

## Notice of Meeting

**Date:** Monday 27 March 2023

**Time:** 3:30 pm

**Place:** NH 3407 <sup>1</sup>

	<b>OPEN Session</b>		<b>Page #</b>
3:30	1. Conflict of Interest	Declaration	
	2. Approval of the Agenda	Decision	
	3. <a href="#">Minutes of the 27 February 2023 Meeting</a>	Decision	5
	4. Business Arising from the Minutes	Information	
	5. <a href="#">Senate Workplan</a>	Information	9
3:35 [10]	6. Report of the President a. President's Update	Oral/Information	
3:45 [15]	7. Reports from Committees and Councils a. Senate Graduate & Research Council i. <a href="#">To approve a new course-based Master of Future Cities (MFC) offered by the Faculty of Environment, effective 1 September 2023, as presented.</a> ii. <a href="#">To approve adding a direct entry Co-operative program/option to the MEng in Chemical Engineering, effective 1 May 2023, as presented.</a> iii. <a href="#">To approve updating the MEng in Chemical Engineering degree requirements to include one new Graduate Specialization in Entrepreneurship, effective 1 May 2023, as presented.</a> iv. <a href="#">To approve updating the MKin degree requirements to include two new Graduate Specialization in Human Factors and Ergonomics (HFE) and Movement and Exercise Sciences (MES), effective 1 May 2023, as presented.</a>	Decision	11
		Decision	17
		Decision	27
		Decision	35
4:00 [30]	b. Senate Long Range Planning Committee i. <a href="#">That Senate recommends the University of Waterloo's Board of Governors endorse the draft vision document, Waterloo at 100, dated March 17, 2023, as presented herein.</a> • Presentation – Waterloo at 100 Vision Paper (Vivek Goel) ii. <a href="#">Committee Discussion – Senate Governance Review</a>	Decision	43
		Information	61
4:30 [30]	c. Senate Finance Committee i. <a href="#">That Senate recommends that the Board of Governors approve the 2023-24 Operating Budget, as presented.</a> ii. Operating Budget Presentation (James Rush)	Decision	63

<sup>1</sup> A link to the Microsoft Teams meeting will be provided to Senators unable to attend in person

5:00 [5]	8. <a href="#">Amendment to Policy 3</a> <i>That Senate approve the amendments to Policy 3 – Sabbatical and Other Leaves for Faculty Members, as presented in the attachment to this report, and that Senate recommends the amendments to the Board of Governors for approval.</i>	Decision	71
5:05 [10]	9. <a href="#">Proposal to Amend Senate Meeting Schedule, and Formats of Senate Meetings*</a> (Goel) <i>That Senate gives first reading to the amendments to Senate Bylaw 1, and endorse the guidelines for the annual schedule of meetings, and approve the changes to the annual work plan, all as presented in the recommendation/motion included with the report.</i>	Decision / First Reading	81
5:15 [10]	10. <a href="#">Proposal to Amend Ex-officio Membership of Senate for Considerations of Equity, Diversity, And Inclusion in Senate membership*</a> (Goel) <i>That Senate gives first reading to the amendments to Senate Bylaw 4 as presented in this report, with said amendments to effect:</i> a. <i>Removal of five (5) named ex-officio members, items (a)-(e) in the bylaw</i> b. <i>Addition of five ex-officio members drawn from the university administration, as designated by the president</i> <i>And that Senate endorse the “Note to Reader on Presidential Ex-Officio Appointments”, to be included as a statement separate from Senate Bylaw 4.</i>	Decision / First Reading	87
	11. <a href="#">Call for Nominations for Honorary Degrees</a>	Information	91
	12. Other Business		
5:25 [5]	<b>CONSENT Agenda</b> <b>Motion:</b> To approve or receive for information the items on the consent agenda, listed as items 13-16 of the Senate agenda		
	13. Reports from Committees and Councils		
	a. <a href="#">Senate Graduate &amp; Research Council</a>	Information	93
	b. <a href="#">Senate Undergraduate Council</a>	Information	95
	i. <a href="#">That Senate approve the proposed academic regulation revision of the invalid combination of the Diploma of Sustainability with the Environment, Resources and Sustainability Honours and Joint degrees for the Faculty of Environment, effective 1 September 2024, as presented.</a>	Decision	97
	14. Report of the Vice-President, Research & International	Information	SP54
	a. <a href="#">Research outputs and outcomes: Awards, Distinctions, Successful Grants, Waterloo International Engagements</a>		
	15. Report of the Vice-President, Academic & Provost	Information	SP56
	a. <a href="#">University Professor Designation</a>		
	16. <a href="#">Reports from the Faculties</a>	Information	SP57

5:30	<b>CONFIDENTIAL Session</b>		
	<i>Note on attending confidential session:</i> Only members, support staff (Secretariat and technical staff) and invited guests may remain in the meeting room. Thank you for your co-operation		
	17. <a href="#">Minutes of the 27 February 2023 Meeting</a>	Decision	99
	18. Business Arising from the Minutes		
	19. Report of the President	Oral/Information	
	20. Honorary Degrees Committee		
	a. <a href="#">Distinguished Professor Emeritus</a>	Decision	101
	b. <a href="#">Honorary Member of the University</a>	Decision	103
	21. Other Business		

20 March 2023

Mike Grivicic  
Associate University Secretary  
Secretary to Senate

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**University of Waterloo**  
**SENATE**  
**Minutes of the Monday 27 February 2023 Meeting**  
**[in agenda order]**

**Present:** Sheila Ager, Marc Aucoin, Lisa Aultman-Hall, Sandra Banks, Jeff Casello, Joan Coutu, Neil Craik, Kristine Dalton, Laura Deakin, Charmaine Dean, David DeVidi, Nenone Donaldson, Catherine Dong, Wendy Fletcher, Cindy Forbes, Vivek Goel (chair), Kelly Grindrod, Mike Grivicic (secretary), David Ha, Kevin Hare, Nadine Ibrahim, Narveen Jandu, Jennifer Kieffer, Veronica Kitchen, Alysia Kolentsis, Christiane Lemieux, Robert Lemieux, Lili Liu, Brad Lushman, Jennifer Lynes Murray, Ellen MacEachen, Carol Ann MacGregor, Blake Madill, Ceileigh McAllister, Nasser Mohieddin Abukhdeir, Kristiina Montero, Graham Murphy, Beth Namachchivaya, Cathy Newell Kelly, Chris Nielsen, Oudy Noweir, Daniel O'Connor, Nicholas Pfeifle, Luke Potwarka, Jacinda Reitsma, Cynthia Richard, Mary Robinson, James Rush, Matthew Schwarze, Marcus Shantz, Siva Sivoththaman, James Skidmore, Sharon Tucker, Graeme Turner, Diana Vangelisti, Paul Ward, Dan Weber, Mary Wells, Stan Woo, Clarence Woudsma, Changbao Wu, Annie Yang, En-Hui Yang, Stephanie Ye-Mowe

**Guests:** Tanya Andrews, Michael Dorr, Donna Ellis, Anne Galang, Diana Goncalves, Jenny Flagler-George, Sarah Hadley, Michele Hollis, Andrea Kelman, Nick Manning, Chris Read, Ian Rowlands, Rida Sayed, Daniela Seskar-Hencic, Nadia Singh, Allan Starr, Caitlin Vaux, Sarah Willey-Thomas

**Absent:** John Abraham\*, Dominic Barton\*, Michael Beauchemin\*, Trevor Charles, Kim Cuddington, Jack DeGooyer\*, Aiman Fatima, Bruce Frayne\*, Onurcan Gokkaya, Rob Gorbet\*, Mark Giesbrecht, Mary Hardy\*, Natalie Hutchings, Sonia Ismail, Martin Karsten, Achim Kempf, Scott Kline, Xianguo Li, Peter Meehan, Richard Myers\*, Erin O'Connell\*, Troy Osborne, Naima Samuel, Siv Sivaloganathan, Julian Surdi

\*regrets

**OPEN SESSION**

**CHAIR'S REMARKS**

The chair welcomed three new members: Lisa Aultman-Hall, Nadine Ibrahim and Cynthia Richard. The chair observed that a communique was recently issued on the search for the next University Secretary, and he encouraged all senators to provide their comments to help inform that search process.

The chair noted Sandra Banks' announcement that she will depart from the University as of July 31, 2023. He observed that she has served with distinction over the last eight years and has brought a wealth of experience to the institution and has recruited an outstanding leadership team. Details will be forthcoming on the recruitment process for the next Vice-President, University Relations. He invited all senators to join him in expressing their thanks for her service and indicated that an opportunity to recognize her contributions more formally will come at a later date.

**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 as distributed. Hare and O'Connor. Carried with one opposed.

**3. MINUTES OF THE 16 JANUARY 2023 MEETING**

A motion was heard to approve the minutes as distributed. Hare and Ye-Mowe. Carried with one abstention.

**4. BUSINESS ARISING FROM THE MINUTES**

Noting that Senate had delegated authority to the Senate Executive Committee to approve the faculty representative to Board, Goel confirmed that Nasser Mohieddin Abukhdeir was so elected.

## 5. SENATE WORKPLAN

Goel observed that the call for nominations for honorary degrees will come forward in March, to align with communications to the community to seek nominations for the University's highest honour.

## 6. REPORT OF THE PRESIDENT

### a. President's Update

Goel provided his report:

- He offered condolences to the victims and families of the recent earthquake in Türkiye and Syria, noting that many in the University community have close ties in the affected region. In response the University has shared resources to the community to foster assistance and offered support particularly to our Turkish and Syrian students. He noted the efforts of a postdoctoral scholar Ilkner Umay who is gathering supplies locally for delivery to the Turkish embassy, as well as two students Chris Shaw and Adrian Gray who launched an online humanitarian platform connecting displaced earthquake victims with nearby host families. Members of the community may donate to the Canadian Red Cross, for which donations are matched by the federal government.
- With the end of Black History Month, Goel noted his recent opportunity to meet with Black faculty including those recently recruited via the Black Excellence cluster hire process, as well as recalling the University's work through PART and the signing of the Scarborough Charter
- Recent seminar on ChatGPT hosted through WatSPEED, with Jimmy Lin speaking and over 1200 participants in the live online session (and 24,000 subsequent page views to date).
- The Associate Vice-President, Academic has recently released a FAQ document regarding academic considerations with the use of ChatGPT and related technologies
- Release of Global Futures Report, featuring inspiring stories of members of the Waterloo community who are changing the world
- Waterloo at 100 vision paper is nearly finalized, with thanks to those throughout the community who have contributed towards its development. The paper will be discussed at the Senate Long Range Planning Committee before being presented at the March Senate meeting, and onward to the Board of Governors in April
- Recent federal and provincial announcements on research partnerships and research security, including new directives/ policy directions in this space
- Recent announcement of the National Quantum Strategy, which took place in Waterloo in January. Professor Raymond Laflamme will co-chair the Quantum Advisory Council under the new strategy
- SDG Week at Waterloo will take place March 6-10, with a wide variety of events planned throughout the week
- The Waterloo Innovation Summit will take place on April 21 in Toronto, hosted with the MaRS Discovery District and focusing on sustainable transportation
- Goel and several members of the University leadership travelled to Asia recently for a variety of events and engagements: launch of FINCAPES project in Indonesia to foster local capacity to adapt to and mitigate against climate change (funded by Global Affairs Canada); conference in Singapore featuring a discussion with Professor Donna Strickland, Nobel Prize winner; visit to the new Centre for Eye and Vision Research in Hong Kong, and engaging with alumni and exchange/co-op students

## 7. LEADERSHIP UPDATES

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

#### i. Operational and Strategic Matters

Rush provided a presentation: progress on amendments to Policy 33 through the joint efforts of the Faculty Relations Committee and Staff Relations Committee, with work planned through the

Spring 2023 term; amendments to Policy 12, Compassionate Care and Bereavement Leave, as well as Policy 57, Employment Accommodations, are currently under consideration of both the Faculty Relations Committee and Staff Relations Committee; mediation process for Policy 76/77 is ongoing. Members clarified on the breadth and the nature of employee accommodations available under Policy 57.

## **ii. 2022/23 Operating Budget Update**

Goel observed that the budget update was presented at Senate Finance Committee and that the 2022/23 budget update helps to inform the 2023/24 budget proposal expected for March Senate. Rush provided a PowerPoint presentation: presently tracking toward a small surplus for 2022/23; revenue attributable to enrollments was lower than budgeted, though other revenues came in higher than budgeted; expenses from salary/wages/benefits as well as the increased contribution towards deferred maintenance resulted in higher expenses; key themes for the upcoming budget include a constrained revenue environment, growth in expenses, and governmental/geopolitical uncertainty. Members discussed: overview of corridor funding and mechanisms on enrollment-based revenue; differentiation between research budget and the operating budget; clarification that increase in interest revenue comes from higher interest rates and the collection of revenues ahead of dispersing those funds for expenses; and deferred maintenance is a priority.

## **iii. Library Annual Report**

Beth Namachchivaya provided a presentation: use of library facilities and services; Staebler Insurance Open Educational Resources (OER) Fellows Grant provides \$100,000 over five years for instructors to develop no- or low-cost course materials that are accessible and of high quality; Indigenous initiatives and embedding equity, diversity, inclusion & accessibility within the Library; strategic planning for Library spaces; projects for research data management; Library staff advancing research and practice within the discipline; planned Library town hall meeting on March 28; long term trend of declining in-person loans, and Waterloo has invested heavily in digital resources; key Library challenges include recasting its mission and functions within an evolving institution to meet the needs of the community.

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

### **i. Operational and Strategic Matters**

Charmaine Dean provided a presentation: as part of Ontario's Commercialization Mandate Policy Framework, Scott Inwood was a member of the working group to develop metrics for the required institutional Annual Commercialization Plans; recent increased focus on internationalization of higher education; Waterloo is also working to increase the diversity of source countries from which it draws international students, and to improve the experience for the same students; recent statement from three federal ministers that research will not be funded for projects in sensitive areas where there is an affiliation with a university, research institute or laboratory connected to military, national defense or state security entities of foreign state actors that pose a risk to Canada's national security; recent statement on safeguarding Ontario research issued by the Minister of Colleges and Universities; Waterloo's website provides resources on safeguarding research, and Dean observed the Research Security Conference being hosted by Waterloo on February 27-28.

### **ii. Waterloo International**

Ian Rowlands provided a presentation noting that internationalization at Waterloo focuses on the three P's: Presence, Partnership, And Presidential Travel. He elaborated: Waterloo aims to build relationships steadily upon mutual trust and effective communication, towards the goal of having ready partners when opportunities arise and building toward future big wins on a foundation of smaller successes; mechanisms include inbound/outbound delegations and networking activity; forthcoming planned travel/outreach in India; relationships are dynamic and Waterloo works within shifting circumstances towards its long term goals; the volume of student exchanges has resumed pre-pandemic levels, and the department is reflecting on the social elements of inclusion

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for internationalization in that regard; engagements via Academics Without Borders as well as the Scholars at Risk network. Senate heard that Waterloo International works with the Sustainability office as well as Finance to integrate sustainability practices into operations, which dovetails with the overall increase in remote/virtual preparations that support travel engagements. In response to a question regarding the carbon footprint of these international engagements Rowlands outlined measures being taken to minimize the need for travel through use of virtual engagement tools. Regarding carbon offsets, Goel indicated that the University was investigating a mechanism to create offsets in meaningful and measurable impact locally and globally.

## **8. REPORT FROM COMMITTEES AND COUNCILS**

### **a. Senate Executive Committee**

- i. Goel provided an overview of the report. A motion was heard that Senate appoints the Senate Executive Committee as the nominating committee to seek the next Chancellor of the University. Goel and Turner. Carried with one abstention.
- ii. A motion was heard to elect members to Senate committees/councils as described in this report. Goel and DeVidi. Carried with one abstention.

## **9. OTHER BUSINESS**

There was no other business.

## **CONSENT AGENDA**

One member of Senate obtained clarification on the hiring of faculty as described in the two-year progress report on studies in Islam and Arabic Language, as well as on the replacement of a course requirement in Earth and Environmental Sciences plans.

A motion was heard to approve or receive for information the items on the consent agenda, listed as items 10-13 of the Senate agenda. Casello and Ye-Mowe. Carried.

## **10. REPORTS FROM COMMITTEES AND COUNCILS**

- a. **Senate Undergraduate Council.** Received for information.
- b. **Senate Long Range Planning Committee.** Received for information.

## **11. REPORT OF THE VICE-PRESIDENT, RESEARCH & INTERNATIONAL.**

Received for information.

## **12. COMMITTEE APPOINTMENTS – TEACHING AWARDS**

*To approve the committee appointments for the Distinguished Teacher Awards and for the Amit & Meena Chakma Award for Exceptional Teaching by a Student, as presented in this report.*

## **13. REPORTS FROM THE FACULTIES.** Received for information.

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

7 March 2023  
/dg

Mike Grivicic  
Associate University Secretary  
Secretary to Senate



<b>Senate Agenda Items</b>  • expected *as needed	<b>27 March 2023</b> <i>Strategic Plan – Communities - Sustainability</i>	<b>17 April 2023</b> <i>TBD</i>	<b>15 May 2023</b> <i>Strategic Plan - Research</i>	<b>19 June 2023</b>	<b>18 September 2023</b>	<b>16 October 2023</b> <i>Strategic Plan Annual Update / Waterloo at 100</i>	<b>20 November 2023</b>	<b>18 December 2023</b>	<b>15 January 2024</b>	<b>19 February 2024</b>
<b>REGULAR AGENDA (including items for information and discussion)</b>										
Minutes	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Business Arising	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
<b>LEADERSHIP UPDATES<sup>6</sup></b>										
Report of the Vice-President, Academic & Provost	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Report of the Vice-President, Research and International	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
<b>COMMITTEE/COUNCIL REPORTS</b>										
Executive Committee	*	*	*	*	*	*	*	*	*	*
Graduate & Research Council (GRC)	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Undergraduate Council (UC)	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Long Range Planning Committee		▪				▪	▪			▪
Joint Report of GRC & UC on Academic Calendar Dates <sup>1</sup>							▪			
University Committee on Student Appeals Annual Report <sup>1</sup> (Policy 72)							▪			
University Appointment Review Committee Annual Report <sup>1</sup> (Policy 76)		▪								
Finance Committee - Budget Update <sup>3</sup>										▪
Finance Committee - Budget recommendation <sup>2, 3</sup>	▪									
<b>OTHER SENATE AGENDA ITEMS</b>										
New Senator Orientations (before meeting)			▪							
Teaching Awards Committee	▪									
Roster of Graduands			▪			▪				
Undergraduate and Graduate Admissions Update		▪								
<b>SENATE PRESENTATIONS</b>										
Presentations from the Presidents of the Faculty Association, Waterloo Undergraduate Association and Graduate Student Association <sup>1</sup>		▪								
Strategic Plan Accountability Update <sup>1</sup>						▪				
PART Annual Update				▪						
Faculty Update (6x/year)					ENG	▪	▪			

<sup>1</sup> Annual item

<sup>2</sup> Board of Governors approval

<sup>3</sup> Presented by the Vice-President Academic and Provost

<sup>4</sup> Presented by the President and Vice-Chancellor, and Chair of Senate

<sup>5</sup> Presented by the University Secretary

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

<b>Senate Agenda Items</b>  • expected *as needed	<b>27 March 2023</b> <i>Strategic Plan – Communities - Sustainability</i>	<b>17 April 2023</b> <i>TBD</i>	<b>15 May 2023</b> <i>Strategic Plan – Research</i>	<b>19 June 2023</b>	<b>18 September 2023</b>	<b>16 October 2023</b> <i>Strategic Plan Annual Update / Waterloo at 100</i>	<b>20 November 2023</b>	<b>18 December 2023</b>	<b>15 January 2024</b>	<b>19 February 2024</b>
<b>CONSENT AGENDA</b>										
Reports from Faculties (e.g., appointments, administrative appointments, sabbaticals) <sup>2</sup>	•	•	•	•	•	•	•	•	•	•
Tenure and Promotion Report <sup>4</sup>					•					
University Professor Designation <sup>3</sup>	•									
Call for Nominations for University Professor <sup>3</sup>					•					
Call for Nominations for Honorary Degree Recipients <sup>4</sup>										•
Report of the COU Academic Colleague <sup>1</sup>							•			
Senate Committee Appointments <sup>5</sup>	*	*	*	*	•	*	*	*	*	*
<b>CONFIDENTIAL AGENDA</b>										
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 <sup>1</sup>				•						

<b>Joint SENATE/BOARD Strategic Plan Focus Sessions 3-4:30</b>	<b>Joint SENATE/BOARD Continuing Education Sessions 3-4:30</b>
<ul style="list-style-type: none"> <li>To be determined</li> </ul>	<ul style="list-style-type: none"> <li>To be determined</li> </ul>

**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:** [secretariat@uwaterloo.ca](mailto:secretariat@uwaterloo.ca)  
 uwaterloo.ca/secretariat , NH 3060

<sup>1</sup> Annual item

<sup>2</sup> Board of Governors approval

<sup>3</sup> Presented by the Vice-President Academic and Provost

<sup>4</sup> Presented by the President and Vice-Chancellor, and Chair of Senate

<sup>5</sup> Presented by the University Secretary

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

**For Approval****Public****Open Session**

**To:** Senate

**Sponsor:** Clarence Woudsma & Leia Minaker

**Contact Information:** School of Planning, Faculty of Environment  
[cwoudsma@uwaterloo.ca](mailto:cwoudsma@uwaterloo.ca) [lminaker@uwaterloo.ca](mailto:lminaker@uwaterloo.ca)

**Presenter:** Leia Minaker

**Contact Info:** Phone 519-888-4567 x45615 [lminaker@uwaterloo.ca](mailto:lminaker@uwaterloo.ca)

**Date of Meeting:** March 27, 2023

**Item Identification:**

NEW PROGRAM:  
Graduate Program Proposal of Master of Future Cities (MFC).

**Summary:**

The Master of Future Cities (MFC) is interdisciplinary in nature and will be housed in the Faculty of Environment. This course-based program includes nine courses in a mix of online, in-person block and hybrid delivery formats, including required courses in cities, sustainability, future studies, and a capstone course. The program can be completed either full-time (three terms) or part-time (six - eight terms). The program is regular only with no co-op, and no formal internship, although the applied capstone is required. Tuition is consistent with the per-course equivalent cost of this program's closest competitor program, the Master of Urban Innovation at the University of Toronto (Mississauga). Domestic per-course tuition is \$1,986 and international per-course tuition is \$4,538.

**Recommendation/Motion:**

To approve a new course-based Master of Future Cities (MFC) offered by the Faculty of Environment, effective 1 September 2023, as presented.

**Jurisdictional Information:**

This item is being submitted to Senate in accordance with [Senate Bylaw 2](#); section 4.03(e): "Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the council shall see fit, and make recommendations to Senate thereon."

**Governance Path:**

The new program proposal was approved by the Faculty of Environment on 31 March 2022. On 13 February 2023, Senate Graduate and Research Council unanimously agreed to forward the proposal to Senate for approval.

**Previous Action Taken:**

The new program proposal was prepared by Johanna Wandel, Associate Dean (Strategic Initiatives), Faculty of Environment, Clarence Woudsma, School of Planning and future Director of the Master of Future Cities program, and Jean Andrey, Dean of Environment; with contributions from program faculty, as well as School of Planning library resources.

**Highlights:**

The proposed MFC program is designed to provide early- and mid-career professionals with competency in futures and systems thinking and foresight methods that can be used to better address the significant challenges of today while anticipating and generating innovative and sustainable options for uncertain and increasingly complex futures in the context of cities.

The University of Waterloo's Strategic Plan, [Connecting Imagination with Impact](#), boldly declares "Waterloo is built for change" and that its 2020-2025 plan is for an era of rapid change. The proposed MFC program maps strongly onto the first theme of the strategic plan: "developing talent for a complex future".

- Under this theme, students learn to apply knowledge in contexts unimaginable today. The proposed program embeds foresight methods through systems and futures thinking throughout the program and engages learners with alternative visions of future cities built from multiple perspectives. The program requires students to develop and demonstrate mastery of futures thinking and applications through a team-based capstone project course.
- University of Waterloo's strategic plan also calls for more interdisciplinarity and flexibility in graduate programs. The proposed program draws on disciplinary and inter-disciplinary knowledge and instructor expertise from the following fields: urban planning, geography, architecture, foresight, sustainability and systems science. Course sequencing within the program ensures that both full time and part-time students will be part of a cohort in the first five months of the program, with core and elective courses. Further the program is designed such that it can be finished in one, two, or three years; and it can be completed mostly online (with only two mandatory blocks on campus) but also can include more in-person instruction, if desired by students.
- The University's strategic plan also recognizes that accelerating climate change will magnify existing societal issues, with marginalized communities being among the most affected. The proposed program includes curriculum on climate transitions, climate resilience and climate justice; and several courses explicitly adopt an equity lens.
- The University of Waterloo [strategic research plan](#) focuses on eight themes. The proposed program is aligned with and draws on expertise from the theme, "supporting change: society, culture, and governance". More specifically, the program embeds curriculum related to complex systems and strategic decision-making techniques, advancing the understanding of urban systems through the lenses of governance, equity, sustainability, and resilience and an appreciation for how city building and visioning contribute to societal well-being. The program also draws on institutional strengths related to the digital revolution (e.g., smart cities, digital media, autonomous vehicles, AI) and environment and energy (e.g., climate resilience, energy futures).

### Next Steps:

If approved by Senate, this new program proposal will be submitted to the Quality Council for academic approval and the Ministry for tuition and grant approval. A decision from the Quality Council can be expected within 1-2 months after submission. Whereas a decision from the Ministry is expected to take anywhere between 4-6 months.

### Documentation Provided:

Appendix A: Academic Calendar Text

[Appendix B: Volume I – New Program Proposal](#)

[Appendix C: Responses to External Reviewers' Report](#)



## Graduate Studies New Program Template

Prior to form submission, review the [new graduate program instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs.

**Faculty:** Environment

**Program:** Master of Future Cities (MFC)

**Program contact name(s):** Johanna Wandel

**Form completed by:**

**Note:** new courses and milestones also require the completion/submission of the SGRC Course/Milestone-New/Revision/Inactivation form ([PC docx version](#)).

**Proposed effective date:** Term: Fall Year: 2023

**[Graduate Studies Academic Calendar \(GSAC\)](#) section** (include the link to the section (web page) where the new program will be located):

<https://uwaterloo.ca/graduate-studies-academic-calendar/environment>

### Proposed Graduate Studies Academic Calendar content:

## MASTER OF FUTURE CITIES (MFC)

### Program information

- **Admit term(s)**
  - Fall
- **Delivery mode**
  - Online
- **Delivery mode information**
  - The program is offered online and includes an on-campus component.
- **Length of program**
  - Full-time: 3 terms (12 months)
  - Part-time: 6-8 terms (18-24 months)
- **Program type**
  - Master's
  - Professional
- **Registration option(s)**
  - Full-time
  - Part-time
- **Study option(s)**

## Proposed Graduate Studies Academic Calendar content:

- Coursework

### Admission requirements

- **Minimum requirements**
  - A four-year Honours Bachelor degree (or equivalent) in any humanities, social science, health, business, engineering or science discipline with an overall average of at least 75% in the last 20 courses (or last two years).
- **Application materials**
  - Résumé
  - Supplementary information form
  - Transcript(s)
- **References**
  - Number of references: 2
  - Type of references: academic or professional
- **[English language proficiency \(ELP\) \(if applicable\)](#)**

### Degree requirements

- **[Graduate Academic Integrity Module \(Graduate AIM\)](#)**
- **Courses**
  - Students must complete the following 9 courses:
  - Required:
    - FCIT 600 Cities, Systems, Synergy and Collaboration
    - FCIT 601 Tools for Futures Thinking
    - FCIT 602 Future Thinking and Cities
    - FCIT 603 Sustainable Future Cities
    - FCIT 620 Future Cities Capstone Project
  - Recommended:
    - FCIT 610 International Field School (for students unwilling or unable to participate, any other FCIT elective or open graduate level elective from online offerings in the Faculty of Environment may be substituted)
  - 1 of the following methods courses:
    - FCIT 607 Data, Methods, and Models for Future Cities
    - INDEV 607 Methods for Sustainable Development Practice: A Systems Approach
  - 2 of the following elective courses:
    - ARCH 6XX Critical Engagements with Urban Technology
    - FCIT 604 The Socially Just City
    - FCIT 605 The Future of Work
    - FCIT 606 Sustainability Transitions in Cities
    - FCIT 609 Mobility Futures
    - PLAN 606 Modeling the City
    - PLAN 684 Physical Infrastructure and Planning
  - Students must maintain a minimum 75% cumulative average over the course of the program in order to graduate. A failing grade in any course will occasion an automatic review of the student's status by the Program Director and may in some cases, result in the requirement to withdraw from the program.

**Departmental approval date** (mm/dd/yy):

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 03/22/22

**Faculty approval date** (mm/dd/yy):

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):

**Senate approval date** (mm/dd/yy) (if applicable):



## Senate Graduate and Research Council

**For Approval**

**Public**

**Open Session**

**To:** Senate

**Sponsor:** Charmaine Dean  
**Contact Information:** Vice-President, Research & International

**Sponsor:** Jeff Casello  
**Contact Information:** Associate Vice-President, Graduate Studies and Postdoctoral Affairs

**Presenter:** Jeff Casello  
**Contact Info:** jcasello@uwaterloo.ca

**Date of Meeting:** March 27, 2023

[Senate Graduate & Research Council](#) met on 13 February 2023 and agreed to forward the following item to Senate for approval as part of the Regular agenda.

**Item Identification:**

Major Program Modification to the Master of Engineering (MEng) in Chemical Engineering.

**Recommendation/Motion:**

To approve adding a direct entry Co-operative program/option to the MEng in Chemical Engineering, effective 1 May 2023, as presented.

**Jurisdictional Information:**

This item is being submitted to Senate in accordance with [Senate Bylaw 2](#); section 4.03(e): "Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the council shall see fit, and make recommendations to Senate thereon."

**Governance Path:**

Department approval date (mm/dd/yy): 09/12/22

Graduate Studies and Postdoctoral Affairs review date (mm/dd/yy): 12/15/22

Faculty approval date (mm/dd/yy): 01/17/23

Senate Graduate and Research Council approval date (mm/dd/yy): 02/13/23

## Senate Graduate and Research Council

### Highlights/Rationale:

The proposed MEng in Chemical Engineering Co-op program is in line with departmental, Faculty, and University Work Integrated Learning (WIL) goals. It is proposed to be highly competitive, selective, and with capacity constraints to minimize effects on the undergraduate co-op program. Program capacity, limited to < 10 students initially, would be based both on the performance of past MEng Co-op cohorts and that of our undergraduate co-op program. Students who fail to find co-op positions may transfer into the regular MEng program. The co-op program/option will be supported by Co-operative Education.

### Documentation Provided:

Program Revision Template – Appendix A

[Co-operative Education Feasibility Report – Appendix B](#)



## Graduate Studies Program Revision Template

Prior to form submission, review the [content revision instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Engineering

**Program:** Master of Engineering (MEng) in Chemical Engineering - Co-operative Program

**Program contact name(s):** Nasser Mohieddin Abukhdeir, Judy Caron

**Form completed by:** Nasser Mohieddin Abukhdeir

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Adding a direct entry Co-operative program/option to the MEng in Chemical Engineering program.*

**Is this a [major modification](#) to the program? Yes**

**Rationale for change(s):**

*The MEng in Chemical Engineering Co-op program is in line with departmental, Faculty, and University Work Integrated Learning (WIL) goals. It is proposed to be highly competitive, selective, and with capacity constraints to minimize effects on the undergraduate co-op program. Program capacity, limited to <10 students initially, would be based both on the performance of past MEng Co-op cohorts and that of our undergraduate co-op program. It would be "fail safe", where students who fail to find co-op positions may transfer into the regular MEng program.*

*The 2017 external review of the Chemical Engineering graduate programs included the following recommendation: "The Department consider if there might be opportunities to build on their excellent reputation of co-op at the undergraduate level and see how it might be used to define a unique strength in any one or more of their three graduate degree programs." Which resulted from direct consultation with graduate students. The proposed MEng Co-op program will address this external reviewer recommendation and consistent feedback from past MEng students regarding the desire for WIL within the program.*

*The co-op program/option will be supported by Co-operative Education. Attached is the Feasibility Report that was completed by Co-operative Education.*

*Note: a separate proposal to add a new Graduate Specialization in Entrepreneurship to the MEng in Chemical Engineering program is also moving through the approval process. If/when approved, the Graduate Specialization in Entrepreneurship will also be applied to the MEng in Chemical Engineering – Co-op program.*

**Proposed effective date:** Term: Spring Year: 2023

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-chemical-engineering>

**Current MEng in Chemical Engineering Graduate Studies Academic Calendar content:**

**MASTER OF ENGINEERING (MENG) IN CHEMICAL ENGINEERING**

**Graduate specializations**

- Biological Engineering
- Polymer Science and Engineering
- Process Systems Engineering

**Program information**

- **Admit term(s)**
  - Fall
- **Delivery mode**
  - On-campus
- **Length of program**
  - Full-time: 4 terms (16 months)
  - Part-time: 8 terms (32 months)
- **Program type**
  - Master's
  - Professional
- **Registration option(s)**
  - Full-time
  - Part-time
- **Study option(s)**
  - Coursework
- **Additional program information**
  - Important notice for MEng applicants: applicants to the MEng program are expected to be entirely self funded. No financial assistance will be provided from the Department of Chemical Engineering or the University of Waterloo.

**Admission requirements**

- **Minimum requirements**
  - A 75% overall standing in the last two years, or equivalent, in a four-year Honours Bachelor's degree or equivalent.
- **Application materials**

**Proposed MEng in Chemical Engineering – Co-operative Program Graduate Studies Academic Calendar content:**

**MASTER OF ENGINEERING (MENG) IN CHEMICAL ENGINEERING - CO-OPERATIVE PROGRAM**

**Graduate specializations**

- Biological Engineering
- Polymer Science and Engineering
- Process Systems Engineering

**Program information**

- **Admit term(s)**
  - Fall
- **Delivery mode**
  - On-campus
- **Length of program**
  - Full-time: 5-6 terms (20-24 months)
- **Program type**
  - Co-operative
  - Master's
  - Professional
- **Registration option(s)**
  - Full-time
  - Part-time
- **Study option(s)**
  - Coursework
- **Additional program information**
  - Important notice for MEng applicants: applicants to the MEng program are expected to be entirely self funded. No financial assistance will be provided from the Department of Chemical Engineering or the University of Waterloo.

**Admission requirements**

- **Minimum requirements**
  - A 75% overall standing in the last two years, or equivalent, in a four-year Honours Bachelor's degree or

Current MEng in Chemical Engineering Graduate Studies Academic Calendar content:	Proposed MEng in Chemical Engineering – Co-operative Program Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>○ Résumé</li> <li>○ Supplementary information form</li> <li>○ Transcript(s)</li> </ul> <ul style="list-style-type: none"> <li>● <b>References</b> <ul style="list-style-type: none"> <li>○ Number of references: 2</li> <li>○ Type of references: at least 1 academic</li> </ul> </li> <li>● <b>English language proficiency (ELP)</b> (if applicable)</li> </ul> <p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>● <b>Graduate Academic Integrity Module (Graduate AIM)</b></li> <li>● <b>Courses</b> <ul style="list-style-type: none"> <li>○ Students must complete CHE 600 Engineering and Research Methods, Ethics, Practice, and Law (0.25 credit weight) and 8 graduate courses (0.50 unit weight per course) as follows: <ul style="list-style-type: none"> <li>▪ CHE 601 Theory and Application of Transport Phenomena</li> <li>▪ CHE 602 Chemical Reactor Analysis</li> <li>▪ 6 graduate level electives of which 3 must be CHE courses</li> </ul> </li> <li>○ No more than 2 may be 500 level courses.</li> <li>○ No more than 1 may be a reading course.</li> <li>○ Graduate courses offered by the Faculty of Engineering are numbered as 600 or 700 series courses and are assigned a unit weight of 0.50, which means that they are one-term courses as defined in the Graduate Studies Academic Calendar.</li> <li>○ Only courses taken within five years prior to the completion of the MEng degree may be counted for credit towards a degree, unless a request for revalidation is granted.</li> <li>○ Students must achieve a: <ul style="list-style-type: none"> <li>▪ Minimum cumulative average of 70%.</li> <li>▪ Minimum grade of 65% in each individual course.</li> </ul> </li> </ul> </li> </ul>	<p>equivalent.</p> <ul style="list-style-type: none"> <li>● <b>Application materials</b> <ul style="list-style-type: none"> <li>○ Résumé</li> <li>○ Supplementary information form</li> <li>○ Transcript(s)</li> </ul> </li> <li>● <b>References</b> <ul style="list-style-type: none"> <li>○ Number of references: 2</li> <li>○ Type of references: at least 1 academic</li> </ul> </li> <li>● <b>English language proficiency (ELP)</b> (if applicable)</li> </ul> <p><b>Degree requirements</b></p> <p><u>The MEng in Chemical Engineering - Co-operative Program will enable students to combine graduate studies with work experience.</u></p> <p><u>The program includes completion of 1-2 required work terms. The work term(s) typically takes place in term 4 (or terms 4 and 5). The work term(s) must meet CEE standard work term requirements and Departmental requirements. Student's should apply to jobs related to their program of study.. Note: the program must start and end on an academic term. Students in the program are encouraged to complete COOP 601 Career Success Strategies in the academic term prior to the first work term.</u></p> <ul style="list-style-type: none"> <li>● <b>Graduate Academic Integrity Module (Graduate AIM)</b></li> <li>● <b>Courses</b> <ul style="list-style-type: none"> <li>○ Students must complete CHE 600 Engineering and Research Methods, Ethics, Practice, and Law (0.25 credit weight), <u>CHE 650 Engineering Work-term Experience Report (0.25 credit weight, must be completed in term 5 or 6)</u> and 8 graduate courses (0.50 unit weight per course) as follows: <ul style="list-style-type: none"> <li>▪ CHE 601 Theory and Application of Transport Phenomena</li> <li>▪ CHE 602 Chemical Reactor Analysis</li> <li>▪ 6 graduate level electives of which 3 must be CHE courses</li> </ul> </li> </ul> </li> </ul>

Current MEng in Chemical Engineering Graduate Studies Academic Calendar content:	Proposed MEng in Chemical Engineering – Co-operative Program Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>▪ Note: Probationary students may have specific grade requirements, which will be specified in their admission letter.</li> <li>○ Each student is responsible for monitoring their own academic records and must immediately notify the Graduate Coordinator of any inadequate grade or average.</li> <li>○ Students in the MEng in Chemical Engineering program may choose to pursue one of the following Graduate Specializations: <ul style="list-style-type: none"> <li>1. Biological Engineering</li> <li>2. Polymer Science and Engineering</li> <li>3. Process Systems Engineering</li> </ul> </li> <li>○ A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.</li> <li>○ All MEng Graduate Specializations in Chemical Engineering consist of a set of 4 graduate (0.50 weight) level courses and this set is comprised of a mix of compulsory and elective courses. Compulsory courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the Graduate Specializations are described below. <ul style="list-style-type: none"> <li>1. Graduate Specialization in Biological Engineering</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ No more than 2 may be 500 level courses.</li> <li>○ No more than 1 may be a reading course.</li> <li>○ Graduate courses offered by the Faculty of Engineering are numbered as 600 or 700 series courses and are assigned a unit weight of 0.50, which means that they are one-term courses as defined in the Graduate Studies Academic Calendar.</li> <li>○ Only courses taken within five years prior to the completion of the MEng degree may be counted for credit towards a degree, unless a request for revalidation is granted.</li> <li>○ Students must achieve a: <ul style="list-style-type: none"> <li>▪ Minimum cumulative average of 70%.</li> <li>▪ Minimum grade of 65% in each individual course.</li> <li>▪ Note: Probationary students may have specific grade requirements, which will be specified in their admission letter.</li> </ul> </li> <li>○ Each student is responsible for monitoring their own academic records and must immediately notify the Graduate Coordinator of any inadequate grade or average.</li> <li>○ Students in the MEng in Chemical Engineering program may choose to pursue one of the following Graduate Specializations: <ul style="list-style-type: none"> <li>1. Biological Engineering</li> <li>2. Polymer Science and Engineering</li> <li>3. Process Systems Engineering</li> </ul> </li> <li>○ A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MEng degree and</li> </ul>

Current MEng in Chemical Engineering Graduate Studies Academic Calendar content:	Proposed MEng in Chemical Engineering – Co-operative Program Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Biological Engineering, students must successfully complete 3 compulsory courses and 1 elective course: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 562 Advanced Bioprocess Engineering</li> <li>▪ CHE 660 Principles of Biochemical Engineering</li> <li>▪ CHE 663 Bioseparations</li> </ul> </li> <li>▪ Elective courses (choose 1 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 561 Biomaterials &amp; Biomedical Design</li> <li>▪ CHE 564 Food ProcessEngineering</li> </ul> </li> </ul> </li> </ul> <p>2. Graduate Specialization in Polymer Science and Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Polymer Science and Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 541 Introduction to Polymer Science and Properties</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> </ul> </li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 543 Polymer Production: Polymer Reaction Engineering</li> <li>▪ CHE 640 Polymer Property Characterization</li> <li>▪ CHE 641 Fundamentals of Polymer Processing Operations</li> </ul> </li> </ul> </li> </ul> <p>3. Graduate Specialization in Process Systems Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Process Systems Engineering, students must successfully complete 2</li> </ul>	<p>the requirements associated with the Graduate Specialization.</p> <ul style="list-style-type: none"> <li>○ All MEng Graduate Specializations in Chemical Engineering consist of a set of 4 graduate (0.50 weight) level courses and this set is comprised of a mix of compulsory and elective courses. Compulsory courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the Graduate Specializations are described below.</li> </ul> <p>1. Graduate Specialization in Biological Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Biological Engineering, students must successfully complete 3 compulsory courses and 1 elective course: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 562 Advanced Bioprocess Engineering</li> <li>▪ CHE 660 Principles of Biochemical Engineering</li> <li>▪ CHE 663 Bioseparations</li> </ul> </li> <li>▪ Elective courses (choose 1 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 561 Biomaterials &amp; Biomedical Design</li> <li>▪ CHE 564 Food ProcessEngineering</li> </ul> </li> </ul> </li> </ul> <p>2. Graduate Specialization in Polymer Science and Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Polymer Science and Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 541 Introduction to Polymer Science and Properties</li> </ul> </li> </ul> </li> </ul>

Current MEng in Chemical Engineering Graduate Studies Academic Calendar content:	Proposed MEng in Chemical Engineering – Co-operative Program Graduate Studies Academic Calendar content:
<p>compulsory courses and 2 elective courses:</p> <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 620 Applied Engineering Mathematics</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> </ul> </li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 520 Process Flowsheet Analysis</li> <li>▪ CHE 521 Process Optimization</li> <li>▪ CHE 522 Advanced Process Dynamics and Control</li> </ul> </li> </ul> <p>• <b>Seminar Attendance</b></p> <ul style="list-style-type: none"> <li>○ Over the course of their degree program, all students must attend 12 seminars from departments and research institutions where Chemical Engineering faculty members have a membership. The Chemical Engineering seminars are documented in the Events section of the Chemical Engineering Department website.</li> <li>○ Note: At Chemical Engineering seminars, attendance is documented. At other approved seminars, students must complete an attendance form and get it signed by the seminar organizer. Full instructions are available on the Department website.</li> </ul>	<ul style="list-style-type: none"> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 543 Polymer Production: Polymer Reaction Engineering</li> <li>▪ CHE 640 Polymer Property Characterization</li> <li>▪ CHE 641 Fundamentals of Polymer Processing Operations</li> </ul> </li> </ul> <p>3. Graduate Specialization in Process Systems Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Process Systems Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 620 Applied Engineering Mathematics</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> </ul> </li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 520 Process Flowsheet Analysis</li> <li>▪ CHE 521 Process Optimization</li> <li>▪ CHE 522 Advanced Process Dynamics and Control</li> </ul> </li> </ul> </li> </ul> <p>• <b>Seminar Attendance</b></p> <ul style="list-style-type: none"> <li>○ Over the course of their degree program, all students must attend 12 seminars from departments and research institutions where Chemical Engineering faculty members have a membership. The Chemical Engineering seminars are documented in the Events section of the Chemical Engineering Department website.</li> <li>○ Note: At Chemical Engineering seminars, attendance is documented.</li> </ul>



Current MEng in Chemical Engineering Graduate Studies Academic Calendar content:	Proposed MEng in Chemical Engineering – Co-operative Program Graduate Studies Academic Calendar content:
	<p>At other approved seminars, students must complete an attendance form and get it signed by the seminar organizer. Full instructions are available on the Department website.</p> <ul style="list-style-type: none"> <li>• <b>Graduate Studies Work Report</b> <ul style="list-style-type: none"> <li>○ <u>Students must complete one or two work-term experience(s). A work report must be submitted to the Department for review and credit by the end of each work term.</u></li> <li>○ <u>Students are responsible for following the roles and responsibilities of Co-operative and Experiential Education (CEE).</u></li> </ul> </li> </ul>

**How will students currently registered in the program be impacted by these changes?**

*Students currently registered in the program will not have access to this program in that it is admit-only and will be unaffected.*

**Department/School approval date (mm/dd/yy):** 09/12/2022

**Reviewed by GSPA (for GSPA use only)  date (mm/dd/yy):** 12/15/22

**Faculty approval date (mm/dd/yy):**

**Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):**

**Senate approval date (mm/dd/yy) (if applicable):**

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## Senate Graduate and Research Council

**For Approval**

**Public**

**Open Session**

**To:** Senate

**Sponsor:** Charmaine Dean  
**Contact Information:** Vice-President, Research & International

**Sponsor:** Jeff Casello  
**Contact Information:** Associate Vice-President, Graduate Studies and Postdoctoral Affairs

**Presenter:** Jeff Casello  
**Contact Info:** jcasello@uwaterloo.ca

**Date of Meeting:** March 27, 2023

[Senate Graduate & Research Council](#) met on 13 February 2023 and agreed to forward the following item to Senate for approval as part of the Regular agenda.

**Item Identification:**

Major Program Modification to the Master of Engineering (MEng) in Chemical Engineering.

**Recommendation/Motion:**

To approve updating the MEng in Chemical Engineering degree requirements to include one new Graduate Specialization in Entrepreneurship, effective 1 May 2023, as presented.

**Jurisdictional Information:**

This item is being submitted to Senate in accordance with [Senate Bylaw 2](#); section 4.03(e): "Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the council shall see fit, and make recommendations to Senate thereon."

**Governance Path:**

Department approval date (mm/dd/yy): 09/12/22

Graduate Studies and Postdoctoral Affairs review date (mm/dd/yy): 12/15/22

Faculty approval date (mm/dd/yy): 01/17/23

Senate Graduate and Research Council approval date (mm/dd/yy): 02/13/23

## Senate Graduate and Research Council

### Highlights/Rationale:

The proposed MEng Graduate Specialization in Entrepreneurship is aligned with the long-term vision of the Department of Chemical Engineering, the Conrad School of Entrepreneurship and Business, and the University. The majority of past MEng students have chosen to take at 2-3 Business Entrepreneurship (BE) courses and have provided positive feedback to the Department regarding their utility and the additional breadth in the training. Providing a formal curriculum which focuses on entrepreneurship leverages MEng student interest and focuses it on a strategic area which needs to be enhanced in the discipline, entrepreneurship.

### Documentation Provided:

Program Revision Template - Appendix



## Graduate Studies Program Revision Template

Prior to form submission, review the [content revision instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Engineering

**Program:** Master of Engineering (MEng) in Chemical Engineering

**Program contact name(s):** Nasser Mohieddin Abukhdeir, Judy Caron

**Form completed by:** Nasser Mohieddin Abukhdeir

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Updating the MEng degree requirements to include one new Graduate Specialization in Entrepreneurship.*

**Is this a [major modification](#) to the program?** Yes

**Rationale for change(s):**

*The proposed MEng Graduate Specialization in Entrepreneurship is aligned with the long-term vision of the Department of Chemical Engineering, the Conrad School of Entrepreneurship and Business, and the University. The majority of past MEng students have chosen to take at 2-3 Business Entrepreneurship (BE) courses and have provided positive feedback to the Department regarding their utility and the additional breadth in the training. Providing a formal curriculum which focuses on entrepreneurship leverages MEng student interest and focuses it on a strategic area which needs to be enhanced in the discipline, entrepreneurship.*

**Proposed effective date:** Term: Spring Year: 2023

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-chemical-engineering/master-engineering-meng-chemical-engineering>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• <b>Courses</b> <ul style="list-style-type: none"> <li>○ Students must complete CHE 600 Engineering and Research Methods, Ethics, Practice, and Law (0.25 credit weight) and 8 graduate courses (0.50 unit weight per course) as follows:</li> </ul> </li> </ul>	<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• <b>Courses</b> <ul style="list-style-type: none"> <li>○ Students must complete CHE 600 Engineering and Research Methods, Ethics, Practice, and Law (0.25 credit weight) and 8 graduate courses (0.50 unit weight per course) as follows:</li> </ul> </li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>▪ CHE 601 Theory and Application of Transport Phenomena</li> <li>▪ CHE 602 Chemical Reactor Analysis</li> <li>▪ 6 graduate level electives of which 3 must be CHE courses</li> <li>○ No more than 2 may be 500 level courses.</li> <li>○ No more than 1 may be a reading course.</li> <li>○ Graduate courses offered by the Faculty of Engineering are numbered as 600 or 700 series courses and are assigned a unit weight of 0.50, which means that they are one-term courses as defined in the Graduate Studies Academic Calendar.</li> <li>○ Only courses taken within five years prior to the completion of the MEng degree may be counted for credit towards a degree, unless a request for revalidation is granted.</li> <li>○ Students must achieve a: <ul style="list-style-type: none"> <li>▪ Minimum cumulative average of 70%.</li> <li>▪ Minimum grade of 65% in each individual course.</li> <li>▪ Note: Probationary students may have specific grade requirements, which will be specified in their admission letter.</li> </ul> </li> <li>○ Each student is responsible for monitoring their own academic records and must immediately notify the Graduate Coordinator of any inadequate grade or average.</li> <li>○ Students in the MEng in Chemical Engineering program may choose to pursue one of the following Graduate Specializations: <ol style="list-style-type: none"> <li>1. Biological Engineering</li> <li>2. Polymer Science and Engineering</li> <li>3. Process Systems Engineering</li> </ol> </li> <li>○ A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that</li> </ul>	<ul style="list-style-type: none"> <li>▪ CHE 601 Theory and Application of Transport Phenomena</li> <li>▪ CHE 602 Chemical Reactor Analysis</li> <li>▪ 6 graduate level electives of which 3 must be CHE courses</li> <li>○ No more than 2 may be 500 level courses.</li> <li>○ No more than 1 may be a reading course.</li> <li>○ Graduate courses offered by the Faculty of Engineering are numbered as 600 or 700 series courses and are assigned a unit weight of 0.50, which means that they are one-term courses as defined in the Graduate Studies Academic Calendar.</li> <li>○ Only courses taken within five years prior to the completion of the MEng degree may be counted for credit towards a degree, unless a request for revalidation is granted.</li> <li>○ Students must achieve a: <ul style="list-style-type: none"> <li>▪ Minimum cumulative average of 70%.</li> <li>▪ Minimum grade of 65% in each individual course.</li> <li>▪ Note: Probationary students may have specific grade requirements, which will be specified in their admission letter.</li> </ul> </li> <li>○ Each student is responsible for monitoring their own academic records and must immediately notify the Graduate Coordinator of any inadequate grade or average.</li> <li>○ Students in the MEng in Chemical Engineering program may choose to pursue one of the following Graduate Specializations: <ol style="list-style-type: none"> <li>1. Biological Engineering</li> <li>2. Polymer Science and Engineering</li> <li>3. Process Systems Engineering</li> <li>4. <u>Entrepreneurship</u></li> </ol> </li> <li>○ A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully</li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.</p> <ul style="list-style-type: none"> <li>○ All MEng Graduate Specializations in Chemical Engineering consist of a set of 4 graduate (0.50 weight) level courses and this set is comprised of a mix of compulsory and elective courses. Compulsory courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the Graduate Specializations are described below.</li> </ul> <p>1. Graduate Specialization in Biological Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Biological Engineering, students must successfully complete 3 compulsory courses and 1 elective course: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 562 Advanced Bioprocess Engineering</li> <li>▪ CHE 660 Principles of Biochemical Engineering</li> <li>▪ CHE 663 Bioseparations</li> </ul> </li> <li>▪ Elective courses (choose 1 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 561 Biomaterials &amp; Biomedical Design</li> <li>▪ CHE 564 Food ProcessEngineering</li> </ul> </li> </ul> </li> </ul> <p>2. Graduate Specialization in Polymer Science and Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Polymer Science and Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses:</li> </ul> </li> </ul>	<p>completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.</p> <ul style="list-style-type: none"> <li>○ All MEng Graduate Specializations in Chemical Engineering consist of a set of 4 graduate (0.50 weight) level courses and this set is comprised of a mix of compulsory and elective courses. Compulsory courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the Graduate Specializations are described below. <u>Note: Students are limited to one Graduate Specialization designation for their MEng in Chemical Engineering degree.</u></li> </ul> <p>1. Graduate Specialization in Biological Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Biological Engineering, students must successfully complete 3 compulsory courses and 1 elective course: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 562 Advanced Bioprocess Engineering</li> <li>▪ CHE 660 Principles of Biochemical Engineering</li> <li>▪ CHE 663 Bioseparations</li> </ul> </li> <li>▪ Elective courses (choose 1 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 561 Biomaterials &amp; Biomedical Design</li> <li>▪ CHE 564 Food ProcessEngineering</li> </ul> </li> </ul> </li> </ul> <p>2. Graduate Specialization in Polymer Science and Engineering</p>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>▪ CHE 541 Introduction to Polymer Science and Properties</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 543 Polymer Production: Polymer Reaction Engineering</li> <li>▪ CHE 640 Polymer Property Characterization</li> <li>▪ CHE 641 Fundamentals of Polymer Processing Operations</li> </ul> </li> </ul> <p>3. Graduate Specialization in Process Systems Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Process Systems Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 620 Applied Engineering Mathematics</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> </ul> </li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 520 Process Flowsheet Analysis</li> <li>▪ CHE 521 Process Optimization</li> <li>▪ CHE 522 Advanced Process Dynamics and Control</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Polymer Science and Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 541 Introduction to Polymer Science and Properties</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> </ul> </li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 543 Polymer Production: Polymer Reaction Engineering</li> <li>▪ CHE 640 Polymer Property Characterization</li> <li>▪ CHE 641 Fundamentals of Polymer Processing Operations</li> </ul> </li> </ul> </li> </ul> <p>3. Graduate Specialization in Process Systems Engineering</p> <ul style="list-style-type: none"> <li>○ To receive the Graduate Specialization in Process Systems Engineering, students must successfully complete 2 compulsory courses and 2 elective courses: <ul style="list-style-type: none"> <li>▪ Compulsory courses: <ul style="list-style-type: none"> <li>▪ CHE 620 Applied Engineering Mathematics</li> <li>▪ CHE 621 Model Building and Response Surface Methodology</li> </ul> </li> <li>▪ Elective courses (choose 2 from the following list): <ul style="list-style-type: none"> <li>▪ CHE 520 Process Flowsheet Analysis</li> <li>▪ CHE 521 Process Optimization</li> <li>▪ CHE 522 Advanced Process Dynamics and Control</li> </ul> </li> </ul> </li> </ul> <p><u>4. Graduate Specialization in Entrepreneurship</u></p>



Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	<ul style="list-style-type: none"> <li>○ <u>Students must obtain approval from the Chemical Engineering Graduate Officer in order to pursue the Graduate Specialization in Entrepreneurship. Interested students will be required to submit a short proposal following matriculation describing their entrepreneurship idea and suitability to pursue it.</u></li> <li>○ <u>To receive the Graduate Specialization in Entrepreneurship, students must successfully complete the following 4 compulsory courses:</u> <ul style="list-style-type: none"> <li>▪ <u>Compulsory courses:</u> <ul style="list-style-type: none"> <li>▪ <u>BE 600 Management and Leadership</u></li> <li>▪ <u>BE 605 Project Management</u></li> <li>▪ <u>BE 606 Entrepreneurship and Innovation</u></li> <li>▪ <u>CHE 651 Technology Entrepreneurship Project</u></li> </ul> </li> </ul> </li> </ul>

**How will students currently registered in the program be impacted by these changes?**

*Current MEng students will not have access to this specialization and will be unaffected.*

**Department/School approval date** (mm/dd/yy): 09/12/2022

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 12/15/22

**Faculty approval date** (mm/dd/yy):

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):

**Senate approval date** (mm/dd/yy) (if applicable):

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## Senate Graduate and Research Council

**For Approval**

**Public**

**Open Session**

**To:** Senate

**Sponsor:** Charmaine Dean  
**Contact Information:** Vice-President, Research & International

**Sponsor:** Jeff Casello  
**Contact Information:** Associate Vice-President, Graduate Studies and Postdoctoral Affairs

**Presenter:** Jeff Casello  
**Contact Info:** jcasello@uwaterloo.ca

**Date of Meeting:** March 27, 2023

[Senate Graduate & Research Council](#) met on 13 February 2023 and agreed to forward the following item to Senate for approval as part of the Regular agenda.

**Item Identification:**

Major Program Modification to the Master of Kinesiology (MKin) degree.

**Recommendation/Motion:**

To approve updating the MKin degree requirements to include two new Graduate Specialization in Human Factors and Ergonomics (HFE) and Movement and Exercise Sciences (MES), effective 1 May 2023, as presented.

**Jurisdictional Information:**

This item is being submitted to Senate in accordance with [Senate Bylaw 2](#); section 4.03(e): "Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the council shall see fit, and make recommendations to Senate thereon."

**Governance Path:**

Department approval date (mm/dd/yy): 11/30/22

Graduate Studies and Postdoctoral Affairs review date (mm/dd/yy): 02/06/23

Faculty approval date (mm/dd/yy): 01/11/23

Senate Graduate and Research Council approval date (mm/dd/yy): 02/13/23

## Senate Graduate and Research Council

### Highlights/Rationale:

The Department of Kinesiology and Health Sciences (KHS) currently offers a wide range of courses to meet its graduate program requirements. Students within the Master of Kinesiology (MKin) course-based program are permitted to (and typically do) bundle specific courses together with common themes. The proposed change would formalize this common practice to allow students to obtain a recognized “Graduate Specialization” when they graduate, as well as enhance the marketability of graduates by signifying to employers that graduates have specific areas of expertise beyond the broad knowledge expectations of their degrees. These two proposed Graduate Specializations have been crafted such that each contributes towards the certification requirements for career-relevant regulatory bodies (e.g. Canadian College for the Certification of Professional Ergonomists, Canadian Society for Exercise Physiology, College of Kinesiologists of Ontario).

### Documentation Provided:

Program Revision Template - Appendix

Prior to form submission, review the [content revision instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Health

**Program:** Master of Kinesiology (MKin)

**Program contact name(s):** Andrew Laing, Alicia Nadon

**Form completed by:** Andrew Laing, Alicia Nadon

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Updating the MKin degree requirements to include two new Graduate Specializations.*

Is this a [major modification](#) to the program? Yes

**Rationale for change(s):**

*The Department of Kinesiology and Health Sciences (KHS) currently offers a wide range of courses to meet its graduate program requirements. Students within the Master of Kinesiology (MKin) course-based program are permitted to (and typically do) bundle specific courses together with common themes. The proposed change would formalize this common practice to allow students to obtain a recognized “Graduate Specialization” when they graduate.*

*At UW, Graduate Specializations refer to areas of concentration related to the collective strengths of the program’s faculty and staff. Based on consultations with a host of stakeholders (including students, industry and policy-related partners), there is perceived value in adding Graduate Specialization options within the MKin program to recognize a specific area of expertise on student transcripts. This will assist with recruitment of potential incoming students, and support programming decisions by the department. In addition, this recognition will enhance the marketability of graduates by signifying to employers that graduates have a specific area of expertise beyond the broad knowledge expectations of their degrees.*

*The proposed Graduate Specializations have been crafted such that each contributes towards the certification requirements for career-relevant regulatory bodies (e.g. Canadian College for the Certification of Professional Ergonomists, Canadian Society for Exercise Physiology, College of Kinesiologists of Ontario).*

*This proposal aligns with recently initiated Graduate Research Fields for thesis-based graduate students in the Department of Kinesiology and Health Sciences.*

**Proposed effective date:** Term: Spring Year: 2023

Current [Graduate Studies Academic Calendar \(GSAC\)](#) page (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/department-kinesiology-and-health-sciences/master-kinesiology-mkin>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• <b>Graduate Academic Integrity Module (Graduate AIM)</b></li> <li>• <b>Courses</b> <ul style="list-style-type: none"> <li>○ Completion of a minimum of 4.00 units of graduate courses (e.g., 8 courses each at a 0.50 unit weight). Of the courses, at least 0.50 units must be related to quantitative or qualitative analysis, such as research methods, modelling, mathematics, or statistics. In addition, a minimum of 2.00 units must be from the Department of Kinesiology and Health Sciences. All graduate courses must be assigned a numerical grade. Students must obtain an average of at least 75% in the set of courses which they present in fulfilment of course requirements. A grade below 70% on any individual course or an average below 75% on the set of courses for the degree will result in a review of the student's status by the Department Graduate Committee. If a student receives a grade in any individual course below 60%, the Department Graduate Committee review may result in the requirement to withdraw from the program. If the student is permitted to proceed, any course with a grade below 60% will not be eligible towards the degree requirements, thus requiring the course to be repeated or additional course work to be completed.</li> </ul> </li> <li>• <b>Master's Seminar</b> <ul style="list-style-type: none"> <li>○ Students are required to complete a series of academic and discipline-specific seminars throughout their program of study.</li> </ul> </li> <li>• <b>Graduate Studies Practicum</b> <ul style="list-style-type: none"> <li>○ Complete the Graduate Studies Practicum milestone.</li> </ul> </li> </ul>	<p><b><u>Graduate specializations</u></b></p> <ul style="list-style-type: none"> <li>• <u>Human Factors and Ergonomics (HFE)</u></li> <li>• <u>Movement and Exercise Sciences (MES)</u></li> </ul> <p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• <b>Graduate Academic Integrity Module (Graduate AIM)</b></li> <li>• <b>Courses</b> <ul style="list-style-type: none"> <li>○ Completion of a minimum of 4.00 units of graduate courses (e.g., 8 courses each at a 0.50 unit weight). Of the courses, at least 0.50 units must be related to quantitative or qualitative analysis, such as research methods, modelling, mathematics, or statistics. In addition, a minimum of 2.00 units must be from the Department of Kinesiology and Health Sciences. All graduate courses must be assigned a numerical grade. Students must obtain an average of at least 75% in the set of courses which they present in fulfilment of course requirements. A grade below 70% on any individual course or an average below 75% on the set of courses for the degree will result in a review of the student's status by the Department Graduate Committee. If a student receives a grade in any individual course below 60%, the Department Graduate Committee review may result in the requirement to withdraw from the program. If the student is permitted to proceed, any course with a grade below 60% will not be eligible towards the degree requirements, thus requiring the course to be repeated or additional course work to be completed.</li> <li>○ <u>Students in the MKin program may choose to pursue one of the following Graduate Specializations:</u></li> </ul> </li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>○ The practicum requirement is met with a one-term, full-time, program-relevant internship/experiential placement (minimum of 420 hours) to be arranged by the student in consultation with the Department Graduate Committee. The placement, objectives, and work required to meet these objectives are to be approved by the Department Graduate Committee and the placement supervisor.</li> <li>○ Submit a discussion paper or case series related to the internship/experiential placement to the Department Graduate Committee.</li> </ul> <ul style="list-style-type: none"> <li>• <b>Graduate Studies Colloquium</b> <ul style="list-style-type: none"> <li>○ Complete the Graduate Studies Colloquium milestone.</li> <li>○ Integrate the training they received through their coursework and experiential practicum, and discuss in a seminar setting how this could be applied to a health or kinesiology-related issue.</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>• <b>Other requirements</b> <ul style="list-style-type: none"> <li>○ Meet with the Department Graduate Committee periodically to discuss course selection and program progress.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><u>1. Human Factors and Ergonomics (HFE)</u></li> <li><u>2. Movement and Exercise Sciences (MES)</u></li> </ul> <ul style="list-style-type: none"> <li>○ <u>A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MKin degree and the requirements associated with the Graduate Specialization. Students will be limited to one Graduate Specialization designation for their MKin degree.</u></li> <li>○ <u>All MKin Graduate Specializations consist of a minimum of 4 graduate level courses (worth a minimum of 2.0 credits) and this set is comprised of a mix of required and elective courses. Required courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization.</u></li> <li>○ <u>For any of the Graduate Specializations below, an equivalent course focused on the Graduate Specialization may replace a required or elective course, with the approval of the Department Graduate Officer.</u></li> <li>○ <u>The requirements for each of the Graduate Specializations are described below.</u></li> </ul> <ul style="list-style-type: none"> <li>○ <u>1. Graduate Specialization in Human Factors and Ergonomics</u></li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	<ul style="list-style-type: none"> <li>○ <u>To receive the Graduate Specialization in Human Factors and Ergonomics, students must successfully complete 6 required courses (worth a total of 2.5 credits):</u> <ul style="list-style-type: none"> <li>▪ <u>Required course(s):</u> <ul style="list-style-type: none"> <li>▪ <u>KIN 620 – Physical Ergonomics (0.5)</u></li> <li>▪ <u>KIN 623 – Organizational Ergonomics (0.5)</u></li> <li>▪ <u>KIN 622 – Professional Practice in HFE (0.25)</u></li> <li>▪ <u>KIN 622L – Professional Practice in HFE Lab (0.25)</u></li> <li>▪ <u>KIN 621 – Design, Modeling &amp; Simulation in HFE (0.5 credit)</u></li> <li>▪ <u>KIN 686 – Human Computer Interaction (0.5 credit)</u></li> </ul> </li> </ul> </li>   <li>○ <u>2. Graduate Specialization in Movement and Exercise Sciences</u></li>   <li>○ <u>To receive the Graduate Specialization in Movement and Exercise Sciences, students must successfully complete 3 required course(s) and 1 elective course(s) (worth a total of 2.0 credits):</u> <ul style="list-style-type: none"> <li>▪ <u>Required courses:</u> <ul style="list-style-type: none"> <li>▪ <u>KIN 655 Theory and Practice of Movement Assessment (0.5)</u></li> <li>▪ <u>KIN 691 Theory and Practice of Cardiorespiratory Assessment (0.5)</u></li> <li>▪ <u>KIN 693 Theory and Practice of Exercise Programming (0.5)</u></li> </ul> </li> <li>▪ <u>Elective course 1 (choose 1 from the following list):</u> <ul style="list-style-type: none"> <li>▪ <u>KIN 605 Nutrition and Exercise in Health and Performance</u></li> <li>▪ <u>KIN 658 Physical Activity and Cognition (0.5)</u></li> <li>▪ <u>KIN 688 Selected Topics in Kinesiology (0.5)</u></li> </ul> </li> </ul> </li> </ul>



Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	<ul style="list-style-type: none"> <li>• <b>Master's Seminar</b> <ul style="list-style-type: none"> <li>○ Students are required to complete a series of academic and discipline-specific seminars throughout their program of study.</li> </ul> </li>   <li>• <b>Graduate Studies Practicum</b> <ul style="list-style-type: none"> <li>○ Complete the Graduate Studies Practicum milestone.</li> <li>○ The practicum requirement is met with a one-term, full-time, program-relevant internship/experiential placement (minimum of 420 hours) to be arranged by the student in consultation with the Department Graduate Committee. The placement, objectives, and work required to meet these objectives are to be approved by the Department Graduate Committee and the placement supervisor. <ul style="list-style-type: none"> <li>○ <u>To receive the Graduate Specialization in Human Factors and Ergonomics, students must successfully complete their practicum in a domain related to human factors and/or ergonomics.</u></li> <li>○ <u>To receive the Graduate Specialization in Movement and Exercise Sciences, students must successfully complete their practicum in a domain related to movement and/or exercise sciences.</u></li> </ul> </li> <li>○ Submit a discussion paper or case series related to the internship/experiential placement to the Department Graduate Committee.</li> </ul> </li>   <li>• <b>Graduate Studies Colloquium</b> <ul style="list-style-type: none"> <li>○ Complete the Graduate Studies Colloquium milestone.</li> <li>○ Integrate the training they received through their coursework and experiential practicum, and discuss in a seminar setting how this could be applied to a health or kinesiology-related issue.</li> </ul> </li>   <li>• <b>Other requirements</b> <ul style="list-style-type: none"> <li>○ Meet with the Department Graduate Committee periodically to discuss course selection and program progress.</li> </ul> </li> </ul>

<b>Current Graduate Studies Academic Calendar content:</b>	<b>Proposed Graduate Studies Academic Calendar content:</b>

**How will students currently registered in the program be impacted by these changes?**

*Students currently registered in the MKin program will be able to obtain one of the Graduate Specialization designations if they fulfill the applicable degree requirements.*

- Department/School approval date** (mm/dd/yy): 11/30/22
- Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy):
- Faculty approval date** (mm/dd/yy):
- Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):
- Senate approval date** (mm/dd/yy) (if applicable):

## Senate Long Range Planning Committee

**For Recommendation**

**Open Session**

**To:** Senate

**Sponsor:** Vivek Goel, President and Vice-Chancellor  
**Contact Information:** Office of the President

**Presenter:** Vivek Goel, President and Vice-Chancellor  
**Contact Information:** Office of the President

**Date of Meeting:** **March 27, 2023**

**Item Identification:**

Vision document for the University of Waterloo: “Waterloo at 100: Vision paper draft March 17, 2023”.

**Recommendation/Motion:**

**Motion:** That Senate recommends the University of Waterloo’s Board of Governors endorse the draft vision document, Waterloo at 100, dated March 17, 2023, as presented herein.

**Summary:**

Waterloo at 100 is a long-term vision for the University of Waterloo at its 100<sup>th</sup> anniversary in 2057.

**Jurisdictional Information:**

This item is submitted to Senate in accordance with the University of Waterloo Act, 1972, section 22:

“Powers of the Senate

...

(j) to undertake, consider and co-ordinate long-range academic planning;  
(k) to consider and to recommend to the Board of Governors policies concerning the internal allocation or use of University resources;”

**Governance Path:**

The Senate’s Long Range Planning Committee, on March 6, 2023, reviewed and recommended for endorsement the draft of the Waterloo at 100 vision document.

## Senate Long Range Planning Committee

### Previous Action Taken:

Senators joined the Board of Governors' annual retreat on September 28, 2022 for agenda items discussing the Waterloo at 100 vision.

In Senate's meeting of October 17, 2022, members received a discussion paper and presentation for information, through which discussion points were noted for the development of the vision document.

### Highlights:

Building on the University's current strategic plan, past institutional assessments and reports, and through consultations with thousands in the community over the past thirteen months, Waterloo at 100 provides a long-term vision for the institution's 100<sup>th</sup> anniversary in 2057.

Waterloo's identity is defined as "a global research-intensive university, renowned for entrepreneurship and innovation, and providing co-op and work-integrated learning at scale with impact."

The university envisions for itself at 100 to be "a community of collaborative, creative, innovative and entrepreneurial learners, problem-solvers and leaders who seek to understand, identify and mobilize equitable and sustainable solutions for the future of humanity and our planet."

Against its Global Futures framework for the areas of impact the university aspires to, Waterloo at 100 will enact its vision through three guiding principles (rediscover unconventional; lead globally, act locally; coordinate and collaborate) and in building on the spirit of its unconventional foundation and differentiating strengths. The document outlines four Forecasts to 2057: Culture, Graduates, Knowledge, and Campus. Coupled with the Forecasts is a vision for how the institution will evolve its differentiators to provide unique value in the world: (1) leading and innovating co-operative education and work-integrated learning preparing students, community, and industry for the changing nature of work; (2) tackling global challenges at the intersections of the Futures through fundamental and applied research; (3) continuing to hold a global leadership position that empowers our community to generate new tech- and social ventures at scale while rooted locally; and (4) embedded in and collaborating with our region to support local growth ensuring greater access, prosperity, and wellbeing.

Five goals are presented as immediate next steps in advancing the vision: (1) evolving our values, (2) aligning our mission to the Global Futures; (3) establishing a pillar for social and policy engagement; (4) launching an incubator for ideas to advance Waterloo at 100; and (5) enhancing our planning and performance in support of the vision.

### Next Steps:

Following a successful motion, the draft paper of March 17, 2023 will be presented to the University's Board of Governors at its April 4, 2023 meeting for endorsement.

### Documentation Provided:

- Waterloo at 100: vision paper draft March 17, 2023

# **WATERLOO AT 100**

*Vision paper draft March 17, 2023*

# Foreword

The University of Waterloo defied tradition when it was founded in 1957. We boldly advanced an educational experience that integrates academic and research excellence with work experience. In our always changing world, we must continue to be bold and unconventional as we help shape a better future for humanity and the planet.

Throughout 2022, the University set out to develop a vision that would steer our long-term evolution and help us answer: What do we as an institution aspire to be known for by our 100th anniversary in 2057?

Thousands in the Waterloo community participated in consultations and provided invaluable feedback to develop ideas for the University's future. What struck me in these conversations was the genuine pride in our work and care for our institution evident across our university and wider community. Throughout the discussions, participants paid tribute to our past, honestly assessed what we could improve today and looked ahead with clear-eyes and optimism. The result is a long-term vision by and for the University and its broader community.

It is a privilege to live and work in this community. I acknowledge that our work takes place on the traditional territories of the Neutral, Anishinaabeg and Haudenosaunee peoples. It has been a great privilege to learn from our Indigenous elders and communities in this process. Their dedication to the idea that the decisions we make today should result in a sustainable world seven generations in the future has been a deep inspiration for this vision for Waterloo.

Drawing on the unconventional spirit of the University's founding, this community put forward ideas to reinvent the culture of our institution as we build a better future. In the consultations, I heard broad acknowledgement that the world around us is rapidly changing and that within the higher education sector, other institutions are gaining ground where we have historically led. We discussed how we can draw on our unique strengths to not only navigate uncertainty in the future, but to help shape that future for the betterment of society.

In the 1950s, we disrupted post-secondary education in Canada with what was then an unconventional model of education. Now is the time to reinvent what makes us unconventional: to nurture the skills, expertise, and spirit within us to be known as the problem-solvers and leaders in 2057.

A few years after founding this University, Gerald Hagey, reflected on the progress of the institution and where it might be headed. He said:

*"I cannot perceive a time when the universities will not be challenged by new requirements from our society. Equally, I cannot foresee a time when the University of Waterloo will be so hidebound by tradition that it cannot adjust itself to providing education to meet these needs."*

Those words from 65 years ago remain so true today. I hope they, and the vision outlined in this document, continue to inspire and push us forward for the next 35 and beyond.

I am deeply grateful to all who participated and shared their feedback and ideas. It is an honour to work with you as together we take the path ahead into bold new futures.

Vivek Goel  
President and Vice-Chancellor

## 1. A picture for the future

At the University of Waterloo, we pride ourselves on identifying and solving big, complex challenges facing humanity and our planet. What would the future look like if we solved them all?

We opened our consultation sessions by asking our community for their vision of the future. We know we cannot predict the future, but we are confident about our ability to help shape it for future generations. This is what you shared with us:

*Societies are just and fair. Governments and institutions uphold their duties and have rebuilt trust with the public. Humans live healthier, longer lives. The survival of plants and animals, on land and in water, is ensured. Natural resources are protected and equitably distributed. The threat of climate change is a distant memory. Technology evolves responsibly as it continues to enable advancements for humanity. There is enough economic prosperity for all, and everyone has equal access to opportunity to reach their full potential.*

*In short, humanity is thriving and so is our planet.*

Given today's state of the world this vision may appear a distant hope. But together we can strive towards it with partners in our community and around the world. We can harness the unique strengths of our institution to prepare the leaders of tomorrow and equip them with the skills and experiences necessary for a rapidly changing world.

Call us dreamers, but at the University of Waterloo we've been known as doers for more than 65 years. We can help make these dreams a reality.

## 2. A vision for Waterloo at 100

This is our vision for Waterloo at 100.

### WHO WE ARE

We are a global research-intensive university, renowned for entrepreneurship and innovation, and providing co-op and work-integrated learning at scale with impact.

### WHAT WE ENVISION

A community of collaborative, creative, innovative and entrepreneurial learners, problem-solvers and leaders who seek to understand, identify and mobilize equitable and sustainable solutions for the future of humanity and our planet.



To realize this vision, we will follow these guiding principles:

## **REDISCOVER UNCONVENTIONAL**

Universities tend to look the same. Rather than chase convention, Waterloo must resist isomorphism. We must once again be unconventional, transforming education that responds to and shapes our future. We are more valuable to the world when we add uniquely Waterloo strengths. We can do this when we align our work to shape Global Futures, based on our evolving strengths in co-op and work-integrated learning, innovation and entrepreneurship, fundamental and applied research that is connected, and strong relationships to our surrounding communities.

## **LEAD GLOBALLY, ACT LOCALLY**

As we continue to address global challenges and make impacts around the world, we will also continue to contribute to our local surroundings through collaborative relationships. As we go out into the world with innovative solutions to challenges, we should also ensure we have addressed them in our communities. Change starts at home. As global leaders, we live our values and apply our knowledge on and off our campuses.

## **COORDINATE AND COLLABORATE**

To unlock the full potential of our university, we will create a culture of coordination and collaboration both within and beyond our institution. Models that served us well in early days of rapid growth have often resulted in siloed activities. Today, we operate in a complex environment that requires teams to work together across many units internally and with external partners globally and locally. We need to find ways to coordinate, collaborate and cocreate to build an empowered organizational culture with an emphasis on accountability, nimbleness and impact. This cultural shift will also mean instilling collaboration as a mindset and skill in our students and valuing collaborative connections with community and global partners.

### 3. Building on our unconventional foundation

#### **WE NEED TO BET ON OUR STRENGTHS TO ACHIEVE SOMETHING GREAT IN THE FUTURE**

To position ourselves for success in the future, we can draw lessons from our past. Our formative years were marked by bold approaches to education that challenged conventions in university education.

Our founders sought to build an institution that would serve the needs of the community and power the local and broader economy. They built a strong bond between academia, government and business that continues today.

When we deploy our differentiating strengths together, drawing on our unconventional spirit, we achieve what that no other university can.

#### **CO-OP AND WORK-INTEGRATED LEARNING**

Co-operative education was a new concept and guiding value in the founding of the University. Waterloo today stands as a global leader in co-operative education and work-integrated learning. No other research university in the world does co-op at the same scale and impact as Waterloo.

#### **FUNDAMENTAL AND APPLIED RESEARCH THAT'S CONNECTED**

Fundamental research excellence infused with creative problem solving has distinguished Waterloo scholarship. Our research is uniquely energized by co-op and entrepreneurship and is connected to both immediate challenges and long-term possibilities for the good of our communities and the world.

#### **INNOVATION AND ENTREPRENEURSHIP**

Ideas thrive at Waterloo. Innovation and entrepreneurship have been part of Waterloo's story since our inception. Collaborating with our community, we have helped build an entrepreneurial ecosystem that has achieved global recognition. Today, we lead in providing our students and researchers access to the technologies, tools, supports and connections they need to develop and grow their ideas.

#### **CONNECTED TO A THRIVING REGION**

Our deep connection and commitment to our local region and community traces back to our founding and enriches each of our other differentiators. Local connections initially powered Waterloo's co-operative education program and today continue to employ thousands of students at any given time. Our region has grown alongside our institution and now includes many globally recognized institutions, organizations and businesses. Connections to our surroundings help shape and sustain our entrepreneurial drive. We need to constantly connect with our community and discover how we can support and propel our home communities forward.

## 4. A changing PSE landscape

As we look towards humanity's futures, global transformational forces are changing the post-secondary education (PSE) landscape.

Digital and technological progress has allowed more flexibility in teaching and learning, with the pandemic accelerating applications in remote and hybrid education. At the same time, the pandemic has underscored the urgency of improving mental health and wellness supports for students and employees.

Institutions are grappling to maintain or grow public trust in the face of widespread misinformation and disinformation. New entrants to the sector, such as online, private and other non-traditional institutions present new competition in PSE.

The sector has a responsibility to reckon with our country's colonial past and ongoing harms and recognize that our students, faculty and staff are shaped by different lived experiences and backgrounds. Many face barriers from systemic discrimination. Our campuses are microcosms of society—they must be decolonized and become more accessible, equitable and anti-oppressive.

Change in the sector means others have embraced so much of what once made Waterloo unique. Work integrated learning, entrepreneurship and research with industry were once strengths few besides Waterloo could claim. Today, many of our competitors are making serious commitments in these areas, blending us in with the crowd.

We face a generational opportunity to address these big challenges and to bring fresh relevance to post-secondary education. To fulfil our ambition and regain our distinctiveness, now is the time to reimagine a continued unconventional role for the University of Waterloo in this rapidly changing landscape.

## 5. Global Futures

### **OUR WORLD IS CHANGING, AND WE MUST EVOLVE WITH IT.**

The world continues to face multiple, compounding major crises that cut across society, health, the environment, technology and the economy.

- The COVID-19 pandemic that has exacerbated social and economic inequities and exposed the fragility of our healthcare and education systems.
- The breakdown of the rules-based international order that has enlarged geopolitical tension and ongoing armed conflict in many parts the world.
- Demographic transitions that will result in many countries, including our own, having a much older population, while other regions, such as Africa, grow significantly.
- Technology that is dramatically disrupting the way we work, live and connect.
- We are facing up to the ongoing harms of colonialism, the need for reconciliation with Indigenous peoples, and action to address hate-motivated injustice and violence.
- Our biggest threat remains the climate catastrophe placing into unparalleled urgency the very survival of our planet.

These complex challenges are felt locally and globally. They are pressing opportunities for us to work with others towards new approaches to teaching and learning and to the creation of new ideas and collaborative solutions.

### **ADDRESSING THE WORLD'S MOST PRESSING CHALLENGES**

The future we imagine for humanity and our planet is at the core of the Global Futures, which will inspire collaborative and interdisciplinary approaches in our educational programs, research, and innovation activities. To make the most impact, we need to focus on the areas where we can leverage our strengths and differentiators.

Five interconnected Futures for humanity, aligned to our academic and research strengths, help us to focus and co-ordinate our work across disciplines and organizational boundaries. Each overlap with the others and it's in these intersections where Waterloo's tenacity for identifying new opportunities, solutions and leading change will shine.

### **FOUNDATIONS IN FUNDAMENTAL RESEARCH AND SCHOLARSHIP**

**Underpinning our work across these Futures is our relentless commitment to fundamental research and scholarship.**

A commitment to excellence in fundamental research and scholarship advances our understanding of ourselves, our planet and the cosmos and enables the ongoing development of technologies, innovations and applications we cannot imagine today.

We must always keep at heart the core mission of the University to advance learning and knowledge through teaching, research, and scholarship, nationally and internationally, in an environment of free expression and inquiry. Academic institutions such as ours occupy a privileged position in society; with that comes a responsibility that our work serves society to protect and preserve the values of our community and nation.

## SOCIETAL FUTURES

**How do we share and translate knowledge to positively advance society's future and ensure that communities and everyone within them thrive?**

Demographic transformations, increased migration, digitization and automation, shifting geopolitical relations and declining trust in democratic institutions are among the forces transforming society. While there is a deeper understanding of the global legacies of colonialism and social injustices, our social echo chambers contribute to polarization and disinformation, stifling constructive dialogue across different points of view and lived experience.

Across our academic, research and service activities we should consider the impacts on society. Within our campuses, which are mirrors of society, we can innovate and apply new models to ensure every member of our community belongs and thrives.

## HEALTH FUTURES

**How will we ensure everyone achieves optimal health and well-being? How can we redesign our health systems through technological advances, virtual care and health data applications?**

Many physical and social determinants of health contribute to our well-being yet too many individuals and communities do not achieve the best possible health status. Those that are sick or injured navigate complex health systems that are unsustainable, under pressure from escalating costs, and facing shortages of health professionals and an aging population.

Waterloo is poised to take a unique leadership position in this space by focusing on our strengths at the intersections of health, society, technology and entrepreneurship and engaging partners to co-create solutions that advance population health and support the development of more sustainable community-based health systems.

## SUSTAINABLE FUTURES

**How will we enact the social, economic and geopolitical changes required to ensure a prosperous future for humanity and the planet?**

The sustainability of our quality of life is intricately connected to our social, economic and environmental well-being. While the global climate emergency is the greatest threat to our collective future, we are also challenged in preserving biodiversity, ensuring clean water for all and producing enough food for a growing planet.

Waterloo is already a leader in sustainability research and education. We can build on this strength to help direct society towards a sustainable future. We can lead across our campuses by implementing innovative solutions to achieve and exceed our targets for sustainability.

## TECHNOLOGICAL FUTURES

### **How will we lead the next technological transformation to ensure a safe and human-centered digital future?**

Technology continues to accelerate at an exponential pace, bringing both benefits and new challenges. Emerging technologies are often adopted before the full impact on culture and human behaviour is understood.

We have seen that big data can be harnessed to help governments and organizations make informed decisions and address equity and equality concerns. But this has also led to a loss of privacy and inequitable distribution of wealth. Cybersecurity and gaps in data literacy are ongoing risks. The world is now demanding that innovators develop technology with greater responsibility and accountability.

As Waterloo continues to lead in technology and innovation in critical areas, we have an opportunity to shape technology to serve society, rather than letting technology shape us. Although it is impossible to predict technological advances over the next 35 years, we can help shape future technologies for good. Instead of asking “what?” we will ask “what for?” We will integrate Waterloo’s strengths to advance technology that is responsible, sustainable and socially viable.

## ECONOMIC FUTURES

### **How do we create equitable and resilient local and global economies to lead us into the future?**

Technology is transforming the economy and the world of work with the rise of remote and hybrid workers, increased automation and artificial intelligence. New technology can increase efficiency and flexibility, but the workforce must keep up with new systems. Life-long learning will become increasingly important as individuals need to upskill, reskill and reimagine their careers in addition to benefits for personal growth and enlightenment.

At the same time, labour shortages, disruptions to supply chains, and geopolitical and digital threats have shown us the vulnerabilities and risks inherent in our economy. Canada faces serious challenges with productivity growth, and without a significant change in course we will not have the resources necessary to advance the Futures above and the challenges ahead.

We have the foundation to shape innovative ecosystems and develop talent to help create more equitable, resilient and future-proofed economies. Already a leader in work-integrated learning, we can expand our mandate to support learning-integrated work to help organizations and individuals keep pace with technology and the changing world of work. We can grow our business and entrepreneurial education strengths to include leadership in social entrepreneurship and innovation targeting the public good.

## 6. Our journey to 2057

### WHERE ARE WE GOING AND HOW WILL WE GET THERE?

We have bold ambitions for the impact we want to make on the world. To enable these goals, we need to look inward to focus, organize and forecast into the future how we work and create the right environment for our community to thrive.

### FORECASTS

These focus areas will help us rediscover unconventionality. For each focus area, we will develop near and mid-term actions to propel us towards these long-term goals.

#### CULTURE 2057

Who we are as an institution starts with our culture. We value our people and recognize our role as an employer that attracts outstanding talent. We will build on Waterloo's culture through more collaboration and engagement, aligned to our values and with a commitment to bettering humanity and our planet.

- We will be nimble and coordinate across disciplinary and organizational boundaries for the betterment of our university and our students.
- We will embrace decolonization, Indigenization, inclusivity, equity, and anti-racism into our organizational culture.
- We will ensure the physical and mental health and well-being of our students and employees and support them to achieve success in their personal and professional lives.

#### GRADUATES 2057

Today's Waterloo students will be leaders and change-makers in 2057. Our goal is to produce uniquely Waterloo graduates who are transformed by their education to drive positive change in the world. We will embrace new tools and technologies to improve quality, flexibility and accessibility of teaching and broader educational experiences. We will develop innovative models for our educational programs to reach diverse audiences. Our graduates will be:

- Global citizens centred on humanity, the planet and equity, and connected to their local communities.
- Future leaders who leverage a Waterloo education that integrates knowledge and problem-solving within and at the intersections of our Global Futures.
- Alumni who never stop learning about themselves, the diversity around them and the world they affect while remaining connected to our institution and community.

## KNOWLEDGE 2057

Waterloo's excellence in research coupled with constantly evolving education will remain the foundation for practical applications and transformative innovations.

- We will seek and impart knowledge that improves society, that matters locally and globally. Our research and education will be excellent, relevant and trusted.
- We will value knowledge that counts over being counted. We will incentivize students and researchers to make positive changes in society.
- We will not rely solely on traditional metrics of student achievement, faculty scholarship and teaching excellence. We will also assess students for their contributions to society and impact and we will find new ways to reward our community for their innovation, collaboration and collective impact in research and education.

## CAMPUS 2057

Where we teach, learn and do our work will reflect our values and culture. While our future campuses are both physical and virtual, we are committed to enabling uniquely personal experiences. We will continue to focus on ensuring that we deliver unique opportunities for engagement that can only be had with a physical presence on our campuses. Physical spaces will remain important places to gather, find and build community, while technology will enhance and enable our work and connections.

- Our campus is financially and environmentally sustainable, and carbon neutral.
- Our campus is decolonized, inclusive, equitable and accessible physically and economically. Individuals of all abilities, backgrounds and identities should thrive through a deep sense of belonging.
- Our campus promotes and prioritizes physical and mental health and well-being.

## EVOLVING OUR DIFFERENTIATORS

**Remaining true to our core strengths, what do we want the University of Waterloo to be known for on our way to 2057? How will we get there in ways only Waterloo can?**

Today we are globally recognized for innovation in STEM – Science, Technology, Engineering and Mathematics – and commercialization of ideas. There is often less awareness of our education and research strengths across the humanities, arts, social sciences, environment and health. Leveraging our strengths in integrating disciplines and working at the intersections, we can also be relied upon as innovators for social good.



These aspirations guide our evolution, so we continue to innovate and lead in our differentiators.

## THE FUTURE OF CO-OP AND WORK INTEGRATED LEARNING

Waterloo was a pioneer in experiential learning and we continue to partner with employers to create co-operative education that equips our students to become change-makers and leaders in their chosen field. As students go out and help improve the world through co-op, they return to the University to share experiences and inspiration that transform our curriculum and community.

We will continue to lead and innovate in this space by expanding opportunities for our undergraduate and graduate students and evolving our programming to keep pace with social, technological and economic change.

### By 2057:

- **Our co-op models have evolved with the changing nature of work to be flexible, open and digital, and support employers and industry to evolve accordingly.**
- **We are a global leader in graduate student work-integrated learning that is connected to our research.**
- **Co-op placements for social good — in not for profits, community organizations, global non-governmental organizations — are widely available and pursued by our students.**

## THE FUTURE OF CONNECTED FUNDAMENTAL AND APPLIED RESEARCH

Rigorous and deep inquiry is a fundamental pillar at Waterloo. We do not shy away from unconventional or emerging disciplines or subjects. We thrive where disciplines intersect.

Focusing on where we can make the most impact, we will continue tackling global challenges that will benefit our world for generations. Unified by the Global Futures, we will work collaboratively across disciplines, organizational boundaries and with partners across sectors.

We will expand our research through partnerships that promote Open Science and ensure the knowledge we create is responsibly developed and mobilized for the greatest impact on humanity and our planet.

### **By 2057:**

- **We are a world leader in impactful interdisciplinary research and graduate programs that address global and local challenges at the ever-evolving intersections of the Global Futures.**
- **We contribute excellent fundamental research and scholarship in focused areas of strength.**
- **We are recognized leaders in social and policy engagement.**

## **THE FUTURE OF INNOVATION AND ENTREPRENEURSHIP**

We will continue to be bold innovators and leaders in entrepreneurship, adding pillars in social innovation and policy engagement aligned with the Global Futures. We will apply our innovative and entrepreneurial spirit in our own communities including our campuses, working with local stakeholders on transformational projects for the region and growing global companies that scale. At the same time, we will use our position as a technology leader to advance ethical and responsible technology.

### **By 2057:**

- **We are the global leader in empowering our community to generate new technology ventures for the good of humanity.**
- **In collaboration with our community partners ventures founded in our region scale successfully with global impact while staying rooted here.**
- **We are a global leader in social and policy innovation.**

## **THE FUTURE OF COMMUNITY AND CAMPUS CONNECTIONS**

We are proud to be an active member of our surrounding community and of our role in catalyzing and sustaining Waterloo region's growth into the globally recognized innovation hub it is today. This prominence for innovation will grow to include social and community impact. At the same time, we recognize and promote the development of local economies everywhere as the interdependencies across regions will only deepen.

Our concept of community starts on our own campuses. Our physical and virtual spaces should reflect our bold aspirations for society and the planet: environmentally and financially sustainable, decolonized, accessible, equitable, inclusive and centered on our community's well-being.

Our campuses are also places where we can apply our innovations and knowledge to help improve the lives of those within these spaces and our surrounding community. For example, as our surrounding region grows, we will work with partners on innovations to

solve local issues such as improving our health systems, ensuring adequate housing and social supports, meeting transportation needs and addressing sustainability challenges.

**By 2057:**

- **We will be deeply embedded in the region's social, economic, and cultural fabric, enriching the experience of students, faculty and staff who connect and contribute to local businesses and communities.**
- **We work collaboratively as an institution and with our local partners to ensure that every member of our community has fair access to prosperity and well-being.**
- **Our decolonized, Indigenized, inclusive, accessible and sustainable campuses are integrated into our surrounding communities.**

## **DEFINING UNCONVENTIONAL FUTURES**

Beyond these forecasts, we will strive to uphold a university culture that allows us to develop and apply bold and unique innovations in education and research far into the future. To 2057 and beyond, we will continue to ensure we lead at being unconventional, to define new futures for the University and for humanity.

## 7. What's next

We have laid out some bold aspirations for the University of Waterloo's future. We have a lot of work ahead over the next 35 years, but every journey starts with one step.

Our immediate goals to get us started:

- **Evolving our values:** To support the change we need to realize this vision of Waterloo at 100, we will start by revisiting our values as an institution to catalyze a culture shift to work more nimbly and collaboratively. This will also include addressing the President's Anti-Racism Taskforce's recommendation to revise our institutional values to apply lenses of anti-racism and anti-oppression.
- **Aligning to our Global Futures:** We will collaborate and organize our activities in education, research and service more effectively around the areas of impact we seek to make. We will reimagine interdisciplinary research and academic activity, identifying strategies and collaborative energies towards realizing the Futures.
- **A pillar for social and policy engagement:** To create the impacts we desire in our Global Futures we must build up our capacity for social and policy engagement that is more integrated with scientific innovation and technology. The evolution of our differentiators depends on being more socially engaged, robust and relevant. A range of efforts will be planned for in education, research and knowledge mobilization to drive this new emphasis at Waterloo.
- **A place for ideas:** As we evolve our institutional culture with an emphasis on collaboration and coordination, the Waterloo at 100 Incubator will help translate big and small ideas from the university and surrounding community to make this vision reality. Many such ideas will respond to impacts desired within and at the intersections of the Global Futures. Others will relate to organizational effectiveness to evolve how we get things done. Some will create ideas for working with local and global communities in new ways. Waterloo will back the bold ideas that project us into the future.
- **Our planning and performance:** To keep us on track we will set ourselves short-term priorities against this long-term vision. Many of the initiatives from our current strategic plan will be continued against Waterloo at 100 goals. New performance indicators will be set, aligned to our vision. Annual integrated planning and rolling multi-year budgeting will enable us to be more agile and collaborative across portfolios. This step towards more transparent and integrated planning will be a key enabler to everything else in Waterloo at 100.

This is just the beginning. We look forward to working with the University community and our partners to achieving our vision for Waterloo at 100.

# Senate Long Range Planning Committee

**For Information**

**Open Session**

**To:** Senate

**Sponsor:** James Rush  
**Contact Information:** Vice-President Academic and Provost

**Presenter:** James Rush  
**Contact Information:** Vice-President Academic and Provost

**Date of Meeting:** **March 6, 2023**

## **Item Identification:**

Senate Long Range Planning Committee Report to Senate for the Open Agenda

## **Summary:**

The Senate Long Range Planning Committee met on 6 March 2023 and has provided a summary of the following items to Senate for information as part of the regular and consent agenda.

## **Jurisdictional Information:**

3.04 The Long Range Planning Committee shall have the following powers and duties:

....

- c. To undertake such studies as Senate may designate from time to time.
- d. To report to Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by Senate to the committee from time to time.

## **Governance Path:**

Senate, 20 June 2022

Senate Long Range Planning Committee, 26 January 2023

## **Highlights:**

### **Senate Governance Review – Committee Terms of Reference.**

The Committee began its review of its Terms of Reference, as recommended in the Senate Governance Review (Recommendation 28 and 31). The Committee reviewed a summary of its discussion of the previous meeting; discussed the strategic nature of the mandate; and opportunities for presentations at Senate to come to the Committee. The Committee agreed that it would be productive to have a rubric brought forward for its next meeting that identified potential changes to its terms of reference based on discussions to date, and other factors for consideration.

## Senate Long Range Planning Committee

### Next Steps:

The Committee will continue its discussions on considering its terms of reference in relation to the Senate Governance Review recommendations.

## For Approval

## Open Session

**To:** Senate

**Sponsor:** Vivek Goel  
**Contact Information:** President and Vice-Chancellor

**Sponsor:** James Rush  
**Contact Information:** Vice-President, Academic and Provost

**Presenter:** James Rush  
**Contact Info:** provost@uwaterloo.ca

**Date of Meeting:** March 27, 2023

**Item Identification:**  
2023/24 Operating Budget

**Recommendation/Motion:**

That Senate recommend that the Board of Governors approve the 2023/24 Operating Budget, as presented.

**Jurisdictional Information:**

This item is being submitted to Senate in accordance with [Senate Bylaw 2](#); section 2.04(c): "To receive each year from the vice-president, academic & provost, for consideration, study, and review, on behalf of Senate, a detailed operating budget for the university and to make recommendations to Senate thereon."

**Governance Path:**

Senate Finance Committee, 15 February 2023  
Finance & Investment Committee (Board of Governors), 9 March 2023  
Senate Finance Committee, 15 March 2023  
Senate, 27 March 2023  
Board of Governors, 4 April 2023

**Highlights/Rationale:**

[Senate Finance Committee](#) met on 15 February 2023 to receive updates on the 2022/23 Operating Budget and the 2023/24 Operating Budget scenario. On 15 March 2023, the Committee considered the proposed 2023/24 Operating Budget, and recommended that the Senate recommend that the Board of Governors approve the budget as presented.

The 2023/24 operating budget was presented by James Rush and the presentation included: overall approach and considerations related to the budget; key assumptions for the budget development (revenue and expenses) alongside related risks; approaches to risk mitigation; challenges anticipated for 2023/24; presentation of the 2023/24 operating budget which reflects a budget deficit; and strategic investments for 2023/24 including supports for interdisciplinarity, people and community and student support.

The Committee discussed how enrolment and tuition effects differ across programs and faculties and sharing of this information with the Committee; materials included in the meeting package, additional details regarding the Blue Ribbon panel, including membership; use of money allocated for risk mitigation as well as use in the event the full amount is not spent; separation of funds relating to the operating budget and other University funds which are restricted for specific purposes (research, endowment, etc.); status of responsibility centre management budget allocation model discussions; investments related to students; budget related to taxes, insurance and utilities; and if the University earned interest on paying salaries on a monthly (versus more frequent) basis.

The Committee requested that it be engaged in discussions related to responsibility centre management budget allocation model as the model develops and relative to the Senate Governance review recommendations.

The Committee requested that reports relating to total numbers of faculty and staff, similar to those provided in prior years, be distributed to the Committee for information in advance of the Senate meeting.

**Documentation Provided:**

Appendix - 2023/24 Operating Budget, with covering note



**University of Waterloo**  
**Senate**  
**March 2023**

**FOR APPROVAL**

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**Recommended Operating Budget 2023/24**

The 2023/24 Operating Income and Expense budget for review and approval is included in Attachment 1.

Executive Summary

The opening budget includes a small budget deficit of \$4m (less than 0.5% of income), which the University commits to working on throughout the year to achieve a balanced budget by the end of the year.

The University is dealing with continued funding environment restrictions and expense growth. On March 2, 2023, the Ontario Ministry of Colleges and Universities (MCU) announced that for the 2023-24 academic year the province is: continuing a general freeze on tuition fees for all domestic Ontario students; providing colleges and universities the flexibility to increase tuition fees for domestic, out-of-province students by up to 5%; and, providing each institution the opportunity to submit business cases for addressing tuition anomalies for up to three programs, with specific guiding criteria, with a mid-March deadline for submissions. Approval timelines for such submissions are uncertain but likely to occur after Board Budget approval timelines, and the financial impact of any such adjustments is likely to be immaterial to the overall tuition revenue scenario presented. In addition, MCU announced the Blue Ribbon Panel on quality, accessibility and sustainability in the PSE sector which is expected to provide advice and recommendations to the Minister of Colleges and Universities on a long-term tuition-fee policy.

Managing the cumulative impact of the 2019/20 10% domestic tuition cut, and subsequent domestic tuition freeze is becoming more challenging to manage each year, because expenses continue to increase.

In the 2023/24 year, the increase in expenses exceeds the increase in income, which has led to challenging decisions in building the budget.

Income

The income budget is increasing by \$10.9m to \$883.8m. The \$10.9m increase in the income budget relates mainly to increases in tuition of \$6.4m, co-op and student services fees of \$2m and interest income of \$2m. The income budget for tuition reflects a 0% domestic undergraduate Ontario tuition rate increase and a 5% domestic undergraduate out-of-province tuition rate increase as well as the international tuition rates previously approved by the Board of Governors.

The \$6.4m increase in tuition income relates to tuition rate increases of \$25.8m, enrolment reductions of (\$19.6m) and a decrease in transfers to affiliated and federated institutions of the University of Waterloo of \$0.2m.

## Expenses

The expense budget is increasing by \$15.2m to \$887.8m. The \$15.2m increase in the expense budget relates to mainly to salaries of \$17m and benefits of 5.9m, offset by reductions in other non-salary expenses of \$4m (mainly a reallocation to salary budget), a budget reduction of \$2.7m, and increased cost recoveries of \$1m.

The salary budget increase of \$17m reflects increased costs for salary increases of \$12m and for new positions of \$5m. The salary increases include a 1% scale increase and merit increases, under the current salary agreements in place through to April 30, 2024. It is important to note that these salary agreements were put in place under Ontario Bill 124 salary scale restrictions. An Ontario Superior Court (OSC) of Justice decision has subsequently declared this legislation to be of no force and effect, however, the Ontario government is appealing this court decision. The University has committed to its employee groups to discussions on the reopener clauses in the current salary agreements given the OSC decision. The exact impacts of this on the 2023/2024 budget are uncertain at this time; updates will be provided when possible.

**UNIVERSITY OF WATERLOO**  
**2023/24 Operating Income Budget (in thousands)**

**Senate**  
**March 15, 2023**

	2022/23 Base Budget	Increase / (Decrease) \$	2023/24 Base Budget	Notes
<b>INCOME</b>				
Operating Grant				
Enrolment	137,423	(25,155)	112,268	Note 1
SMA3 Performance Outcomes	113,200	25,155	138,355	Note 1
Special Purpose	5,550	-	5,550	
International Student Recovery	(5,400)	400	(5,000)	
Transfers to AFIW	(13,220)	70	(13,150)	
	<u>237,553</u>	<u>470</u>	<u>238,023</u>	
Tuition				
Domestic - Undergraduate	240,200	(500)	239,700	Note 2
Domestic - Graduate	27,500	(200)	27,300	
International - Undergraduate	248,400	8,900	257,300	Note 3
International - Graduate	57,100	(2,000)	55,100	Note 4
Transfers to AFIW	(20,790)	240	(20,550)	
	<u>552,410</u>	<u>6,440</u>	<u>558,850</u>	
Other Revenue				
Co-op Recovery	26,300	800	27,100	Note 5
Student Services Fees	14,970	1,240	16,210	Note 6
Interest	28,000	2,000	30,000	Note 7
Services to AFIW	3,990	(30)	3,960	
Miscellaneous Income	9,670	-	9,670	
	<u>82,930</u>	<u>4,010</u>	<u>86,940</u>	
<b>Total Income</b>	<u><u>872,893</u></u>	<u><u>10,920</u></u>	<u><u>883,813</u></u>	

**UNIVERSITY OF WATERLOO**  
**2023/24 Operating Income Budget (in thousands)**

Note 1 : The shift between the grant categories of Enrolment and SMA3 Performance Outcomes is due to the Ministry of Colleges and Universities (MCU) planned increase in performance proportion from 45% in 2022/23 to 55% in 2023/24.

Note 2 - The projected decrease in Domestic Undergraduate tuition revenue represents a return to target new enrolments in 2023/24 after exceeding 2022/23 new enrolment targets. This is partially offset by a 5% increase in domestic undergraduate out-of-province tuition rates. The Board of Governors approved setting 2023/24 domestic tuition rates up to the maximum permitted by the provincial tuition framework. As of March 2, 2023, MCU announced that the province is continuing a general freeze on tuition rates for domestic Ontario students, and flexibility to increase tuition rates for domestic out-of-province students by up to 5%. The budget for domestic undergraduate tuition incorporates a 0% tuition rate increase for domestic Ontario students and a 5% tuition rate increase for domestic out-of-province students, consistent with MCU's announcement.

Note 3 - The increase in International Undergraduate tuition revenue is consistent with tuition rate increases approved by the Board of Governors at its February meeting, partially offset by a projected decrease in international undergraduate enrolments.

Note 4 - The decrease in International Graduate tuition revenue is due to a forecasted decrease in international graduate enrolments, partially offset by tuition rate increases approved by the Board of Governors at its February meeting.

Note 5 - The increase in Co-op recovery is consistent with co-op fee rate increases approved by the Board of Governors at its February meeting, partially offset by a projected decrease in enrolments.

Note 6 - The student services fees revenue relates to decisions of the Student Services Advisory Committee to provide funding for designated student services.

Note 7 - The investment income earned on operational funds is based on current and forecasted cash management and investment plans.

**UNIVERSITY OF WATERLOO**  
**2023/24 Operating Expense Budget (in thousands)**

**Senate**  
**March 15, 2023**

	2022/23 Base Budget	Increase / (Decrease) \$	2023/24 Base Budget	2023/24 Base Budget as % of Income	Notes
<b>EXPENSES</b>					
Salary and Benefits					
Current salaries and wages	518,177	17,000	535,177	60.5%	Note 1
Current benefits	126,260	5,900	132,160	15.0%	Note 2
	644,437	22,900	667,337	75.5%	
Non Salary Expenses - Strategic and Priority Spending					
Student Support	75,967	-	75,967	8.6%	Note 3
University Fund	43,100	-	43,100	4.9%	Note 4
Capital Project Fund	4,300	-	4,300	0.5%	Note 5
Deferred Maintenance Fund	6,000	-	6,000	0.7%	Note 6
	129,367	-	129,367	14.7%	
Non-Salary Expenses - Other					
Insurance	3,250	-	3,250	0.4%	
Municipal taxes	3,050	-	3,050	0.3%	
Utilities	22,925	-	22,925	2.6%	
Other non-salary expenses	81,501	(4,000)	77,501	8.8%	Note 7
Total other - before budget reduction	110,726	(4,000)	106,726	12.1%	
Budget reduction	-	(2,700)	(2,700)	-0.3%	Note 8
Total other - after budget reduction	110,726	(6,700)	104,026	11.8%	
Gross expenses	884,530	16,200	900,730	101.9%	
Cost recoveries	(11,900)	(1,000)	(12,900)	-1.5%	Note 9
Estimated net expenses	872,630	15,200	887,830	100.5%	
Estimated income	872,893		883,813		
Surplus (Unfunded deficit)	263		(4,017)		

**UNIVERSITY OF WATERLOO**  
**2023/24 Operating Expense Budget (in thousands)**

Note 1 - The budget increase reflects current estimated May 1 salary increases (\$12 million) and estimated reallocation from non-salary budget for in-year deployments of available budgets to support new positions (\$5 million). Current salary agreements with employee groups apply for a 3 year period ending April 30, 2024 and incorporate a 1% annual scale increase based on the requirements of Ontario Bill 124.

Note 2 - The budget increase reflects increases in benefits costs related to a number of factors including the impact of salary increases, new positions and rate/premium increases.

Note 3 - Student Support includes Tuition Set Aside (TSA), as well as undergraduate and graduate support in the form of scholarships, bursaries and awards. The TSA amount (approximately \$27 million) is calculated based on a formula mandated by the Ministry of Colleges and Universities (MCU). It is to be used for needs based student support programs. Additional student support is provided through use of strategic funds available in the University Fund.

Note 4 - The University Fund is used for funding the University's strategic priorities and managing risk. In the current year, the University Fund has been decreased from 5% to 4.9% of income, representing a budget reduction of \$1 million.

Note 5 - The Capital Project Financing budget supports central funding of internally financed capital projects. Additional funding for capital projects includes other central operating funds, faculty funding, donations and other sources.

Note 6 - The Deferred Maintenance Fund supports central funding of deferred maintenance projects. Additional funding for deferred maintenance includes other central operating funds, faculty funding, grants and donations.

Note 7 - Other non-salary expenses reflects the budget for a variety of non-salary operating expenses of the Faculties and Academic Support Units including investments in capital and enterprise software, and expenses in professional services, maintenance and supplies. Faculties and Administrative Support Units determine use of this budget based on operational requirements. The decrease mainly reflects a reallocation of budget to salaries.

Note 8 - The allocation of and implementation plan for the budget cut is currently under review.

Note 9 - Chargeouts and cost recoveries primarily include recoveries from Ancillary Enterprises (Housing, Food Services, Print & Retail Solutions, Watcard and Parking) for space charges and administrative support.

For Approval

Public

Open Session

**To:** Senate

**Sponsor:** Vivek Goel, President and Vice-Chancellor  
**Contact Information:** [president@uwaterloo.ca](mailto:president@uwaterloo.ca)

**Presenter:** Vivek Goel, President and Vice-Chancellor  
**Contact Information:** [president@uwaterloo.ca](mailto:president@uwaterloo.ca)

**Date of Meeting:** March 27, 2023

**Item Identification:**

Recommended Amendments to Policy 3 - Sabbatical and Other Leaves for Faculty Member

**Recommendation/Motion:**

**Motion:** That Senate approve the amendments to Policy 3 – Sabbatical and Other Leaves for Faculty Members, as presented in the attachment to this report, and that Senate recommends the amendments to the Board of Governors for approval.

**Summary:**

At four meetings held between October 2022 and January 2023, the Faculty Relations Committee (FRC) met and considered an amendment to Policy 3 related to sickness, bereavement and compassionate care leaves taken by faculty members during a sabbatical leave. FRC observed that there is currently no clear guidance on how to proceed in such circumstances, and the proposed amendments fill a policy gap to address situations that occur relatively rarely but which nonetheless require guidance.

The proposed amendments were deemed to be minor in nature, and with that assessment there was no requirement to form a Faculty Policy Drafting Committee (as described in Policy 1 – Initiation and Review of University Policies).

FRC members unanimously supported the proposed amendments, which were submitted to the President in February 2023 and were approved as presented. To effect the final approval of the policy amendment under Policy 1, the amendments are now recommended to Senate for approval and for further recommendation to the Board of Governors.

**Jurisdictional Information:**

This item is submitted to Senate in accordance with Policy 1 – Initiation and Review of University Policies, section 4, Class F:

**Class F**

**Jurisdiction** - The responsibility for policy development is vested in the Faculty Relations Committee (FRC) (see appendix A).

**Initiation** - A request for initiation of a new policy or amendment of an existing policy may come from any member of the University community and shall be reviewed by the FRC, which will decide whether to proceed with the request. The decision will be to proceed if a majority (i.e., three) of the members appointed by each of the Administration and the Faculty Association is in favour, except that if the request comes from Senate or the Board of Governors, then the decision automatically will be to proceed. If the decision is to proceed, the process to be employed is described in detail in the following sections.

**Development** - A Faculty Policy Drafting Committee (FPDC) will be formed to develop new policies or to consider substantial amendments to old policies; its terms of reference will be provided by the FRC. Minor amendments may be dealt with directly by the FRC. A Faculty Policy Drafting Committee shall be composed of a minimum of three (maximum of six) members, one (or two) appointed by the President of the University, one (or two) members appointed by the President of the Faculty Association of the University of Waterloo (FAUW) and one (or two) faculty members appointed by Senate. The Chair of the committee will be determined by the two Presidents.

The draft policy shall be sent by the FPDC to the Faculty Relations Committee. The FRC will then either return the policy to the FPDC for revision (if it determines that the draft has serious flaws in it or that the terms of reference have not been satisfied) or forward it as received (or with minor revisions) to the Senate, the Vice-President, Academic & Provost, and the Board of Directors of the FAUW for comment. It is expected that they will consult widely in their respective constituencies. The FRC will review any comments received via this process and, if necessary, instruct the FPDC on the preparation of a second draft. The FRC shall then make any revisions that it deems necessary to the second draft and send the policy forth for approval if it has support from a majority (i.e., three) of the members appointed by each of the Administration and Faculty Association. Should such majority support not be obtainable, the FRC shall shelve the draft policy and inform Senate and/or the Board of Governors.

**Approvals** - The approval process is a collegial one in which the approval by each of the Senate, the Administration, the Faculty Association and the Board of Governors, is required. The approval route is from the FRC to the President, then to Senate, and finally to the Board of Governors. Upon receipt of the new or amended policy from the FRC, the President will approve it and recommend it to Senate, or return it to the FRC with accompanying reasons for its return.

Upon receipt of the new or amended policy from the President, Senate will approve it and recommend it to the Board of Governors, or return it to the FRC with accompanying reasons for its return.

Upon receipt of the new or amended policy from Senate, the Board of Governors will approve it and the policy will be in force, or return it to the FRC with accompanying reasons for its return.



## Office of the President

If the policy is returned at any stage, the FRC will review the reasons given for its return, make any revisions that it deems necessary, and return the (amended) policy for approval so long as it continues to have majority support from members appointed by each of the Administration and Faculty Association. If that support is lost, the draft policy will be shelved and Senate so informed.

### **Governance Path:**

Faculty Relations Committee (approval on 11 January 2023)

Approval by President and Vice-Chancellor (approval 15 February 2023)

Senate (prospective approval on 27 March 2023)

Board of Governors (prospective approval on 4 April 2023)

### **Previous Action Taken:**

Not applicable.

### **Next Steps:**

If approved, Senate is asked to recommend the Policy amendments to the Board of Governors for approval. In the alternative, the Policy may be returned to the FRC with reasons for revision.

### **Documentation Provided:**

- Policy 3 – redline version to display recommended amendments



## University of Waterloo Policy 3

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### Sabbatical and Other Leaves for Faculty Members

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*Established:*        *June 29, 1961*

*Last Updated:*    *June 5, 2001*

*Class:*                *F*

#### 1. GENERAL

The granting of a leave, with or without pay, depends on the University's assessment of the value of such leave to the institution as well as to the individual, and on whether teaching and other responsibilities of the applicant can be adequately provided for in her / his absence. A faculty member who is granted a sabbatical or other leave is expected to return to duties in the University for at least one year and upon return will be expected to submit a brief report to the Department Chair regarding scholarly activities while on leave.

The purpose of a sabbatical leave is to contribute to professional development, enabling members to keep abreast of emerging developments in their particular fields and enhancing their effectiveness as teachers, researchers and scholars. Such leaves also help to prevent the development of closed or parochial environments by making it possible for faculty members to travel to differing locales where special research equipment may be available or specific discipline advances have been accomplished. Sabbaticals provide an opportunity for intellectual growth and enrichment as well as for scholarly renewal and reassessment.

It is the intention of the University to support in every way possible the sabbatical leave policy stated in this document. It should be clearly understood, however, that the granting of sabbatical leave is contingent upon the faculty member's department being able to make the necessary arrangements to accommodate such an absence, and also upon the financial resources of the University in any given year. Should problems arise in any of the above, it may be necessary to postpone individual requests until such time as all the conditions can be satisfied. Normally, the University will not consider granting two leaves to a faculty member such that one immediately follows the other.

Requests for leave will be considered under the following categories: sabbatical leave; leave without pay; special leave.

#### 2. APPLYING FOR LEAVE

Application for leave must be made in writing to the Department Chair and approved by the Faculty Dean and the Vice-President, Academic & Provost. Application for sabbatical leave should include

the faculty member's plans for scholarly activities while on leave. Sabbatical and special leaves also require the approval of the Board of Governors, so applications should reach the Vice-President, Academic & Provost at least four months prior to the expected commencement date of the leave. An application must provide information about any remuneration expected from outside sources during the leave. If a leave is not granted, a faculty member is entitled to receive a written explanation of the decision, if so requested.

### **3. SABBATICAL LEAVE**

Sabbatical leave may be granted for a period of up to, but not exceeding, twelve months. The University will continue salary payments to the grantee, subject to the terms outlined below.

Faculty members are eligible to apply for a regular sabbatical leave (either a half-year leave at full salary or a full-year leave at 85% salary) to be taken after six years, full-time (including 12 terms teaching) in the professorial ranks.

“Half-year leave” shall mean leave from normal teaching duties for one term (approximately four months) of the two teaching terms normally required in a 12-month period plus one-half of a non-teaching term. Salary will continue at the individual's normal annual rate.

“Full-year leave” shall mean leave from normal teaching duties for the two teaching terms normally required in a 12-month period plus one full non-teaching term. Salary will continue at 85% of the individual's normal annual rate.

Sabbatical leave is subject to the condition that if a faculty member is eligible to apply for regular sabbatical leave and such leave is deferred by the individual, in consultation with the Department Chair, the additional time served, up to a maximum of three years, may be applied toward eligibility for a succeeding sabbatical leave or may be used to enhance the 85% salary of a current full-year sabbatical leave at the rate of one-twelfth of the normal salary for each extra year of service credit. Total income from the University may not exceed 100% of the normal salary for the year. If deferral is at the request of the University, the three-year limit on additional service credit does not apply.

An “early sabbatical” leave may be awarded after a minimum of three years, full-time (including six terms teaching) in the professorial ranks. Early sabbaticals are half-year leaves at 85% salary and consume credit for three years of service. For early sabbaticals, unused years of service credit count toward subsequent sabbatical leaves, and may not be taken in terms of salary equivalent.

Faculty members holding probationary appointments may apply for a special early sabbatical at full salary rather than at 85% of salary; this sabbatical would normally be completed during the fourth year of probationary appointment.

Where faculty members have assumed substantial administrative responsibilities (e.g. Deans, Associate Deans, Department Chairs) for an extended period (usually four or five years) or in other exceptional circumstances, the University, at the discretion of the Vice-President, Academic & Provost, may waive the normal service requirement or the normal restriction against granting two consecutive leaves to a faculty member. Faculty members with substantial administrative duties will accrue administrative credit in addition to the normal service credit. Administrative credits do not count toward eligibility for sabbatical, but may be used for sabbatical salary enhancement at the rate of one-twelfth of the normal salary for each year of administrative service; total income from

the University may not exceed the individual's normal annual salary. Unused administrative credit may be used for salary enhancement toward a subsequent sabbatical but is otherwise forfeited.

## NOTES

1. When applying for sabbatical leave, faculty members are advised to inquire through their Department Chairs regarding the possibility of combining the leave with non-teaching terms (to the extent of not more than twelve consecutive months off campus, or not more than eight consecutive months in the case of an "early sabbatical") and regarding the procedures to apply for a University-funded research grant for an amount up to but not exceeding the entitlements for salary payments indicated above. For purposes of pension and insurance benefits, such a research grant will be treated as for leave without pay.
2. Although only those in the professorial ranks are eligible to apply for sabbatical leave, in determining eligibility and service credit, the calculation should normally include one-half the regular credit for up to four years of service as a full-time UW Lecturer. Such credit is to be applied to an individual's first sabbatical leave only.
3. Sabbatical credits for those on reduced or fractional-load appointments are earned in the normal six-year period, but prorated in the same way as the work load. For example, a faculty member on two-thirds load would earn either a six-month sabbatical leave at normal salary (i.e., two-thirds of nominal salary) or a twelve-month sabbatical leave at 85% of normal salary, after six years of service.
4. The requirement for completing twelve terms of teaching may be waived in the case of faculty members who hold special fellowships (e.g. Killam, Sloan, Steacie) which free them of teaching duties to devote time to research. These faculty members will be eligible to apply for sabbatical leave after six years of full-time service to the University, including the years spent as Fellows.
5. If a faculty member becomes ill or injured while on sabbatical leave, such that they are unable to work for two weeks or more, they may convert that period of sabbatical leave to sick leave, subject to appropriate medical certification. If a faculty member becomes eligible for bereavement leave of four weeks, or for compassionate care leave of two weeks or longer (under Human Resources policies related to bereavement leave and compassionate care leave\*), they may convert that period of sabbatical leave to bereavement leave or compassionate care leave, as appropriate, subject to appropriate documentation. At the end of the period of sickness, bereavement leave, or compassionate care leave, the faculty member may return to their sabbatical, with no extension, or, if at least three months of sabbatical remain at the start of the period of leave, the faculty member may defer the remaining sabbatical, including the period lost to sickness, bereavement, or compassionate care leave. In this case, the missed portion of the sabbatical will be rescheduled within the next three years in consultation with the member's department Chair/Director of School and Dean. For pregnancy or parental leave during sabbatical, see Policy 14.

\*note: this reference shall be changed to reflect the final approval of Policy 12 - Compassionate Care and Bereavement Leave, when that occurs.

#### **4. OTHER LEAVES**

Faculty members who wish to devote increased time to family or other outside interests during a portion of their careers should consult Policy 59 (Reduced Workload to Retirement).

<b><i>Leave Without Pay</i></b>	Requests from faculty members for periods of up to one year will be considered on an individual basis; normally, such leaves are not granted during probationary terms. When leave without pay is granted, salary will be withheld at the rate of six months without pay for each of the two normally required four-month regular teaching terms in any one year. In exceptional cases, a leave without pay may be renewed, on application, for a second year.
<b><i>Special Leaves</i></b>	At the discretion of the President, with the approval of the Board of Governors, special leave, with individual arrangements regarding both duration and salary, may be granted. UW guidelines <i>re</i> “Political Leaves” have been developed and are attached to this policy as appendix A.

***Pregnancy, Adoption and Parental Leaves*** are addressed in Policy 14.

#### **5. BENEFITS STATUS DURING SABBATICAL AND OTHER LEAVES**

Members must continue their benefits (OHIP, Supplementary Sickness and Accident, Group Life Insurance, Long Term Disability) coverage during the period of leave. The cost of continuing the benefits coverage will normally be shared in the same manner as that of an active member. As a condition of approval for a leave without pay, post-dated cheques, to cover the portion of premiums normally paid by the member, must be left in the Records Section of Human Resources prior to the beginning of the leave.

If the member continues to receive full or part salary from the University during the absence, the member’s share of the cost of benefits will be deducted from the salary in the usual manner. Should the University policy determining cost-sharing arrangements, or government or University benefits change during the absence, cost-sharing arrangements may be changed accordingly.

***Retirement Benefits.*** During a fully paid absence, participation in the UW Pension Plan must be continued and the member’s contributions will be deducted from salary in the usual manner. During a sabbatical or other leave, participation in the Pension Plan must be continued at a level determined by the member’s salary during the absence and deductions based on the reduced salary will be made in the usual manner.

Since pension at retirement can be substantially affected by a loss of pension credit during a sabbatical or leave without pay, consideration should be given by members to maintaining their contributions to the Pension Plan if allowed by CCRA rules during such absence at the level at which they would have made contributions had they been receiving full salary in order to maintain full years of service credit. Such an arrangement can be made. The member is urged to discuss this matter with Human Resources at the earliest possible time prior to the period of absence.

*Amended, 28 February 2020 – Official titles only*

## APPENDIX A

### UW GUIDELINES *re* “POLITICAL LEAVES”

The University of Waterloo recognizes that, from time to time, employees may wish to participate in the public life of Canada, a province or a municipality by running for and holding public elective office. For purposes of these guidelines, a public elective office shall include Member of Parliament, Member of a Provincial Parliament, Municipal (including Regional) Councillor, Mayor of a municipality, member of a Board of Education or other office filled by a vote conducted under the Ontario *Municipal Elections Act*.

The University hereby acknowledges this role by adopting a set of practices which is both supportive of this activity and as fair as possible to employees, their colleagues and the University. Moreover, such practices will apply regardless of the partisan affiliations or political beliefs of such employees.

#### 1. ELIGIBILITY

These guidelines apply only to faculty and staff with continuing appointments.

#### 2. INITIATION

Any employee who intends to become a candidate for any public elective office shall notify her/his Chair or supervisor of this decision at the earliest feasible date. The candidate shall consult with the Chair or supervisor about the possible impact of the candidacy on the performance of duties, both during the campaign period and over the longer term in the event of success in the election.

The Chair or supervisor and the candidate should reach an understanding as quickly as possible about the performance of the candidate's University responsibilities during the election campaign, including the timing of any leave of absence requested (see section III), and during the term of office of the position being sought. Such an understanding is to be confirmed in a joint memorandum which will be sent as a recommendation to the appropriate senior administrative officer (e.g. Dean, in the case of a faculty member; Associate Provost, in the case of a staff member) whose primary responsibility is to ensure that the arrangements made are fair to all concerned. Basic information should also be communicated at that time to other employees in the candidate's department.

#### 3. LEAVES FOR CAMPAIGNING

An official candidate for a seat in the House of Commons or a provincial legislature should normally be granted a leave without pay for the purposes of campaigning; the candidate's pension and benefit arrangements are described in Leave of Absence Policies 3 and 39. The period of leave for campaigning will normally begin after the issuance of writs and cover the period between nomination day and polling day; if at all possible, the leave should extend until one week after polling day. In federal elections, a leave for campaigning would normally be no more than 50 days and no less than 28 days (the close of nominations). In provincial elections, nomination day may be from 23 to 60 days after writs are issued; as a result, a leave might be as long as 74 days or as short as 14 days (the close of nominations).

Employees who intend to seek election to municipal office (including Boards of Education) normally do not require a leave for campaigning. Instead, some flexibility should be sought, where necessary and where possible, in the performance of regular University duties during the last three weeks before polling day. Possibilities include partial unpaid leave of absence, time off in lieu of overtime, flextime arrangements or the use of vacation.

Note: Whether as a candidate for or holder of a public elective office, an employee shall not speak as a representative of the University of Waterloo.

#### **4. STATUS WHILE HOLDING ELECTIVE OFFICE**

Candidates elected to serve in the House of Commons or the Ontario Legislature will normally be granted leave without pay for the life of that Parliament, up to and including polling day for the subsequent Parliament. If the employee is re-elected to serve in successive Parliaments, he/she will be required to apply for a further leave which will be granted, unless the total number of consecutive years of leave would exceed six. If an employee continues to serve in such an office after the expiry of a University-granted leave, the employee shall be deemed to have resigned her/his University post. Such a resignation does not preclude the possibility of reappointment by the University under conditions satisfactory to all concerned. It should be noted that an employee who is elected to the House of Commons or the Ontario Legislature and is appointed a Minister of the Crown may be requested by the Prime Minister or Premier to resign from the University immediately.

Normally, candidates elected to municipal office will not require a leave of absence; the performance of duties can be considered a form of community service and can often be combined with regular University duties. However, any elected official whose civic duties infringe upon her/his University responsibilities should seek an appropriate adjustment of University responsibilities and compensation under the provisions of Leave of Absence Policies 3 and 39.

If, in the assessment of the Chair or supervisor, the individual's performance is being adversely affected by civic duties, the Chair or supervisor may request an adjustment of University responsibilities and compensation. In both cases, the operative principle ought to be to preserve the integrity of University operations while facilitating, to the extent possible, the performance of community service. Normally, a faculty member who holds a major administrative position within the University shall resign this position upon assuming any public elective office.

While on an approved leave for these purposes, an employee shall retain all normal rights of those on leave, including pension and benefit entitlements which are described in Policies 3 and 39, and are subject to Government of Canada regulations. Such an employee shall be able to return to the University at the same rank or position and at the same salary plus any scale or range adjustments that may have been granted to employees during the leave. Faculty members on probationary contracts may return at the expiration of the leave without pay to complete the probationary term held when elected.

Issued by the President as an appendix to Policies 3 and 39, following consultation with the Faculty and Staff Relations Committees and with Executive Council.

March 15, 1994.

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**For Recommendation**

Open Session

**To:** Senate

**Sponsor:** Vivek Goel, President and Vice-Chancellor, and Chair of Senate  
**Contact Information:** Office of the President

**Presenter:** Vivek Goel, President and Vice-Chancellor, and Chair of Senate  
**Contact Info:** Office of the President

**Date of Meeting:** March 27, 2023

**Item Identification:**

Proposal to amend the annual meeting schedule of Senate, and the formats for meetings of Senate.

**Summary:**

The final report of the Senate Governance Review was submitted to and endorsed by Senate at its June 2022 meeting. This report addresses elements of recommendations 13 of the review.

13. Revise the annual Senate meeting schedule to reflect the rationalized annual work plan. (Key considerations: ensuring transparency; enabling substantive strategic discussions; respecting essential academic practices and schedules, and key matters requiring approval or endorsement by Senate (e.g., budget); the potential for alignment with the Board of Governors' cycle of meetings; in discussion with the Board, potential reconsideration of the start of the governance year to align with academic cycles; how meetings may be held (in-person, virtual, and hybrid).

In recognition of the general pattern of cancelling the regular December meeting (often scheduled 15-20 December) as well as the possibility of condensing regular Senate meetings in the January-June period, this report proposes a revised schedule with the aim to complete the same amount of regular business annually with fewer regular meetings.

The COVID-19 pandemic has adequately demonstrated that emergent modes of meeting (hybrid and/or fully via videoconference) are effective and here to stay. This report aims to codify this recognition for the ongoing benefits of Senate, senators, and the university community.

**Recommendation/Motion:**

That Senate gives first reading to the amendments to the Senate By-Law 1 as presented in this report, with said amendments to effect:

- a. Reducing the normal number of general Senate meetings from 10 to 8 annually
- b. Adding provision for holding meetings electronically as well as in hybrid format (e.g. with simultaneous in-person and electronic participation)

And that Senate endorse the following general guidelines for the annual schedule of meetings of Senate, for consideration by the chair of Senate in setting their approval of the annual schedule, subject to passage of the recommended bylaw amendments as presented in this report:

- a. Meetings approximately evenly spaced as follows: five (5) regular meetings of Senate between 1 January and 30 June and three (3) regular meetings of Senate between 1 September and 30 November

And further that Senate approve the recommended amendments to the annual work plan (attached to this report) which is congruent with the reduced number of general Senate meetings to be held annually, subject to passage of the recommended bylaw amendments as presented in this report.

### **Jurisdictional Information:**

Senate is empowered under section 22(o) of the *University of Waterloo Act, 1972*:

“...to enact by-laws and regulations for the conduct of its affairs.”

Per Senate Bylaw 1, section 14 “Bylaws – general”:

- 14.01 The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings by Senate. At the first reading, such discussion as is deemed appropriate by Senate shall take place. At the second reading, further discussion may take place and the vote on the document shall be taken. The two readings shall take place at different, but not necessarily consecutive, meetings of Senate.
- 14.02 No proposed bylaw or amendment(s) will be given reading unless it has been bound into or accompanies the agenda portfolio distributed in advance of the meeting.
- 14.03 Any proposed bylaw or amendment(s) shall include the proposed wording of the bylaw or amendment(s), and where appropriate, a summary of the reasons for such bylaw or amendment(s).
- 14.04 In order to be approved by Senate, any new bylaw or amendment(s) to bylaws must receive the affirmative vote of at least two-thirds of the members of Senate present and voting at the meeting.

### **Previous Action Taken:**

Not applicable.

### **Highlights:**

Recommended amendments to Senate Bylaw 1 are as follows:  
(strikethrough = deleted text, underline = new text)

- 3.01 **General meetings**  
Senate shall normally hold ~~ten (10)~~ eight (8) general meetings during each academic year. Notice of each meeting shall be communicated to the university community in such places and ways as may be designated from time to time by Senate.

3.02 **Place of meetings**

~~Meetings of Senate shall be held upon the campus of the university.~~

Meetings of Senate may be held:

- a. in-person upon the campus of the university, or
- b. via telephone, electronic or other communications facilities that permit all participants to communicate with each other during the meeting, or
- c. in-person upon the campus of the university with simultaneous participation via telephone, electronic or other communications facilities that permit all participants to communicate with each other during the meeting.

The specific place of any given meeting shall be at the sole approval of the chair of Senate and shall be communicated with the notice of agenda as in section 3.03 of this bylaw.

**Governance Path:**

Consultation with Senate Graduate & Research Council (13 February 2023), and Senate Undergraduate Council (14 February 2023)

Senate Executive Committee, 6 March 2023

Senate, 27 March 2023 (planned first reading)

Senate, 17 April 2023 (planned second reading)

**Next Steps:**

Until Senate approval of the recommended bylaw amendments, the current Senate calendar of meetings will remain in effect. The implementation of the amended calendar is anticipated to commence during the 2023-24 academic year.

**Documentation Provided:**

- Draft Revised Senate Work Plan (revised for eight meets/year)

**2023-2024 Senate Work Plan (sample revised, eight meetings/year)**

<b>Senate Agenda Items</b>  • expected *as needed	<b>Middle May</b>	<b>Late June</b>	<b>Early October</b>	<b>Early November</b>	<b>Early December</b>	<b>Late January</b>	<b>Early March</b>	<b>Middle April</b>
<b>REGULAR AGENDA (including items for information and discussion)</b>								
Minutes	▪	▪	▪	▪	▪	▪	▪	▪
Business Arising	▪	▪	▪	▪	▪	▪	▪	▪
<b>LEADERSHIP UPDATES<sup>6</sup></b>								
Report of the Vice-President Academic and Provost	▪	▪	▪	▪	▪	▪	▪	▪
Report of the Vice-President Research & International	▪	▪	▪	▪	▪	▪	▪	▪
<b>REPORTS FROM COMMITTEES AND COUNCILS</b>								
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 (Policy 72)					▪			
University Appointment Review Committee Annual Report (Policy 76)								▪
Finance Committee - Budget Update <sup>3</sup>						▪		
Finance Committee - Budget recommendation <sup>2, 3</sup>							▪	
<b>OTHER SENATE AGENDA ITEMS</b>								
New Senator Orientations (before meeting)	▪							
Teaching Awards Committee							▪	
Roster of Graduands	▪		▪					
Undergraduate and Graduate Admissions Update								▪
<b>SENATE PRESENTATIONS</b>								
Presentations from the Presidents of the Faculty Association, Waterloo Undergraduate Association and Graduate Student Association								▪
Strategic Plan Accountability Update			▪					
PART Annual Update		▪					▪	
Faculty Update			ENG	▪	▪			

<sup>1</sup> Annual item

<sup>2</sup> Board of Governors approval

<sup>3</sup> Presented by the Vice-President Academic and Provost

<sup>4</sup> Presented by the President and Vice-Chancellor, and Chair of Senate

<sup>5</sup> Presented by the University Secretary

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

<b>Senate Agenda Items</b>	<b>Middle May</b>	<b>Late June</b>	<b>Early October</b>	<b>Early November</b>	<b>Early December</b>	<b>Late January</b>	<b>Early March</b>	<b>Middle April</b>
• expected *as needed								
<b>CONSENT AGENDA</b>								
Reports from Faculties (e.g., appointments, administrative appointments, sabbaticals) <sup>2</sup>	▪	▪	▪	▪	▪	▪	▪	▪
Tenure and Promotion Report <sup>4</sup>			▪					
University Professor Designation <sup>3</sup>								▪
Call for Nominations for University Professor <sup>3</sup>			▪					
Call for Nominations for Honorary Degree Recipients and Convocation Speakers <sup>4</sup>						▪		
Report of the COU Academic Colleague					▪			
Senate Committee Appointments <sup>5</sup>	*	*	▪	*	*	*	*	*
<b>CONFIDENTIAL AGENDA</b>								
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)		•						

<b>Joint SENATE/BOARD Strategic Plan Focus Sessions</b>	<b>Joint SENATE/BOARD Continuing Education Sessions</b>
<ul style="list-style-type: none"> <li>• [item]</li> <li>• [item]</li> </ul>	<ul style="list-style-type: none"> <li>• [item]</li> <li>• [item]</li> </ul>

**Special Topics for 2023-2024 to be Scheduled:**

- [item]
- [item]

**For more information:**

uwaterloo.ca/secretariat  
[secretariat@uwaterloo.ca](mailto:secretariat@uwaterloo.ca)  
 NH 3060

<sup>1</sup> Annual item

<sup>2</sup> Board of Governors approval

<sup>3</sup> Presented by the Vice-President Academic and Provost

<sup>4</sup> Presented by the President and Vice-Chancellor, and Chair of Senate

<sup>5</sup> Presented by the University Secretary

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

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**For Recommendation****Open Session**

**To:** Senate

**Sponsor:** Vivek Goel, President and Vice-Chancellor, and Chair of Senate  
**Contact Information:** Office of the President

**Presenter:** Vivek Goel, President and Vice-Chancellor, and Chair of Senate  
**Contact Info:** Office of the President

**Date of Meeting:** March 27, 2023

**Item Identification:**

Proposal to amend the *ex-officio* membership of Senate to provide for the appointment of five members of university administration by the president, and reflecting requirements for Senate operations and considerations for equity, diversity, and inclusion in the membership of Senate.

**Summary:**

The University has made clear commitments toward positive action in the space of equity, diversity, inclusion and anti-racism (EDI-R), as well as having made a full commitment to decolonization, Indigenization and reconciliation. In the context of these commitments, it is important that the membership of Senate be reflective of the community that it serves. Currently there are five *ex-officio* members of Senate designated in Senate Bylaw 4 that are specific members of Executive Council. It is proposed that the specific named positions be removed and instead the President would designate five members of university administration. The President would consider the needs for appropriate operation of the Senate and its Committees and Councils as well as specific regard to reflecting considerations for equity, diversity, and inclusion.

With this amendment the president will be able to identify and fill specific gaps in representation on Senate in congruence with the University's commitments. It is emphasized that those appointed under this provision are full-fledged members of Senate and will take a broad interest in all matters brought forward to that body, as is expected for all Senators.

The proposed bylaw amendments as presented will effect no change to overall number of Senate members (92) and will keep intact the majority membership of faculty representatives on Senate as well as the present ratios of representation between the elected members of Senate from the Board of Governors, the undergraduate students, the graduate students and the alumni.

**Recommendation/Motion:**

That Senate gives first reading to the amendments to Senate Bylaw 4 as presented in this report, with said amendments to effect:

- a. Removal of five (5) named *ex-officio* members, items (a)-(e) in the bylaw
- b. Addition of five *ex-officio* members drawn from the university administration, as designated by the president

And that Senate endorse the “Note to Reader on Presidential Ex-Officio Appointments”, to be included as a statement separate from Senate Bylaw 4

**Jurisdictional Information:**

Senate is empowered under section 22(o) of the *University of Waterloo Act, 1972*:

“...to enact by-laws and regulations for the conduct of its affairs.”

Section 18(a) of the *University of Waterloo Act, 1972* describes the *ex-officio* membership of Senate, including article 9 of the section:

“9. Such other *ex-officio* members as the Senate by by-law may, from time to time, designate.”

Under Senate Bylaw 1, section 14 “Bylaws – general”:

- 14.01 The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings by Senate. At the first reading, such discussion as is deemed appropriate by Senate shall take place. At the second reading, further discussion may take place and the vote on the document shall be taken. The two readings shall take place at different, but not necessarily consecutive, meetings of Senate.
- 14.02 No proposed bylaw or amendment(s) will be given reading unless it has been bound into or accompanies the agenda portfolio distributed in advance of the meeting.
- 14.03 Any proposed bylaw or amendment(s) shall include the proposed wording of the bylaw or amendment(s), and where appropriate, a summary of the reasons for such bylaw or amendment(s).
- 14.04 In order to be approved by Senate, any new bylaw or amendment(s) to bylaws must receive the affirmative vote of at least two-thirds of the members of Senate present and voting at the meeting.

**Highlights:**

Recommended amendments to Senate Bylaw 4 are as follows:  
(strikethrough = deleted text, underline = new text)

“...  
BE IT THEREFORE enacted as a bylaw of Senate of the University of Waterloo as follows:



That the following be named as *ex-officio* members of Senate:

- ~~1. The vice president, advancement.~~
- ~~2. The vice president, university relations.~~
- ~~3. The vice president, research and international.~~
- ~~4. The associate vice president, academic.~~
- ~~5. The deputy provost, integrated planning and budgeting.~~
- ~~6. 1. The president of the Faculty Association of the University of Waterloo.~~
- ~~7. 2. The president of the Federation of Students, University of Waterloo.~~
- ~~8. 3. The president of the Graduate Student Association - University of Waterloo.~~
4. Five (5) members of university administration designated by the president.”

#### Note to Reader on Presidential Ex-Officio Appointments

In making ex-officio appointments under this bylaw, the President will consider the needs for appropriate operation of the Senate and its Committees and Councils as well as specific regard to reflecting considerations for equity, diversity, and inclusion and anti-racism in congruence with the University’s clear commitments toward positive action in these areas as well as the University’s full commitment to decolonization, Indigenization and reconciliation. Senators appointed under this provision are full-fledged members of Senate and will take a broad interest in all matters brought forward to that body.”

#### Previous Action Taken:

Not applicable.

#### Governance Path:

Senate Executive Committee, 6 March 2023

Senate, 27 March 2023 (planned first reading)

Senate, 17 April 2023 (planned second reading)

**Next Steps:** Not applicable.

**Senate**

**3**

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## Senate Nominating Committee for Honorary Degrees

### For Information

Open Session

**To:** Senate

**Sponsor:** Vivek Goel, President and Vice-chancellor  
**Contact Information:** [president@uwaterloo.ca](mailto:president@uwaterloo.ca)

**Presenter:** Vivek Goel, President and Vice-chancellor  
**Contact Info:** [president@uwaterloo.ca](mailto:president@uwaterloo.ca)

**Date of Meeting:** March 27, 2023

### Item Identification:

Call for Nominations for Honorary Degrees

I am pleased to announce that the University of Waterloo has moved to an open, annual call for honorary degree nominations. I invite all members of the University community to submit nominations for honorary degree recipients for 2024.

An honorary degree is the highest honour conferred by the University. Through the conferring of honorary degrees, the University of Waterloo seeks to recognize outstanding achievement, whether academic or through service to society. These achievements are celebrated at Convocation where they inspire those in attendance and, in particular, our newly graduating students.

Complete [nomination packages](#) should be submitted by 31 May 2023 to the secretary of the Senate Nominating Committee for Honorary Degrees, c/o Secretariat, NH 3060 or [secretariat@uwaterloo.ca](mailto:secretariat@uwaterloo.ca).

[Guidelines for the awarding of honorary degrees](#), including selection guidelines, procedures, and considerations to make in assessing a candidate's qualifications, and details on what to submit in a nomination package can be found on the website for the [Senate Nominating Committee for Honorary Degrees](#). You are also welcome to contact the [committee secretary](#) for more information and assistance.

The committee will consider a broad range of achievement in exceptional service or significant contribution to the university, the community, the nation, or the world, in areas that include research and scholarship, the arts, business, and professional and voluntary service. Nominations can be made for individuals from Canada or abroad, whose presence will bring honour and distinction to the University of Waterloo and whose achievements will be seen as important and exemplary to the graduating students. The University embraces and appreciates diversity and wants to ensure a diverse pool of candidates who will be seen to aligned with the diversity of our student body and community. Nominations should consider how candidates align with the strategic priorities of the University.

With the community's input we can continue to recognize deserving individuals whose achievements the University would be delighted to celebrate and honour.

Thank you in advance for your contribution to this important tradition.

Vivek Goel  
President and Vice-Chancellor

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## Senate Graduate and Research Council

**For Information**

**Open Session**

**To:** Senate

**Sponsor:** Charmaine Dean  
**Contact Information:** Vice-President, Research & International

**Sponsor:** Jeff Casello  
**Contact Information:** Associate Vice-President, Graduate Studies and Postdoctoral Affairs

**Presenter:** Jeff Casello  
**Contact Info:** [jcasello@uwaterloo.ca](mailto:jcasello@uwaterloo.ca)

**Date of Meeting:** March 27, 2023

[Senate Graduate & Research Council](#) met on 13 February 2023 and agreed to forward the following items to Senate for information as part of the consent agenda.

### **Jurisdictional Information:**

As provided for in [Senate Bylaw 2](#), section 4.03, council is empowered to make approvals on behalf of Senate for a variety of operational matters:

- f) On behalf of Senate, consider and approve all new graduate courses, the deletion of graduate courses, and proposed minor changes to existing graduate courses and programs, and provide Senate with a brief summary of council's deliberations in this regard. Any matter of controversy that might arise may be referred to Senate.
- i) On behalf of Senate, consider and approve all new graduate scholarships and awards. Any matter of controversy that might arise may be referred to Senate.

### **Item Identification**

On behalf of Senate, the following items were approved:

#### **1. Curricular Submissions**

Council approved new courses, course revisions, course inactivations, new milestones, and minor program revisions for:

- a) [Faculty of Engineering](#) (Electrical and Computer Engineering, Chemical Engineering, Systems Design Engineering)
- b) [Faculty of Health](#) (School of Public Health Sciences, Master of Social Work)

#### **2. Graduate Awards**

[Council approved](#) the OAA Award for Exceptional Leadership through Design Excellence (trust).

**Senate**

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## Senate Undergraduate Council

**For Information**

**Open Session**

**To:** Senate

**Sponsor:** David DeVidi, Associate Vice-President, Academic  
**Contact Information:** [david.devidi@uwaterloo.ca](mailto:david.devidi@uwaterloo.ca)

**Presenter:** David DeVidi, Associate Vice-President, Academic  
**Contact Info:** [david.devidi@uwaterloo.ca](mailto:david.devidi@uwaterloo.ca)

**Date of Meeting:** March 14, 2023

[Senate Undergraduate Council](#) met on [February 14, 2023](#) and agreed to forward the following items to Senate for information as part of the consent agenda.

### **Jurisdictional Information:**

As provided for in [Senate Bylaw 2](#), section 5.03, council is empowered to make approvals on behalf of Senate for a variety of operational matters:

- (c) On behalf of Senate, consider and approve all new undergraduate courses, the deletion of undergraduate courses, and proposed changes to existing undergraduate courses and minor changes to programs and/or plans, and provide Senate with a summary of council's deliberations in this regard. Any matter of controversy that might arise may be referred to Senate.

### **Item Identification**

On behalf of Senate, the following items were approved:

#### Minor Plan & Curricular Modifications

Council approved minor plan changes, course changes and course inactivations for:

- a. [Faculty of Environment](#) (geography & environmental management; knowledge integration; school of environment, enterprise & development; school of environment, resources & sustainability)

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For Approval

Open Session

**To:** Senate

**Sponsor:** David DeVidi, Associate Vice-President, Academic  
**Contact Information:** [david.devidi@uwaterloo.ca](mailto:david.devidi@uwaterloo.ca)

**Presenter:** David DeVidi, Associate Vice-President, Academic  
**Contact Info:** [david.devidi@uwaterloo.ca](mailto:david.devidi@uwaterloo.ca)

**Date of Meeting:** March 14, 2023

[Senate Undergraduate Council](#) met on [February 14, 2023](#) and agreed to forward the following items to Senate for information as part of the consent agenda.

**Item Identification:**

Faculty of Environment  
Invalid combination of the Diploma of Sustainability with the Environment, Resources and Sustainability Honours and Joint degrees

**Recommendation/Motion:**

That Senate approve the proposed academic regulation revision of the invalid combination of the Diploma of Sustainability with the Environment, Resources and Sustainability Honours and Joint degrees for the Faculty of Environment, effective 1 September 2024, as presented.

**Jurisdictional Information:**

As provided for in [Senate Bylaw 2](#), section 5.03, council is empowered to make approvals on behalf of Senate for a variety of operational matters:

- (a) Make recommendations to Senate with respect to rules and regulations for the governance, direction and management of undergraduate studies in the university.

**Governance Path:**

Environment Undergraduate Studies Committee approval date (mm/dd/yy): 12/15/22

Faculty approval date (mm/dd/yy): 01/19/23

Senate Undergraduate Council approval date (mm/dd/yy): 02/14/23

**Background and Rational:**

The School of Environment, Resources and Sustainability (SERS) has requested that the Diploma in Sustainability be made unavailable to SERS students. The Environment, Resources and Sustainability academic plan is about sustainability. Therefore, it does not make sense to allow students to get a sustainability diploma on top of a sustainability degree. At the same time, SERS would prefer to channel their students into the other diplomas that make more sense for students pursuing this degree, e.g., ecological restoration and rehabilitation, or environmental assessment.

Related to Calendar pages:

<http://ugradcalendar.uwaterloo.ca/page/ENV-Diploma-Sustainability>

<http://ugradcalendar.uwaterloo.ca/page/Acad-Regs-Invalid-Credential-Combinations>

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