

University of Waterloo
SENATE EXECUTIVE COMMITTEE
Notice of Meeting

Date: Monday 3 October 2022

Time: 3:30 p.m. – 5:00 p.m.

Place: Needles Hall 3308

| AGENDA | Action |
|---|---------------|
| 1. Minutes of the 6 September 2022 Meeting | Decision |
| 2. Business Arising from the Minutes | |
| 3. COU Academic Colleague - Update (Jack) | Information |
| 4. Senate Governance Review – Update (Jack) | Information |
| 5. Draft 17 October 2022 Senate Agenda | Decision |
| 6. Other Business | |

26 September 2022

Mike Grivicic
Associate University Secretary

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University of Waterloo
SENATE EXECUTIVE COMMITTEE
Minutes of the 6 September 2022 Meeting
[in agenda order]

Present: Michael Beauchemin, Jeff Casello, Joan Coutu, Lori Curtis, Catherine Dong, George Freeman, Vivek Goel (chair), Mike Grivicic (secretary), Carol Ann MacGregor, Graham Murphy, James Rush, Clarence Woudsma

Regrets: Christiane Lemieux, Luke Potwarka, Julian Surdi,

Guests: Jenny Flagler-George, Diana Gonçalves, Karen Jack, Andrea Kelman

1. MINUTES OF THE 6 JUNE 2022 MEETING

Members heard a motion to approve the minutes of the 6 June 2022 meeting. Coutu and Murphy. Carried.

2. BUSINESS ARISING FROM THE MINUTES

There was no business arising.

3. SENATE GOVERNANCE REVIEW FOLLOW UPS

Grivicic discussed the draft memo included with the agenda package and noted the various changes made to the Senate agenda format/structure as well as the new report template. Members discussed: numbering system for motions is not intuitive; should apply a watermark to the report template so as to clearly designate it as such; Senate will proceed with in-person meetings starting in September with provision for joining by phone, and the electronics system in NH 3407 will require upgrading (estimate to occur over 8-12 months) before improvements in the experience of remote participation could be expected.

4. DRAFT 19 SEPTEMBER 2022 SENATE AGENDA

Goel indicated: Rush will provide an update on campus housing as part of his leadership update; there will be specific reporting on Canada First Research Excellence Fund as part of the leadership update from the Vice-President, Research and International; an update on international student visas will also be provided. Rush indicated that he would provide minor amendments to the wording of one work plan item as well as in the preamble of the T&P report. Members noted a minor error in numbering for the consent motion. A motion was heard to approve the Senate agenda, as amended. Casello and Dong. Carried.

5. OTHER BUSINESS

Casello advised of activity at SGRC where the council is considering a split in its combined responsibility for both graduate studies and research. The committee expressed its support for SGRC to commence these discussions, without prejudice to the outcome.

With no other business, the meeting was adjourned.

22 September 2022

Mike Grivicic
Associate University Secretary

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**Senate
Notice of Meeting**

Date: Monday 17 October 2022

Time: 3:30 pm

Place: NH 3407 ¹

| | OPEN Session | | Page # |
|------|---|------------------|---------------|
| 3:30 | 1. Conflict of Interest | Declaration | |
| | 2. Approval of the Agenda | Decision | |
| | 3. Minutes of the 19 September 2022 Meeting | Decision | 7 |
| | 4. Business Arising from the Minutes | | |
| | 5. Senate Workplan | Information | 13 |
| 3:40 | 6. Report of the President | | |
| | a. President's Update | Oral/Information | |
| | b. Strategic Plan Annual Update 2021-2022 | [TBD] | |
| 4:00 | 7. Leadership Updates | | |
| | a. Report of the Vice-President, Academic & Provost | Oral | |
| | b. Report of the Vice-President, Research & International | Oral | |
| | i. Presentation – Annual Research Report to Senate | Information | |
| 4:45 | 8. Reports from Committees and Councils | | |
| | a. Senate Graduate & Research Council | | |
| | i. <i>To approve the establishment of the Centre for Sustainability and Business (CSB), as presented.</i> | Decision | 15 |
| | b. Senate Undergraduate Council | | |
| | i. <i>That Senate approve the proposed correction of the official name of the Environmental Sciences plans, both Honours and Honours Co-operative, to be pluralized (Environmental Sciences versus Environmental Science), effective 1 September 2023</i> | Decision | 17 |
| | c. Senate Long Range Planning | | |
| | i. Waterloo at 100 Report and Discussion Paper <i>(tbd, meeting is 29 Sept)</i> | Discussion | 19 |
| | 9. COU Academic Colleague | | |
| | 10. Other Business | | |
| 5:00 | CONSENT Agenda | | |
| | Motion: To approve or receive for information the items on the consent agenda, listed as items 11-13 of the Senate agenda | | |

¹ Telephone coordinates will be provided to Senators unable to attend in person
SENATE

| | | | |
|------|---|------------------|----|
| | 11. Reports from Committees and Councils | | |
| | a. Senate Graduate & Research Council | Information | 29 |
| | b. Senate Undergraduate Council | | |
| | <i>i. That Senate approve the following proposed revision to the Undergraduate Communication Requirement for the Faculty of Health, effective 1 September 2023.</i> | Decision | 31 |
| | <i>ii. That Senate approve the following revisions to the Invalid Plan Combinations, effective 1 September 2023</i> | Decision | |
| | 12. 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] | Decision | |
| | 13. Reports from the Faculties | | |
| 5:15 | CONFIDENTIAL Session | | |
| | 14. Minutes of the 19 September 2022 Meeting | Decision | 11 |
| | 15. Business Arising from the Minutes | | |
| | 16. Report of the President | Oral/Information | |
| | 17. Other Business | | |

10 October 2022

Mike Grivicic
Associate University Secretary
Secretary to Senate

University of Waterloo
SENATE
Minutes of the Monday 19 September 2022 Meeting

Present: Sheila Ager, Marc Aucoin, Michael Beauchemin, Jason Blokhuis, Jeff Casello, Trevor Charles, Joan Coutu, Kristine Dalton, Laura Deakin, Charmaine Dean, Jack DeGooyer, David DeVidi, Nenone Donaldson, Aiman Fatima, Paul Fieguth (on behalf of Mary Wells), Wendy Fletcher, Cindy Forbes, Mark Giesbrecht, Moira Glerum, Vivek Goel (chair), Onurcan Gokkaya, Rob Gorbet, Mike Grivicic (secretary), David Ha, Kevin Hare, Dennis Huber, Sonia Ismail, Narveen Jandu, Martin Karsten, Jennifer Kieffer, Veronica Kitchen, Christiane Lemieux, Lili Liu, Brad Lushman, Ellen MacEachen, Carol Ann MacGregor, Peter Meehan, Graham Murphy, Richard Myers, Prateep Nayak (on behalf of Bruce Frayne), Cathy Newell Kelly, Oudy Noweir, Daniel O'Connor, Troy Osborne, Nicholas Pfeifle, Mary Robinson, James Rush, Marcus Shantz, Sharon Tucker, Graeme Turner, Paul Ward, Stan Woo, Clarence Woudsma, Changbao Wu, Annie Yang, En-Hui Yang, Stephanie Ye-Mowe

Guests: Jean Becker, Catherine Burns, Aldo Caputo, Donna Ellis, Anne Galang, Diana Goncalves, Sarah Hadley, Karen Jack, Jimmy Lin, Bessma Momani, Fayaz Noormohamed, Alice Raynard, Chris Read, Daniela Seskar-Hencic, Kerry Stryker, Glen Wepler

Absent: John Abraham*, Dominic Barton*, Sandra Banks*, Lisa Bauer-Leahy, Anne Bordeleau*, Neil Craik*, Kim Cuddington, Lori Curtis, Catherine Dong*, George Freeman*, Kelly Grindrod, Natalie Hutchings, Achim Kempf, Scott Kline, Alysia Kolentsis, Robert Lemieux*. Xianguo Li, Nasser Mohieddin Abukhdeir*, Blake Madill, Ceileigh McAllister*, Beth Namachchivaya*, Erin O'Connell, Luke Potwarka*, Naima Samuel*, Matthew Schwarze*, Siv Sivaloganathan, Siva Sivoththaman*, Julian Surdi*, Chao Tan, Diana Vangelisti*, Dan Weber*

*regrets

OPEN SESSION

CHAIR'S REMARKS

The chair observed that 19 September is Pawley Day, a day recognized and celebrated by Métis people and communities across the country. He also observed that earlier in the day the former head of state for Canada, Queen Elizabeth II, was laid to rest and that the day had been proclaimed a day of mourning both nationally and provincially – he called for a moment of silence. The chair remarked: welcome to new senator Stephanie Ye-Mowe, who is the new WUSA president; welcome to Mike Grivicic as the new secretary to Senate; Johanna Wandel's term as COU Academic Colleague has elapsed, and eligible senators can expect communication in the near term to solicit interest for the role. The chair noted upcoming observances and celebrations, including: Sunrise Ceremony on September 22nd at the Ceremonial Fire Grounds located at St. Paul's (soon to be United College); the National Day for Truth and Reconciliation/Orange Shirt Day (September 30th); National Day of Remembrance for Missing and Murdered Indigenous Women and Girls (October 4th).

1. CONFLICT OF INTEREST

Senators were asked to declare any conflicts they may have in relation to the items on the agenda. No conflicts were declared.

2. APPROVAL OF THE AGENDA

A motion was heard to approve the agenda. Beauchemin and Meehan. Carried.

3. MINUTES OF THE 20 JUNE 2022 MEETING

A motion was heard to approve the minutes as distributed. Gorbet and Beauchemin. Carried.

4. BUSINESS ARISING FROM THE MINUTES

There was no business arising.

5. MEMO: SENATE GOVERNANCE REVIEW FOLLOW-UPS

Karen Jack provided an overview of the memo and indicated that work on the governance review is well underway, including: planned engagement with the committee/council chairs as well as Faculties; a request for proposals will be issued for a governance portal; potential joint committee with the Board of Governors focusing on equity, diversity, inclusion and anti-racism. Members noted the move of the consent agenda items to follow the regular session, and the chair indicated that Senate Executive Committee reviews the content of all agenda items and reports to ensure Senate's business is carried out appropriately – any member may request discussion of any item in the consent agenda.

6. SENATE WORK PLAN

This item was received for information.

7. REPORT OF THE PRESIDENT

The chair provided his report: with the start of the fall term, the University is carrying out its plan for a safe return to campus and continues to monitor public health data and guidance regarding COVID-19, with the potential to impose public health requirements if called for; orientation week was held earlier in the month with many students participating; acknowledgement of students' challenges re: housing, and more on the topic will be discussed under the provost's report; events held in August to welcome new faculty hired under the Black Excellence appointment process; recent launch of research initiatives re: sustainable futures as well as quantum and health; appointment of Jacinda Reitsma as incoming vice-president, administration and finance, who will start in the role on December 1st; the celebration of life for former president Douglas Wright will be held on Friday September 23rd.

Waterloo at 100

Consultations are well underway with engagement of faculty, staff and students - a discussion paper has been posted and approximately 1000 individuals have been engaged to date. Waterloo at 100 will be the focus at a special joint session of Senate and the Board of Governors is scheduled for September 28th as part of the Board retreat event, and further discussion will occur at the Senate Long Range Planning meeting on September 29th. The president will visit each Faculty as part of the consultation process, and the topic will be open for discussion at the upcoming President's Forum.

8. LEADERSHIP UPDATES

a. Report of the Vice-President, Academic & Provost

i. Operational and Strategic Matters Underway. James Rush provided a PowerPoint presentation on operational and strategic matters underway: update on fall term enrollments, and recruitment/admissions activity for fall 2023; update on international student visa applications, with the observation that this is a common challenge among U6 universities and the Waterloo has extended its deadlines to September 27 to provide additional flexibility for students encountering difficulties; recent faculty hires made under cluster hire initiatives for both Black and Indigenous faculty; summary of five-year financial reporting to observe the unique factors and circumstances related to the pandemic that skewed certain revenues and expenses, which provides important context for recent media reports. Senators clarified that the financial figures presented are drawn from the consolidated financial statements and differ from the presentation seen in the operating budget, and that the financial positions of different universities are not uniformly impacted. Senators heard that Campus Housing has extended its required arrival date to help accommodate students encountering difficulties in arriving, with coordination among Faculties and departments/schools toward that end. Senators learned that cluster hiring process may continue to yield new hires, and that there will be similar reporting on staff hires and student recruitment at future meetings of Senate.

ii. Campus Housing. Rush invited Chris Read to provide a PowerPoint presentation: recent media coverage has highlighted students' difficulties in secure housing; Waterloo has one of the largest on-

campus housing operations in the country (together with the AFIW); rising rents are a Canada-wide trend; comparisons of on-campus housing offerings and amenities vis-à-vis private off-campus options; facility strategy development process began in 2019 in recognition of the need for campus housing to modernize its facilities/offerings, and key drivers/guiding principles have been enunciated and recommendations formulated. Goel noted that work is ongoing on this important file and that more consultation activity can be expected as the strategy moves forward. Members discussed: process to develop guiding principles arises from consultations held in early 2020 with proposals discussed at five engagement sessions held in early 2022; there are regular communications with Wilfrid Laurier University and Conestoga College on these topics, along with engagement via the City of Waterloo and the Region of Waterloo; potential for the University to add to its housing stock, and recognition that both the affordability and adequacy of students' housing options may pose difficulties; graduate student represent a small portion of students in campus housing, with the University having prioritized undergraduate students as an outcome of the 100% residence guarantee for first-year and transfer students. An update on campus housing will be provided at a future meeting.

b. Report of the Vice-President, Research & International

Charmaine Dean provided a PowerPoint presentation (with Catherine Burns): recent submission to Canada First Research Excellence Fund (CFREF) of a joint initiative with NOSMU focusing on transformative health technologies, with successful applicants to be announced in early 2023; recent launch of sustainable future initiative; evolving funding dynamics and interplay between federal CFI funding and provincial ORF-RI sources, resulting from the province having launched its own strategic reviews and research security reviews, which has brought about more decoupling of CFI and ORF-RI funding decisions; NSERC discovery grants decisions have seen delays; the annual report on research will come to Senate in October. Goel acknowledged the excellent work of the Office of Research over the summer months to develop high-quality and competitive proposals. Dean and Burns affirmed that approval of the CFREF funding submission would bring funding opportunities to both researchers and students.

9. REPORT FROM COMMITTEES AND COUNCILS

a. Senate Graduate & Research Council

Dean spoke to items (i) and (ii) of the report. A motion was heard to approve the dissolution of the Centre for Advanced Trenchless Technologies (CATT), as presented. Dean and Ward. Carried with one abstention. A motion was heard to approve the dissolution of the Institute for Computer Research (ICR), as presented. Dean and Giesbrecht. Carried with one abstention. Casello provided an overview of item (iii) of the report. A motion was heard to approve the deletion of the graduate research fields from the Master of Arts (MA) in History program, effective 1 September 2022, as presented. Casello and Ager. Carried with one abstention.

b. Senate Undergraduate Council

DeVidi provided an overview of items (i)-(iii). A motion was heard to approve the proposed new Three-Year General English – Creative and Professional Writing academic plan, as described, effective 1 September 2023. DeVidi and Ager. Carried with one abstention. A motion was heard to approve the proposed new Diploma in Health Humanities, as described, effective 1 September 2023. DeVidi and Meehan. Carried. A motion was heard to approve the proposed new Mathematics/Chartered Professional Accountancy Data Analytics Specialization, as described effective 1 September 2023. DeVidi and Giesbrecht. Carried.

c. Joint Senate Graduate & Research Council and Senate Undergraduate Council

Cathy Newell Kelly spoke to the joint report, noting that the dates had been previously approved with placeholders for in-person exam dates pertaining to online courses, which have now been determined. A motion was heard to approve the revised academic calendar dates for 2022-2023 and calendar

guidelines for establishing academic dates as presented in Appendix 1, as presented. Newell Kelly and DeVidi. Carried.

d. Senate Executive Committee

Members noted Stephanie Ye-Mowe's recent WUSA appointment, and the chair indicated that if nominations are received from the floor, then an election will be held electronically following the meeting. Following a call, no nominations were made from the floor. A motion was heard to approve the appointment of Stephanie Ye-Mowe as undergraduate student representative on the Board of Governors, term to 30 April 2024. DeVidi and Giesbrecht. Carried. A motion was heard to approve the appointment of Stephanie Ye-Mowe as undergraduate student representative to Senate Executive Committee, term to 30 April 2023. DeVidi and Murphy. Carried.

10. OTHER BUSINESS

Recalling the discussion under 8(a)(i), the provost observed that budget carryforwards are often subject to restrictions or designations, and that these are articulated in the financial statements.

CONSENT AGENDA

A motion was heard to approve or receive for information the items on the consent agenda, listed as items 11-15 of the Senate agenda. Hare and Turner. Carried with one opposed.

11. REPORTS FROM COMMITTEES AND COUNCILS

- a. **Honorary Degrees.** Received for information.
- b. **Senate Graduate & Research Council.** Received for information.
- c. **Senate Undergraduate Council.** Two items approved; remaining items received for information.

12. REPORTS OF THE PRESIDENT

- a. **Tenure and Promotion of Faculty Members.** Received for information.

13. REPORTS OF THE VICE-PRESIDENT, ACADEMIC & PROVOST

- a. **Call for Nominations for University Professors.** Received for information.

14. REPORTS FROM THE FACULTIES. Received for information.

15. REPORTS FROM THE COU ACADEMIC COLLEAGUE. Received for information.

With no further business in open session, Senate convened in confidential session.

26 September 2022
/dg

Mike Grivicic
Associate University Secretary
Secretary to Senate

CONFIDENTIAL MINUTES

The Confidential Session Minutes have been removed.

The meeting was adjourned at 5:20 p.m.

26 September 2022
/dg

Mike Grivicic
Associate University Secretary
Secretary to Senate

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2022-2023 Senate Work Plan

| Senate Agenda Items | 16 May 2022 | 20 June 2022 | 19 September 2022 | 17 October 2022 <i>Strategic Plan Annual Update / Waterloo at 100</i> | 21 November 2022 <i>Degree Level Expectation</i> | 19 December 2022 | 16 January 2022 <i>Talent</i> | 27 February 2023 <i>TBD</i> | 27 March 2023 <i>Strategic Plan – Communities - Sustainability</i> | 17 April 2023 <i>TBD</i> |
|---|--------------------|---------------------|--------------------------|---|--|-------------------------|---|---------------------------------------|--|------------------------------------|
| <ul style="list-style-type: none"> • expected *as needed | | | | | | | | | | |
| REGULAR AGENDA (including items for information and discussion) | | | | | | | | | | |
| Minutes | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Business Arising | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| LEADERSHIP UPDATES⁶ | | | | | | | | | | |
| Report of the Vice-President Academic and Provost | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Report of the Vice-President Research & International | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| REPORTS FROM COMMITTEES AND COUNCILS | | | | | | | | | | |
| Executive Committee | * | * | * | * | * | * | * | * | * | * |
| Graduate & Research Council (GRC) | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Undergraduate Council (UC) | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Long Range Planning Committee | | | | ▪ | ▪ | | | ▪ | | ▪ |
| Joint Report of GRC & UC on Academic Calendar Dates | | | | | ▪ | | | | | |
| University Committee on Student Appeals Annual Report | | | | | ▪ | | | | | |
| University Appointment Review Committee Annual Report | | | | | | | | | | ▪ |
| Finance Committee - Budget Update ³ | | | | | | | | ▪ | | |
| Finance Committee - Budget recommendation ^{2, 3} | | | | | | | | | ▪ | |
| OTHER SENATE AGENDA ITEMS | | | | | | | | | | |
| New Senator Orientations (before meeting) | ▪ | | | | | | | | | |
| Teaching Awards Committee | | | | | | | | | ▪ | |
| Roster of Graduands | ▪ | | | ▪ | | | | | | |
| Undergraduate and Graduate Admissions Update | | | | | | | | | | ▪ |
| SENATE PRESENTATIONS | | | | | | | | | | |
| Presentations from the Presidents of the Faculty Association, Waterloo Undergraduate Association and Graduate Student Association | | | | | | | | | | ▪ |
| Strategic Plan Accountability Update | | | | ▪ | | | | | | |
| Research Annual Update | | | | ▪ | | | | | | |
| Waterloo International Annual Update | | | | | | | | ▪ | | |

¹ Annual item

² Board of Governors approval

³ Presented by the Vice-President Academic and Provost

⁴ Presented by the President and Vice-Chancellor, and Chair of Senate

⁵ Presented by the University Secretary

⁶ Leadership updates may include such topics as: Talent, We Accelerate Report, Communities (EDI, Sustainability), Waterloo International, etc.

| Senate Agenda Items • expected *as needed | 16 May 2022 | 20 June 2022 | 19 September 2022 | 17 October 2022 <i>Strategic Plan Annual Update / Waterloo at 100</i> | 21 November 2022 <i>Degree Level Expectation</i> | 19 December 2022 | 16 January 2022 <i>Talent</i> | 27 February 2023 <i>TBD</i> | 27 March 2023 <i>Strategic Plan – Communities – Sustainability</i> | 17 April 2023 <i>TBD</i> |
|--|--------------------|---------------------|--------------------------|---|--|-------------------------|---|---------------------------------------|--|------------------------------------|
| CONSENT AGENDA | | | | | | | | | | |
| Reports from Faculties (e.g., appointments, administrative appointments, sabbaticals) ² | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Tenure and Promotion Report ⁴ | | | ▪ | | | | | | | |
| University Professor Designation ³ | | | | | | | | | ▪ | |
| Call for Nominations for University Professor ³ | | | ▪ | | | | | | | |
| Call for Nominations for Honorary Degree Recipients and Convocation Speakers ⁴ | | | | | | | | ▪ | | |
| Report of the COU Academic Colleague | | | | | ▪ | | | | | |
| Senate Committee Appointments ⁵ | * | * | ▪ | * | * | * | * | * | * | * |
| CONFIDENTIAL AGENDA | | | | | | | | | | |
| Minutes | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Business Arising | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Reports from Committees and Councils | * | * | * | * | * | * | * | * | * | * |
| Honorary Degree Recommendations | * | * | * | * | ▪ | * | * | ▪ | * | * |
| Reports from Search and Review Committees for Policy-based Senior Leadership Appointments and Reappointments | * | * | * | * | * | * | * | * | * | * |
| Report of VP Advancement on Policy 7 (June) | | | | | | | | | | |

| Joint SENATE/BOARD Strategic Plan Focus Sessions 3-4:30 | Joint SENATE/BOARD Continuing Education Sessions 3-4:30 |
|---|---|
| <ul style="list-style-type: none"> January 10 2023 - Talent March 21 2023 Communities (Sustainability) May 2 2023 Research | <ul style="list-style-type: none"> February 1 2023 – Quality assurance Framework (Undergrad/Grad Programs) March 1 2023 – Funding Environment, SMA, Corridors |

Special Topics for 2022-2023 to be Scheduled:

- President’s Anti-racism Task Force Update (PART)
- Waterloo at 100
- Senate Governance Review Recommendations and Updates

For more information:

uwaterloo.ca/secretariat
secretariat@uwaterloo.ca
 NH 3060

¹ Annual item

² Board of Governors approval

³ Presented by the Vice-President Academic and Provost

⁴ Presented by the President and Vice-Chancellor, and Chair of Senate

⁵ Presented by the University Secretary

⁶ Leadership updates may include such topics as: Talent, We Accelerate Report, Communities (EDI, Sustainability), Waterloo International, etc.

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 October 2022

Senate Graduate & Research Council met on 12 September 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03), 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

NEW RESEARCH CENTRE

Centre for Sustainability and Business

- 1. Motion:** To approve the establishment of the Centre for Sustainability and Business (CSB), as presented.

Rationale: Sustainable business models have become ubiquitous and a tremendous amount of research across disciplines is underway to support this new approach. Accordingly, the CSB, a faculty-funded research centre of the Faculties of Environment and Arts, is being proposed in order to support interdisciplinary research that creates a societal impact and increases the visibility of the University of Waterloo as a powerhouse for sustainability and business, accounting, and economics. The centre will become a hub to support sustainability and business research across campus by raising funds, hosting interdisciplinary academic and joint academic-practitioner conferences, and fostering partnerships with corporations to enable practical collaborations, as well as the development of new experiential pedagogical materials—including executive training—in sustainability and business. Notably, with its focus on sustainability, interdisciplinary research, and high impact, the CSB is perfectly aligned with the University’s strategic plan.

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

Charmaine Dean
Vice-President, Research & International

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
17 October 2022

Senate Undergraduate Council met on 13 September 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 5.03) to forward the following items to Senate for approval in the regular agenda.

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

FOR APPROVAL

ACADEMIC PLAN CHANGES

Faculty of Science
Environmental Sciences

- 1. Motion:** That Senate approve the proposed correction of the official name of the Environmental Sciences plans, both Honours and Honours Co-operative, to be pluralized (Environmental Sciences versus Environmental Science), effective 1 September 2023.

Background and Rationale: While the June 2021 convocation program drafts were being reviewed, an oddity regarding Honours Environmental Science(s) was uncovered: some plans were singular (Geoscience Specialization and Water Science Specialization), others were plural (Ecology Specialization). In the UG Calendar, all plans are listed as "Science" (singular). However, in the plan description in Quest, the Ecology Specialization is listed as "Sciences" (plural), while the other Specializations are listed as "Science" (singular). Thus, the Ecology Specialization appears on diplomas, transcripts, and convocation programs in the plural form, while the other Specializations appear in the singular form.

Effective September 1, 2023, all existing Honours and Honours Co-operative Environmental Sciences plans will be renamed (pluralized) but will retain the same plan code. Students graduating after September 1, 2023, regardless of their requirement term, will graduate with the new pluralized plan name.

/twk

David DeVidi
Associate Vice-President, Academic

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WATERLOO AT 100 DISCUSSION PAPER

Fall 2022 Consultations

1. Why Waterloo at 100?

The University of Waterloo defied tradition by integrating academic and research excellence with work-integrated learning when it was founded by local community leaders in 1957. In our rapidly changing world, we can honour this legacy by being unconventional again as we imagine a bold future that addresses humanity's most pressing challenges. Waterloo at 100 is an exercise to develop a longer-term vision that will address: *What do we as an institution aspire to become by our 100th anniversary in 2057?*

During the first part of 2022, more than 1,000 people participated in preliminary consultations to develop initial ideas for Waterloo at 100. Students, faculty, staff, alumni, community and external partners shared their ideas about the future of Waterloo. These conversations have helped shape the direction the vision paper will take, which will be released early next year. These engagements form the basis of this discussion paper, which aims to stimulate more contributions to Waterloo at 100 through further consultations this fall.

2. An Evolving Institution in an Evolving World

The University of Waterloo has built a strong reputation for innovation and excellence in a relatively short period. Our founding years were marked by bold approaches to education that were well ahead of their time. Our founders, local community, and industry leaders saw the need to train engineers in a transformative manner to power the local and broader economy. We innovated the nature of learning through cooperative education and stand today as a global leader in work-integrated learning. In the sixties, a faculty uniquely dedicated to mathematics was established with the foresight to house computer science, which today is internationally renowned for its research and specializations spanning mathematics and beyond. Our Faculty of

Environment – the largest in Canada – founded more than fifty years ago adopted from its inception a truly interdisciplinary approach to teaching and research to foster sustainable solutions to the most complex challenges facing our planet. Today, all six faculties lead globally in diverse disciplines such as computer science, electrical and electronic engineering, optometry, psychology, philosophy, accounting and finance, environmental sciences, and recreation and leisure studies.

Over the decades, Waterloo’s entrepreneurial spirit continues to grow and deepen, fueled by a distinctive innovation ecosystem that is itself constantly expanding. Students and faculty continue to be drawn to Waterloo because it is a research-intensive university motivated by and addressing challenges in the real world.

However, initial consultations have confirmed that the University must accelerate its evolution to become an institution fit for the future. The global pandemic we continue to weather has driven and exacerbated inequities and challenges in the constantly changing educational and global landscapes around us. Waterloo must work to both maintain excellence in its historic areas of strength while delivering on new directions and solutions desperately needed for our future.

3. A Framework for our Impacts, Strengths, and Differentiators

The Futures Framework is a key component of the Waterloo at 100 vision. It serves to organize and inspire our collaborations, activities, and outputs as we seek to address humanity’s greatest challenges. The Framework is based on Waterloo’s unique academic and research strengths working in tandem with our network of institutional differentiators: experiential education, entrepreneurship, and fundamental and applied research that’s connected.

We need to also remind ourselves of our founding differentiator: a deep connection with the local region and community. The University was founded by local leaders who sought to propel the region’s development. A commitment to the local community enriches each of our other differentiators. Local connections initially powered Waterloo’s cooperative education program and today continue to employ thousands of

students at any given time. Connections to our surroundings help shape and sustain our entrepreneurial drive. The region and its people provide our researchers with important issues and topics for investigating and solving real-world problems. This connectedness remains a constant work-in-progress, especially as the region continues to evolve with new institutions and networks in academia, research, policymaking, and technology innovation. Into our future, Waterloo can continue to strengthen its reputation and credibility globally with its relevance and leadership locally.

FIVE INTERCONNECTED FUTURES

At the framework's core is the question of how we envision the future of humanity. Five Futures aligned to our present and growing strength areas are outlined, through which our impacts can be made. In developing these futures, we imagine the future for humanity. What will it mean to be human in a world being so rapidly transformed by so many forces?

We begin with a focus on **Societal Futures**, given the intention of asking first about the future of humanity. This focus will be sharpened over time based on existing and new interests shared by a growing proportion of students and scholars concerned for a more human-focused and progressive society for all. Waterloo will learn from and contribute to human and social development in our region where community, family, and personal relations are transforming rapidly.

Waterloo's deepening experiences in supporting **Sustainable Futures** follows, given our aspiration to be positioned as leaders in education, research and application as important to advancing society. Today, much of the teaching, inquiry, and outreach taking place through our faculties and research centres and institutes focus on understanding and contributing to sustainability and the connections to be strengthened between a more sustainable environment and resilient economy. Of note are catalytic projects like the Sustainable Futures Initiative launched this year. The Initiative is making possible discovery and application at the intersection of energy, climate, and water.

Health Futures represents another key application area for Waterloo. As with Sustainable Futures, the University’s educational, research, and innovation activities focused on health directly and indirectly will continue and grow significantly into the decades ahead. Today, we are leaders in areas such as population and public health and aging in the community. Through our Innovation Arena developed in partnership with the City of Kitchener, Waterloo is defining today how the decades ahead will unfold. The Arena will house and leverage collaborations that turn novel ideas into breakthroughs that improve individual and societal health. These impacts align with Waterloo’s goal to lead nationally and globally at the interface of health, society, and technology, particularly through the development and dissemination of digital and virtual care tools.

Technological Futures at Waterloo is a key thrust and a necessary driver for other areas – such as sustainability and health – to flourish. The University already boasts an impressive command in developing and applying technologies. Our achievements into the future in areas such as artificial intelligence, robotics, and nano- and quantum technologies will continue to evolve with more deliberate focus on defining what socially responsible technology looks like. In always appreciating a long-term view, these advancements will be furthered through our relentless commitment to fundamental research. We know from our experience that a commitment to fundamental science and research leads to the advancement of understanding of our ourselves, our planet, and our cosmos, and to enable the ongoing development of technologies we cannot imagine today.

Finally, we can commit the years and decades ahead to building **Economic Futures** – a fundamental driver to resource and sustain the desired outcomes across all Futures. Our future requires us to ensure our society generates greater resources and wealth in an equitable manner if we are to address the interrelated challenges before us. Put simply, we must help our nation address its productivity gap. At Waterloo, our strengths in technology complement a pervasive model of business and entrepreneurial education and supports for learners and faculty alike. We observe how this dynamic model is responsible for Waterloo’s ability to spur innovation in all spheres of human endeavor. Co-op at Waterloo and other modalities in experiential education endow us with

insights and partnerships in industry, government, and civil society, enriching our innovation capability. Through scholarship and thought leadership on innovation and entrepreneurship we can significantly enhance our role in shaping a stronger, more productive, resilient, and inclusive economy in Canada and the world.

These five futures are all interconnected – it is at the intersections amongst the futures and building on our differentiators that we truly have opportunities to lead globally.

4. Our Journey to 2057

In our consultations, many expressed their appreciation for the capacity of the Futures Framework to be an organizing device that brings greater coordination to the outstanding efforts and activities of various groups within and connected to the University. At the same time, we heard from many who commented on the need for the institution to continue to evolve through innovation and improvements if it expects to make the impacts we desire.

What follows are the suggestions and ideas that came forward to help shape our evolving institution. These are organized into three ‘forecasts’ for our journey to 2057. Many of the ideas reinforce recommendations from reports and studies commissioned in the recent past to guide student success, campus wellness, strategic planning, and institutional performance.

The concept of three forecasts – Graduates, Knowledge, and Campus – aligns well to our current strategic plan, *Connecting Imagination with Impact*. These forecasts can serve as longer-term horizons for present and future strategic initiatives under the plan with its three themes of Developing Talent, Advancing Research, and Strengthening Community. The ideas presented combine those that help broaden and extend the work of our strategic initiatives today as well as signal new opportunities and intersections through which activities might be developed to address existing and emerging needs. Indeed, there is great potential for a well-developed vision to confidently steer a broad range of initiatives that collectively help define the University’s future.

| Graduates 2057 | Knowledge 2057 | Campus 2057 |
|--|---|---|
| <ol style="list-style-type: none"> 1. with distinctive attributes 2. thinking and acting at intersections 3. develop and work with transformational tech 4. learning about oneself 5. who never stop learning | <ol style="list-style-type: none"> 1. grows with collaborations 2. trusted publicly 3. mobilized through commercialization and policy 4. interdisciplinary 5. ...that counts | <ol style="list-style-type: none"> 1. leading in Indigeneity and inclusivity 2. accessible 3. sustainable 4. transformational for its engagement 5. ...where change starts |

GRADUATES 2057

Our students from 35 years ago are today's leaders and changemakers. The same will be said of today's students in 2057. What will be the characteristics of Waterloo's alumni in 2057? How will their leadership drive positive change?

- 1. Graduates with distinctive attributes reflecting a Waterloo education** including, to name a few: (1) placing humanity and equity at the centre of inquiry, design, and action; (2) globally minded citizens; those who can act locally and who seek to adapt and refine their actions based on implications felt at home and abroad; and (3) leaders with an entrepreneurial spirit to drive change, communicate, take risks, and make positive impacts across all sectors in society.
- 2. Graduates who discover, think, and act at intersections.** Our challenges now and in the future demand improvements and solutions by those who can produce new knowledge, integrate knowledge, and devise applications across and between traditionally defined fields and disciplines.
- 3. Graduates who can develop or work with new and emerging transformational technologies** to investigate and solve problems spanning all areas of human endeavor, from social governance to digital cities.
- 4. Graduates who have learned deeply and holistically about themselves,** the diversity of others around them, and the pluralist world they will impact. Learning and student engagement are to be transformative activities that integrate academic learning and student development. The former is not restricted to academic programming nor is the latter separate from classroom learning. In this regard, health and wellness are priorities to bettering oneself and society.

- 5. Graduates who never stop learning**, because fueling an inquiring mind and professional and personal development are already pursuits deemed necessary over the duration of one's life. Waterloo can become a place for open and flexible learning for our alumni and others around the world who seek to refresh and gain new knowledge and skills to navigate a dynamic future of work, technology, and transformations across society. As our alumni advance a better world through their conviction for continuous learning, they will constantly re-shape and improve their alma mater through myriad contributions and engagements over their lifetime.

KNOWLEDGE 2057

Knowledge production, dissemination, application, and mobilization exist in an interdependent system befitting the trusted leadership role universities must play in upholding the knowledge society of the 21st century. By our 100th anniversary, how will knowledge we generate, preserve, collate, and diffuse advance humanity?

- 1. Knowledge that grows with collaborative relationships**, including: (1) co-op students looping back to the Academy insights from external partners and the community to shape education, research, and service; (2) with the region's businesses, government, and civil society organizations who go further and faster with Waterloo to test and apply solutions leading to greater prosperity for all; (3) our local stakeholders in health service delivery and sustainability, co-producing with them new business models for equitable health outcomes and a net-zero future; (4) research partnerships between and beyond universities; and (5) widely known processes and incentives for cross-departmental, cross-faculty, and cross-institutional proposals and activities.
- 2. Knowledge that is trusted in physical and digital public spheres.** Scholars and students alike who proactively combat disinformation and polarization, capable of translating evidence and perspectives to inform and shape public opinion and policy making. This knowledge is also an outcome of fundamental inquiry and innovation with its capacity to open and broaden new perspectives and opportunities for the public good.
- 3. Knowledge that is mobilized responsibly through commercialization and policy innovation.** Because entrepreneurship is in Waterloo's DNA, the future of our knowledge will necessarily be scaled to benefit society. This knowledge can be mobilized with an expanded spirit of entrepreneurship that drives a mindset to innovate change and challenge the status quo where it is failing to make possible progress for all. In this respect, both commercialization and policy and program impact become effective avenues.

- 4. Knowledge that is increasingly interdisciplinary and modular.** Waterloo will advance open and modular learning for our graduates and the world because learning never stops. Where appropriate within traditional undergraduate education, Waterloo can explore the development of a core curriculum that encourages foundational skills, networking, and interdisciplinarity across the humanities, arts, and social and natural sciences. This would be followed by flexibly arranged immersion in disciplines for mastery, critical thinking, and intellectual independence.
- 5. Knowledge that counts rather than being counted.** Traditional metrics leaning on the volume of scholarship should evolve to give way to research that matters by making positive changes in society. Knowledge at Waterloo will continue to count by being outward facing, while continuing our commitments to fundamental science and scholarship. In addition to knowledge that knows no boundaries, Waterloo can be known globally for capacity to act locally in addressing our biggest challenges.

CAMPUS 2057

We must aim to improve quality of life for those in our community on our campus and beyond. The campus of 2057 should reflect what we envision for society both through in-person and remote interactions. What is our vision today for our campus of the future?

- 1. A campus that leads on Indigeneity and inclusivity** modelling for the sector and society the policies, procedures, programs, and infrastructure that define a decolonized institution, one that assertively removes barriers for groups traditionally facing discrimination and injustice. An innovation mentality should be applied to resolve equity concerns. Waterloo's community of students, faculty, staff, and governance will mirror Canada's diversity doing so always based on merit. Inclusivity will give way to pluralist exchange and belonging whilst celebrating difference.
- 2. An accessible campus – economically, physically, and digitally.** To attract the most meritorious and well-rounded in society and enhance diversity on campus, Waterloo will facilitate supports for students in need both here and abroad to access an excellent education. New and existing buildings and infrastructure will be fully accessible to our community and visitors of all abilities,

backgrounds, and orientations. Waterloo's future will be one that thrives in the appropriate design, curation, sharing of and access to online and digital modes and resources for working, teaching, learning, and research. To constantly improve accessibility and institutional performance, our data should be leveraged as a strategic resource for informed decision making.

- 3. A sustainable campus – environmentally and financially.** We will: (1) fulfil our obligations for carbon neutrality as per *Shift:Neutral* targets; (2) become an exemplar for others in sustainability through community and industry engagement and empowerment, research, and innovation; (3) establish diverse funding and support including from philanthropy aligned with our vision to realize a future for all of humanity; and (4) incentivize collective and interdisciplinary approaches to teaching and learning across faculties, research, innovation, and service.
- 4. A campus that transforms how we engage.** Universities develop the whole person and create meaningful belonging that endures beyond graduation. Waterloo will match rigor of academics with a deep sense of care for its people, delivering on the value of engaged interaction to deepen learning, inquiry, and work while leveraging digital technologies, pedagogies, and services to complement an excellent experience. We will extend our care, engaged interaction, and services to substantiate the alumni experience.
- 5. A campus where change starts here.** Where we embrace our own knowledge resources to constantly make better design decisions and improvements to infrastructure and the campus experience. Tapping the outstanding knowledge produced at Waterloo so it seeds ideas, practices, and facilities that help future-proof our campus and where everyone thrives.

5. Discussion

Since our unconventional founding 65 years ago, the University of Waterloo has developed into a remarkable institution. And the impacts from being unconventional have followed in all aspects of our mission. Waterloo at 100 is ultimately about setting a vision for the next 35 years and beyond that will help guide our highest aspirations and priorities to ensure the University continues to evolve, innovate, and make significant impacts to humanity's greatest challenges.

The questions below are provided to support discussion, input, and feedback on the Waterloo at 100 visioning work underway. Of course, your own questions and comments are welcome and encouraged to enrich our engagements and consultations over the fall term.

1. Waterloo innovated how learning is defined through co-op education. What could be Waterloo's next institutional innovations that enable the kind of future desired in Waterloo at 100?
2. How can Waterloo refine and reshape the way we approach and make education, learning, and research meaningful? Which technologies might serve our goals for relevance, access, and impact?
3. With respects to the five interconnected Futures for impacts in society, sustainability, health, technology, and the economy, what strategies and initiatives can we implement to help address the most pressing challenges today and into the future?
4. How and where can our values be refined and made more reflective of the emergent Waterloo at 100 vision?
5. What should we prioritize from among the aspirations in Waterloo at 100? What can be done in the short term to achieve early gains?
6. For many of the impacts we desire, our institution will need to evolve its management and operational culture. Where can changes be made to ensure success?
7. How will the institution measure progress and describe and recognize impact? Doing so should address the full range of activities at Waterloo, from institutional activities to contributions by our faculty, staff, students, and alumni.

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 October 2022

Senate Graduate & Research Council met on 12 September 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03), to forward the following items 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:

- Human Research Ethics Board – member renewal (1)
- Clinical Research Ethics Board – new member (1); member renewal (3)

GRADUATE AWARDS

On behalf of Senate, council approved the Women in Mathematics Directed Reading Program Mentorship Award (operating) and the John Parish Memorial Graduate Scholarship (trust).

CURRICULAR SUBMISSIONS

On behalf of Senate, council approved one new course for the Faculty of Environment (Environment, Enterprise and Development).

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

Charmaine Dean
Vice-President, Research & International

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
17 October 2022

Senate Undergraduate Council met on 13 September 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 5.03) to forward the following items to Senate 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 REGULATIONS

Faculty of Health Undergraduate Communication Requirement

1. **Motion:** That Senate approve the following proposed revision to the Undergraduate Communication Requirement for the Faculty of Health, effective 1 September 2023.

Background and Rationale: The additional text will ensure consistency in the Faculty of Health transfer credit process, along with adhering to the University's communication requirement.

Current calendar text: <https://ugradcalendar.uwaterloo.ca/page/HEA-Undergraduate-Communication-Requirement>

Proposed Calendar Text: (bold = new)

Students, including transfer students entering the Faculty Health, should fulfil the Undergraduate Communication Requirement (see Note 1) by the end of their 3A term. The Faculty offers a communication course that is required for all degree programs. Successful completion of HEALTH 107 fulfils the Undergraduate Communication Requirement.

Notes

1. Students enrolled in the Faculty of Health before September 2017 should consult the English Language Proficiency Requirement described in the Calendar of their entry year.
2. Successful completion of the Undergraduate Communication Requirement will be recorded on a student's transcript as completion of the Undergraduate Communication Requirement.
3. Students transferring to another faculty should note that additional courses may be required to satisfy the other faculty's Undergraduate Communication Requirement.
4. Students transferring into the Faculty of Health who have completed their Undergraduate Communication Requirement in another faculty **at the University of Waterloo** will be eligible to have it count for their Faculty of Health Undergraduate Communication Requirement.
5. **The Faculty of Health does not permit external transfer credits for HEALTH 107 from students transferring from another institution. HEALTH 107 must be taken at the University of Waterloo to satisfy the Faculty of Health, Undergraduate Communication Requirement.**

Registrar's Office Invalid Plan Combinations

2. **Motion:** That Senate approve the following revisions to the Invalid Plan Combinations, effective 1 September 2023.

Background and Rational: For the 2022-2023 Undergraduate Studies Academic Calendar, existing invalid plan combinations listed throughout the Calendar were centralized on a single page:

<https://ugradcalendar.uwaterloo.ca/page/Acad-Regs-Invalid-Credential-Combinations>. The goal of centralizing the content was to assist students and academic advisors by providing one location to review what type of credential combination is acceptable or not, especially as students combine academic plans across faculty lines.

Once centralized, it became apparent that not all combinations were previously listed as reciprocal in the Calendar. For example, the Faculty of Arts listed that their Management Studies Minor could not be combined with Recreation and Sport business (major offered by Faculty of Health) or Environment and Business (major offered by Faculty of Environment); however, those majors did not previously list they could not be combined with the Minor.

To make the list truly reciprocal, the Office of the Registrar is seeking approval to ensure all parties are aware of the invalid combinations. This is essentially a “clean up” exercise.

1. All specific invalid combinations falling outside the main guidelines are listed, except those recently approved during the 2021-22 academic year (no clean up needed for those).
2. Combinations that were not previously stated as reciprocal are highlighted in green.
3. A new general guideline is being created (highlighted in yellow) regarding academic plan name changes so that academic plans falling into those scenarios can be removed from the large table.
4. A new operational guideline (highlighted in blue) regarding how long to list inactive academic plans is being created so that plans no longer appearing in the 2019 Calendar and beyond can be removed, but highlighting to students that those invalid combinations still apply.
5. Clarity is being added where vagueness existed.

Academic Calendar text:

The University of Waterloo offers many types of credentials, with a variety of intended audiences. For example:

- Minors are normally open to all undergraduate students.
- Options are normally open to all students registered in a major in the same faculty as the option.
- Specializations are normally open to all students majoring in the affiliated field.

Certain credential combinations are not permitted.

- No student may enrol in or graduate from two credentials with significant overlapping content, including, but not limited to:
 - a minor, option, or diploma/certificate in the same subject as their major (e.g., Honours Anthropology and Anthropology Minor; Honours Software Engineering and Software Engineering Option);
 - a minor and a diploma in the same subject (e.g., Applied Language Studies Minor and Diploma in Applied Language Studies);
 - a certificate and a diploma in the same language (e.g., Certificate in French Language I and Diploma in French Language I);
 - more than one language certificate or diploma in the same language (e.g., Diploma in Japanese Language I and Diploma in Japanese Language II);
 - **the same credential that has been renamed (e.g., Communication Studies, formerly Speech Communication).**

To facilitate the application to graduate process, students should declare all minors, options, and specializations as early as possible, but no later than the start of their last academic term.

Additional Constraints

Faculty of Arts

- No student may enrol in or graduate from:
 - Two majors from the same group in the following list:
 - Department of Classical Studies: Classical Studies, Classics
 - Department of Economics: Economics, Mathematical Economics

- Department of English Language and Literature: Literature; Literature and Rhetoric; Rhetoric, Media, and Professional Communication
- Two intensive specializations offered by the same major.
- Multiple “topic” specializations offered by the same major in the following departments:
 - Economics (maximum of one topic specialization)
 - History (maximum of one topic specialization)
 - Political Science (maximum of one topic specialization)
- Two financial management degrees in the following list:
 - Accounting and Financial Management, Bachelor of
 - Computing and Financial Management, Bachelor of
 - Sustainability and Financial Management, Bachelor of
- When pursuing a Bachelor of Arts, students may combine two honours major academic plans only (i.e., not an honours major plan with a general major academic plan).

Faculty of Mathematics

- No student may enrol in or graduate from:
 - A stand-alone Bachelor of Computer Science (BCS) academic plan with any Bachelor of Mathematics (BMath) academic plan (including Joint Honours academic plans).
 - A stand-alone BMath Joint Honours academic plan with any non-Mathematics Joint Honours academic plan.
 - Data Science (BMath or BCS) with any other Faculty of Mathematics Honours or Joint Honours academic plan, except that the BCS (Data Science) can make up the BCS component of the Business Administration and Computer Science double degree program.
 - Two academic plans from the same group in the following list:
 - All academic plans offered in Actuarial Science
 - All academic plans offered in Applied Mathematics
 - All academic plans offered in Combinatorics and Optimization (including all Mathematical Optimization academic plans)
 - All academic plans offered in Computational Mathematics
 - All academic plans offered in Computer Science
 - All academic plans offered in Pure Mathematics
 - All academic plans offered in Statistics
 - All Mathematics/Business academic plans other than Mathematical Economics
 - Exception: Mathematical Finance can be combined with another Actuarial Science and/or Pure Mathematics academic plan.
 - A stand-alone BCS Honours co-operative academic plan or BMath Honours co-operative academic plan with any stand-alone regular Honours academic plan (including Joint Honours academic plans).

Specific Invalid Credential Combinations

The University will amend the list of invalid credential combinations when new academic programs or plans (i.e., majors, minors, options, diplomas, certificates, and specializations) are created. The University has done its best to include all specific invalid credential combinations in the table below; however, students should confirm any plan combination with their academic advisor.

Legend

* Indicates an inactivated academic program or plan. **When credentials are inactivated, they will remain in this table for three years; once removed, the combination remains invalid and students should refer to historical versions of the academic calendar.**

Table - List of Invalid Credential Combinations

...

List of reciprocal invalid plan combinations (not as it appears in the academic calendar):

How to read the following table:

- Invalid combinations only appear once.
- Ordered alphabetically by majors, then minors, then options.
- Invalid combinations meeting high-level rules listed above are not included (e.g., Computer Engineering and Computer Engineering Option; or Anthropology major and Anthropology Minor).

| Plan/program #1 | Faculty #1 | Plan/program #2 | Faculty #2 | Change being applied |
|--|-----------------|--|-----------------|---|
| Accounting and Financial Management, Bachelor of | Arts | Arts and Business | Arts | |
| Accounting and Financial Management, Bachelor of | Arts | Management Studies Minor or Diploma* | Arts | Removing old inactive plan |
| Applied Mathematics with Scientific Computing | Mathematics | Computational Mathematics (major and minor) | Mathematics | |
| Arts and Business | Arts | Honours Arts Co-op | Arts | Not previously listed as reciprocal |
| Arts and Business | Arts | French Teaching Specialization (French major) | Arts | |
| Arts and Business | Arts | Global Business and Digital Arts, Bachelor of | Arts | |
| Arts and Business | Arts | Management Studies Minor | Arts | |
| Arts and Business | Arts | Mathematical Economics major (BA and BMath) | Arts and Math | (BMath) not previously listed as reciprocal |
| Arts and Business | Arts | Sociology/Legal Studies—Criminology Specialization* | Arts | Removing old inactive plan – June SUC |
| Arts and Business | Arts | Sustainability and Financial Management, Bachelor of | Arts and Env | Added June SUC |
| Biomedical Sciences major | Science | Biology Minor | Science | Not previously listed as reciprocal |

| | | | | |
|--|-------------|---|---------|---|
| Biochemistry major | Science | Biology Minor | Science | Not previously listed as reciprocal |
| | | Any plan offered by the Biology Department Biochemistry major; Biochemistry Minor; Bioinformatics Option; Biology major; Biology Minor; Biomedical Sciences major; Biophysics Minor; Environmental Sciences major (all specializations); Science and Business – Biochemistry Specialization; Science and Business – Biology Specialization; Science and Business – Biotechnology Specialization | | |
| Bioinformatics Specialization (Computer Science major, BCS or BMath) | Mathematics | | Science | Not previously listed as reciprocal Adding clarity |
| | | Any plan offered by the Biology Department Biochemistry major; Biochemistry Minor; Biology major; Biology Minor; Biomedical Sciences major; Biophysics Minor; Environmental Sciences major (all specializations); Science and Business – Biochemistry Specialization; | | |
| Biology Specialization (Applied Mathematics major) | Mathematics | | Science | Not previously listed as reciprocal Adding clarity |

| | | | | |
|---|-------------|---|-------------|-------------------------------------|
| | | Science and Business – Biology Specialization; Science and Business – Biotechnology Specialization | | |
| Biophysics Specialization (Life Physics major) | Science | Biology Minor | Science | Not previously listed as reciprocal |
| Biotechnology/Chartered Professional Accountancy major | Science | Biology Minor | Science | Not previously listed as reciprocal |
| Business Administration and BCS/BMath double degree plans | Mathematics | Any plan similar to one appearing on the student's Laurier academic record transcript | N/A | |
| Business Administration and Mathematics double degree plans | Mathematics | Management Studies Minor | Arts | Not previously listed as reciprocal |
| Business Specialization (Computer Science major, BCS or Math, Software Engineering) | Mathematics | Economics Minor | Arts | Not previously listed as reciprocal |
| Business Specialization (Computer Science major, BCS or Math, Software Engineering) | Mathematics | Human Resources Management Minor or Diploma | Arts | Not previously listed as reciprocal |
| Business Specialization (Computer Science major, BCS or Math, Software Engineering) | Mathematics | Management Studies Minor | Arts | Not previously listed as reciprocal |
| Business Specialization | Mathematics | Mathematics/Financial Analysis and | Mathematics | |

| | | | | |
|---|-----------------|---|-----------------|---|
| (Computer Science major, BCS or Math, Software Engineering) | | Risk Management major | | |
| Business Specialization (Mathematical Studies major) | Mathematics | Management Studies Minor or Option* | Arts | Not previously listed as reciprocal; Removing old inactive plan |
| Classics major | Arts | Classical Studies Minor | Arts | |
| Communication Arts and Design Practice major | Arts | Communications Studies plans Communications Studies Minor and major | Arts | Adding clarity |
| Communication Arts and Design Practice major | Arts | Digital Arts Communication Minor | Arts | |
| Communication Arts and Design Practice major | Arts | Speech Communication * plans Speech Communication Minor* and major* | Arts | Adding clarity |
| Communication Arts and Design Practice major | Arts | Theatre and Performance plans Theatre and Performance Minor and major | Arts | Adding clarity |
| Communication Arts and Design Practice major | Arts | Performance Creation Minor | Arts | |
| Communication Studies plans | Arts | Any Speech Communication* plan | Arts | Replace by new guideline about renamed plans |
| Computational Fine Art Specialization or Option* (Computer Science major, BCS or BMath, Software Engineering) | Mathematics | Any plan offered by the Fine Arts Department Fine Arts major; Fine Arts Studio Minor; Visual Culture in a Global Context Minor; | Arts | Not previously listed as reciprocal; Adding clarity |

| | | | | |
|---|--------------------|--|--------------------|---|
| | | Visual Culture major | | |
| Computer Engineering major | Engineering | Computing Option | Engineering | Not previously listed as reciprocal |
| Computing and Financial Management, Bachelor of | Arts and Math | Computer Science, Bachelor of | Mathematics | Added June SUC |
| Data Science (BCS) | Mathematics | Artificial Intelligence Specialization or Option* | Mathematics | Removing old inactive plan |
| Decision Support and Geographic Information Systems Specialization (Planning major) | Environment | Excellence in Geographic Information Systems, Diploma in | Environment | |
| Digital Media Studies Specialization (English majors) | Arts | Digital Arts Communication Minor | Arts | |
| Digital Media Studies Specialization (English major) | Arts | Digital Arts Communication Specialization* (Arts and Business) | Arts | Removing old inactive plan |
| Diversity and Equity Specialization (Social Development Studies major) | Arts | Cultural Diversity Specialization* (Social Development Studies major) | Arts | Replace by new guideline about renamed plans |
| Earth Sciences major | Science | Earth Sciences Minor | Science | Existing guidelines cover this scenario |
| Ecology Specialization (Environmental Science major) | Science | Biology Minor | Science | Not previously listed as reciprocal |
| Economics plans Economics major; Mathematical Economics major (BA and BMath) | Arts | Biotechnology/Economics major* | Science | Not previously listed as reciprocal Adding clarity |
| Economics plans | Arts | Economic Theory Minor | Arts | Adding clarity |

| | | | | |
|---|-----------------|---|------------------------|-------------------------------------|
| Economics major; Economics Minor | | | | |
| Economics plans | Arts | Environmental Economics Minor* | Environment | Removing old inactive plan |
| Economics Specialization (Applied Mathematics major) | Mathematics | Economics Minor | Arts | |
| Economics Specialization (Applied Mathematics major) | Mathematics | Economics plans Economics major; Mathematical Economics major (BA and BMath) | Arts | Adding clarity |
| Economics Specialization (Applied Mathematics major) | Mathematics | Economic Theory Minor | Arts | |
| English majors | Arts | Creative Writing, Diploma in | Arts | |
| English majors | Arts | Technical Writing Minor | Arts | Not previously listed as reciprocal |
| Entrepreneurial Mindset Specialization (Accounting and Financial Management, Bachelor of) | Arts | Entrepreneurship Minor | Engineering | |
| Environment and Business major | Environment | Business Option | Environment | Not previously listed as reciprocal |
| Environment and Business major | Environment | Management Studies Minor | Arts | Not previously listed as reciprocal |
| French Teaching Specialization (French major) | Arts | Any other stand-alone major | | |
| Geological Engineering | Engineering | Joint Honours X with Earth Sciences | Science | Not previously listed as reciprocal |
| Geoscience Specialization | Science | Earth Sciences Minor | Science | Not previously listed as reciprocal |

| | | | | |
|--|----------------------|--|-------------|-------------------------------------|
| (Environmental Science major) | | | | |
| Global Business and Digital Arts, Bachelor of | Arts | Digital Arts Communication Minor | Arts | |
| Global Business and Digital Arts, Bachelor of | Arts | Management Studies Minor or Diploma* | Arts | Removing old inactive plan |
| Global Business and Digital Arts, Bachelor of | Arts | Any stand-alone major | Arts | |
| Information Technology Management major | Mathematics | Computing Minor or Option* (Mathematics) | Mathematics | |
| International Relations Specialization (History major) | Arts | International Relations Specialization (Political Science major) | Arts | |
| Joint Computer Science (BCS or BMath) | Mathematics | Joint Statistics | Mathematics | |
| Joint Honours X with Physics | Science | Physics Specialization (Applied Mathematics) | Mathematics | |
| Joint programs in Mathematics or Computer Science | Mathematics | Bioinformatics Option | Science | Not previously listed as reciprocal |
| Liberal Studies major | Arts | Any other stand-alone major | Arts | |
| Life Physics major | Science | Biophysics Minor | Science | Not previously listed as reciprocal |
| Life Physics major | Science | Physics Minor | Science | Not previously listed as reciprocal |
| Materials and Nanosciences major | Science | Physics Minor | Science | Not previously listed as reciprocal |
| Mathematical Economics major (BA or BMath) | Arts and Mathematics | Economics Minor | Arts | |

| | | | | |
|--|-------------------------|--|-------------|---|
| Mathematical Economics major (BA or BMath) | Arts and Mathematics | Economics plans Economics major | Arts | Adding clarity |
| Mathematical Economics major (BA or BMath) | Arts and Mathematics | Economic Theory Minor | Arts | |
| Mathematical Economics major (BA or BMath) | Arts and Mathematics | Any other stand-alone major | | Adding clarity |
| Mathematical Physics major (Bachelor of Mathematics) | Mathematics | Any plan offered by the Physics and Astronomy Department, including Joint Honours X with Physics Astrophysics Minor; Biophysics Minor; Life Physics major; Joint Honours X with Physics; Mathematical Physics major (Bachelor of Science); Physics major; Physics Minor; Physics and Astronomy major | Science | Not previously listed as reciprocal Adding clarity |
| Mathematical Physics major (Bachelor of Science) | Science | Life Physics major; Joint Honours X with Physics; Mathematical Physics major (Bachelor of Mathematics); Physics major; Physics Minor; Physics and Astronomy major | Science | Not previously listed as reciprocal Adding clarity |
| Mathematical Studies major (with or without a Business Specialization) | Mathematics | Any other stand-alone or Mathematics Joint plan | Mathematics | |
| Mathematics/Business | Mathematics | Management Studies Minor | Arts | Not previously listed as reciprocal |

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|--|-------------|--|-------------|---|
| Administration major | | | | |
| Mathematics/Financial Analysis and Risk Management major | Mathematics | Business Specialization or Option* (Computer Science major, BCS or BMath, Software Engineering) | Mathematics | Removing old inactive plan |
| Music and Peace Specialization (Music major) | Arts | Music in a Global Context Specialization (Music major) | Arts | |
| Music major | Arts | Church Music and Worship Minor, or Diploma in | Arts | |
| Physics and Astronomy major | Science | Astrophysics Minor | Science | Not previously listed as reciprocal |
| Physics and Astronomy major | Science | Physics Minor | Science | Not previously listed as reciprocal |
| Physics Specialization (Applied Mathematics major) | Mathematics | Any plan offered by the Physics and Astronomy Department; Astrophysics Minor; Biophysics Minor; Life Physics major; Joint Honours X with Physics; Mathematical Physics major (SCI); Physics major; Physics Minor; Physics and Astronomy major | Science | Not previously listed as reciprocal Adding clarity |
| Political Science major | Arts | Canadian Politics and Public Policy Minor | Arts | |
| Political Science major | Arts | Politics and Business Minor | Arts | |
| Public Policy Specialization (Economics major) | Arts | Public Policy and Administration Minor* | Arts | |
| Recreation and Sport | Health | Management Studies Minor | Arts | Not previously listed as reciprocal |

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|--|-----------------------------|---|------------------|-------------------------------------|
| Business major | | | | |
| Science and Business major (all specializations) | Science | Biology Minor | Science | Not previously listed as reciprocal |
| Science and Business major (all specializations) | Science | Management Studies Minor | Arts | Not previously listed as reciprocal |
| Software Engineering, Bachelor of | Engineering and Mathematics | Computing Option (Engineering) | Engineering | Not previously listed as reciprocal |
| Spanish plans Spanish major; Spanish Minor; Spanish Language, Diploma in | Arts | Latin American Studies, Diploma in | Arts | Adding clarity |
| Spanish plans | Arts- | Spanish/English Translation Minor* | Arts- | Removing old inactive plan |
| Sustainability and Financial Management | Arts and Env | Management Studies Minor | Arts | Added June 2022 SUC |
| Sustainability and Financial Management | Arts and Env | Any stand-alone major | | Added June 2022 SUC |
| Water Science Specialization (Environmental Science major) | Science | Biology Minor | Science | Not previously listed as reciprocal |
| Water Science Specialization (Environmental Science major) | Science | Earth Sciences Minor | Science | Not previously listed as reciprocal |
| Astrophysics Minor | Science | Physics Minor | Science | Added May 2022 SUC |
| Biochemistry Minor | Science | Biology Minor | Science | Not previously listed as reciprocal |
| Biochemistry Minor | Science | Chemistry Minor | Science | |

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|--|-----------------|---|-----------------|---|
| Biology Minor | Science | Biophysics Minor | Science | Not previously listed as reciprocal |
| Biology Minor | Science | Medical Physiology Minor | Science/Health | Not previously listed as reciprocal (Health version) |
| Biology Minor | Science | Biotechnology/Economics major* | Science | |
| Biophysics Minor | Science | Physics Minor | Science | Not previously listed as reciprocal |
| Canadian Politics and Public Policy Minor | Arts | Public Policy and Public Administration Minor* | Arts | |
| Classical Studies Minor | Arts | Greek Minor* | Arts | |
| Classical Studies Minor | Arts | Latin Minor* | Arts | |
| Computer Science Minor | Mathematics | Bioinformatics Option | Science | Not previously listed as reciprocal |
| Computer Science Minor | Mathematics | Computing Minor or Computing Option* (Mathematics) | Mathematics | |
| Digital Arts Communication Minor | Arts | Digital Arts Communication Specialization (Arts and Business)* | Arts | Removing old inactive plan |
| Economics Minor | Arts | Biotechnology/Economics major* | Science | |
| Economic Theory Minor | Arts | Biotechnology/Economics major* | Science | |
| Geography and Environmental Management Minor | Environment | Any plan offered by the Geography and Environmental Management Department Climate and Environmental Change major; Geography and Aviation major; Geomatics major | Environment | Not previously listed as reciprocal Adding clarity |
| Computing Minor | Mathematics | Bioinformatics Option | Science | Not previously listed as reciprocal |
| Human Resources Management Minor | Arts | Business Option | Environment | Not previously listed as reciprocal |
| Human Resources | Arts | Students who have completed a | N/A | |

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|---------------------------------------|-----------------|--|-----------------|--|
| Management (HRM) Minor, or Diploma in | | Diploma in HRM or the course requirements for the Certified Human Resources Professional (CHRP) designation, or who have graduated from a college or university HR or business program | | |
| International Trade Minor | Arts | International Trade Specialization (Arts and Business)* | Arts | Removing old inactive plan |
| Legal Studies Minor | Arts | Crime and Deviance Specialization (Sociology major)* | Arts | Removing old inactive plan – June SUC |
| Legal Studies Minor | Arts | Sociology/Legal Studies – Criminology Specialization* | Arts | Removing old inactive plan – June SUC |
| Management Studies Minor | Arts | Business Option | Environment | Not previously listed as reciprocal |
| Mathematics Minor | Mathematics | Bioinformatics Option | Science | Not previously listed as reciprocal |
| Performance Creation Minor | Arts | Theatre and Performance Minor* | Arts | Replace by new guideline about renamed plans |
| Politics and Business Minor | Arts | Politics and Business Specialization* (Political Science major) | Arts | |
| Physics Minor | Science | Chemical Physics major* | Science | Needs to be listed as inactive |
| Computer Engineering Option | Engineering | Computing Option | Engineering | |
| Computer Engineering Option | Engineering | Software Engineering Option | Engineering | |
| Computing Option | Engineering | Software Engineering Option | Engineering | |

FOR INFORMATION

MINOR PLAN & CURRICULAR MODIFICATIONS

Council approved the following on behalf of Senate:

- minor plan changes for the Faculty of Health (bachelor of science, honours health sciences, bachelor of public health, honours, pre-clinical specialization, health research specialization, gerontology minor, aging studies option, diploma in gerontology); and Faculty of Science (honours biology, honours biomedical sciences, honours environmental sciences, ecology specialization, honours material and nanosciences, science and business).
- new courses for the Faculty of Health (dean of health, school of public health science); and Faculty of Science (biology).
- course changes for the Faculty of Health (gerontology, school of public health science, kinesiology, recreation and leisure studies); and Faculty of Science (biology, chemistry, earth sciences, science and business).
- course inactivations for the Faculty of Health (co-operative education & career action); and Faculty of Science (biology, chemistry).

/twk

David DeVidi
Associate Vice-President, Academic