its equivalent as a prerequisite for admission.</td>
</tr>
<tr>
<td>2. Be making substantial demands upon the resources of the University.</td>
<td>2. Be making substantial demands upon the resources of the University.</td>
</tr>
<tr>
<td>3. Be pursuing studies as a full-time occupation.</td>
<td>3. Be pursuing studies as a full-time occupation.</td>
</tr>
<tr>
<td>4. Identify as a full-time graduate student.</td>
<td>4. Identify as a full-time graduate student.</td>
</tr>
<tr>
<td>5. Be designated by the University as a full-time graduate student*.</td>
<td>5. Be designated by the University as a full-time graduate student*.</td>
</tr>
<tr>
<td>6. Be geographically available and visit the campus regularly. Without forfeiting full-</td>
<td>6. Be geographically available and visit the campus regularly. Without forfeiting full-</td>
</tr>
</tbody>
</table>
Current Graduate Studies Academic Calendar content:

7. Be considered to be a full-time graduate student* by their supervisor.
8. Not be employed by the University for more than an average of 20 hours per week for any term during which they are enrolled as full-time graduate students.

*Full-time graduate students are expected to pursue their graduate degree on a full-time basis and make satisfactory progress toward timely completion of all program requirements. It is not possible, or desirable, for the University to monitor and enforce the employment activities of its graduate students outside the University. However, it is both possible and desirable for the University to ensure that it does not itself create a structural situation that jeopardizes the ability of graduate students to make progress towards the timely completion of graduate program requirements.

Accordingly, Ontario Council on Graduate Studies (OCGS) is committed to the principle that full-time graduate students are employed no more than an average of 10 hours per week on campus.

Proposed Graduate Studies Academic Calendar content:

7. Be considered to be a full-time graduate student* by their supervisor.
8. Not be employed by the University for more than an average of 10 hours per week for any term during which they are enrolled as full-time graduate students.

*Full-time graduate students are expected to pursue their graduate degree on a full-time basis and make satisfactory progress toward timely completion of all program requirements. It is not possible, or desirable, for the University to monitor and enforce the employment activities of its graduate students outside the University. However, it is both possible and desirable for the University to ensure that it does not itself create a structural situation that jeopardizes the ability of graduate students to make progress towards the timely completion of graduate program requirements.

Normally, graduate student appointments in the roles of teaching assistants (TAs) and research assistants (RAs) are structured such that students average 10 hours per week. Students also engage in other, non-academic employment on campus (e.g., food services, retail services).

In total, students may pursue on-campus employment that exceeds 10 hours per week on average (but does not exceed 20 hours per week).
<table>
<thead>
<tr>
<th>Current Graduate Studies Academic Calendar content:</th>
<th>Proposed Graduate Studies Academic Calendar content:</th>
</tr>
</thead>
<tbody>
<tr>
<td>week, on average, in each term) with the approval of their supervisor or Graduate Officer/Program Director, as applicable. The decision to approve on-campus employment above 10 hours per week will be guided by an assessment made jointly by the student and supervisor (or Graduate Officer/Program Director) of the student’s previous academic progress and the impacts that the increased employment activity are expected to have on future performance. Taking on additional employment does not reduce expectations for academic progress, nor would it typically be viewed as extenuating circumstances for which exceptions to academic rules are made.</td>
<td></td>
</tr>
</tbody>
</table>
Senate Graduate & Research Council (SGRC) met on 13 September 2021 and Senate Undergraduate Council (SUC) met on 14 September 2021. Both councils considered academic calendar dates for 2022-2023, as well as calendar guidelines for establishing academic dates and agreed to forward this item to Senate for approval as part of the regular agenda.

Further details are available at:
https://uwaterloo.ca/secretariat/committees-and-councils/senate-undergraduate-council
https://uwaterloo.ca/secretariat/committees-and-councils/senate-graduate-research-council

FOR APPROVAL

___________________________________
ACADEMIC CALENDAR DATES 2022-2023

1. **Motion:** To approve the 2022-2023 academic calendar dates and calendar guidelines for establishing academic dates as presented at Attachment 1.

   **Rationale:** The dates lay out major academic milestones throughout the year and provide guidance to units throughout the campus community as they conduct academic planning within their respective areas.

   /kw & dj

   Jeff Casello
   Associate Vice-President, Graduate Studies and Postdoctoral Affairs

   David DeVidi
   Associate Vice-President, Academic

   Charmaine Dean
   Vice President, Research & International
## Academic Calendar Dates for 2022-2023

<table>
<thead>
<tr>
<th>Event</th>
<th>Fall 2022</th>
<th>Winter 2023</th>
<th>Spring 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-operative Work Term Begins</td>
<td>Sept. 6 (T)</td>
<td>Jan. 3 (T)</td>
<td>May 1 (M)</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>Sept. 7 (W)</td>
<td>Jan. 4 (W)</td>
<td>May 1 (M)</td>
</tr>
<tr>
<td>Holidays</td>
<td>Oct. 10 (M)</td>
<td>Feb. 20 (M)</td>
<td>May 22 (M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apr. 7 (F)</td>
<td>July 3 (M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aug. 7 (M)</td>
</tr>
<tr>
<td>Reading Week</td>
<td>Oct. 8-16 (S-U)</td>
<td>Feb. 18-26 (S-U)</td>
<td>N/A</td>
</tr>
<tr>
<td>Convocation</td>
<td>Oct. 21, 22 (F,S)</td>
<td>N/A</td>
<td>June 13-17 (T-S)</td>
</tr>
<tr>
<td>Classes End</td>
<td>Dec. 6 (T)</td>
<td>Apr. 4 (T)</td>
<td>July 25 (T)</td>
</tr>
<tr>
<td>Make-up Day(s) for in-term holidays</td>
<td>N/A</td>
<td>N/A</td>
<td>May 23 (T)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May 22 (M schedule)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July 24 (M) for July 3 (M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July 25 (T) for May 23 (T)</td>
</tr>
<tr>
<td>Pre-Examination Study Day(s)</td>
<td>Dec. 7, 8 (W, R)</td>
<td>Apr. 5,6 (W,R)</td>
<td>July 26, 27 (W,R)</td>
</tr>
<tr>
<td>Examinations Begin</td>
<td>Dec. 9 (F)</td>
<td>Apr. 10 (M)</td>
<td>July 28 (F)</td>
</tr>
<tr>
<td>In-Person Exam Days for Online/Remote Courses</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Examinations on Sunday</td>
<td>Dec. 11 (U)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Examinations End (including Emergency Day)</td>
<td>Dec. 23 (F)</td>
<td>Apr. 25 (T)</td>
<td>Aug. 12 (S)</td>
</tr>
<tr>
<td>Co-operative Work Term Ends</td>
<td>Dec. 23 (F)</td>
<td>Apr. 21 (F)</td>
<td>Aug. 18 (F)</td>
</tr>
<tr>
<td>Teaching days</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Pre-examination Study Day(s)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Examination days</td>
<td>13</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>(+1 Emergency Day)</td>
<td>(+1 Emergency Day)</td>
<td>(+1 Emergency Day)</td>
</tr>
</tbody>
</table>

**Symbols and abbreviations:**
- (M) Monday, (T) Tuesday, (W) Wednesday, (R) Thursday, (F) Friday, (S) Saturday, (U) Sunday
- N/A – Not Applicable
Guidelines for Determining Academic Calendar of Dates

The following are principles and guidelines either formally agreed upon by Senate or adopted as common practice in determining the dates for the academic year.

1. That the practice of setting dates for each academic year continues to be an annual exercise.

2. That there be no fewer than **60 teaching days** (12 weeks) in a term. A clear rationale for fewer than 60 teaching days must be communicated to Senate at the time calendar dates are approved. In calculating teaching days in a term, Saturdays, Sundays, and public or University holidays are excluded.

3. That attention be given to balancing the number of meets in courses. Where an imbalance may occur because of public holidays, the class schedule for a day different than the calendar day can be used to balance the number of course meets.

4. That **fall convocation** be the Friday and Saturday that fall in the third full week (beginning Sunday) of October.

5. That **spring convocation** be the Tuesday to Saturday in the second full week (beginning Sunday) in June.

6. That the reading weeks occur in all faculties in the fall and winter terms. They must begin on the Saturday before the public holidays of Thanksgiving Day and Family Day and will end on the following Sunday.

7. That **fall term** classes begin on the Wednesday following the public holiday of Labour Day. **Exception:** The fall term begins on Tuesday, September 8 when Labour Day is September 7.

8. That the start date for **winter term** be set as follows:
   - If January 1 is a Sunday, then start of classes is Wednesday, January 4.
   - If January 1 is a Monday, then start of classes is Wednesday, January 3.
   - If January 1 is a Tuesday, then start of classes is Monday, January 7.
   - If January 1 is a Wednesday, then start of classes is Monday, January 6.
   - If January 1 is a Thursday, then start of classes is Monday, January 5.
   - If January 1 is a Friday, then start of classes is Tuesday, January 5.
   - If January 1 is a Saturday, then start of classes is Wednesday, January 5.

9. That the start date for **spring term** be set as follows:
   - If May 1 is a Sunday, then start of classes is Monday, May 2.
   - If May 1 is a Monday, then start of classes is Monday, May 1.
   - If May 1 is a Tuesday, then start of classes is Tuesday, May 1.
   - If May 1 is a Wednesday, then start of classes is Wednesday, May 1.
   - If May 1 is a Thursday, then start of classes is Monday, May 5.
   - If May 1 is a Friday, then start of classes is Monday, May 4.
   - If May 1 is a Saturday, then start of classes is Monday, May 3.

10. That there be no fewer than one **pre-examination study day** and when possible, two pre-examination study days (excluding Saturday, Sunday, and public holidays) between the end of classes and the
beginning of examinations. A clear rationale for using fewer than two days or Saturday, Sunday, and holidays as pre-examination study days, must be communicated to Senate at the time calendar dates are approved.

11. That there be no fewer than 13 examination days in the fall and winter terms, and 11 examination days in the spring term. In addition, one Emergency Day with no scheduled examinations is added to the end of the examination period.

12. In calculating examination days, Saturdays which fall within the period are included, whereas Sundays and public or University holidays are excluded.

   Exceptions:
   Examinations will not be scheduled on the Saturday following Good Friday when that day falls within the examination schedule or the Saturday of the Civic Day weekend.
   The first Sunday within the examination period may be used when required to accommodate the prescribed number of examination days in the fall term.

13. That for the fall term’s examination period, no examinations be scheduled beyond December 22. The Emergency Day cannot be scheduled beyond December 23.

14. That online course examination days in each term be the first consecutive Friday and Saturday in the examination period.

15. Grades due dates for on campus courses are normally scheduled seven days from the date of the final examination. Grades for online (Centre for Extended Learning) courses that have a scheduled final examination are due on the last day of the grades submission period. Grades for all courses without a scheduled final examination are normally due 14 days after the start of examinations.

16. Co-op work terms are expected to be 16 week in duration. Actual start and end dates may vary depending on employer or student requirements in consultation with Co-operative Education.

Prepared by:
C. Newell Kelly, Registrar
June 2021
Rules that Require Exceptions with Rationale:

Rule 12

... The first Sunday within the examination period may be used when required to accommodate the prescribed number of examination days in the fall term.

With fall term classes beginning September 7, 2022, and the scheduling of two study days prior to the fall final exam period, the first Sunday within the exam period was required for scheduling exams to accommodate the prescribed number of examination days.

... Examinations will not be scheduled on the Saturday following Good Friday when that day falls within the examination schedule or the Saturday of the Civic Day weekend.

The first day of the 2023 winter final exam schedule will begin on Monday, April 10, 2023 instead of Saturday, April 8, 2023 as it is the Saturday following Good Friday. Saturday, August 5, 2023 will not be used for schedule of examinations during the 2023 spring term final exam period, as it is the Saturday of the Civic Day weekend.

Rule 14

... That online course examination days in each term be the first consecutive Friday and Saturday in the examination period.

At the time of preparation of this document, it is unknown as to when online course examination days will resume, as there has been a hold on in-person exams for online courses due to the COVID-19 pandemic. Considerations will be made at a future date.

For information, some fall 2022 and winter 2023 dates lack synchronicity with Laurier dates (their spring 2023 dates are not yet finalized):

<table>
<thead>
<tr>
<th>Date</th>
<th>Waterloo</th>
<th>Laurier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 7, 2022</td>
<td>First day of fall term classes</td>
<td>No classes</td>
</tr>
<tr>
<td>Sept. 8, 2022</td>
<td>N/A</td>
<td>First day of fall term classes</td>
</tr>
<tr>
<td>Dec. 7, 2022</td>
<td>Study day</td>
<td>Regular classes</td>
</tr>
<tr>
<td>Dec. 9, 2022</td>
<td>First day of fall term final exams</td>
<td>Study day</td>
</tr>
<tr>
<td>Dec. 22, 2022</td>
<td>Fall term final exams</td>
<td>Closed</td>
</tr>
<tr>
<td>Dec. 23, 2022</td>
<td>Emergency Day for fall term final exams</td>
<td>Closed</td>
</tr>
<tr>
<td>Jan. 3, 2023</td>
<td>No classes</td>
<td>First day of winter term classes</td>
</tr>
<tr>
<td>Jan. 4, 2023</td>
<td>First day of winter term classes</td>
<td>N/A</td>
</tr>
<tr>
<td>Apr. 4, 2023</td>
<td>Regular classes</td>
<td>Study day</td>
</tr>
<tr>
<td>Apr. 6, 2023</td>
<td>Study day</td>
<td>First day of winter term final exams</td>
</tr>
<tr>
<td>Apr. 26-29, 2023</td>
<td>N/A</td>
<td>Winter term final exams</td>
</tr>
</tbody>
</table>
Senate Undergraduate Council met on September 14, 2021 and agreed to forward the following items to Senate for approval in the regular agenda.

Further details are available: https://uwaterloo.ca/secretariat/committees-and-councils/senate-undergraduate-council

FOR APPROVAL

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NEW ACADEMIC PLANS

Faculty of Arts
Political Science

1. **Motion:** That Senate approve the proposed new Canadian Politics and Public Policy Minor, effective 1 September 2022.

**Rationale and Background:** We are inactivating the Canadian Politics specialization and the Public Policy and Public Administration Minor, and instead offering a new minor which combines both. It will be open to students in any major except Political Science. The Canadian Politics and Public Policy minor would provide a rigorous introduction to these fields. It will prepare non-PSCI majors for careers in policy, government, or government relations where a knowledge of politics and policy making / analysis will be valuable. It would also result in a more efficient use of department resources. The new minor incorporates courses from the to-be-inactivated Public Policy and Administration and Canadian Politics minors, but has removed the duplication between those two programs. We have expanded the list of courses available to give students maximum flexibility to successfully complete the new minor. Each of the newly added courses has been reviewed to confirm its human rights content and approval to list them as electives has been received from the relevant departments and programs (Cultural Identities, History, Legal Studies and Sociology, Peace and Conflict Studies, Political Science, Social Development Studies, and Spanish and Latin American Studies). These courses address areas of key concern to the study of human rights including race, gender, and indigenous issues, and their inclusion will further enhance the program’s ability to provide students with an interdisciplinary perspective on human rights. Students interested in applying to the Essex Law program will be advised to take specific courses within the Human Rights minor requirements, including at least one indigenous-related course, and meet a basic minimum overall average that is required by the agreement signed between University of Waterloo, Faculty of Arts and the University of Essex Law School. These changes will help to ensure that students representing University of Waterloo abroad have an advanced level of knowledge concerning issues of relevance to Canadian society, specifically indigenous rights. The minimum overall average required for the Essex option is set out in the agreement signed between the University of Waterloo, Faculty of Arts and the University of Essex Law School. University of Essex has been consulted regarding these programmatic changes and has approved them.

**Plan Requirements (new calendar text):**
The Canadian Politics and Public Policy Minor requires successful completion of a minimum of four academic units (eight courses) with a minimum cumulative average of 65%, including:

- PSCI 100 and PSCI 260/LS 206
- Four of PSCI 301, PSCI 302, PSCI 303, PSCI 331, PSCI 334/SOC 334, PSCI 360, PSCI 362, PSCI 363, PSCI 373, PSCI 431, PSCI 433, PSCI 434, PSCI 461, PSCI 462/LS 462, PSCI 463/LS 463, PSCI 472
• Two of ECON 241, ECON 256, ECON 361, ECON 363, ECON 366, ECON 441, ECON 457, SDS 210R/LS 273, SDS 231R, SDS 310R, SDS 311R/LS 373, SDS 312R, SDS 331R, SDS 400R

ACADEMIC PLAN CHANGES

Faculty of Arts
St. Paul’s University College

2. **Motion:** That Senate approve the following changes to the human rights minor, effective 1 September 2022.

**Rationale and Background:** The changes outlined have been proposed in order to make the Human Rights minor more flexible and thus more accessible to students. There was concern that seven required courses, including three that had to be taken in sequence, would make it too difficult for students who also have to fulfill the requirements for their Majors to actually complete the requirements for the Minor. Reducing the number of required courses (while still maintaining the integrity of the program through the four required courses) and expanding the list of accepted electives provides an added level of flexibility in the scheduling, while also allowing students to better customize the minor to suit their particular interests in the field of human rights. In addition, the revision of existing courses, including their prerequisites, and addition of several new courses will result in a better course sequence that will contribute to the integrity of the minor as a whole.

**Plan requirements:**
Students enrolled in any degree program may pursue a minor designation in Human Rights. The Human Rights Minor requires successful completion of a minimum of four academic course units (eight courses) with a minimum cumulative average of 65%, including:

- HRTS 101, HRTS 102, HRTS 201, HRTS 202, HRTS 203, **HRTS 204, HRTS 301, HRTS 305/INDG 305**

One Four electives to be chosen from the following list of the following approved courses:

- CI 250, GSJ 102, GSJ 206/LS 201, HIST 221, HIST 271, HIST 314, HIST 321/LS 331, HRTS 301, HRTS 302, HRTS 305/INDG 305, HRTS 3XX, HRTS 4XX, INDG 201/CDNST 201, PACS 318, PACS 324, **PACS 325, PHIL 328/LS 352, PSCI 421/LS 464, PSCI 463/LS 463, SDS 210R/LS 273, SDS 449R, SPAN 400**

Faculty of Science
School of Optometry & Vision Science

1. **Motion:** That Senate approve an earlier effective date of 1 September 2021 for the optometry advance standing program.

**Rationale and Background:** The new Optometry Advanced Standing Program was approved at the Senate meeting February 2021 with the effective date of September 1, 2022 (terms: fall 2022, winter 2023, spring 2023).

The first intended admission cycle was not clear in the original documentation. The Advanced Standing Optometry Preparatory Program (ASOPP) was intended to start in the spring 2022 term which is a term prior to the effective date, so in fact the effective date should have been Sept 1, 2021 (terms: fall 2021, winter 2022, spring 2022).
The ASOPP program is already available for applications on the OUAC site with the expected date of enrollment of spring 2022 (May), prior to the effective date approved by Senate. To facilitate admissions for this desired term, the Faculty of Science is putting forward a motion to change the approved effective date from September 1, 2022, to September 1, 2021.

This matter has been discussed with the Registrar’s Office (RO), who agrees with the retro-active correction and has agreed to change the effective date so that the admissions process for May 2022 can continue. The RO will amend the 2021-22 Calendar to include the program information added to the 2022-23 Calendar.

**ACADEMIC PLAN INACTIVATIONS**

**Faculty of Arts**

**Political Science**

1. **Motion:** That Senate approve the inactivation of following academic plans, effective 1 September 2022.
   - Public Policy and Administration Minor
   - Canadian Politics Specialization
   - Global Governance Specialization
   - Politics and Business Specialization

**Background and Rationale:** The requirements for this minor and the Canadian politics specialization are being merged to offer a new Canadian Politics and Public Policy minor. The global governance specialization is being discontinued in light of course requirement changes to both the international studies and international trade minors. Political Science also offers an international relations specialization (jointly with History) – having two specializations in the field of global politics was confusing for students and complicated for advising. Students wanting to pursue a plan with global content can take that specialization, the international studies minor, or the international trade minor. The politics and business specialization is being discontinued in light of the proposal to offer a politics and business minor instead (forthcoming).

**ACADEMIC REGULATION CHANGES**

**Faculty of Science**

**Transfer Students**

2. **Motion:** That Senate approve the revisions to the transfer student regulations in the Faculty of Science, effective 1 September 2022.

**Background and Rationale:** With a 50% rule in place, at least 50% of academic units required to be awarded a degree, major, minor, option or specialization, must have numeric grades. As such, some internal or faculty transfer students could have transfer credits from their original program included in cumulative average calculations, whereas transfer credits for external transfer students from other post-secondary institutions would never be included in cumulative average calculations. To make this clear, the statement about the transfer credits not being included in the averages, is relocated to the section specific to external transfer students.

**Undergraduate Calendar text:**

External Transfer Students

Students may be accepted for transfer from other post-secondary institutions. Transfer credit will be evaluated in terms of the University of Waterloo’s [common degree requirements](#) and the number of
units remaining for a degree. Consideration for transfer credit will be given for relevant courses. Normally, only courses completed within the last 10 years are considered. Professional program courses (e.g., medicine, dentistry) are not considered for transfer credit. **Credits transferred to any Science program are not included in cumulative average calculations.**

**Internal and External and Faculty Transfer Students**

Credits transferred to any Science program are not included in cumulative average calculations. Students applying for transfer to a co-operative program in the Faculty of Science normally will not be admitted above the 2A term level. Only 5.0 transfer credit units are allowed for new students entering Science and Aviation programs. Students currently holding a Bachelor of Science degree will normally be considered for admission into post-degree studies only.

/dj  

David DeVidi  
Associate Vice-President, Academic
Introduction
This report to Senate highlights successful research outputs and outcomes for the period July – Sept. 2021 by the thematic area, Advancing Research for Global Impact, as outlined in Waterloo’s Strategic Plan 2020-25.

ADVANCING RESEARCH FOR GLOBAL IMPACT
Research strengths to solve real-world problems

Awards and Distinctions

1. **Abigail Scholer** (Psychology) - [2021 Early Career Award - Society for the Science of Motivation](SSM)
   - The SSM annually confers an Early Career Award to a distinguished junior scientist who has made an outstanding empirical and/or theoretical contribution to motivation science. The winner is recognized at the Society’s annual meeting and in the Society’s outlets Motivation and Emotion and Motivation Science.

2. **Derek Besner** (Psychology) - [2021 Donald O. Hebb Distinguished Contribution Award](CSB)- Canadian Society for Brain, Behaviour, and Cognitive Science
   - This award is made to an individual who, in the opinion of the selection committee, has made a significant contribution to the study of brain, behaviour, and cognitive science.

3. **Ruodu Wang** (Statistics and Actuarial Sciences) - [Actuarial Science Early Career Award - Society of Actuaries](SA)
   - The SOA has launched the Early Career Award this year (2021), which is expected to be awarded annually to one scholar within 10 years of independent academic career in actuarial science.

4. **Peter Forsyth** (Cheriton School of Computer Science) and **Ken Vetzal** (School of Accounting and Finance) - [2021 Brockett-Shapiro Actuarial Journal Award - American Risk and Insurance Association](ARI)
   - The prestigious annual award, which is conferred for the most valuable contribution in risk management and insurance, recognizes “Management of Portfolio Depletion Risk through Optimal Life Cycle Asset Allocation,” a paper published in the North American Actuarial Journal in 2019.
Global leadership in innovation, entrepreneurship and social impact

Fellows of the Royal Society of Canada are distinguished Canadians from all branches of learning who have made remarkable contributions in the arts, the humanities and the sciences, as well as in Canadian public life. The RSC, Class of 2021, includes three Waterloo members:

Richard Cook (Statistics and Actuarial Sciences)
- Richard Cook is a world leader in the development of statistical theory and methods for studying life history processes. His innovative modeling strategies for complex processes, and associated methods for the design and analysis of randomized trials and observational studies, have been highly influential both in statistics and in several areas of medical science.

Lyndon Jones (School of Optometry)
- Lyndon Jones, an internationally renowned optometrist and biomaterial scientist, is recognised for his pioneering research relating to the science underpinning the interactions of novel and commercially available contact lens materials with the ocular surface, in addition to significant contributions relating to the etiology and management of dry eye. His ground-breaking work has resulted in the development of improved contact lenses and contact lens solutions for millions of wearers globally.

Guy Poirier (French Studies)
- Guy Poirier works on topics related to French Renaissance: discourse and homosexuality in Renaissance France, Henri III of France in literature and pamphlets, etc. He also published in areas such as Québec literature and British Columbia French Literature.

M. Tamer Ozsu (Cheriton School of Computer Science) - 2022 IEEE Innovation in Societal Infrastructure Award
- The 2022 IEEE Innovation in Societal Infrastructure Award, an honour conferred for significant technological achievements and contributions that establish, develop and proliferate innovative societal infrastructure systems through the application of information technology with an emphasis on distributed computing systems. Prof Ozsu was selected for this award for his many contributions to data science infrastructure and distributed data management.

Anita Layton (Applied Mathematics) - Fellow, Association for Women in Mathematics (AWM)
- Founded in 1971, the AWM currently has more than 3500 members and is the leading society for women in the mathematical sciences. The AWM fellowship recognizes members who have demonstrated a sustained commitment to the support and advancement of women in the mathematical sciences, consistent with the AWM mission.

Jack Callaghan (Kinesiology) - Fellow, Canadian Academy of Health Sciences
• The Canadian Academy of Health Sciences brings together Canada’s top-ranked health and biomedical scientists and scholars to make a positive impact on the urgent health concerns of Canadians.

Canada Research Chair

• **James Craig**, Tier 2 NSERC Renewal, Chair in Hydrological Modelling and Analysis, Faculty of Engineering, Civil and Environmental Engineering, $100K/year for 5 years

Tri-Council Funding

SSHRC Connection Grant

• **Heather Love** (Arts, English Language and Literature): Technology, Equity, and Social Justice: Cross-Disciplinary Conversations @ ISTAS21, $24,597

SSHRC Engage

• **Warren Dodd** (Health, School of Public Health and Health Sciences): Community mobilization to address food insecurity during the COVID-19 pandemic, $24,997

Ontario Research Fund – Research Infrastructure (ORF-RI) Awards

Waterloo received seven ORF-RI awards, totalling **$702,108**. These ORF-RI awards are associated with the partner contribution awards from the June 2020 CFI-JELF competition.

1. **Chengnian Sun** (Math): Continuous, Intelligent, Semantics-Aware Fuzz Testing of System Software; $75,108
2. **Helen Jarvie** (Environment): Multi-element signatures to trace nutrient sources, pathways and processes: from field to watershed scales; $135,000
3. **Wesley Van Wychen** (Environment): Establishment of the Glacier and Cryosphere Research Laboratory; $76,000
4. **Dale Martin** (Science): Microscopy System for Targeting S-Palmitoylation in Neurodegeneration; $160,000
5. **Kaylena Ehgoetz Martens** (Health): Understanding Gait Patterns in Health and Disease; $100,000
6. **Zhao Pan** (Engineering): Mild-impact-induced cavitation in soft matter and traumatic brain injury: From fluid physics to applied health; $80,000
7. **Zahid Butt** (Health), Public Health Research and Analytics Lab: A platform for disease mapping, health data analyses and knowledge translation; $76,000
Ontario Research Fund - Large Infrastructure Fund (ORF-LIF) Awards

Waterloo was awarded five ORF-LIF awards, totalling $11,551,283. These ORF-LIF awards are the partner contributions associated with the Canada Foundation for Innovation-Innovation Fund (CFI-IF) 2020 competition.

1. **Michel Fich** (SCI - Physics and Astronomy): CCAT-prime: A Submillimetre Wavelength Survey Telescope in Chile; $2,450,000
2. **Monica Emelko** (ENG - Civil and Env. Eng): forWater AID: Advanced Infrastructure Development for forested drinking water source protection technologies in Canada; $2,643,750
3. **Paul Craig** (SCI, Biology) & **Brian Dixon** (SCI, Biology): Waterloo Aquatic Threats Environmental Research (WATER) Facility; $780,000
5. **David Blowes** (SCI, Earth Sciences) & **Carol Ptacek** (SCI, Earth Sciences): Developing Innovative Technologies for Predicting and Remediating Environmental Contamination; $3,010,060

Leveraging partnerships for research impact

International Research and Partnerships

Integrated hydrologic model

**Young-Jin Park** of the Department of Earth and Environmental Sciences has received $562,500 from the Korea Atomic Energy Research Institute over a three-year period to develop of a standard integrated hydrologic model to simulate the multiple physical and chemical processes in critical geologic zones. The integrated hydrologic model will be equipped with a high-performance computing capability and concurrent multi-model simulation capacity suitable for climate change impact analysis, and for safety assessment for deep geologic repository programs.

Waterloo International Agreements

From June 2021 to August 2021 Waterloo International facilitated the signing of 17 agreements as follows:

1. United Nations Association of Canada, Canada, Student Mobility Agreement.
2. Tsinghua University, China, Student Mobility Agreement.
3. Global Arena Research Institute (GARI), Czech Republic, Student Mobility Agreement.
4. Bonn International Center for Conversion, Germany, Student Mobility Agreement.
5. RWTH Aachen University, Germany, Hybrid Student Mobility Agreement.
6. Indian Institute of Technology Delhi, India, Student Mobility agreement.
7. Universidad Carlos III de Madrid, Spain, Student Mobility Agreement.
8. Lund University, Sweden, Student Mobility Agreement.
9. University of Liverpool, United Kingdom, Student Mobility Agreement.
10. University of Sheffield, United Kingdom, Student Mobility Agreement.
11. Shandong University of Finance and Economics, Joint Academic Undergraduate 2+2 Agreement.
13. Hong Kong University of Science and Technology, Student Mobility Agreement.
15. The University of Western Australia, Student Mobility Agreement
16. Singapore University of Technology & Design, Singapore, Student Mobility Agreement
17. Swansea University, United Kingdom, Student Mobility Agreement

Four virtual delegations were hosted between June 2021 and September 15th 2021:

1. Karlsruhe Institute of Technology, 18 June 2021
2. University Of Malaya, 26 August 2021
3. Indian Institute of Delhi, 27 August 2021
4. Technical University of Denmark, 15 September 2021

Waterloo International also supported participation at the OP Jindal University World Universities Summit on 22 July 2021, speaking on ‘The Power of Youth.’

**Indonesia partnership**

Waterloo International gathered and coordinated representatives from multiple units across campus to respond to the Indonesian Government’s Request for Proposals to host Indonesia scholarship students at global universities. Waterloo was one of 70 partner universities selected. Supported by the Indonesia government, 30 of Indonesia’s brightest senior undergraduate students are scheduled to spend Fall 2021 term at Waterloo, taking classes and engaging in extracurricular activities. There are strong prospects that Waterloo will continue to receive outstanding Indonesian students in future terms.

**Pivot-RP, a searchable funding opportunities database**

In August 2021, a new system was introduced for Waterloo researchers and research support staff to identify research funding opportunities, a gap that has been identified by various research communities on campus, including through the strategic planning process.

Following an extensive evaluation process with members of the research community, Waterloo selected Pivot-RP. Recognized as the most comprehensive global source of research funding with over 28,000 active funding opportunities from sponsors across all disciplines, Pivot-RP is a searchable database that enables researchers and research staff to:

- create customized searches
• access curated funding opportunities based on specific research interests
• receive email alerts based on individually defined criteria

Pivot-RP is aimed at making the search for research funding more efficient and providing more sources of funding for all Waterloo researchers. Researchers and research staff have been encouraged to set up an account to utilize this new system.

The Office of Research is in the process of transitioning more fully from the current Find funding web page to Pivot-RP as the prime source for research funding opportunities and moving to a more streamlined format for communicating funding to researchers. Training workings are being organized for researchers throughout the fall (beginning in October) and the OR will be seeking feedback on its features and utility from the community later this year.

Gateway for Enterprises to discover Innovation (GEDI)

Rogers

In December 2019, Rogers and the University of Waterloo entered into a partnership to advance 5G research and create the first 5G smart campus in central Canada. [https://uwaterloo.ca/news/news/rogers-and-university-waterloo-partner-build-made-canada-5g](https://uwaterloo.ca/news/news/rogers-and-university-waterloo-partner-build-made-canada-5g)

Rogers issued a call for Expressions of Interest (EOI) to Waterloo faculty members encouraging proposals in both 5G disruptive applications as well as 5G technologies. This is the second call for EOIs since the partnership launched. Rogers received 18 EOIs and selected six research projects (three Math and three Engineering) that will be funded. As part of the Waterloo-Rogers collaborative agreement (with Math, Engineering and Science), Rogers will host a workshop with the Faculty of Science to jointly identify research projects that will make use of the 5G network.

Rogers and GEDI have begun discussions to envision what another two to three-year Waterloo-Rogers partnership may entail. The current Waterloo-Rogers partnership ends in Q3 2022.

The Rogers 5G network went live on campus Q2 2021. Work is underway on the next phase of the deployment of the 5G network on campus which involves “small cell” location identification and installation. The small cells will further support 5G research on campus.

BlackBerry

The research contract template for Waterloo-Blackberry partnership is close to being finalized which will allow individual research contracts to be created for the projects that are selected by BlackBerry to be funded through their EOI calls.

BlackBerry sponsors an annual scholarship, “Cybersecurity and Privacy Excellence Graduate Scholarship,” through the University’s Cybersecurity and Privacy Institute (CPI). The mission of CPI is to facilitate excellence in collaborative research in
cybersecurity, privacy and cryptography. This scholarship supports recipients with $10,000 CAD for one academic year. This year’s student recipient will be named in September 2021.

Early design work has begun for the BlackBerry-Waterloo Joint Innovation Lab (JIL) space located at GEDI in the EC5 building. The JIL space supports the BlackBerry-Waterloo partnership by allowing in-person daily/regular interaction among BlackBerry scientists, developers and staff with Waterloo researchers, students and staff to research and develop BlackBerry IVY and its ecosystem: 

https://uwaterloo.ca/news/media/blackberry-and-university-waterloo-expand-partnership-create