

University of Waterloo
SENATE EXECUTIVE COMMITTEE
Notice of Meeting

Date: Monday 7 February 2022
Time: 3:30 p.m. – 4.30 p.m.
Place: Microsoft Teams Videoconference

AGENDA	Action
1. Minutes of the 4 January 2022 Meeting	Decision
2. Business Arising from the Minutes	
3. Draft 28 February 2022 Senate Agenda	Decision
4. Senate Governance Review	Discussion
a. Update on Survey and Plans for 1:1 Conversations	
b. Work Plan	
i. Work Plan Proposal	
ii. Senate Governance Review Issues to Discuss	
c. February Discussion Topics: Items for Discussion at Senate. Frequency of Meetings	
5. Other Business	

31 January 2022

Karen Jack
University Secretary

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University of Waterloo
SENATE EXECUTIVE COMMITTEE
Minutes of the 4 January 2022 Meeting

Present: Michael Beauchemin, Jeff Casello, Joan Coutu, Lori Curtis, Benjamin Easton, George Freeman, Vivek Goel (chair), Karen Jack (secretary), Christiane Lemieux, Kristina Llewellyn, Graham Murphy, James Rush, Johanna Wandel

Regrets: Zabeen Khamisa, Oudy Noweir, Luke Potwarka

Guests: Diana Gonçalves, Andrea Kelman

The chair welcomed members to the meeting and advised that following some feedback received after the November Senate meeting, more time will be provided during voting at Senate to allow the opportunity to record dissenting votes and abstentions. He noted that this committee will consider voting and whether to implement more formal tools during its governance review discussions.

1. MINUTES OF THE 1 NOVEMBER 2021 MEETING

Members heard a motion to approve the minutes of the 1 November 2021 meeting.

Freeman and Casello. Carried unanimously.

2. BUSINESS ARISING FROM THE MINUTES

The chair advised that the follow-ups arising from the November minutes are complete.

3. DRAFT 17 JANUARY 2022 SENATE AGENDA

Following a brief overview of the agenda, during which he spoke to the plans for the in-depth presentation which will be an update on the “Talent” theme of the Strategic Plan, the committee approved the agenda by consensus.

4. SENATE GOVERNANCE REVIEW

The president spoke to the draft terms of reference and invited members to weigh in on them and the review in general. In discussion, key goals include: improving efficiency; increasing transparency and accountability; finding ways to engage Senate on strategic matters. Questions for the committee to consider are: where should Senate’s energy and time be focused; how frequently should it meet, and in what format; how to improve agenda materials; how to align Senate’s cycle with the Board’s cycle. He noted the need for consultations and the committee agreed with the suggestions that it review a survey to be used for part of this purpose, and that 1:1 interviews also should occur with appropriate individuals and offices. Members discussed some matters that require some clarity, including Senate’s constituencies, Senators’ roles, and ways for Senators to engage appropriately with the community. There was agreement with suggestions that: agenda materials should be improved with better introductory and summary information to provide context and why approval is being sought, and that they should include more links to supporting materials being considered in the committees and councils; orientation should occur. Members understood that updates to the terms of reference regarding orientation and potential work with the Board’s Governance Review Committee will be made before it is brought to Senate for information this month. Members heard that a work plan will be developed and some research relating to best practices and models at other institutions will be done for the next meeting.

5. OTHER BUSINESS

There was no other business.

8 January 2022

Karen Jack
University Secretary

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To: Senate Executive Committee
Date: 2 February 2022
Subject: Individual Consultations
From: Karen Jack

Individual Consultations

Suggested Individuals to consult with directly:

- James Rush*, Vice-President Academic & Provost, + other individuals per his advice (e.g., within the offices of the deans, associate provost, students, associate provost, co-operative and experiential education)
- Charmaine Dean*, Vice-President, Research and International + other individuals per her advice
- Jeff Casello*, Associate Vice-President, Graduate Studies and Postdoctoral Affairs* + other individuals per his advice
- David DeVidi*, Associate Vice-President, Academic + other individuals in his office per his advice
- Cathy Newell Kelly*, University Registrar + other individuals in her office per her advice
- The presidents* of the Faculty Association, the Waterloo Undergraduate Student Association, and the Graduate Student Association + other individuals per their advice
- The Faculty Deans* + other individuals per their advice
- The former president and most recent former vice-president, academic & provost

* Note, these individuals are Senators, and this exercise is meant to elicit their input not as a Senator, but as a key stakeholder, committee or council chair, and/or individual whose office reports to Senate

Conversations with this group should include questions about:

- Meeting dynamics.
- Whether issues of importance to them are given the appropriate amount of time at meetings.
- Things they think are working well.
- Things they think are in need of improvement, and a request for suggestions.
- Their thoughts generally on ways to improve Senate's operation and governance.

A potential draft outline, to be worked on following the committee's input, and advice from the external consultant we hire to do the interviews:

Interview Guide

Thank you for taking the time to speak with me. As you know, the University of Waterloo Senate is reviewing its governance practices and processes. I have been engaged to assist the University in collecting confidential feedback from individuals and offices to enrich the input being sought through its general survey of Senators. Your willingness to contribute is much appreciated.

What you say to me will be confidential. In reporting findings, I will summarize the information I receive without attributing information or views to specific individuals. Are you comfortable proceeding on that basis?

If yes... (next page)

A. Overall assessment

1. What aspects of Senate's work is going well?
2. Which ones need improvement?
3. If Senate could do one thing to improve its operations and that of its committees and councils, what would that be?
4. Do you have any other suggestions for improvements to Senate's operations generally?
5. In your experience, to what extent did Senate spend its time on the "right" issues, e.g., issues of strategic importance? Was that sufficient or insufficient? [*Follow-up if they state that time spent was insufficient:*] What do you think prevents the Senate from spending more time on those issues?
6. What matters do you think Senate should spend more time discussing?

B. Assessment of structures, meetings, and awareness

1. I am now going to list some aspects of Senate's activities and ask how would you rate the University of Waterloo Senate in each. [*Follow-up for all: What, if any, changes would you suggest?*]:
 - a. Senate's committee and council structure.
 - b. The frequency of Senate meetings.
 - c. The quality of:
 1. Senate agendas, materials, and technology.
 2. Discussion and decision-making at Senate meetings.
 3. Senate leadership.
 - d. With respect to the committees and/or councils on which you serve, the quality of:
 1. Agendas, materials, and technology.
 2. Discussion and decision-making at committee and/or council meetings.
 3. Committee and council leadership.
 - e. Senators' general awareness and familiarity with the University's strategic priorities.
 - f. Is there anything we haven't touched upon that you would like to address?

Thank you! Your input has been invaluable. A summary of these and other interviews will be provided to the Senate Governance Review Committee and will help to inform its work. In the meantime, many thanks again for your input.

To: Senate Executive Committee
Date: 2 February 2022
Subject: Work Plan Proposal
From: Karen Jack, University Secretary

Work Plan Proposal

Following consultation with the president, I submit a draft work plan proposal for discussion at the 7 February 2022 meeting. With respect to how the committee will execute on the tasks provided in the Gantt chart attached, I suggest that in advance of each meeting, I provide the committee with some information about the particular matter(s) to be discussed, including, variously: what is being done now; opportunities and challenges and/or constraints; what is being done elsewhere in the sector; direct feedback from the committee and input received from the consultations (when complete); options for potential changes. Following discussions at the meetings, and where there is consensus for making changes, I will draft recommendations and supporting rationales for the committee to consider between meetings. Matters requiring further consideration and discussion will be tracked and, as appropriate, explored by a working group, discussed by the committee as a whole in further deliberations, or will be tracked to be considered in the future.

The attached Gantt chart outlines a high-level plan for the work of the Senate Governance Review. It has been created in light of the review's Terms of Reference. In addition, the following considerations have been kept in mind:

- A final report with recommendations for Senate's consideration and approval will be prepared for the 20 June 2022 Senate meeting.
- The plan contemplates the Senate Executive Committee working as a whole, but over the course of the work, a working group or two may be identified to consider specific matters.
- The Secretariat will support the work and undertake research, consultations, etc. as directed.
- The president will make regular reports to Senate throughout the work.
- For members' awareness, the President's Anti-Racism Task Force has recently finalized four relevant recommendations relating to the University's Governance which the committee should keep in mind and consider in its discussions. They are:
 - *Set targets, in line with the Government of Canada's 50/30 challenge – with equitable and intersectional gender identities, and other dimensions of diversity; for example, but not limited to, balanced man/woman/non-gender conforming peoples, or racialized communities and other historically marginalized groups. Setting and working toward meeting targets are a good first step to shifting representation at governance tables. The institution should consider mechanisms to move closer to or meet targets at each of the regular recruitment cycles of new members to governance tables, reporting on these mechanisms and providing projections on when targets will be met.*

- *Until the institution can embed more diverse and sustainable representation in the University's bicameral governing structures, it is recommended that the institution establish interim solutions to ensure equitable representation on leadership governance bodies by creating supplementary positions to these tables, dedicated to racialized and Indigenous individuals. These supplementary positions, if non-voting, need nevertheless to be empowered with the authority to work with the leaders and communities across the institution to be fully effective in bringing diverse opinions to the table. With experience serving at governance tables, individuals in these positions would then become ideal candidates for recruitment into regular positions at governance tables, as these arise.*
- *The institution should also work to improve mechanisms and build processes that ensure inclusive consultations and maintain transparency about what governance bodies do by educating staff, faculty, and students about equity in institutional governance.*
- *Ensure regular opportunities for senior leaders to engage in antiracism and anti-oppression training, especially as relevant to governance.*

ID	Task Name	February 2022							March 2022							April 2022							May 2022							June 2022																				
		29	1	4	7	10	13	16	19	22	25	28	3	6	9	12	15	18	21	24	27	30	2	5	8	11	14	17	20	23	26	29	2	5	8	11	14	17	20	23	26	29	1	4	7	10	13	16	19	22
1	Consultations with Senators and others																																																	
7	Review of the Content of Senate Meetings																																																	
8	Items for discussion at meetings																																																	
9	Frequency of meetings																																																	
2	Update from the President (February)																																																	
10	Review of Senate Committees and Councils and Senate Agenda Materials																																																	
3	Update from the President (March)																																																	
12	Orientation and Communications																																																	
4	Update from the President (April)																																																	
11	Relations with the Board and preparation of recommendations to Senate																																																	
5	Update from the President (May)																																																	
6	Update from the President (June)																																																	

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Senate Governance Review Items to Track for Discussion:

Issue	Status
<ul style="list-style-type: none"> • From January SEC meeting: 	--
<ul style="list-style-type: none"> ○ where should Senate's energy and time be focused? 	For discussion in February
<ul style="list-style-type: none"> ○ how frequently should it meet, and in what format? (And, separately from a committee member: discussion regarding allowing flexibility in terms of meeting times based on the needs of each agenda.) 	For discussion in February
<ul style="list-style-type: none"> ○ how to improve agenda materials 	For discussion in March
<ul style="list-style-type: none"> ○ how to align Senate's cycle with the Board's cycle 	For discussion in May
<ul style="list-style-type: none"> ○ consultations 	--
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ survey 	Underway
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ 1:1 interviews 	To occur in February
<ul style="list-style-type: none"> ○ clarity needed re: Senate's constituencies 	
<ul style="list-style-type: none"> ○ clarity needed re: Senators' roles 	
<ul style="list-style-type: none"> ○ clarity needed re: ways for Senators to engage appropriately with the community 	For discussion in April
<ul style="list-style-type: none"> ○ agenda materials should be improved with better introductory and summary information to provide context and why approval is being sought, and that they should include more links to supporting materials being considered in the committees and councils 	For discussion in March
<ul style="list-style-type: none"> ○ orientation should occur 	For discussion in April
<ul style="list-style-type: none"> • From a committee member: discussion re: contacts Senators receive from the community/constituency about concerns about a forthcoming decision to be voted on at Senate 	For discussion in April
<ul style="list-style-type: none"> • PART recommendations 	
<ul style="list-style-type: none"> • Rules of Order – should Senate adopt some? 	
<ul style="list-style-type: none"> • Implement ongoing surveys of Senate 	

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BRIEFING NOTE
For Discussion, 2 February 2022

ITEMS FOR DISCUSSION AT SENATE MEETINGS

Goal

To enable Senate to devote time for discussion of strategic matters.

Background

Current Senate agendas largely are comprised of important academic “business”. Presentations at Senate meetings in the past have added some colour to the meetings and have focused on key matters like teaching and research. Senate has not spent much time engaging in discussions of strategic activities. In January, Senate enjoyed a deeper discussion of the “Talent” theme of the Strategic Plan with updates from several key leaders about specific initiatives related to that theme. Similar discussions are planned for the March Senate meeting (“Communities” with Christopher Taylor and Jean Becker), May Senate meeting (“Research – Interdisciplinarity, Futures Framework” with Charmaine Dean) and October Senate meeting (“Total Strategic Plan Update”).

Key questions for consideration:

1. How can agendas be improved to facilitate discussion and engagement about academic issues of strategic importance at Senate generally?
2. Are there key strategic academic matters that Senate should discuss?
3. What is needed to provide the right dynamic at meetings to encourage such discussions?

FREQUENCY OF MEETINGS

Goal

To consider whether Senate’s current schedule of meeting nine times each governance year is correct, and if not, determine the right number of meetings that should be held each year.

Some Waterloo Factors

- Graduate Academic Calendar changes (courses, programs, degree requirements, etc.) must be managed by the end of term for implementation in the next term.
 - Senate meetings ideally would occur in November, March or April, and June (or, as an alternative to June, delegation to the Executive Committee to approve changes by electronic vote over the summer)
 - Changes from the Faculty Councils, and before that Departments, will require clear communications about timelines.
 - A reduced number of meetings is unlikely to affect cyclical program reviews or awards.
 - Business arising related to research matters and centres and institutes will require clear communications about timelines.
- Undergraduate Council Academic Calendar changes (same as for graduate as above) must be made by the current November meeting of Senate each year. The undergraduate calendar is “locked” each January, so the November meeting of Senate is a critical one for this council.
 - As with SGRC, this will require clear communications about timelines so the Faculties and Departments can adjust their curriculum review and approval processes so that they can send things to council in a timely way if they will not have nine or ten opportunities each year.

- The chair of this council suggests that if the number of Senate meetings held each year is reduced, thought be given to redrawing the line on the things that need to be voted on at Senate, and things that can go into the consent agenda so it isn't the case that at a decreased number of Senate meetings results in lengthy time spent at each meeting on routine votes from council. (This comment might apply to SGRC too.)
- Key dates (currently) for tuition information and budget approval are the February and March Senate meetings respectively so they can proceed to the February and April meetings of the Board of Governors.
- The Honorary Degrees and Honorary Member of the University Committees have good flexibility with respect to timing of reporting to Senate for approval, but clear communications about timelines to the Faculties and departments that feed into these committees is required.
- Currently, Senate approves the roster of graduands at its October meeting for October convocation and delegates authority to the Senate Executive Committee each May to approve the roster in June for June convocation. This activity should not drive when to hold Senate meetings necessarily, but it may suggest that delegation by Senate to the Senate Executive Committee for this activity be implemented on a go-forward basis in any case.
- Various reports from the president and vice-president, both for information and for approval can be adjusted to a revised schedule without significant difficulty
- There is always an admissions update at the April meeting of Senate.¹

¹ Input from the Registrar regarding the opportunities and challenges of changes to the frequency of Senate meetings is forthcoming.

University of Waterloo
SENATE
Notice of Meeting

Date: Monday 28 February 2022

Time: 3:30 p.m.

Place: Microsoft Teams Videoconference

	OPEN SESSION		PAGE #
3:30	<p><u>Consent Agenda</u> Motion: To approve or receive for information by consent items 1-4 below.</p> <ol style="list-style-type: none"> 1. Minutes of the 17 January 202 Meeting 2. Reports from Committees and Councils <ol style="list-style-type: none"> a. Senate Graduate & Research Council b. Senate Undergraduate Council 3. Report of the President <ol style="list-style-type: none"> a. Tenure and Promotion of Faculty Members b. Recognition and Commendation 4. Reports from the Faculties 5. Committee Appointments 		
		Decision	17
		Information	23
		Information	25
		Information	27
		Information	29
		Information	31
		Decision	33
	<u>Regular Agenda</u>		
3:35	6. Business Arising from the Minutes		
3:40	7. Reports from Committees and Councils <ol style="list-style-type: none"> a. Senate Graduate & Research Council b. Joint Report Senate Undergraduate Council and Senate Graduate & Research Council c. Senate Undergraduate Council 	Decision	35
		Decision	37
		Decision	39
3:55	8. Presentation Waterloo Experience Accelerate Program, Norah McRae (+ students, TBD)	Information	
4:15	9. Report of the President <ol style="list-style-type: none"> a. President's Update 	Information	
4:35	10. Report of the Vice-President, Academic & Provost	Information	
4:50	11. Report of the Vice-President, Research & International <ol style="list-style-type: none"> a. Waterloo International Annual Report – Ian Rowlands 	Information	43
		Information	
5:10	12. Other Business		

CONFIDENTIAL SESSION

5:15	13. Minutes of the 17 January 2022 Meeting	Decision	21
5:20	14. Business Arising from the Minutes		
5:25	15. Report of the President	Information	
5:30	16. Other Business		

KJJ/dg
31 January 2022

Karen Jack
University Secretary
Secretary to Senate

University of Waterloo
SENATE
Minutes of the Monday 17 January 2022 Meeting

Present: John Abraham, Sheila Ager, Jean Andrey, Sandra Banks, Lisa Bauer-Leahy, Michael Beauchemin, Anne Bordeleau, Carmen Bruni, Jeff Casello, Trevor Charles, Robyn Clarke, Joan Coutu, Neil Craik, Lori Curtis, Kristine Dalton, Charmaine Dean, David DeVidi, Nenone Donaldson, Catherine Dong, Benjamin Easton, Wendy Fletcher, Cindy Forbes, George Freeman, Martha George, Mark Giesbrecht, Moira Glerum, Vivek Goel (chair), Onurcan Gokkaya, David Ha, Kevin Hare, Dennis Huber, Natalie Hutchings, Karen Jack (secretary), Martin Karsten, Achim Kempf, Zabeen Khamisa, Jennifer Kieffer, Alysia Kolentis, Christiane Lemieux, Robert Lemieux, Xianguo Li, Lili Liu, Kristina Llewellyn, Ellen MacEachen, Carol Ann MacGregor, Peter Meehan, Ian Milligan, Zoran Miskovic, Graham Murphy, Richard Myers, Beth Namachchivaya, Cathy Newell Kelly, Oudy Noweir, Daniel O'Connor, Troy Osborne, Nicholas Pfeifle, Luke Potwarka, William Power, Neil Randall, James Rush, Naima Samuel, Matthew Schwarze, Marcus Shantz, Harkirat Singh Dhillon, Siv Sivaloganathan, Siva Sivoththaman, Bruno Tremblay, Sharon Tucker, Graeme Turner, Diana Vangelisti, Johanna Wandel, Mary Wells, Stan Woo, Nancy Worth, Clarence Woudsma, En-Hui Yang,

Guests: Jean Becker, Bruce Campbell, Aldo Caputo, Benoit Charbonneau, Donna Ellis, Anna Esselment, Aiman Fatima, Barbara Forrest, Brian Forrest, Anne Galang, Amanda Garcia, Sanjeev Gill, Diana Goncalves, Michael Grivicic, Sarah Hadley, Candace Harrington, Narveen Jandu, Ross Johnston, Andrea Kelman, Nick Manning, Ben McDonald, Norah McRae, Bessma Momani, Kristiina Montero, Liz Nilsen, Fayaz Noormohamed, Mary Power, Andrea Prier, Chris Read, Ian Rowlands, Daniela Seskar-Hencic, Marianne Simm, Allan Starr, Kerry Stryker, Sherri Sutherland, Brandon Sweet, Mathew Thijssen, Sean Thomas, Marilyn Thompson, Richard Wikkerink

Absent: Nasser Mohieddin Abukhdeir, Mike Ashmore*, Dominic Barton*, Paul Fieguth*, Kelly Grindrod, Veronica Kitchen*, Blake Madill*, Samantha Meyer, Erin O'Connell, Chao Tan, Paul Ward, Samer Zu'Mot

*regrets

OPEN SESSION

CHAIR'S REMARKS

The chair welcomed members to the meeting and extended a warm welcome on behalf of Senate to Nenone Donaldson, the new vice-president, advancement. He advised that following some feedback received after the November Senate meeting, more time will be provided during voting to allow the opportunity to record dissenting votes and abstentions. He also advised that the Senate Executive Committee will consider voting in its governance review deliberations.

Consent Agenda

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

Hare and Randall.

1. MINUTES OF THE 15 November 2021 MEETING

Senate approved the minutes of the meeting.

2. REPORTS FROM COMMITTEES AND COUNCILS

a. Senate Graduate & Research Council

Senate received the report for information.

b. Senate Undergraduate Council

Senate received the report for information.

3. REPORT OF THE PRESIDENT

Recognition and Commendation

Senate received the report for information.

4. REPORTS FROM THE FACULTIES

Senate received the reports for information.

The question was called and the motion carried unanimously.

Regular Agenda

5. BUSINESS ARISING FROM THE MINUTES

There was no business arising.

6. REPORTS FROM COMMITTEES AND COUNCILS

a. Senate Graduate & Research Council

Program Changes: Faculty of Arts

Senate heard a motion to approve the addition of a regular online/virtual classroom in the part-time stream of the Master of Taxation (MTax) program, effective 1 May 2022.

Casello and Ager. Carried unanimously.

Senate heard a motion to approve making the Graduate Studies Internship milestone optional, rather than required, for the MASC in Industrial and Organizational Psychology, effective 1 May 2022.

Casello and Ager. Carried unanimously.

Program Change: Faculty of Environment

Senate heard a motion to approve the addition of a PhD in Sustainability Management – Water program, effective 1 May 2022.

Casello and Andrey. Carried unanimously.

b. Senate Undergraduate Council

Academic Plan Changes – Faculty of Mathematics – Computational Mathematics

Senate heard a motion to approve changes to the honours computational mathematics and the computational mathematics minor academic plan, effective 1 September 2022.

DeVidi and Giesbrecht.

Following confirmation that the change is not mandated to be retroactive, the question was called and the motion carried unanimously.

c. University Committee on Student Appeals

DeVidi spoke to the report distributed with the agenda and advised that he learned through discussions with the associate deans who manage student discipline matters that some increases in certain offences probably results from the significant increase in online learning. He advised that there was an increase in the misuse of tutoring online services; that asynchronous delivery created opportunities for excessive collaboration and cheating; and that the increase in offences has meant a corresponding increase in workload for many people across the institution. DeVidi shared some of the mitigating strategies that have been developed to help to address these matters and he spoke about some of the work being done in the Academic Integrity Office on this front.

In response to questions, DeVidi spoke about some challenges in the categorization of offences, and he confirmed that the incidence of repeat offences is quite low.

7. REPORT OF THE PRESIDENT

Strategic Plan Theme: Developing Talent for a Complex Future

The president advised Senators that today's strategic plan theme update is meant to enhance their understanding of key initiatives and he invited members to offer suggestions for refinement in the future. He invited Rush to provide an introduction and a brief reminder of the plan's thematic spotlights, which he did. Rush introduced Norah McRae, associate provost, co-operative and experiential education who spoke to the Future Ready Talent Framework (FRTF). Members heard about: the four categories (expand and transfer expertise; develop self; build relationships; design and deliver solutions); and FRTF in action with stakeholders. DeVidi spoke to the Teaching Innovation Incubator. Members heard about: context; vision; the reasons for having a teaching incubator; the concept. Casello spoke to interdisciplinary course offerings led by emerging scholars, advising senators about: the strategic commitment, an interdisciplinary course proposal; benefits and impacts. Senate next heard remarks from Casello and McRae regarding Graduate Student Work – Integrated Learning, or “GradWIL”. Members heard: the strategic commitment, the benefits of GradWIL; the background of WIL at the graduate level; the vision and proposal. The presentation concluded with remarks from Sanjeev Gill, associate vice-president, innovation who spoke to WATSPEED. Members heard: why it is important, and why now; the alignment to the strategic plan; consultations undertaken to date; faculty partnership opportunities and challenges.

In response to a question about where ethical and decolonization considerations fit within this theme, confirmation from the provost and the president that the themes are not isolated from one another, much cross-fertilization exists, and that these topics will arise in future strategic plan conversations. In discussion: experts in the Centre for Extended Learning are being engaged with teaching incubator activities; ways to promote interdisciplinarity; potential new models for graduate student supervision. Rush thanked senators for their engagement and feedback and the president offered thanks to everyone involved in the various exciting initiatives.

Senate Governance Review Terms of Reference

Following the president's review of the terms of reference and advice that consultations with senators will follow, he encouraged members to participate in the consultations and invited senators also to reach out with any feedback or comments to the secretary too.

Update

The president provided senators with a general update including: condolences for recently deceased members of the community; kudos for some recent recognitions of Waterloo individuals including those recently announced to the Order of Canada (Geoffrey Fong and Rick Haldenby); some institutional achievements; notable research and researchers; some innovation, entrepreneurship and business achievements; some arts and culture and societal achievements; some comments about his recent op-ed in *Maclean's*; a COVID-19 update.

8. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST

In his report, Rush provided an operational update about: winter 2022 enrollments; academic and non-academic actions; library programs and services; supports for students, including international and co-op students; an update on the “SHIFT: Neutral” investments.

In discussion: clarity regarding class enrollment numbers; clarification from Mat Thijssen, director of sustainability that climate-change related targets have not changed since 2020; and, in response to questions regarding the review of Policies 76 and 77, Rush and Curtis confirmed that productive discussions continue at the Faculty Relations Committee and that future communications from the

committee will offer clarity on next steps. The president expressed his thanks to those working on these important policies.

9. REPORT OF THE VICE-PRESIDENT, RESEARCH & INTERNATIONAL

Dean provided a brief review of the highlights of her report and noted prestigious awards being received by University of Waterloo researchers.

10. OTHER BUSINESS

There was no other business.

Senate convened in confidential session.

20 January 2022

Karen Jack
University Secretary

CONFIDENTIAL SESSION

The Confidential Session minutes have been removed.

The meeting was adjourned at 5:37p.m.

20 January 2022

Karen Jack
University Secretary

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
28 February 2022

Senate Graduate & Research Council met on 10 January 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03), to forward the following item to Senate for information as part of the consent agenda.

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

FOR INFORMATION

RESEARCH INSTITUTE

On behalf of Senate, council approved a 12-month extension of the mandate for the Cybersecurity and Privacy Institute due to challenges and delays to business processes caused by the COVID-19 pandemic. The revised centre renewal date is 31 May 2023.

ACADEMIC PROGRAM REVIEWS

On behalf of Senate council approved, as presented:

- Two-Year Progress Report: Quantum Information Collaborative
- Two-Year Progress Report: Applied Mathematics
- Two-Year Progress Report: Environment and Business, Sustainability Management, Economic Development and Innovation
- Two-Year Progress Report: International Development and Master of Development Practice

GRADUATE AWARDS

On behalf of Senate, council approved the Yang Family Graduate Scholarship in Electrical & Computer Engineering (endowment) and Jain Family Award for Entrepreneurship (trust).

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

Charmaine Dean
Vice President, Research & International

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
28 February 2022

Senate Undergraduate Council met on 11 January 2022 and agreed to forward the following items to Senate. Council recommends that these items be included for information or approval, as noted, in the consent agenda.

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

FOR INFORMATION

ACADEMIC PROGRAM REVIEWS

Council reviewed and approved the [following reports](#) on behalf of Senate:

- Final Assessment Report (FAR) Medieval Studies
- Two-Year Progress Report (PR) Mathematics/Business Administration, Mathematics/Chartered Professional Accountancy, Mathematics/Financial Analysis and Risk Management
- PR Mathematical Studies
- FAR Speech Communications
- PR Philosophy
- PR Classical Studies
- PR English Language and Literature

MINOR PLAN & CURRICULAR MODIFICATIONS

Council approved the following on behalf of Senate:

- minor plan changes for the Faculty of Arts (French Teaching Specialization, International Studies Minor); Faculty of Science (Biophysics Minor).
- course changes for the Faculty of Arts (accounting and financial management, arts, Germanic and Slavic studies, Spanish and Latin American studies); Faculty of Science (physics).
- course inactivations for the Faculty of Arts (accounting and financial management, French studies); Faculty of Science (physics).

/rmw

David DeVidi
Associate Vice-President, Academic

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TENURE AND PROMOTION OF FACULTY MEMBERS

This report provides a summary of the 2020/21 tenure and promotion cycle carried out under [Policy 77 – Tenure and Promotion](#). The following individuals were awarded tenure and/or promoted, effective 1 July 2021 and are reported to Senate for information in accordance with Section 6. of the policy.

Tenure

Tenure provides institutional support for faculty members' academic freedom. This enables them to pursue and disseminate knowledge and the attainment of understanding through their scholarship and teaching, all in an atmosphere in which free inquiry and discussion are fostered. Tenure provides faculty members with an environment conducive to their long-term scholarly work, and the University is assured of a continuing group of teachers and scholars committed to the University, around which it can plan and from whom it can draw its academic leadership.

Promotions

When assistant professors are granted tenure, they are also promoted to the rank of associate professor. Promotions of associate professors to the rank of professor recognizes a high order of achievement in their scholarship and teaching, and satisfactory performance in their service. A continuous program of scholarship with positive peer review by nationally and internationally recognized scholars is essential for promotion to professor.

Timing

Following initial appointments usually totalling six years, faculty members may apply for tenure. Tenured associate professors normally serve five years at that level before applying for promotion to professor.

Process

Tenure and Promotion Committees at the department, Faculty, and University levels consider applications and make recommendations to the next level. The University Tenure and Promotion Committee makes recommendations to the president on tenure and promotion cases, and on the comparability of standards across the University. The president considers the recommendations and renders decisions.

The cases below followed this process and were decided upon by the previous president.

FOR INFORMATION

Awarded Tenure and Promoted to Associate Professor:

Bachmann, Chris – Civil and Environmental Engineering

Barry, Janice – School of Planning

Bauer, Tim – School of Accounting and Finance

Browne, Ryan – Statistics and Actuarial Science

Collins, Andrea – School of Environment, Resources and Sustainability

Dow, Christine – Geography and Environmental Management

Fulfer, Katy – Philosophy
Hutton, Jane – School of Architecture
Meehan, Sean – Kinesiology
Montesano, John – Mechanical and Mechatronics Engineering
Morita, Plinio – School of Public Health and Health Systems
Musselman, Kevin – Mechanical and Mechatronics Engineering
Presslee, Adam – School of Accounting and Finance
Pushin, Dmitry – Physics and Astronomy
Rhebergen, Sander – Applied Mathematics
Rice, Greg – Statistics and Actuarial Science
Simakov, David – Chemical Engineering
Skinner, Kelly – School of Public Health and Health Systems
Snelgrove, Ryan – Recreation and Leisure Studies
Trant, Andrew – School of Environment, Resources and Sustainability
Wilkins-Laflamme, Sarah – Sociology and Legal Studies
Willett, Tom – Systems Design Engineering
Wong, Samuel – Statistics and Actuarial Science
Wong, William Wai Lun – School of Pharmacy
Wood, Laura – Recreation and Leisure Studies
Worth, Nancy – Geography and Environmental Management
Yu, Yaoliang – Computer Science

Awarded Tenure:

Gostick, Jeff – Chemical Engineering

Promoted to Professor:

Basu, Dipanjan – Civil and Environmental Engineering
Basu, Nandita – Civil and Environmental Engineering
Bordeleau, Anne – School of Architecture
Danisch, Robert – Communications Arts
Dubin, Joel – Statistics and Actuarial Science
Golab, Lukasz – Management Sciences
Gzara, Fatma – Management Sciences
Huang, Alan – School of Accounting and Finance
Karigiannis, Spiro – Pure Mathematics
Karsten, Martin – Computer Science
Krivodonova, Lilia – Applied Mathematics
Lau, Lap Chi – Computer Science
Liston, Maria – Anthropology
Mehlenbacher, Brad – English Language and Literature
Nielsen, Christopher – Electrical and Computer Engineering
Peterson, Sean – Mechanical and Mechatronics Engineering
Smucker, Mark – Management Sciences
Statiev, Alexander – History
Tolmie, Sarah – English Language and Literature
Weng, Chengguo – Statistical and Actuarial Science
Wong, Alexander – Systems Design Engineering
Xu, Dinghai – Economics
Yu, Aiping – Chemical Engineering

University of Waterloo
SENATE
Report of the President
28 February 2022

FOR INFORMATION

Recognition and Commendation

Honours relating to Advancing Research for Global Impact

School of Accounting and Finance Associate Professor **Krista Fiolleau**, PhD and her co-authors Leslie Berger, PhD and Carolyn MacTavish, PhD, associate professors at Wilfrid Laurier, were awarded the Best Paper Award from the *Journal of Management Accounting Research* (JMAR). The journal is published by the American Accounting Association (AAA), the largest community of accountants in academia. The JMAR Best Paper Award is presented annually to the JMAR paper deemed to have the greatest potential impact on management accounting research.

(Adapted from the [Daily Bulletin, 12 January 2022](#))

The University of Waterloo has been designated **Research University of the Year** in the Canadian universities comprehensive tier by Research Infosource Inc. for the 14th consecutive year. Waterloo also ranked 13th in Canada's Top 50 Research Universities for sponsored research income with more than \$211 million. Among comprehensive universities, Waterloo placed first for corporate research income with more than \$31 million.

(Adapted from the [Daily Bulletin, 25 January 2022](#))

Honours relating to Developing Talent for a Complex Future

The Centre for Extended Learning proudly announced the first recipient of **James D. Leslie Graduate Award, Sarah Chan**. Sarah began the part-time, online Master of Math for Teachers (MMT) program in the Fall of 2016 and completed it in the Spring of 2020 with exceptional grades and a job that she loves which involves math and computer science outreach and professional development. Sarah's journey to complete the MMT took her from grief and depression to a successful career at Waterloo where she helps instill a love of learning in others.

(Adapted from the [Daily Bulletin, 19 January 2022](#))

Honours relating to Strengthening Sustainable and Diverse Communities

Four members of the University of Waterloo community are being honoured with a **Minister's Award of Excellence** for their noteworthy contributions. The 2020 awards were created to acknowledge the inspiring work of Ontario's faculty and staff in the early stages of the pandemic. The tradition continues with the addition of categories that recognize the work of Ontario's postsecondary institutions.

The winners are:

- **Dr. Heather Hall** (Faculty of Environment) and **Dr. Mark Servos** (Faculty of Science) in the category of Everyday Heroes. The Everyday Heroes award recognizes faculty and staff who stepped up and made a difference during the pandemic and the 2020/2021 school year.
- **Angela Pause** (Faculty of Engineering) in the category of Equality of Opportunity. The Equality of Opportunity award recognizes faculty and staff who have excelled at opening postsecondary education to marginalized and underrepresented groups.
- **Lucas Wen Tang** (Faculty of Engineering) in the category of Rising Star. The Rising Star award recognizes grad students or faculty under 35 and already making a difference in education, inspiring students, or conducting innovative research in the postsecondary education sector.

(Adapted from the [Daily Bulletin, 28 January 2022](#))

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University of Waterloo
REPORT TO SENATE FROM THE FACULTIES
28 February 2022

FOR INFORMATION

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

¹ https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/all_faculties_feb_2022_0.pdf

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University of Waterloo
SENATE
Report to Senate
28 February 2022

FOR APPROVAL

Committee Appointments

The **Distinguished Teacher Awards** (DTA) are awarded to exemplary instructors at the University of Waterloo. The awards are open to all who teach at the University, and the main criterion of the award is a record of excellent teaching at Waterloo of usually at least five years' time. The committee considers: evidence of intellectual vigour and communication skills in the interpretation and presentation of subject matter; evidence of educational impact beyond the classroom; the instructor's concern for and sensitivity to the needs of students; and a clear indication that the nominee has a favourable and lasting influence on students, and, where relevant, on colleagues. The DTA is awarded to four instructors annually and individuals are announced at the March meeting of Senate.

The committee is appointed by Senate and consists of three undergraduate students (nominated by Waterloo Undergraduate Student Association), two graduate students (nominated by the Graduate Student Association), one alumni representative, four members of faculty (typically previous winners of the award), and the associate vice-president, academic as chair.

Motion: To approve the following appointments (note, only part of the membership changes each year):

Faculty: Cynthia Richard; Wei-Chau Xie; Suzanne Kearns

Undergraduate: Nicole Wilson; Mathumy Sivatheesan; Garvita Batra

Graduate: Giuseppe Femia; Joseph Varga

Alumni: Tiffany Bradley

Chair AVPA: David DeVidi

The **Amit & Meena Chakma Award for Exceptional Teaching by a Student** (AETS) awards are open to all students who have a formal teaching role at the University of Waterloo. Up to four awards are given annually in recognition of excellence in teaching of all kinds by registered students (e.g., teaching assistant, laboratory demonstrator, sessional lecturer). The selection committee considers intellectual vigour and communication skills in the interpretation and presentation of subject matter. Concern for and sensitivity to the academic need of the students is an important criterion.

The committee is appointed by Senate and consists of three undergraduate students (nominated by Waterloo Undergraduate Student Association), two graduate students (nominated by the Graduate Student Association), two members of faculty, and the associate vice-president, graduate studies and postdoctoral affairs as chair.

Motion: To approve the following appointments (note, only part of the membership changes each year):

Undergraduate: Komal Gill; Kristine Voong; Zurie Campbell

Graduate: Becky Anderson; Jennifer Reid

Faculty: Anindya Sen

Chair: Jeff Casello

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
28 February 2022

Senate Graduate & Research Council met on 10 January 2022 and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03), to forward the following item to Senate for approval as part of the regular agenda.

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

FOR APPROVAL

"SUB-CENTRING" OF RESEARCH INSTITUTE

- 1. Motion:** To approve, as presented, the Waterloo Institute for Social Innovation and Resilience (WISIR) becoming a sub-centre of the Waterloo Institute for Complexity and Innovation (WICI); and in doing so recognizes that WISIR is dissolved in its own right as a separate Senate Institute.

Rationale: The Waterloo Institute for Social Innovation and Resilience (WISIR) and Waterloo Institute for Complexity and Innovation (WICI) are currently two Senate-approved research institutes at University of Waterloo. Both institutes were established in 2010 and renewed in 2015. As of November 2021, WICI has now also been approved by Senate for another five-year term.

After a year of careful consultation with members and stakeholders, the Directors of WICI and WISIR hereby propose that WISIR become a sub-centre of WICI moving forward. Complex systems collaboration, research and education are deeply embedded in WISIR's core research and curricula, and many of the members of WISIR are currently also members of WICI. Both institutes have operated successfully for the past five years with modest budgets to deliver meaningful and impactful activities in their respective and often overlapping areas. Sub-centering will save the University of Waterloo significant administrative load in overseeing and operating two separate institutes and will provide opportunities to streamline synergistic and complementary strengths to generate more impactful research.

Senators may review the materials considered by council in the link in the motion, or beginning at page 8 on the Agenda for Council's 10 January 2022 meeting.

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

Charmaine Dean
Vice President, Research & International

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
and
SENATE UNDERGRADUATE COUNCIL
Report to Senate
28 February 2022

Senate Graduate & Research Council (SGRC) met on 10 January 2022 and Senate Undergraduate Council (SUC) met on 11 January 2022. Both councils considered revised academic calendar dates for 2021-2022, as well as calendar guidelines for determining academic dates and agreed, in accordance with [Senate Bylaw 2](#) (section 4.03, 5.03), to forward this item to Senate for approval as part of the regular agenda.

Further details are available at:

<https://uwaterloo.ca/secretariat/committees-and-councils/senate-undergraduate-council>

<https://uwaterloo.ca/secretariat/committees-and-councils/senate-graduate-research-council>

FOR APPROVAL

ACADEMIC CALENDAR DATES 2021-2022

1. **Motion:** To approve revised academic calendar dates for 2021-2022 and calendar guidelines for establishing academic dates as presented in Appendix 1.

Rationale: The in-person exam days for online courses have now been established and replace the “TBD” designation in the table of academic calendar dates approved at the 16 November 2020 meeting of Senate.

/kw & rw

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

Charmaine Dean
Vice President,
Research & International

David DeVidi
Associate Vice-President, Academic

Appendix 1: Academic Calendar Dates, 2021-2022 (Revised)

	Winter 2022	Spring 2022
Classes End	Apr. 5 (T)	July 26 (T)
Make-up Day(s) for in-term holidays	N/A	July 25 (M) for May 23 (M) July 26 (T) for July 1 (F schedule)
Pre-Examination Study Day(s)	Apr. 6,7 (W,R)	July 27, 28 (W,R)
Examinations Begin	Apr. 8 (F)	July 29 (F)
In-Person Exam Days for Online/ Remote Courses	TBD Apr. 8,9 (F,S)	TBD Aug. 5, 6 (F,S)
Examinations on Sunday	N/A	N/A
Examinations End (including Emergency Day)	Apr. 26 (T)	Aug. 13 (S)

Symbols and abbreviations: (M) Monday, (T) Tuesday, (W) Wednesday, (R) Thursday, (F) Friday, (S) Saturday, (U) Sunday, N/A – Not Applicable

Extract of the Guidelines for Determining Academic Calendar of Dates

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

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

Exceptions:

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

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

14. That Online Course Examination Days in each term be the first consecutive Friday and Saturday in the examination period.

Rationale for Exceptions

Rule 12

The Online Course Examinations for Spring 2022 have been moved to the second consecutive Friday and Saturday in the examination period due to the Civic Day weekend.

Prepared by:

C. Newell Kelly, Registrar

December 2021

University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
28 February 2022

Senate Undergraduate Council met on 11 January 2022 and agreed to forward the following items to Senate for approval in the regular agenda.

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

FOR APPROVAL

ACADEMIC PLAN CHANGES

Faculty of Science
Honours Life Physics

- 1. Motion:** That Senate approve the inactivation of the Honours Life Physics, Honours Life Physics, Biophysics Specialization, and Honours Life Physics, Medical Physics Specialization plans, both regular and co-operative, and the creation of a new plan, Honours Biological and Medical Physics (regular and co-operative), which combines aspects of both biophysics and medical physics, effective 1 September 2023.

Background and Rationale: Currently, there is low enrollment in the Life Physics plans, including both specializations, Biophysics and Medical Physics. Reducing all plans to one new plan, and removing some of the unique, low-enrolment courses required only by these plans, should help provide a common foundation in first year, and help enable the same career path for students more efficiently.

Currently, all Honours Physics plans require PHYS 121/122, except for most Honours Life Physics plans, which permit students to get through the entire program with PHYS 111/112. The proposed new plan, Honours Biological and Medical Physics, will require PHYS 121/122 over PHYS 111/112, thus providing a common foundation in first year for all students getting degrees in Physics, with the added benefit of making it easier to shift programs within Physics, if desired. The existing Life Physics plans have speciality courses PHYS 224 and 224L with low enrolment; Honours Biological and Medical Physics will require PHYS 242 and 242L, like every other program in physics, again, providing a common foundation and reducing teaching tasks.

Honours Biological and Medical Physics will provide students with an interdisciplinary background suitable for careers in both biophysics and medical physics, while at the same time, providing students with flexibility to specialize in diverse areas of biology and/or physics including, but not limited to, medical imaging and computational biophysics.

CS 114 is added to the requirements, and MATH 227 and MATH 228 remain requirements, as is currently required in both Life Physics specializations. As such, a slightly higher number of students are expected in MATH courses which are currently not required for Honours Life Physics. Approval has been sought and provided by the Faculty of Mathematics.

The ENGL/SPCOM 193 communication course is sequenced in the Year 1 winter term, whereas currently, all Honours Life Physics plans sequence the course in Year 1 fall. This change in student

volume in these courses for fall and winter, starting fall 2023, has been approved by the Faculty of Arts.

The plan will have 14.25 required units and another 7.0 elective units of which 3.5 must be chosen from program elective lists.

Proposed New Calendar Text

Honours Biological and Medical Physics (Regular and Co-op)

Honours Biological and Medical Physics is available in both systems of study: regular and co-operative.

Honours Biological and Medical Physics is an interdisciplinary plan offered jointly by the Department of Biology and the Department of Physics and Astronomy. It provides students with a background suitable for careers in both biophysics and medical physics, while providing flexibility to specialize in diverse areas of biology and/or physics, such as medical imaging and computational biophysics.

Continuing in Honours Biological and Medical Physics (regular and co-op) requires a minimum cumulative overall average of 60%, a minimum cumulative Biology average of 60%, and a minimum cumulative Physics average of 60%.

Successful completion requires:

1. 21.25 units distributed as follows:
 - 7.0 PHYS units: PHYS 121, PHYS 121L, PHYS 122, PHYS 122L, PHYS 225, PHYS 256, PHYS 256L, PHYS 280/BIOL 280, PHYS 233 or PHYS 234, PHYS 242, PHYS 242L, PHYS 358, PHYS 380, PHYS 383, PHYS 395, and PHYS 396
 - 3.0 CHEM units: CHEM 120, CHEM 120L, CHEM 123, CHEM 123L, CHEM 237, CHEM 237L, CHEM 266, and CHEM 266L
 - 2.0 MATH units: MATH 127, MATH 128, MATH 227, and MATH 228
 - 1.25 BIOL units: BIOL 130, BIOL 130L, and BIOL 273 OR BIOL 239
 - 0.5 CS unit: CS 114
 - 0.5 ENGL unit: ENGL 193/SPCOM 193
 - 7.0 elective units distributed as follows:
 - 2.0 units chosen from: PHYS 124, PHYS 249, PHYS 263, (PHYS 267 or STAT 202), PHYS 334, PHYS 335, PHYS 342, PHYS 349, PHYS 359, PHYS 461, PHYS 483
 - 1.5 units chosen from: BIOL 201, BIOL 239, BIOL 240, BIOL 240L, BIOL 266, BIOL 273, BIOL 308, BIOL 373, BIOL 373L, AMATH 382/BIOL 382, CHEM 267, CHEM 267L
 - 3.5 units chosen from any subject, with a maximum of 1.0 lab units
2. Enrolment in PHYS 10 when offered.
3. Co-operative program requirements (when applicable).

Notes

1. If BIOL 239 or BIOL 273 is used to satisfy the 1.25 BIOL units requirement, it can't be selected again to satisfy the elective unit requirement.
2. At least 1.0 elective lecture unit must be at the 400-level in PHYS or BIOL.
3. BIOL 240L, BIOL 373L and CHEM 267L require the lecture component as either a prerequisite or corequisite.

4. Students should consult their program advisor when considering program electives to focus their studies in areas of medical physics, biophysics, biomedical imaging, or computational biological and medical physics.
5. Students should also consult the graduate [CAMPEP accredited program](#) of interest for preferred prerequisites.

/rmw

David DeVidi
Associate Vice-President, Academic

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Vice-President, Research & International

Report to Senate

February 2022

Introduction

This report to Senate highlights successful research outputs and outcomes for the period December 2021 – January 2022 by the thematic areas as outlined in Waterloo's Strategic Plan 2020-25.

ADVANCING RESEARCH FOR GLOBAL IMPACT

R1 - Research strengths to solve real-world problems

Awards and Distinctions

- [DarwinAI](#) and the Aspire Food Group awarded the **International Research Center in Artificial Intelligence (IRCAI) Top 10 Outstanding Project for 2021**, using artificial intelligence (AI) to advance the UN's sustainability goals

DarwinAI, a company that was co-founded by **Alexander Wong** (Systems Design Engineering) and other Waterloo alumni, produces visual quality inspection solutions using their proprietary Explainable AI (XAI) technology for a wide range of global industries, including advanced manufacturing and industrial automation. The DarwinAI solution combines automated visual inspection and Explainable AI (XAI) with IoT sensor data analysis to optimize yield and provide real-time insights into plant conditions and operations. The technology will debut at the opening of Aspire's new commercial facility in London, Ontario, later this year, to [farm crickets](#) as a source of protein. Wong is leading the development of AI algorithms for the facility.

Tri-Council and Other Funding

- **Kelly Skinner, Applied Public Health Chair**, School of Public Health Sciences, \$1.15M over six years for a total of \$8 million

Dr. Skinner is one of seven new Applied Public Health Chairs to carry out research programs in important areas of public health and work with public health agencies to implement their findings in new or improved policies and programs. Dr. Skinner's research area focuses on the intersection between food security, climate change, and Indigenous communities in northern and remote regions. Applied Public Health Chairs are leaders in public health research.

R3 - Leveraging partnerships for research impact

- **Kelly Grindrod and Nancy Waite**, School of Pharmacy: Connect, Collaborate and Tailor (CCT): Co-designing multimedia tools for COVID-19 vaccinations and beyond, Immunization Partnership Fund, \$499,651

This is one of 67 new projects funded in the [Immunization Partnership Fund](#). This funding is designed to protect Canadians from COVID-19 and other vaccine preventable diseases by supporting health partners in three priority areas: 1) Building capacity of health care providers as vaccinators and vaccination promoters; 2) supporting community-based COVID-19 education, promotion, and outreach; and 3) building capacity for evidence-based vaccination communication.

Grindrod and Waite are expanding their ongoing work to develop multimedia tools that target vaccine hesitancy through their national Pharmacy5in5 (5in5) multimedia and online education program. Developed by Grindrod, 5in5 is an innovative computer-based education platform that incorporates game elements and user-centred design to help busy pharmacists build skills and confidence around medications and vaccines.

Dr. Nancy Waite, an expert in vaccine hesitancy and vaccine delivery in pharmacies and co-lead of the Ontario Pharmacy Evidence Network (OPEN), will guide the 5in5 team through a theory-informed model called “Connect-Collaborate-Tailor (CCT)” to develop materials aimed at addressing COVID-19 vaccine hesitancy.

Waterloo International Agreements

Waterloo International facilitated the signing of five agreements as follows:

1. China University of Petroleum Beijing (CUPB), Joint Academic 2+2, China.
2. China University of Mining & Technology (CUMT), Joint Academic 2+2, China.
3. Tokyo Institution of Technology (Tokyo Tech), Student Mobility, Exchange, Japan.
4. Kyoto University, Student Mobility, Exchange, Japan.
5. Directorate General of Higher Education of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia (DGHERT), Scholarship Funding Agreement, Indonesia.

On October 13, 2021, Waterloo International and the Student Success Office presented to Australia National University on various international education projects that are underway in a session that was facilitated by the High Commission of Canada to Australia. The Australian National University and the University of Waterloo have a rich history of inter-institutional connections including a student exchange agreement and close research collaboration.

On November 25, 2021, Waterloo International hosted Paul Davidson, President and CEO of Universities Canada at the University's International Operations Council

meeting. Paul Davidson presented and discussed his perspectives on international education and how Universities Canada is active in internationalization.

Gateway for Enterprises to discover Innovation (GEDI)

Rogers

- Rogers provided \$1000 sponsorship to the Waterloo Formula Electric Team, a group of students from the University of Waterloo that compete in the Formula SAE electric and Formula Hybrid race care competition against several universities around the world (<http://waterlooformulaelectric.com/>)