UNIVERSITY OF WATERLOO

SENATE

MONDAY April 8, 2024

3:30 P.M. EST

NH 3407 / Zoom

Governing Documents and Resources

TIMING	AGENDA ITEM	PAGE	ACTION
	OPEN SESSION		
3:30 p.m.	1. Territorial Acknowledgement (Jennifer Lynes Murray)	Oral	
	2. Conflict of Interest	Oral	Declaration
	3. Approval of the Agenda, and Approval of the Consent Agenda To approve the agenda as presented/amended, and to approve or receive for information the items on the consent agenda, listed as items 12-16 of the Senate agenda	Oral	Decision
	4. Minutes of the March 4, 2024 Meeting To approve the minutes of the March 4, 2024 meeting as distributed/amended	5	Decision
	5. Business Arising from the Minutes	Oral	Input
	6. Senate Work Plan	11	Information

3:35 p.m.
(10 mins)
	7. Report - Teaching Awards Committee
	    a. Amit & Meena Chakma Award for Exceptional Teaching by a Student
	    b. Distinguished Teacher Awards
			Information

3:45 p.m. (20 mins)	8. Report of the President a. President's Update	Oral	Information

4:05 p.m.
(10 mins)
	9. Reports – Senate Graduate and Research Council
	    a. New Program – Graduate Type II Diploma in Climate Change
	    To approve the creation of the Type 2 Graduate Diploma in Climate Change, effective September 1, 2024, as presented
		13	Decision

	b. Major Modification – MA in Recreation and Leisure Studies To approve the proposed major modifications to the Master of Arts (MA) in Recreation and Leisure Studies, effective September 1, 2025, as presented	55	Decision
	c. Regulation Revisions - Approved Doctoral Dissertation Supervisors To approve the proposed academic regulation revisions to the Approved Doctoral Dissertation Supervisors (ADDS) section of the Graduate Studies Academic Calendar (GSAC), effective May 1, 2024, as presented	63	Decision

TIMING	AGENDA ITEM	PAGE	ACTION
4:15 p.m. (5 mins)	10. Reports – Senate Executive Committee		
	a. Elections to Senate Committees and Councils *To be distributed separately*	##	Decision
	b. Elections to the Board of Governors *To be distributed separately*	##	Decision
	c. Delegation of Authority for Approval of Roster of Graduands That Senate delegate its authority for the approval of the roster of graduands jointly to the chair and vice-chair of Senate, for convocation ceremonies scheduled in June 2024 and October 2024; And that Senate direct that a report on the complete roster of graduands be presented for information to the Senate meeting following the relevant convocation	77	Decision
4:20 p.m. (30 mins)	11. Report of the Senate Finance Committee - *to be distributed separately* a. 2024/25 Annual Operating Budget (J. Rush) That Senate recommend that the Board of Governors approve the 2024/25 Operating Budget, as presented.	##	Decision
4:50 p.m. (5 mins)	**Consent Agenda** *Motion: To approve or receive for information the items on the consent agenda, listed as items 12-16 of the Senate agenda*		
	12. Report – Senate Graduate & Research Council a. Regulation Revisions – Graduate Studies Academic Calendar To approve the proposed academic regulation revisions to the Graduate Studies Academic Calendar (GSAC), effective May 1, 2024, as presented	79 83	Information Decision
	13. Report – Senate Undergraduate Council a. Regulation Revisions – Regulation Revisions, Faculty of Science To approve the proposed academic regulation revisions to Doctor of Optometry Academic Regulations, Course Grades and Credits, and Online Course, for the Faculty of Science, effective September 1, 2024, as presented	161 163	Information Decision
	14. Report – Senate Long Range Planning Committee	167	Information
	15. Report - Vice-President, Research & International - Awards, Distinctions, Grants, Waterloo International Engagements	169	Information
	16. Report of the Vice-President, Academic and Provost a. Faculty Appointments, Leaves b. University Professor designation	175 177	Information
	17. Other Business	Oral	

TIMING	AGENDA ITEM	PAGE	ACTION
4:55p.m.	**CONFIDENTIAL** Senators, Vice-Presidents, Secretariat and Technical Staff as required		
	18. Minutes of the March 4, 2024 Meeting To approve the minutes of the March 4, 2024 meeting as distributed/amended	179	Decision
	19. Business Arising from the Minutes	Oral	Input
	20. Report of the President	Oral	Information
	21. Other Business	Oral	Input
	22. Adjournment		

April 1, 2024

Mike Grivicic
Associate University Secretary to Senate

Important Dates

April 16, 2024	Board of Governors Meeting
May 6, 2024	Senate Meeting
June 10, 2024	Senate Meeting
June 18, 2024	Board of Governors Meeting
June 27-28, 2024	International Conference – From Targeting Academia to Promoting Trust and Understanding

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University of Waterloo
SENATE
Minutes of the Monday March 4, 2024 Meeting
[in agenda order]

Present: John Abraham, Nasser Abukhdeir, Sheila Ager, Marc Aucoin, Aubrey Basdeo, Jean Becker, Jeff Casello, Judy Castaneda, Trevor Charles, Joan Coutu, Kristine Dalton, Laura Deakin, Charmaine Dean, Jack DeGooyer, David DeVidi, Catherine Dong, Paul Fieguth, Wendy Fletcher, Genevieve Gauthier-Chalifour (Secretary), Vivek Goel (Chair), Kelly Grindrod, Mike Grivicic (Associate Secretary), David Ha, Peter Hall, Kevin Hare, Neela Hassan, Natalie Hutchings, Nadine Ibrahim, Sonia Ismail, Narveen Jandu, Martin Karsten, Acey Kaspar, Achim Kempf, Veronica Kitchen, Scott Kline, Alysia Kolentsis, Christiane Lemieux, Xianguo Li, Lili Liu, Brad Lushman, Jennifer Lynes Murray, Stephanie Maaz, Shana MacDonald, Ellen MacEachen, Blake Madill, Colleen Maxwell, Peter Meehan, Kristiina Montero, Richard Myers, Catherine Newell Kelly, Christopher Nielsen, Rory Norris, James Nugent, Troy Osborne, David Porreca, Jacinda Reitsma, Cynthia Richard, Mary Robinson, James Rush, Labibah Salim J Ali, Beth Sandore Namachchivaya, Asher Scaini, Marcus Shantz, James Skidmore, Anita Taylor, Graeme Turner, Diana Vangelisti, Dan Weber, Mary Wells, Stanley Woo, Changbao Wu, Annie Yang

Guests: Catherine Burns, Nenone Donaldson, Bernard Duncker, Donna Ellis, Melanie Figueiredo, Jenny Flagler-George, Barbara Forrest, Diana Goncalves, Sarah Hadley, Michelle Hollis, Ross Johnston, Diane Johnston, Andrea Kelman, Jennifer Kieffer, Nick Manning, Jon Mason, Eleanor McMahon, Norah McRae, Christine McWebb, Ian Milligan, Bessma Momani, Fayaz Noormohamed, Nicholas Pfeifle, Karl Schuett, Daniela Seskar-Hencic, Greg Smith, Allan Starr, Brandon Sweet, Nickola Voegelin, Tim Weber-Kraljevski, Sarah Willey-Thomas, Katy Wong-Francq

Absent: Lisa Aultman-Hall*, Dominic Barton*, Kim Cuddington, Aiman Fatima, Mark Ferro*, Bruce Frayne*, Murray Gamble*, Mark Giesbrecht, Rob Gorbet*, Vikas Gupta*, Chris Houser, Carol Ann MacGregor, Erin O'Connell, Luke Potwarka, John Saabas*, Rida Sayed, Sivabal Sivaloganathan, Siva Sivoththaman, Sharon Tucker, Clarence Woudsma
*regrets

OPEN SESSION

The chair offered remarks:
- Welcome to Eleanor McMahon, who begins in her role as Vice-President, University Relations
- The flags on campus have been lowered to half-mast to mark the passing of former Prime Minister Brian Mulroney
- Upcoming celebrations and observances include International Women's Day, the beginning of Ramadan, the International Day for the Elimination of Racial Discrimination, Easter, and International Trans Day of Visibility

1. **TERRITORIAL ACKNOWLEDGEMENT**
   Mary Wells offered a territorial acknowledgement along with a personal reflection.

   The chair indicated that Senate will seek volunteers for this item for future meetings.

2. **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.

3. **APPROVAL OF THE AGENDA, AND APPROVAL OF THE CONSENT AGENDA**
   A motion was heard to approve the agenda as presented, and to approve or receive for information the items on the consent agenda, listed as items 13-16 of the Senate agenda. Porreca and Dong. Carried.

4. **MINUTES OF THE JANUARY 29, 2023 MEETING**
   A motion was heard to approve the minutes as distributed. Casello and Newell Kelly. Carried. A senator noted one item where the minutes could have included more content on the different views expressed; staff will take the matter to Senate Executive Committee.

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

6. **SENATE WORKPLAN**
   The chair noted items from the workplan are included on the meeting agenda as item 8, 11 and 17(a); the report re: University Professor is expected to come forward at the April meeting.

7. **REPORT OF THE PRESIDENT**
   a. President's Update. Goel provided his report and offered the following:
   - Acknowledgment of the ongoing conflict in the Middle East and the heightened emotions and tensions that are being felt as this conflict continues; reports of a possible ceasefire are encouraging
   - Regarding the principles of freedom of speech and respectful engagement, the task force continues its work and is co-chaired by Christine McWebb and Scott Kline
   - The university awaits further details on the recent federal announcement regarding the capping of study permits to be issued to international students, and at Waterloo the required attestation letters will only be provided to students who accept their offer of admission and provide the required tuition deposit
   - The province's recent announcement of $1.3 billion in funding for postsecondary education, which includes $900 million for operating budget support and $200 million earmarked for those institutions facing the most difficult financial situations
     o The tuition freeze for domestic in-province students is being extended to 2026-27
     o While Waterloo is grateful for these immediate supports, these measures fall notably short of those recommended by the province's own Blue-Ribbon Panel
     o The funding announcement came in parallel with the tabling of the *Strengthening Accountability and Student Supports Act* which brings new requirements pertaining to mental health, anti-racism and fee transparency for costs paid by students, with the potential side effect of adversely impacting institutional autonomy
     o Other announcements included allowing the offering of applied master's degrees within the college system, and a career portal

8. **ASSOCIATION ANNUAL UPDATES – REPORT OF THE PRESIDENTS OF FAUW, WUSA, GSA**
   David Porreca provided a presentation: FAUW has emerged from a year of both crisis and renewal with a refreshed board of directors as well as new staff. Some key upcoming priorities include the salary negotiations that are underway, ongoing activity at the Academic Freedom & Tenure Committee, a full-scale governance review within FAUW, completion of the Policy 76/77 process, and work to prospectively represent research professors. FAUW plans to have closer coordination with the other associations on campus.

   Rory Norris provided a presentation: WUSA is moving into its second year under the new governance model; the recent elections saw a historically strong turnout of 25%; continued advocacy efforts, including through provincial and national advocacy groups; ongoing support of student clubs and societies; new turnkey desk in Davis Centre; newly-reopened space in the old "Bombshelter", modernized study space in the upper level of the Student Life Centre, as well as plans for an Indian restaurant. Members ascertained more details on the WUSA governance model and the process undertaken to review WUSA governance, and a member noted that the annual carnival event (while popular) has an observable adverse impact on the physical grounds where it is held.

   Neela Hassan provided a presentation: the GSA serves 4700 students, providing political representation both on and off campus; details on GSA governance model; student services and supports include transit passes, legal and tax aid, academic support, issues related to food security, supplementary health and dental plans, and the Graduate House facility; advocacy for and negotiation of a minimum funding increase; ongoing efforts at Indigenization of the GSA; external engagement

includes an international student working group with partners from Laurier and Conestoga. [During Hassan's presentation, a group of visitors interrupted the meeting and her presentation without being recognized by the chair; a member of the group voiced their anguish at the ongoing conflict in the Middle East and expressed concern regarding the University's actions and public stance in that regard.]

9. **FACULTY UPDATE PRESENTATION - ARTS**
   Sheila Ager provided a presentation on the Faculty of Arts:
   - More than 8000 students, with 341 faculty and 150 staff
   - 15 departments, three schools, and strong partnerships with the AFIWs
   - Wide array of academic program offerings at the bachelor's, master's, and doctoral level, along with many diplomas and certificates
   - Strategic Plan 2023-30 entitled "A Future for Humanity"
   - Co-op is now available in all undergraduate programs, with significant increases to student taking co-op in recent years
   - Highlights of recent Arts Alumni Achievement Award winners
   - Research leadership includes several research chairs and interdisciplinary collaborations
   - Efforts at reorganizing the Faculty are ongoing

Members discussed/clarified: reorganization of the Faculty would focus on enhancing effectiveness, utilizing resources more fully and enabling new opportunities; the Faculty has been very successful in recruiting excellent postdoctoral scholars; with increased uptake of co-op, the employment rate of Arts student is similar to that for the whole of campus.

10. **REPORT – SENATE UNDERGRATUATE COUNCIL**
David DeVidi took items 10 (a)-(d) together and provided an overview of all items, making a motion for each.
   a. Major Modifications – Systems Design Engineering
   To approve the creation of a Human Factors & Interfaces Specialization, an Intelligent & Automated Systems Specialization, a Physical & Mechatronic Systems Specialization, and a Societal & Environmental Systems Specialization within the Systems Design Engineering plan, effective 1 September 2024, as presented.

   b. Major Modifications – Quantum Engineering Option
   To approve the creation of the Quantum Engineering Option within the Faculty of Engineering, effective 1 September 2024, as presented.

   c. Major Modifications – Microbiology Option & Cell and Molecular Biology Option
   To approve the creation of the Microbiology Option and the Cell and Molecular Biology Option within the Faculty of Science, effective 1 September 2024, as presented.

   d. Plan Inactivation – International Studies in Engineering Option & Society Technology, and Values Option
   To approve the inactivation of the International Studies in Engineering Option and the Society, Technology, and Values Option, effective 1 September 2024, as presented.
DeVidi and Deakin. All motions carried.

11. **REPORT OF THE SENATE FINANCE COMMITTEE**
    a. Update on 2023/24 Annual Operating Budget

James Rush provided a presentation, and noted the following:
   - Budget opened with a $4 million deficit, now projected to grow to $16.5 million
   - Addressing of the budget gap will be via spending restraint as well as through utilization of one-time sources (including from STEM funding announced by the province, as available)
   - Overall tuition revenue is on track from opening estimates, with offsetting deviations from the increase in domestic undergraduate vs. the decrease from international fee-paying students
   - Increases to salary/benefit expenses arising from Bill 124 reopener

- Challenges anticipated in 2024-25 arising from governmental and geopolitical uncertainty, and also from constrained revenue sources (tuition freeze, diminished potential international student enrollments)
- Details on specific allocations to Waterloo from the recent $1.3 billion funding announcement are not yet available
- Waterloo is anticipated to receive a portion of funding for STEM enrollments, but is not anticipated to receive funding earmarked for those institutions facing the most difficult financial situations
- Measures to address the budget deficit will include forgoing some central fund investments in areas such as infrastructure renewal, and broadly will require an approach that is transparent and multi-modal
- Communications to campus are planned on other related measures to mitigate the deficit, including budget reductions that will be sought across all units

Members discussed:
- Budget data presented is a result of shared governance across many units, with Senate receiving budget information congruent with its role as an oversight body
- The level of detail provided in the budget materials is greater than in previous years, with senators expressing varied opinions on whether even greater detail would be desirable or whether the current level of detail will suffice for Senate's deliberations
- Investments from central funds will need to be prioritized as part of budget measures to mitigate the deficit, and planned investments will need to be deferred; when examining deferred maintenance, the University will need to look for synergies and efficiencies
- Hiring activity will be restricted, with a mechanism to vet and approve hiring plans by units; the University will continue to prioritize key activities and allocating the necessary resources for those activities
- Certain on-campus offerings are co-funded between the central budget and fees drawn from students, and it is anticipated that net new expenses in those areas will be carefully examined before proceeding

Senators were invited to send further questions following the meeting through the secretary.

12. AMENDMENTS TO UNIVERSITY POLICIES
a. Recommended Amendments to Policy 3 – Sabbatical and Other leaves for Faculty Members and to Policy 43 – Special Conditions for Employment for Deans

Rush spoke to the report, noting that ambiguities arising from the two policies and the memo would be resolved with the proposed amendments, and Porreca affirmed FAUW support for the recommendation. Members clarified: administrators currently in their role will be "grandfathered" their leave under the existing framework, and those taking on new appointments will be subject to the amended framework; the ability of a faculty member to take certain types of leave (such as sabbatical) would depend on their appointment e.g. tenure-stream vs. teaching-stream; policy is clear that sabbatical leave is not intended to lead into retirement, and there have been instances of individuals who have retired from the University with a remaining balance of earned leave having not been taken.

A motion was heard to approve the proposed amendments to Policy 3 – Sabbatical and Other Leaves for Faculty Members, and to cancel Policy 43 – Special Conditions for Employment for Deans (Policy 43), as described in this report and attachment, and further to recommend that the Board of Governors give final approval to the same proposed amendments. Porreca and Rush. Carried.

CONSENT AGENDA
The consent agenda was approved under item 3, with items approved or received for information.

13. REPORT – SENATE GRADUATE & RESEARCH COUNCIL. Received for information.
a. Regulation Revisions – Faculty of Engineering Dean's Honours List
To approve the proposed academic regulation revisions to update the Distinction and Dean's Honours Minimum Cumulative Average for Graduating Honours and Term Distinction, for the Faculty of Engineering, effective 1 September 2024, as presented.

    b. Regulations Revisions – Invalid Credential Combinations
To approve the proposed academic regulation revisions to the Invalid Credential Combinations section of the Undergraduate Studies Academic Calendar for the Faculty of Environment's Business Option and Sustainability Financial Management, effective 1 September 2024, as presented.

14. REPORT – VICE-PRESIDENT, RESEARCH & INTERNATIONAL – Awards, Distinctions, Grants, Waterloo International Engagements
Received for information.

15. REPORT OF THE VICE-PRESIDENT, ACADEMIC AND PROVOST
    a. Faculty Appointments, Leaves
Received for information.

16. 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.

17. OTHER BUSINESS
    a. Senate Self-Assessment Surveys
The chair indicated that the surveys will be forthcoming for Senate and Senate committees/councils.

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

March 13, 2024   Mike Grivicic
MG/dg   Associate University Secretary to
                                                    Senate

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2023-2024 Senate Work Plan

Office of the Secretariat

Senate Agenda Items · expected *as needed	15 May 2023	19 June 2023	18 September 2023	23 October 2023 *Strategic Plan Annual Update / Waterloo at 100*	27 November 2023	29 January 2024	4 March 2024	8 April 2024
REGULAR AGENDA (including items for information and discussion)								
Minutes	·	·	·	·	·	·	·	·
Business Arising	·	·	·	·	·	·	·	·
LEADERSHIP UPDATES[6]								
Report of the Vice-President, Academic & Provost	*	*	*	*	*	*	*	*
Report of the Vice-President, Research and International	*	*	*	*	*	*	*	*
COMMITTEE/COUNCIL REPORTS								
Executive Committee	*	*	*	*	*	*	*	*
Graduate & Research Council (GRC)	·	·	·	·	·	·	·	·
Undergraduate Council (UC)	·	·	·	·	·	·	·	·
Long Range Planning Committee				·		·		·
Fall Update, University Operating Budget				·				
Joint Report of GRC & UC, Academic Calendar Dates[1]					·			
University Committee on Student Appeals Annual Report[1] (Policy 72)					·			
University Appointment Review Committee Annual Report[1] (Policy 76)								·
Finance Committee - Budget Update[3]							·	
Finance Committee - Budget recommendation[2, 3]								·
OTHER SENATE AGENDA ITEMS								
New Senator Orientations (before meeting)	·							
Teaching Awards Committee								·
Delegation of Roster of Graduands								·
Report of Roster of Graduands		·		·				
Convocation Report (CR&E) – summary of previous years' ceremonies								·
Undergraduate and Graduate Admissions Update						·		
Conduct Self-Assessment Survey[1]							·	
SENATE PRESENTATIONS								
Presentations from the Presidents of the Faculty Association, Waterloo Undergraduate Association and Graduate Student Association[1]							·	
Strategic Plan Accountability Update[1] (June)								
PART Annual Update		·						
Faculty Update (6x/year)			ENG	HLTH	MATH	ENV	ARTS	SCI

[1] Annual item
[2] Board of Governors approval
[3] Presented by the Vice-President Academic and Provost
[4] Presented by the President and Vice-Chancellor, and Chair of Senate
[5] Presented by the University Secretary
[6] Leadership updates may include such topics as: Talent, We Accelerate Report, Communities (EDI, Sustainability); Waterloo International, etc.

Senate Agenda Items · expected *as needed	15 May 2023	19 June 2023	23 September 2023	23 October 2023 *Strategic Plan Annual Update / Waterloo at 100*	27 November 2023	29 January 2024	4 March 2024	8 April 2024
CONSENT AGENDA								
Reports from Faculties (e.g., appointments, administrative appointments, sabbaticals)[2]	·	·	·	·	·	·	·	·
Tenure and Promotion Report[4]			·					
University Professor Designation[3]							·	
Call for Nominations for University Professor[3]			·					
Call for Nominations for Honorary Degree Recipients[4]						·		
Report of the COU Academic Colleague[1]	·							
Senate Committee Appointments[5]	*	*	·	*	*	*	*	*
CLOSED AGENDA								
Minutes	·	·	·	·	·	·	·	·
Business Arising	·	·	·	·	·	·	·	·
Reports from Committees and Councils	*	*	*	*	*	*	*	*
Honorary Degree Recommendations	*	*	*	*	·	·	*	*
Reports from Search and Review Committees for Policy-based Senior Leadership Appointments and Reappointments	*	*	*	*	*	*	*	*
Report of VP Advancement on Policy 7[1]		·						

Joint SENATE/BOARD Strategic Plan Focus Sessions 3-4:30	Joint SENATE/BOARD Continuing Education Sessions 3-4:30
• To be determined	• To be determined

Future Items to be Scheduled:
- President's Anti-racism Task Force Update (PART)
- Early 2025 - Appointment of COU Academic Colleague (S. Kline appointed to April 30, 2025)

For more information: secretariat@uwaterloo.ca
uwaterloo.ca/secretariat, NH 3060

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[1] Annual item
[2] Board of Governors approval
[3] Presented by the Vice-President Academic and Provost
[4] Presented by the President and Vice-Chancellor, and Chair of Senate
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[6] Leadership updates may include such topics as: Talent, We Accelerate Report, Communities (EDI, Sustainability), Waterloo International, etc.

Senate Graduate & Research Council

For Approval   **Open Session**

To:	**Senate**
Sponsor:	Charmaine Dean Vice-President, Research & International Jeff Casello Associate Vice-President, Graduate Studies and Postdoctoral Affairs
Presenter: **Contact Information:**	Jeff Casello jcasello@uwaterloo.ca
Date of Meeting:	April 8, 2024
Agenda Item Identification:	**9(a) Report – Senate Graduate & Research Council: New Program - Type 2 Graduate Diploma in Climate Change**

Recommendation/Motion:

To approve the creation of the Type 2 Graduate Diploma in Climate Change, effective September 1, 2024, as presented.

Summary:

Senate Graduate & Research Council met on March 4, 2024 and agreed to forward the following items to Senate for approval as part of the regular agenda.

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:

Environment Faculty Council approval date (mm/dd/yy): 01/18/24

Senate Graduate & Research Council approval date (mm/dd/yy): 03/04/24

Highlights/Rationale:

The proposed new program is a Type II interdisciplinary graduate diploma in Climate Change that will build on existing disciplinary strengths to train graduates from any Faculty to go beyond the context of their own academic-professional concentrations to broadly engage with the complexity of whole-of-society climate change solutions from community to global scales. Participating students will be required to take two courses: a foundation course in climate change for breadth, and an approved climate change elective from outside of the student's home Faculty for depth. In addition, students will be required to participate in a minimum of 4 approved climate change seminars and conferences to achieve the professional networking and interdisciplinary milestone.

The Type II Graduate Diploma in Climate Change will be open to all full-time and part-time, Master's and PhD students except for Master in Climate Change students and students pursuing the Type III Diploma in Climate Risk Management. Students will take this diploma alongside their normal degree within the regular timeframe and no additional tuition fees are required. It is expected that 75-100% of the program will be delivered in person, but some of the climate change elective course options and milestones may be completed online.

Full details are available in the included proposed brief (Appendix A).

Documentation Provided:

Appendix A – Type 2 Graduate Diploma in Climate Change Proposed Brief

UNIVERSITY OF WATERLOO

GRADUATE EXPEDITED PROPOSAL*

OF

GRADUATE TYPE II DIPLOMA IN CLIMATE CHANGE
Submitted to the
Ontario Universities Council on Quality Assurance

VOLUME I - PROPOSED BRIEF

(FEB 24/2024)

*The Quality Council will normally require only an Expedited Approval process where:
  a)   there is a proposal for a **new Collaborative Program** at the graduate level; or
  b)   there is a proposal for **a new for-credit graduate diploma**.

NOTE: This template **must** be used for submission of a new program proposal.
Please consult the University of Waterloo Institutional Quality Assurance Process and the
Quality Assurance Framework (QAF) for details or the Quality Assurance Office.
****Volumes I, II must be reviewed and approved by the Quality Assurance Office, GSPA and IAP prior
to submission to your Faculty Council****

TABLE OF CONTENTS

1

1.   Introduction

Brief Listing of the Program

This new Type II interdisciplinary graduate diploma in Climate Change will build on existing disciplinary strengths to train graduates from any Faculty to go beyond the context of their own academic-professional concentrations to broadly engage with the complexity of whole-of-society climate change solutions from community to global scales. Participating students will be required to take two courses: a foundation course in climate change for breadth, and an approved climate change elective from outside of the student's home Faculty for depth. In addition, students will be required to participate in a minimum of 4 approved climate change seminars and conferences to achieve the professional networking and interdisciplinary milestone.

The Type II Graduate Diploma in Climate Change will be open to all full-time and part-time, Master's and PhD students <u>except for</u> Master in Climate Change students and students pursuing the Type III Diploma in Climate Risk Management. Students will take this diploma alongside their normal degree within the regular timeframe and no additional tuition fees are required. It is expected that 75-100% of the program will be delivered in person, but some of the climate change elective course options and milestones may be completed online.

Method Used for Preparation of the Brief

Conversations with the Associate Vice-President, Graduate Studies and Postdoctoral Affairs (GSPA), Jeff Casello, were started in 2021; with more focused discussions about this interdisciplinary cross-campus climate change program with the following faculty members in Spring of 2022.

Environment
- Daniel Scott, Professor, Geography and Environmental Management
- Johanna Wandel, Associate Professor, Geography and Environmental Management
- Sarah Burch, Associate Professor, Geography and Environmental Management and Executive Director, Waterloo Climate Institute

Arts
- Andy McMurry, Professor, English Language and Literature
- Daniel Henstra, Professor, Political Science
- Angela Carter, Associate Professor, Political Science

Health
- Warren Dodd, Assistant Professor, School of Public Health Sciences
- Hannah Neufeld, Assistant Professor, School of Public Health Sciences
- Kelly Skinner, Associate Professor, School of Public Health Sciences
- Sharon Kirkpatrick, Associate Professor, School of Public Health Sciences

2

Engineering
- Maya Przybylski, Interim Director, School of Architecture
- Jason Grove, Associate Chair, Undergraduate Studies, Chemical Engineering
- Mario Ioannidis, Chair, Chemical Engineering
- Monica Emelko, Professor, Civil and Environmental Engineering, Associate Director, Waterloo Climate Institute

Math
- Francis Poulin, Professor, Applied Math and Associate Director, Waterloo Climate Institute
- Marek Stastna, Professor, Applied Math and Associate Dean Computing

Science
- Mario Coniglio, Chair, Earth and Environmental Science
- Martin Ross, Associate Dean, Graduate Studies

Following these consultations, Professors Johanna Wandel and Peter Deadman submitted a proposal to the Dean for the Provost's Interdisciplinary Fund in July 2022. With the support of these Faculty members and that of other Faculty Deans, the Faculty of Environment was approved for funding from the Provost's Interdisciplinary Fund in late 2022 to develop the Diploma, including hiring a Climate Training Program Specialist to assist with establishing the program. Dr. Michele Martin began in this position in May 2023 and is co-author of this brief with Professor Daniel Scott and Rebecca Wickens, Director, Strategic Initiatives and Communications for the Faculty of Environment.

A Program Advisory Committee with representation from the Waterloo Climate Institute (WCI) members from all Faculties was set up at the end of May 2023 to oversee the development of this proposal and the program itself. The members of the Program Advisory Committee (PAC) are:

1. Daniel Scott, Faculty of Environment
2. Francis Poulin, Faculty of Math
3. Kirsten Muller, Faculty of Science
4. Monica Emelko, Faculty of Engineering
5. Allison Kelly, Faculty of Arts
6. Sharon Kirkpatrick, Faculty of Health

The first meeting of the PAC was held on Thursday June 15th, 2023 and all members were in support of the brief, in general, the proposed Diploma structure, and approach.

In addition to support from Faculty members, members of the WCI's Climate Students group have also expressed support for this new program.

The Statement of Interest form for this new program was submitted to the Dean of the Faculty of Environment on May 19, 2023, and approved on May 24, 2023. It was approved by the QA office on May 29, 2023.

3

Other important dates:

DATE (2023)	STEP
June 15th	First meeting of Program Advisory Committee to review the proposal and get input from members of all 6 Faculties
June 23rd	Proposal Brief, Volume 1 to Graduate Studies Committee (GSC), Dean for initial review and discussion.
July-September	The Dean and Faculty Financial Officer or Executive Officer finalize the financial addendum, then submit for review by IAP. Submit Volume 1 for review by QA. Address comments from IAP and QA. .
Oct 6th	Revised Volume I sent to QA for final approval
Oct 16th	Submission of Volume 1 and Calendar description for new course to GEM for approval at Oct 27th meeting
Oct 27th	GEM Department Council meeting – package approved.
Dec 1st	GSC meeting – review package
Dec 7th	Once GSC approval is granted, Proposal Brief, (Vol I) and calendar description for new course are sent to Admin Committee for review for inclusion in their Nov 2nd meeting
Jan 4th	Admin Committee approves addition of GSC items to the Faculty Council agenda. If approved, package is included in Faculty Council agenda for Nov 16th meeting.
Jan 18th	Faculty Council meeting – review package for recommendation to SGRC.
Jan 18th	If approved by FC, package is sent to QA – and QA forwards it to SGRC.
Jan 18th	If approved by FC, package is also forwarded directly to SGRC by the Faculty of Environment
Feb 5th	SGRC meeting – package is reviewed for approval of the foundation course and recommendation of the program to Senate.
Mar 4th	Senate meeting – the new Type II GDip Program is approved; package is submitted to the Quality Council.
Mar 4th	Soft launch of GDip in Climate Change with introduction of new foundation climate change course in Fall 2024
Sept 2024	New GDip in Climate Change is formally launched

2. Objectives of the Program (QAF 2.1.1)

Both the University of Waterloo strategic plan, Connecting Imagination with Impact, and the Waterloo at 100 strategic vision highlight Waterloo's integrated and collaborative way of tackling complex global challenges through disciplinary and interdisciplinary curricula, experiential learning and research. Consistent with the Waterloo strategy and vision, the GDip in Climate Change leverages disciplinary strengths across campus to provide a unique opportunity for graduate students to engage in interdisciplinary education, academic

4

community, and professional network building with others interested in understanding and finding solutions to the global climate crisis.

This GDip is also well positioned to support the implementation of several recommendations of the UW Interdisciplinary Task Force Report (2020) including:

- *Build on success and increase interdisciplinary opportunities within existing academic programming.*
- *Offer more flexible credentialing so students can complete joint degrees or minors in other areas, or even create areas of specialization themselves.*
- *Build capacity for interdisciplinary education.*
- *Increase opportunities for interacting with others who have a different academic lens. (Provide students with additional opportunities to work with peers from different programs or faculties and cultivate opportunities for students from different Faculties to get to know one another, combat siloing.)*
- *Work toward a culture of respect for different ways of understanding.*

Students in the GDip in Climate Change will have access to a foundational interdisciplinary climate change literacy course and campus-wide electives courses open to all graduate students. The foundation course will help students develop new perspectives on climate change, strengthen community among faculty members and students across disciplines, and give students the opportunity to explore how their research and career choices can help to address the climate crisis. The elective courses will challenge students to increase their depth of knowledge in a specific area related to climate change. Following a scan of offerings at other Canadian universities, this new GDip appears to be the most flexible and accessible graduate diploma in climate change on offer in Canada.

Key Benefits of this new GDip in Climate Change:
The new graduate diploma will bring interdisciplinary education in climate change to graduate students across campus and strengthen community among this cohort and alumni practicing in diverse climate change fields. Participating students will be better prepared for careers and societally relevant research activities through the provision of opportunities to share ideas, skills, methodologies, professional ethics, and partnerships of other disciplines. Some of the anticipated benefits of the new program include:

- Create a university community of scholars with common interests in climate action (faculty, postdocs, graduate students, and alumni) through co-curricular programming.
- Promote "big picture" thinking by framing climate change as a fundamentally cross- and inter-disciplinary challenge that cannot be solved by working in disciplinary silos.
- Attract talented students, who are demanding climate action by government and business leaders, to the University of Waterloo.
- Enable students to speak beyond their own field and embrace diverse approaches to solving the climate crisis.
- Provide support for graduate students who want to integrate interdisciplinary climate perspectives into their research.

5

- Foster new interdisciplinary connections among faculty, research groups and students to amplify innovation and new areas of inquiry and advance UW's agenda for interdisciplinary research and education.
- Enhance the reputation of the University of Waterloo as a leader for research and education on climate change.

The learning outcomes and skills that students are expected to acquire from the GDip in Climate Change include the following:

Graduate Degree Level Expectations (GDLE's)	Learning Outcomes By the end of this Interdisciplinary GDip in Climate Change, students should be able to
1. Depth and Breadth of Knowledge	*1) Recognize interdisciplinary knowledge of the concepts, information, and techniques relevant to the main dimensions of climate change research and practice.* *2) Analyze current climate change problems and solutions from outside of their academic discipline or field of study, providing new insights into research and professional practice in their discipline.*
2. Research and Scholarship	*3) Use terminology that facilitates interdisciplinary research and professional practice on climate change and draws on multiple fields of inquiry to address complex scientific and social challenges related to climate change.* *4) Describe new interdisciplinary insights into research and/or professional practice related to climate change problems and solutions.*
3. Level of Application of Knowledge	*5) Synthesize knowledge, creativity, insight, and diverse approaches to inform more impactful climate action.*
4. Professional Capacity/ Autonomy	*6) Participate in an interdisciplinary network of students and faculty passionate about solving the climate crisis.*
5. Level of Communication Skills	*7) Produce professional quality written reports and presentations, summarizing new concepts and insights into climate change as it relates to their discipline.* *8) Communicate and network with other course participants via seminars, web forums, networking events, and other experiences.*
6. Awareness of Limits of Knowledge	*9) Recognize complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.*

These learning outcomes are directly aligned with several objectives from the UW Strategic Plan (2020-2025):

Theme 1: Developing Talent for a Complex Future
- Find new ways to work together and remove barriers to collaboration, interdisciplinarity and the integration of knowledge.

6

- Foster an interdisciplinary environment for graduate students and post-doctoral scholars to increase the impact of their work.
- Strengthen academic, personal, and professional supports for our graduate student community.
- Stimulate opportunities for interdisciplinary research by developing more flexible graduate programs.

Theme 2: Advancing Research for Global Impact
- Waterloo will use its disciplinary and interdisciplinary strengths to solve increasingly complex, real-world problems.

Theme 3: Strengthening Sustainable and Diverse Communities
- Nurture relationships between faculty and students to promote academic curiosity and risk-taking in a safe and supportive community of learners.
- Develop a culture of involvement that fosters inclusivity and a sense of belonging.
- Embrace and act upon the Truth and Reconciliation Commission's recommendations and calls to action and build stronger relationships with our local Indigenous community.
- Intentionally develop programming to inspire collaboration for shared research, teaching, learning and community building opportunities among our students, faculty, staff, and alumni.

The new Climate Change Diploma is also well aligned in content and timing with the _Strategic Vision and 5 Futures Framework_ , and collaborative approaches to research and learning to build a better, more sustainable future for all. The Sustainable Futures Initiative currently being implemented by the Waterloo Climate Institute, the Waterloo Institute for Sustainable Energy and the Water Institute will provide multiple opportunities for students engaged in the program to participate in collaborative events and projects focused on climate solutions, and more broadly help to achieve the United Nation's Sustainable Development Goals in Canada and elsewhere. the United Nation's Sustainable Development Goals in Canada and elsewhere.

A Type II Graduate Diploma in Climate Change is the most appropriate name for this certification for graduate students, being broad enough to provide flexibility and reflect the diverse related areas of interest and research encompassed by this societal challenge and expanding area of professional practice. Because the program focuses on climate literacy and is broad in scope, the general title "Climate Change" is easily understandable by students and by their future potential employers or research supervisors. This Type II Graduate Diploma is available to all UW students who want to pursue graduate studies in their primary discipline of interest, but at the same time develop a specialization in climate change.

7

3. **Admission Requirements (QAF 2.1.2)**

This program is open to all students already accepted and enrolled in a University of Waterloo master's or doctoral degree program (except for Master of Climate Change students and Diploma in Climate Risk Management students). As a Type II graduate diploma program, the standard admissions procedure would not apply to this proposed program. Once a student is admitted to a University of Waterloo master's or doctoral program, they would be eligible to enroll in the Graduate Diploma, subject to the following.

To be eligible, students must be in good standing in their home master's or doctoral program to pursue the GDip and will be encouraged to discuss their intention to pursue the GDip with their supervisor/Graduate Officer.

Students will indicate their intention to complete the Graduate Diploma by completing the Climate Change (CC) Diploma Enrollment Form developed by the Faculty of Environment. The form will be posted on the Diploma's page (hosted in the Faculty of Environment) and linked from the Graduate Studies Academic Calendar. The student will specify the elective course they would like to take in fulfillment of the GDip requirements and will receive an admission notification from the Program Director.

Graduate students can enroll in the Diploma at any time, but must have completed all program requirements, including the milestones, by the time of degree completion from their regular master's or doctoral program. Notwithstanding the foregoing, students will be encouraged to enrol in the GDip as early as possible in their graduate studies so that they can fully benefit from the community of interdisciplinary learning integral to the program and take the foundation course early in their graduate studies. The foundation course will be offered every Fall term and normally would be completed prior to taking the climate change electives course.

Once the CC Diploma Enrollment form is received by the Faculty of Environment, staff will track the students' progress using LEARN and an internal tracking process. At the time of degree completion, the Program Director and graduate administrators from the student's home department/school will review the student's record to ensure that the GDip requirements have been met and will provide confirmation to Graduate Studies and Postdoctoral Affairs.

8

4.   Structure (QAF 2.1.3)

The GDip in Climate Change will be administered by the Department of Geography and Environmental Management in the Faculty of Environment. There will be a Program Director from the Faculty of Environment appointed by the Dean (Professor Daniel Scott, Director of the Master of Climate Change program is proposed), who will be responsible for the overall administration of the program, student support and leading the cyclical review process. The Program Director will ensure that a sufficient number of relevant course electives are available to students, that the courses meet the Diploma requirements and communicate student Diploma completion with graduate administrators in the students' home departments.

The Program Director will be assisted by a Program Advisory Committee consisting of representatives from all six Faculties, as well as the Climate Training Program Specialist at the Waterloo Climate Institute. The Faculty of Environment will provide administrative assistance with tracking students' completion of requirements and qualification for the GDip in Climate Change by the time of degree completion (the Master of Climate Change program co-ordinator is proposed).

In order to obtain the GDip in Climate Change, students will be required to successfully complete 2 (0.50) graduate level courses and one networking milestone (equivalent to one 0.50 graduate level course) which can be completed within the normal time period of students' primary degree, whether they are enrolled full-time or part-time. Collectively, these three requirements will allow students to achieve the GDip learning outcomes outlined in Section 2 (above) and contribute towards the associated GDLEs as demonstrated in the Table in Appendix 1.

1) The first course "Climate Change and Society" (0.50 credit) will be taken by all participating students to meet the breadth requirement of the GDip in addition to their normal course load. This new course is being developed by the proposed Program Director in collaboration with the Program Advisory Committee and with assistance from the Waterloo Climate Institute's training programs specialist. The anti-requisites for this course will include GEMCC 600 as well as the MCC core required courses GEMCC 601, 602 and 603.

2) The second course will be chosen from a list of eligible electives (climate change focused graduate courses worth 0.50 credit) from the six Faculties which have been reviewed by the Program Director and the Program Advisory Committee to ensure sufficient climate change content to meet the "depth" requirement of the GDip. The elective chosen by the student must be from outside the student's home Faculty and/or area of study. An indicative list of electives and their course descriptions is provided in Section 5 (Program Content). This list will be updated regularly as new climate focused graduate courses are added to the course catalog.

9

3) Periodic interaction with other students and researchers is a key building block to fostering a community of scholars. To achieve the networking milestone, students will be required to participate in a minimum of four extra-curricular in person and/or online climate change lectures, events, workshops, conferences, or other activities at UW or offered by external organizations (e.g., the United Nations, industry associations, non-governmental organizations). There are many such opportunities already in place both at UW as well as on offer by diverse local, regional, and international organisations. An indicative list of networking opportunities and guidance on what counts towards the milestone will be shared with participating students. Students can also find their own event or experience but must first seek approval from the Program Director and/or Program Advisory Committee to count it toward the diploma milestone.

Progress toward the networking milestone will be tracked via a Learn course extending beyond a single term – all Diploma students will be enrolled in the Learn site as soon as they enroll in the GDip program. The Learn shell will also be open to researchers and, via announcements and discussion forums, can become the central meeting point for the community of scholars seeking the Diploma and a supplementary venue for publicizing lectures and other networking events. Students completing the Diploma will upload short reflections on the four extra-curricular activities they participate in, and these will be reviewed by the Program Director and Co-ordinator to track milestones completion.

5.   Program Content (QAF 2.1.4)

The goal of this new graduate diploma is to make foundational interdisciplinary climate change programming at the graduate level available to all graduate students regardless of their Faculty and program. This new GDip will help Waterloo graduate students develop new perspectives on climate change, strengthen community among faculty members and students across disciplines, and give students the opportunity to explore how their research and career choices can help to address the climate crisis. Based on a scan of offerings by other universities in Canada, this is currently the most accessible and flexible climate change diploma of its kind available to graduate students.

Students will achieve the learning outcomes listed above by taking two graduate level climate change courses and achieving a networking milestone. Further information about these two courses and the milestone is provided below.

1)   Core Course (to meet breadth requirement of the GDip): Climate Change and Society

All students enrolled in the diploma will be required to take this core course, which is under development. It is envisioned as a graduate level survey course engaging students in foundational knowledge on climate change science, impacts and adaptation, and emissions and mitigation (the UN IPCC three core working groups), which will leverage the strength of the Waterloo Climate Institute's members in these core fields. The course will be developed as an in-class offering to foster cohort building and exchanges critical to

10

interdisciplinary learning. The anti-requisites for this course will include GEMCC 600 as well as the MCC core required courses GEMCC 601, 602 and 603. The GDip Program Director will teach this course, which is being co-developed with the Program Advisory Committee.

This core course is being carefully designed to draw on Climate Institute member strengths from climate modeling and services, to climate change communication, to deep decarbonization and just transitions, to adapting to future climates, and climate governance and finance. The course is being designed in a manner such that all graduate students, regardless of disciplinary background, are able to succeed. The structure of the course is being carefully designed to guide learners from causes to impacts to solution spaces: requiring deliberate and carefully crafted connections among the contributions of researchers. Done well, this will be a truly interdisciplinary course rather than a survey course where topics, while all connected to climate change, are presented in a multi- but not interdisciplinary way.

2) **Elective Course (to meet depth requirement of the GDip): Disciplinary Approaches to Climate Change Solutions**

UWaterloo already offers a number of graduate courses that are thematically focused on climate change, with more taught under special topics designations. The Program Director, in consultation with the Program Advisory Committee, will maintain a list of all courses that meet the climate change depth requirement for the GDip, potentially including special topics/one off courses. Students will choose one of these courses from underline outside underline their own Faculty and/or area of focus to complete the Depth requirement of the diploma. Many of the courses on this list can be offered online or in person.

Proposed current eligible elective courses are listed below (although it should be noted that all may not be offered every year).Several new discipline-specific graduate courses on climate change are currently under development and will be considered for eligibility once they are in the University Academic Calendar. Consultations are underway with the respective departments/schools and course instructors to confirm if all courses are still on offer and can be included.

List of current eligible electives:

ENV	ENBUS 652/ ENBUS 652	Business and Climate Change
ENV	GEMCC 610	Climate Prediction, Modeling and Scenarios
ENV	GEMCC 620	Climate Data and Analytics
ENV	GEMCC622	Climate Change, Natural Hazards and Disaster Risk Reduction
ENV	GEMCC 630	Land Use and the Carbon Cycle

11

ENV	GEMCC 640	Climate Change Governance: From Global Treaties to Local Innovation
ENV	GEMCC 644	Climate Resilient Canadians and Health Systems
ENV	GEMCC 652	Climate Change and Community Planning
ENV	GEMCC 660	Carbon Accounting and Management
ARTS	GGOV 628	Governing a World in Climate Crisis
ARTS	HIST 624	Environmental & Climate History, Premodern
ARTS	HIST 660	Transnational and Global History: Old Problems and New Directions
ENG	ARCH 672	Energy Effective Design
ENG	ARCH 673	The Science of the Building Envelope
ENG	ECE 632	Photovoltaic Energy Conversion
ENG	ECE 660	Operation and Control of Future Integrated Energy Systems
MATH	STAT 946	Topics in Probability and Statistics: A Quantitative Approach to Sustainable Finance
HEALTH	PHS 604	Public Health and the Environment

More detail about these courses can be found below from their course descriptions:

Eligible electives from the Faculty of Environment:

ENBUS 652: Business and Climate Change
Course Description:
This course examines the intersection of business management, climate change, and the evolving policy environment within which mitigation and adaptation occurs. A Canadian lens is applied to understanding: climate change business economics; the changing policy and regulatory landscape at the international, national and provincial levels; the ways in which a price on carbon and the need to disclose carbon and climate risk can affect business decision-making; and various opportunities for companies to reduce their carbon footprint to operate in emerging low-carbon economies, make their business more resilient to the impacts of climate change, and identify value-creation opportunities. Leadership cases from businesses worldwide will be explored, including multi-nationals and small and medium sized enterprises.

12

GEMCC 610: Climate Prediction, Modeling and Scenarios
Course Description:
Computer models of the physical climate system are essential tools for investigating future climate change. This course will introduce students to the basic formulation of these models, and their strengths and limitations. Inter-linkages between climate modeling and mitigation and adaptation policy agendas is reviewed and critiqued. The types of climate modeling experiments performed with such models and scenarios will be reviewed. The latest projections of future climate on a variety of temporal and spatial scales will be presented and evaluated.

GEMCC 620: Climate Data and Analytics
Course Description:
This course examines the scientific and practical challenges of finding and utilizing climate data to derive useful information in order to inform research and decision-making processes. Through lectures, readings, videos and assignments, this course will introduce different types of climate data (historical, contemporary measurements and modelled) and discuss how they can be realistically analyzed to derive useful information (both within a research and policy context). From a general discussion on what climate data is and its value, this course will then focus on finding/collected climate data and critically evaluating how it can and should be used. Further, this course will introduce students to the development of data management plans, climate data curation, and effective ways of visualizing and contextualizing climate data to a variety of target audiences. Building upon this foundational knowledge, strategies and methodologies for analyzing climate data to derive useful information related climate risk in a variety of sectors with be explored. This includes areas such as community planning, human health, engineering/infrastructure among others. Students must have access to spreadsheet software for assignments.

GEMCC622: Climate Change, Natural Hazards and Disaster Risk Reduction
Course Description:
This course explores the complex links between climate change and natural hazards, and related disasters, including disaster risk reduction as an adaptation strategy. Emphasis is placed on examining these concepts in a developing country context.

GEMCC 630: Land Use and the Carbon Cycle
Course Description:
This course examines contemporary theories, approaches, and technologies used to study coupled natural-human systems at the intersection of land-use and land-cover change, land management, and the carbon cycle. Topics covered include measurement and modelling techniques to improve carbon accounting, the effects of land use and land management on carbon storage and flux, and international and national policy frameworks influencing carbon sequestration and climate change mitigation.

13

GEMCC 640: Climate Change Governance: From Global Treaties to Local Innovation
Course Description:
This course explores the theories behind, and practical approaches to, the multi-level governance of climate change. The United Nations Framework Convention on Climate Change, the Kyoto Protocol, national climate action plans and local innovation are viewed through the lenses of legitimacy, effectiveness, and participation. Finally, we consider the challenge of transformative change, and the possibility of finding synergies among climate change responses and other pressing social and environmental priorities.

GEMCC 644: Climate Resilient Canadians and Health Systems
Course Description:
Climate change is a growing threat to the health of Canadians, their communities and health systems. Over two decades of increasing research, partnerships, awareness building and adaptation development among health authorities has demonstrated that significant opportunities exist to make strides in efforts to protect Canadians from current and future impacts. This course examines climate-change related health risks to Canadians, including to populations of highest concern - seniors, young children, people with chronic illnesses, the socially and economically disadvantaged, and Indigenous Populations - and the potential for impacts on communities and health systems. New tools such as climate change and health vulnerability and adaptation assessments and health system stress testing are discussed along with their application to policy and program development by Canadian and international partners. Guest lectures and case studies are used to illustrate and learn from the actions of leading health adaptors in efforts being taken to prepare people for the future climate.

GEMC652: Climate Change and Community Planning
Course Description:
Climate change has complex implications for communities across Canada and Planners are at the forefront of developing and implementing strategies to both reduce greenhouse gas (GHG) emissions and build resilience to current and future climate. This course focuses on some of the opportunities and challenges associated with the integration of climate change into urban and rural planning, including climate vulnerability of urban systems, low-carbon transport systems, urban greening and green infrastructure for climate resilience, regenerative designs that reduce social vulnerability, the role of information and communication technologies for system efficiency and resilience, and assessing synergies and conflicts between mitigation and adaptation. Leading policy and design cases from communities across Canada and internationally will be examined.

14

GEMCC 660: Carbon Accounting and Management
Course Description:
Carbon management is fundamental to achieving international and national policy objectives to avoid dangerous climate change. With more jurisdictions implementing carbon pricing and cap and trade programs, carbon accounting and reporting is rapidly expected to become a central part of the global business environment. This course focuses on best practices in GHG measurement and management from the perspective of a business or organization. The course includes organization emission reduction target setting strategies; techniques and standards for organizational GHG inventories with reference to international-regional-sectoral reporting/trading schemes; auditing and verification processes; GHG information management systems; evolving expectations and approaches to disclosure of GHG emissions; supply-chain carbon accounting; and evolving carbon markets (voluntary, sectoral and regulated).

Electives from the Faculty of Arts:

HIST 624: Environmental & Climate History, Premodern
Course Description:
This course introduces graduate students to the major authors, works, and themes of preindustrial environmental and climate history. It demonstrates how historians frame the historical interaction of mutable human culture and natural environment. The locus of study is western Europe, the period between the end of antiquity and the start of the industrial revolution. Each week, students will read assigned texts and discuss them in a seminar format. Ultimately, each student must write a final research essay. Department consent required.

HIST 660: Transnational and Global History: Old Problems and New Directions
Course Description:
This course examines transnational and global historical processes, focusing on temporal and geographic scales of analysis outside of traditional national histories, and promotes linking the local and the global. It looks at global forces influencing particular societies and encourages students to place themselves outside conventional local, regional, and national boundaries, and will critically consider a number of the metanarratives that have informed and continue to inform historiography, particularly idea such as modernity, progress, and the ongoing preoccupation with the 'rise of the west'. Given these questions, and the almost endless scope of a course that purports to take the world as its focal point, weekly seminars will begin with a discussion of the possibilities offered by as well as the limits to transnational/global/world history, the various interpretative frameworks in use and their proponents as well as the challenges that transnational/global/world history poses. We will then focus on particular case studies or themes so as to promote discussion that is as much historiographical as it is historical. Such themes/case studies may include: feminism and imperialism, famine and climate change, disease and ecology, military technology and governmentally, global trade and the rise of consumer society(s), colonial knowledge and shifting ideas of race. Department consent required.

15

GGOV 628: Governing a World in Climate Crisis
Course Description:
Our time is defined by the climate crisis. As acknowledged in no uncertain terms by the UN's Intergovernmental Panel on Climate Change, we are living in a "code red for humanity" moment: without transformative policy changes, our future will be one of continually worsening climate crises. Meanwhile, calls for climate justice—for solutions that are both equitable and ecologically sustainable—are growing around the world. This is, of course, a massive global governance challenge. Therefore, this seminar invites you to engage with key themes in this field: anti-colonial climate governance, "death and damage" as experienced by Least Developed Countries, "supply side" climate governance, global worker-led climate action, transnational grassroots opposition to climate policy obstructionism, opportunities for a rapid just transition, and more. This scope might be too ambitious and yet it is by no means comprehensive. Consider this seminar instead as an opportunity to explore many of the foundational elements of governing the climate crisis that give you a strong basis for thinking and acting in a climate-changed world. This seminar also provides you with an opportunity to develop your research in this field, as well as your "real world" writing and communication skills, via two research-based policy briefs.

Electives from the Faculty of Engineering:

ARCH 672 Energy Effective Design
Course Description:
Vernacular building techniques once manifested the principles of passive solar heating, passive cooling and daylighting by solar orientation. Searching for ways to design energy efficient, comfortable and functional buildings, this workshop revisits the principles of passive heating, cooling and solar lighting, and explores the operation and use of energy simulation computer programs and post occupancy analysis within the context of sustainable design. The methods will be tested in two design projects: a freestanding suburban house and an urban row house. Consent of instructor required for those outside of the M.Arch program.

ARCH 673 The Science of the Building Envelope
Course Description:
The building envelope has become the single most significant and element within the contemporary economy of building. It bears much of the identity and amenity of buildings, is the site of significant expenditure, the occasion of environmental concern and attention, the object of much technological innovation, and the locus of entropy. This course provides an advanced study of the building envelope as the place where design, technology, building science, and environmental concerns converge. It discusses matters such as natural light and ventilation or the short- and long-term behaviours of building materials and assesses the use of new generations of "smart" mechanical environmental devices. Consent of instructor required for those outside of the M.Arch program.

16

ECE 660   Operation and Control of Future Integrated Energy Systems
Course Description:
The course will provide a comprehensive overview of the operation and control of the integrated energy systems of the future. The course will be offered in modules, each module discussing one aspect of the subject, so as to provide a broad spectrum of coverage and understanding. Many emerging issues related to the paradigm of smart electricity grids, such as energy storage, demand response, microgrids, and others, will be discussed. The course will provide a multi-disciplinary perspective on the energy system of the future, and will be open to graduate students from all engineering streams.

ECE 632   Photovoltaic Energy Conversion
Course Description:
Physical source of solar radiation; direct & diffuse radiations; review of electronic materials; semiconductor concepts; optical absorption; generation and recombination processes in semiconductors; operating principles of photovoltaic devices; homo- and hetero- junction devices; equivalent circuits; quantum efficiency; current-voltage characteristics; Efficiency limits in photovoltaic devices; short circuit current and open circuit voltage losses; temperature effect; material-imposed limits; theoretical and practical limits; Photovoltaic device design and fabrication; silicon-based devices; gallium arsenide devices; thin film devices; device simulation; fabrication technologies; Advanced photovoltaic concepts; nano-structure and organic PV devices; System-level photovoltaics; module structure and design; back-end electronics; stand-alone and grid-interactive systems; photovoltaic hybrid systems.

Electives from the Faculty of Math:
STAT 946: A Quantitative Approach to Sustainable Finance
Course Description:
The course is structured around two broad quantitative perspectives of sustainable finance as applied to Investment and Corporate Finance. The first part of the course deals with investors who are investing in green assets, while the second part of the course focuses on companies who are adjusting to climate change.

Electives from the Faculty of Health:
PHS 604: Public Health and the Environment
Course Description (syllabus currently being revised and will include more climate content): This course will explore the major sources of environmental stressors and types of environmental processes posing a risk to public health, and the mechanisms through which these interact with biological systems to exert adverse effects on human health.

3) **Networking Milestone:**

17

Students will be required to attend and participate in a minimum of four climate change events or experiences that provide opportunities for interdisciplinary interaction and networking, in order to achieve the Networking Milestone. These events could include a range of extracurricular climate change lectures (including the Waterloo Climate Institute lecture series), professional workshops and training on/off campus or online (e.g., UN training module on climate negotiations), participation in community or university climate related committee work or volunteer work etc., to be approved by the Program Director. To achieve credit, students will upload reflections for each of these four experiences to LEARN, in order to demonstrate what they learned, their insights into other disciplinary contributions toward climate solutions, and how they are integrating these experiences and learnings into their chosen discipline or research area. A list of pre-approved networking events and other opportunities would be shared with students at regular intervals, as will guidance on what counts as a networking opportunity.

Here are some examples of networking events offered at or through UW that would be eligible:

1. Participation in the Waterloo Climate Institute lecture series and other seminars, discussion groups and workshops on climate change offered on campus that provide scope for interdisciplinary interaction and networking.

2. Participation in UW Delegation to the UNFCCC Conference of Parties: https://uwaterloo.ca/climate-institute/programs/conference-parties-delegations

3. **2023 Fields Institute / WICI "Math for Complex Climate Challenges Workshop"**
This is an example of a UW event that could provide opportunities for GDip students to present and network across disciplines. Building on two successful Fields Mathematics for Climate Change (MfCC) workshops held in 2022, The Fields Institute partnered with the Waterloo Institute for Complexity and Innovation (WICI) to organize a hybrid (both in-person and virtual) 4-day workshop titled "Math for complex climate challenges" at the University of Waterloo from May 1-4th, 2023. The workshop aimed to:
   - Facilitate interdisciplinary cross-communication and fertilization in select climate research and mathematical methods topics
   - Identify researchable questions where collaboration would add value
   - Lay the groundwork for one or more large interdisciplinary distributed research network proposals.

4. Participation in ongoing committees and working groups related to climate change coordinated by groups on campus for example:
   - Waterloo Climate Institute's Student Climate Council
   - President's Advisory Committee on Environmental Sustainability

Here are some examples of climate change networking events offered externally that could also be eligible if they provide sufficient scope for networking and interdisciplinary collaboration/learning, subject to approval by the Program Director:

18

1. UNFCC – Dialogues on Action for Climate Empowerment: https://unfccc.int/ace-dialogues

2. Webinars, courses and networking events organised by non-profits such as Climate Access https://climateaccess.org/ , Climate Outreach https://climateoutreach.org/ , the International Union for Conservation of Nature https://www.iucn.org/nature-2030/climate , Engineers without Borders https://www.ewb.ca/en/xchange-2023/ . These events should provide clear opportunities for interaction with other participants.

3. Online synchronous or hybrid courses available on the UN CC e-Learn site or others that include a forum for discussion and exchange between active participants.

4. Online webinars and events offered by the Federation of Canadian Municipalities' Green Municipal Fund : https://greenmunicipalfund.ca/events

5. Island Innovation's online global conferences such as the annual Virtual Island Summit: https://islandinnovation.co/events/virtual-island-summit/

6. UNFCCC COP or side conference networking events and webinars, in person or online. These are offered on a regular basis by diverse organisations representing the private sector, government and civil society. For one example see the Digital Innovation for Climate Action and Just Transition: Blockchain Technology, Data Economy & AI for Climate Action @COP28.

How the Networking Milestone will contribute to the GDip's overall learning outcomes is articulated in Appendix A (Table 1).

6.   Mode of Delivery (QAF 2.1.5)

The Core course "Climate Change and Society" will be taught on-campus in a traditional classroom setting with weekly seminar scheduled during the fall term. The elective courses may be offered in person or online and during any of the three terms, depending on the arrangements and course schedule of the home Faculty.

Although the completion of the GDip in Climate Change does not lead to the awarding of a graduate degree, the program and its courses have been designed to address Graduate Degree Level Expectations (GDLEs) to ensure a) that these courses deliver content appropriate to the backgrounds of participating students; and b) that these courses impart unique skills with respect to interdisciplinary approaches climate change and climate solutions.

Table 1 lists the University of Waterloo's Masters GDLEs, which are based directly on the Ontario Council of Academic Vice Presidents (OCAV) GDLEs 1-6 and the associated Learning Outcomes mapped to GDLEs for the GDip in Climate Change.

19

7.   **Assessment of Teaching and Learning (QAF 2.1.6)**

Monitoring and Assessment of Overall Quality of the Program
The GDip Climate Change program will be monitored and assessed on a continuous basis using the following methods:

- Participating course instructors will be invited to discuss feedback from students and their suggestions for improvements to the program.
- Participating students will be asked to complete an exit survey upon completion of the program providing feedback on the program and learning outcomes
- Networking events will provide opportunities for participating students and instructors to provide verbal feedback and suggestions for improving the GDip program on an ongoing basis.
- The Program Director and Climate Training Program Specialist will compile information from all sources into an annual report, which will be reviewed by the Program Advisory Committee in reference to overall program outcomes, and recommendations for any changes needed
- The GDip will also be part of the GEMCC program review cycle which will provide opportunities for improvements to the program

Assessment of Teaching and Instructor Effectiveness

The GDip Climate Change course evaluation plan will include collection and analysis of the following data:

- Students are asked to complete course evaluations of online courses during the last two weeks of term using the University of Waterloo's standard, online evaluation instrument. This instrument includes specific questions for both the course and instruction.
- The number and type of technical help requests for each course will be logged and evaluated by the design team.
- Instructors will have the ability to add individual feedback questions throughout the course content, assessing student satisfaction with content presentation, order, and effectiveness.
- The Program Advisory Committee will meet on a regular basis to discuss overall student achievement and satisfaction in the program.

Course design improvements and enhancements will be made after student and instructor feedback after initial and subsequent offers. The Program Advisory Committee will use this information to plan course development, improvements, and offerings

Achievement of Program-Level Learning Outcomes

To monitor and assess overall achievement of program-level learning outcomes, students will be asked to reflect on these as part of the exit survey when completing the program.

20

Assessment of Student Learning

Assessment of Coursework:

Each course has its own specific learning outcomes, consistent with the learning outcomes listed in Table 1. Each course will use unique evaluation tools, and specific evaluation tools are at the discretion of the instructor but may include quizzes, written assignments, research papers, project work, and examinations.

Assessment of the Networking Milestone

The networking milestone is intended to provide students with opportunities to interact and engage with students, faculty members and community organisations representing a wide range of disciplines and interests related to climate change. To achieve credit, students will upload reflections for each of these four experiences to LEARN, in order to demonstrate how they are integrating these experiences and learnings into their chosen discipline or research area. The achievement of the networking milestone will be assessed by the Program Director with assistance from other Diploma faculty members and recorded as complete on the student's transcript.

Integration of Climate Change into Research / Dissertation

Some students may be able to integrate learning about climate change from the Diploma into their research and dissertation. While this is not a mandatory requirement for achievement of the GDip, it may provide further evidence of the achievement of the Gdip's Learning Outcomes. Students will be encouraged to self-report on this as part of the enrollment process as well as through other monitoring and feedback opportunities.

8. Resources for All Programs (QAF 2.1.7)

Human Resources

Faculty Members

The Foundation course will require a regular instructor drawn from the ranks of Environment-based Climate Institute members. The course instructor has primary responsibility for course updates and will function as the Program Director with responsibility for the ongoing Learn shell for the Networking Milestone. This will require two course releases per year on an ongoing basis.

The following Faculty members have joined the new Program Advisory Committee for this new Type II Diploma in Climate Change:

- Professor Daniel Scott, Faculty of Environment
- Professor Francis Poulin, Faculty of Math

21

- Professor Kirsten Muller, Faculty of Science
- Professor Monica Emelko, Faculty of Engineering
- Associate Professor Allison Kelly, Faculty of Arts
- Associate Professor Sharon Kirkpatrick, Faculty of Health

In addition, the following Faculty members teach and/or coordinate the eligible graduate course electives that will count towards completion of the Graduate Diploma (when available):

ENBUS 652/ ENBUS 652	Business and Climate Change	Komal Habib
GEMCC 610	Climate Prediction, Modeling and Scenarios	Chris Fletcher
GEMCC 620	Climate Data and Analytics	Wes Van Wychen
GEMCC622	Climate Change, Natural Hazards and Disaster Risk Reduction	Brent Doberstein
GEMCC 630	Land Use and the Carbon Cycle	Derek Robinson
GEMCC 640	Climate Change Governance: From Global Treaties to Local Innovation	Sarah Burch
GEMCC 644	Climate Resilient Canadians and Health Systems	Peter Berry (Health Canada)
GEMCC 652	Climate Change and Community Planning	Mark Seasons
GEMCC 660	Carbon Accounting and Management	Dan Scott
GGOV 628	Governing a World in Climate Crisis	Angela Carter
HIST 624	Environmental & Climate History, Premodern	Steve Bednarski
HIST 660	Transnational and Global History, Old Problems and New Directions	Doug Peers
ARCH 672	Energy Effective Design	
ARCH 673	The Science of the Building Envelope	John Straube
ECE 660	Operation and Control of Future Integrated Energy Systems	
ECE 632	Photovoltaic Energy Conversion	Siva Sivoththaman
STAT 946	Topics in Probability and Statistics: A Quantitative Approach to Sustainable Finance	Tony Wirjanto
PHS 604	Public Health and the Environment	Brian Laird

Waterloo Climate Institute

With the grant from the Interdisciplinary Fund, the Waterloo Climate Institute has created a new position, the Climate Training Program Specialist. Dr. Michele Martin began in this full-time position on May 1st, 2023 and a key part of her role is to support the development and implementation of this new Type II Diploma. The Climate Institute Communications

22

Officer also has time allocated to support the lecture series and other events for the Networking Milestone.

Administration

Some administrative support may be needed to track and report on completion of requirements so that students can progress and, ultimately, be granted the diploma. The Faculty and department will review resource options to support the program.

Physical Resources

There are no new physical resources required for this Type II GDip in Climate Change.

Financial Resources

In November, 2022, the Provost Interdisciplinary Fund approved a grant of $160,330 over a three-year period. These funds will cover 2 course releases per year for the Program Director and staff time for the Climate Institute's Training Program Specialist and Communications Officer. The funds will also support expenses for a lecture series offered by the Climate Institute, targeting students and faculty, that will provide experiences students can use towards their networking milestone.

Beyond year three, any costs associated with running the GDip are intended to be covered by the revenues raised by a Lifelong Learning professional development program which is also being developed (in collaboration with the Waterloo Climate Institute) under the Faculty of Environment's grant from the Provost Interdisciplinary Fund.

Financial costs associated with developing and teaching new courses that qualify as electives for the program are expected to be covered by the unit offering the course.

9.   Resources for Graduate Programs (QAF 2.1.8)

The GDip in Climate Change is a Type 2 Graduate Diploma that is only open to graduate students currently registered at the University of Waterloo. Students do not incur additional tuition fees for the GDip. Hence, the GDip does not require or provide any further financial assistance.

This diploma will not generate additional tuition or grant revenues and the resources required to run the diploma are mostly all already in place and will not put additional strain on the current funding model. There is no additional space, equipment, or technical staff required or requested for this diploma program. In addition, students will not be writing a Masters level Major Research Paper or Thesis as part of this GDip, therefore faculty resources will not be required for any supervisory duties.

23

There are no new library resources needed for this GDip. Library resources to support the new core course for this GDip are all already in place to support the Master in Climate Change and Type 3 GDip in Climate Risk Management. Library resources are all already in place to support the electives (which are courses already on offer).

Resources that are needed for this new program have already been approved by the Dean and the Provost has approved funding from the Interdisciplinary Fund. The primary resources required are for release time/stipend support for the Program Director, partial salary for a training programs specialist to support the development of courses, funding for the partial offset of support provided by the Waterloo Climate Institute communications officer and funding to support the development of a climate change lecture series. Additional one-time resources may be required to support new interdisciplinary course development.

On an ongoing basis, the diploma will require two course release/stipends per year for the Program Director, who also acts as the instructor for the core (breadth) course.

Human Resources:

We are proposing Dr. Daniel Scott from the Faculty of Environment initially as both the Program Director and initial core course instructor. Dr. Scott has been the Director of the Master's in Climate Change program and Graduate Diploma in Climate Risk Management (CRM) since their respective inceptions in 2013 and 2018 and can ensure coordination across these programs, as well as provide guidance to students considering each option. He also served as Executive Director of the IC3 (now WCI – Waterloo Climate Institute) for 8 years, has been involved in UN IPCC Assessments since 2003, and was rated as one of the 300 most influential global climate change scientists by Reuters in 2021. In September 2023, he was named a Fellow of the Royal Society of Canada for his leadership in climate change research. He has taught the foundation course of the CRM GDip multiple times, bringing insights into course content and interactions valued by disciplinary and professionally diverse learners.

The Program Director will be supported by staff from the Waterloo Climate Institute including the new Training Programs Specialist, Dr. Michele Martin and the Communications Officer. Additional support will be provided by the Program Advisory Committee with representation from all six faculties.

Institutional Analysis & Planning has reviewed the proposed Graduate Type 2 Diploma in Climate Change and has not identified any significant financial challenges to this proposal moving forward. The program understands that as a Type 2 diploma, this program will not generate any additional revenues for the university (either tuition or grant). The program has attested that the majority of the courses required for this diploma are already in place, and there is no additional space, or resources required for the diploma program beyond that which was approved by the Provost's Interdisciplinary Fund. If in the future this

24

program is converted to a standalone Type 3 diploma or any other substantial changes are proposed, the financial viability will need to be revisited.

10. **Quality and Other Indicators (QAF 2.1.10)**

University of Waterloo is well positioned to support this new GDip in Climate Change with numerous faculty members with teaching, research and graduate student supervision expertise from diverse disciplines related to climate change. The Program Advisory Committee is committed to ensuring consistency and quality across the necessary interdisciplinary core and elective courses, and across the diversity of experiences that will lead to the achievement of the Networking Milestone. Dr. Scott (as Director of MCC since its launch in 2013, Director of the GDip in Climate Risk Management, and former Director of the Waterloo Climate Institute) has the necessary administrative expertise to ensure smooth operation of this program and will be the lead instructor for the mandatory foundation climate change course.. Course instructors come from a variety of disciplinary backgrounds including geography, business, planning and analysis design, engineering, social sciences, mathematics, and arts that are germane to an interdisciplinary exploration of climate change research and practice. Further information about the key people involved in supporting the GDip program is provided below:

Further information about the key people involved in the GDip program is provided below:

Dr. Daniel J. Scott
Position: Professor, Department of Geography and Environmental Management, Faculty of Environment, University Research Chair in Climate and Society
Waterloo Profile link: https://uwaterloo.ca/geography-environmental-management/profiles/daniel-scott
Google Scholar link: https://scholar.google.ca/citations?user=jUz0p_QAAAAJ&hl=en
Email: daniel.scott@uwaterloo.ca

Dr. Daniel Scott is a Professor and Research Chair in the Department of Geography and Environmental Management at the University of Waterloo. He is also an International Research Fellow at the School of Hospitality and Tourism at the University of Surrey (UK). Professor Scott is one of the founding members of the Waterloo Climate Institute (formerly known as the Interdisciplinary Centre for Climate Change IC3), was its former Executive Director, and is currently an Assistant Director. He represents the Faculty of Environment and is Chair of the Program Advisory Committee for the proposed new interdisciplinary Type II Graduate Diploma in Climate Change.

Professor Scott was instrumental in the introduction of the very successful interdisciplinary Masters in Climate Change Program and a Type III Graduate Diploma in Climate Risk Management at the University of Waterloo. He is currently the Director for both programs and would bring this substantive and relevant experience to this new GDip in Climate Change as the proposed Program Director.

25

Not only does he have extensive experience initiating and leading academic climate change programs, but Professor Scott is also an accomplished climate scientist. He has worked extensively on sustainable tourism for 25 years, with a focus on the transition to a low carbon tourism economy and adaptation to the complex impacts of a changing climate. He has advised and led projects for a wide range of government agencies and tourism organizations around the world, including the United Nations World Tourism Organization, United Nations Environment Programme, World Bank, European Tourism Commission, World Travel and Tourism Council, International Olympic Committee, OECD, the Caribbean Tourism Organization. He has also been a contributor to the UN Intergovernmental Panel on Climate Change Third, Fourth, Fifth, and Sixth Assessments and their 1.5°C special report. In 2021, he was ranked in the world top 250 climate scientists by Reuters. In September 2023, he was named a Fellow of the Royal Society of Canada for his leadership in climate change research. His tourism research publications have been downloaded over a half million times and have been featured in many leading media outlets, including The Economist, New York Times, Washington Post, Wall Street Journal, BBC, Time, Scientific American, and National Geographic.

Professor Scott's key areas of graduate supervision include climate change and tourism /recreation, sustainable tourism, climate change impacts and adaptation, climate change and protected areas management. He teaches two key climate change foundational courses at University of Waterloo: GEMCC620: Climate and Society and GEOG208: Human Dimensions of Climate Change.

Professor Scott's research interests are in the interface of global change (environmental, demographic, economic) and sustainable tourism. A particular focus has been on two-way interactions of climate change and tourism, understanding the implications of a changing climate and climate sensitive environmental systems for tourism at the tourist, operator, destination and tourism region scales, as well as the contribution the global tourism sector makes to climate change through greenhouse gas emissions and land use change. This research also examines government and business climate change mitigation and adaptation policy and planning, as well as consumer responses to reduce greenhouse gas emissions while on holiday. Other research interests include the use of forecasts and scenarios in tourism planning and climate change and protected areas management.

Dr. Daniel Scott's full CV can be found here.

Dr. Monica Emelko
Position: Professor, Associate Director, Department of Civil and Environmental Engineering
Waterloo Profile link: https://uwaterloo.ca/civil-environmental-engineering/profile/mbemelko
Research website: https://www.forwater.ca/news/meet-the-forwater-network-leaders
Google Scholar link: https://scholar.google.ca/citations?user=d7490sQAAAAJ&hl=en
Email: mbemelko@uwaterloo.ca

Dr. Monica B. Emelko is a Professor in the Department of Civil and Environmental Engineering and Canada Research Chair in Water Science, Technology & Policy. She is also

the Director of the Water Science, Technology & Policy Group. She is also cross-appointed in Biology, Geography & Environmental Management, Systems Design Engineering, and the School of Planning. She has been a member of the University of Waterloo Climate Institute since 2021 and is currently an Associate Director. Dr. Emelko represents the Faculty of Engineering on the Program Advisory Committee for the proposed new interdisciplinary Type II Graduate Diploma in Climate Change.

Professor Emelko's research interests focus on drinking water supply and treatment, source water protection, microbial risk assessment, public health policy, and stormwater and advanced wastewater treatment. She focuses on sustainable technology development and deployment, integrated resource management, climate change adaptation, and the protection of public health. Professor Emelko's research is currently funded by many organizations including the Natural Sciences and Engineering Research Council (NSERC) of Canada, the Canadian Foundation for Innovation (CFI), the Water Research Foundation, and Alberta Innovates as well as several industry and government partners.

She co-leads the Southern Rockies Watershed Project team, which evaluates the initial effects of natural disturbance by wildfire on hydrology, water quality, and aquatic ecology; and monitors the recovery of these values in front range headwater streams of the high water yielding eastern slopes of the Rocky Mountains. Professor Emelko's team was among the first cited by the Intergovernmental Panel on Climate Change (IPCC) for identifying climate change-associated threats from wildfire to drinking water security through water quality and treatability. Her ongoing work involves active participation from over 3 dozen utilities and conservation authorities across Canada and the United States. Professor Emelko has served as a technical advisor to the U.S. National Academies of Engineering, Science, and Medicine as well as several federal and provincial/state agencies in Canada, the United States, and Australia regarding regulatory development related to drinking water treatment, source water protection, public health policy, and integrated resource management.

Dr. Monica Emelko's full academic CV can be found here.

Dr. Francis Poulin
Position: Professor, Applied Mathematics
Waterloo Profile link: https://uwaterloo.ca/applied-mathematics/people-profiles/francis-poulin
Research website link: https://francispoulin.github.io/
Google Scholar link: https://scholar.google.ca/citations?user=EFm5gG4AAAAJ&hl=en
Email: fpoulin@uwaterloo.ca

Dr. Francis Poulin has been a member of the Waterloo Climate Institute since before 2012 and is currently an Associate Director. He represents the Faculty of Math on the Program Advisory Committee for the proposed new interdisciplinary Type II Graduate Diploma in Climate Change.

Dr. Poulin's research focuses on both physical and biological oceanography. This includes dynamics of the oceans at large-scales, which includes how the energy added at planetary scales is transferred down to smaller scales. Moreover, he also investigates planktonic ecosystems and how they are affected by the physics of the oceans. Part of the research entails developing state-of-the-art computing software that can be used to answer these research questions.

Dr. Poulin coordinates the Poulin research group where he supervises undergraduate and graduate students. The research group develops analytical models to describe aspects of the world and then using numerical software to simulate the solution to this model which can help make predictions as to what we should expect to observe in reality. The group includes expertise in Physical Oceanography, Biological Oceanography, Solar Physics and Computational Fluid Dynamics.

Dr. Poulin's full academic CV can be found here:

Dr. Kirsten Muller
Position: Professor, Chair, Department of Biology
Waterloo Profile link: https://uwaterloo.ca/biology/profile/kmmuller
Google Scholar link: https://scholar.google.co.uk/citations?hl=en&user=nX8u9G4AAAAJ
CV: kirsten.muller@uwaterloo.ca

Dr. Kirsten Müller is a world expert on the Bangiales, a group of red algae in the class Bangiophyceae. She has been a member of the University of Waterloo Climate Institute since 2020 and represents the Faculty of Science on the Program Advisory Committee for the proposed new interdisciplinary Type II Graduate Diploma in Climate Change.

Kirsten Müller carries out research on red algae, an ancient lineage with considerable economic importance since they contain compounds (agar, carrageenan, etc.) that are used extensively as thickeners in products such as yogurt, ice cream and toothpaste. Dr. Müller's research focuses on speciation, taxonomy and evolution of sexuality within this enigmatic group and uses molecular techniques to discern if sexual reproduction is or is not occurring within populations. This research will provide a foundation for current genome sequencing projects within the red algae. In addition, she is also interested in the impact and genetics of nuisance algae (e.g. Cladophora and Chara in Laurentian Great Lakes), invasive species (e.g. Bangia atropupurea in the Great Lakes) and their biogeography within problem areas. Dr. Müller is also studying Cyanobacteria that release toxins and taste and odour compounds in drinking water (Lake Ontario) from a molecular viewpoint in order to determine if particular genotypes present in the water body are contributing to water fouling events.

Dr. Kirsten Müller's full academic CV can be found here.

Dr. Allison Kelly

28

Position: Associate Professor, Psychology
Waterloo Profile link: https://uwaterloo.ca/psychology/people-profiles/allison-kelly
Google Scholar link: https://scholar.google.com/citations?hl=en&user=jRRYpn0AAAAJ
Research Website: https://uwaterloo.ca/self-attitudes-lab
Email: allison.kelly@uwaterloo.ca

Dr. Kelly has been a member of the University of Waterloo Climate Institute since 2020 and is a member of the Faculty Association of University of Waterloo's Climate Justice Working Group. She represents the Faculty of Arts on the Program Advisory Committee for the proposed new interdisciplinary Type II Graduate Diploma in Climate Change.

Dr. Kelly's research focuses on the roles of shame, self-criticism, and self-compassion in the development, maintenance, and remission of psychopathology, especially eating disorders; Interventions and therapist behaviours that can reduce shame and self-criticism, and increase self-compassion; Fears of self-compassion and outward compassion, and how best to target these barriers in people with eating disorders; The social contexts that facilitate versus undermine self-compassion, compassion for others, healthy body image, and intuitive eating.

Her research uses diverse methods to study theoretical models that help to explain the variation in well-being and psychopathology we see both across people and within a given person over time. In particular, she studies the ways in which shame and self-criticism contribute to the development and maintenance of psychopathology, and compassion from others, for others, and for self can contribute to its prevention and alleviation. Her research lab is primarily focused on testing the applicability of compassion-focused therapy, and its underlying theoretical model, to people with eating disorders and body image difficulties. She also studies interventions designed help people become more self-compassionate and compassionate with others.

Dr. Kelly's full academic CV can be found here.

Dr. Sharon Kirkpatrick
Position: Associate Professor, School of Public Health Sciences, University Research Chair
Waterloo Profile Link: https://uwaterloo.ca/public-health-sciences/profiles/sharon-kirkpatrick
Google Scholar Link: https://scholar.google.com/citations?hl=en&user=v5aZktUAAAAJ
Website: http://www.sharonkirkpatrick.ca/
Email: sharon.kirkpatrick@uwaterloo.ca

Dr. Kirkpatrick is a Registered Dietitian with training in community and public health nutrition. Her research focuses on the intersections between nutrition, human and planetary health, equity, and policy, using a systems thinking lens. She has been a member of the University of Waterloo Climate Institute since 2019 and is a member of the Faculty Association of University of Waterloo's Climate Justice Working Group. She represents the

29

Faculty of Health on the Program Advisory Committee for the proposed new interdisciplinary Type II Graduate Diploma in Climate Change.

Much of her work is aimed at improving methodologies for measuring dietary patterns to foster robust evidence on how these patterns influence human and planetary health and how to promote healthy and sustainable eating practices. Her research also examines nutrition and dietary inequities, with longstanding interests in the determinants and implications of household food insecurity.

Her work also explores the utility of systems thinking and methods to better understand the array of factors that shape major nutrition and public health challenges and the potential intended and unintended consequences of policies and other interventions to address these challenges.

Dr. Kirkpatrick's full academic CV can be found here.

30

Financial Addendum – For Internal Waterloo Use Only

Financial Viability Details

Human Resources

What is the hiring plan for professors, lecturers, technical staff, administrative staff, director(s), teaching assistants, other?
To the Faculty Dean's Office: What is the level of compensation that is expected for each group?

Teaching Resources

How many teaching tasks are required for the program? How many teaching assistance tasks are required for the program?

How many courses need to be developed? How many online courses need to be developed?

Physical Resources

What are the overall space requirements for this program including lecture, studio, lab, office space, other? How much of this space is new space? Will any space be rented, built new or renovated? If so, what are the approximate costs associated with the space requirements? What is the expected source of capital funding?

Other Resource Requirements

What other resources will be required to offer/develop this program? Please include items such as computer/technical equipment, student aid, etc.

Tuition & Fees

What are the expected tuition and incidental fees for domestic students? For international students? Full-time vs. Part-time? Is the tuition based on a program fee structure or course fee structure?
If the expected tuition fee or incidental fees for this program are different from tuition currently charged for an existing University of Waterloo program, please explain and justify the tuition rate based on the costs of offering this program.

Other Revenue

Are there any other sources of revenue associated with this proposed program?

31

Appendix A - Summary of Learning Outcomes Mapped to Courses and Assessment Methods

Specific GDLEs and Associated Learning Outcomes	Course					Assessment method							
	Climate Change Core Course	Climate Change Electives	Networking Milestone			Forum communication	Multi-part assignments	Quizzes/Tests	Written assignments/ arguments/policy briefs	Data interpretation, synthesis, visualization	Technical reports/plans	Slide decks/presentations	Video production
1. Depth and Breadth of Knowledge													
1) Recognize interdisciplinary knowledge of the concepts, information and techniques relevant to the main dimensions of climate change research and practice	✓						✓		✓	✓	✓	✓	
2) Analyze current climate change problems and solutions from outside of their academic discipline or field of study, providing new insights into research and professional practice in their discipline.	✓	✓				✓			✓		✓	✓	
2. Research & Scholarship													
3) Use terminology that facilitates interdisciplinary research on climate change and draws on multiple fields of inquiry to address complex scientific and social challenges related to climate change.	✓	✓				✓			✓	✓			
4) Describe new interdisciplinary insights into research and/or professional practice related to climate change problems and solutions	✓	✓	✓			✓	✓		✓			✓	
3. Level of Application of Knowledge													

Specific GDLEs and Associated Learning Outcomes	Climate Change Core Course	Climate Change Electives	Networking Milestone			Forum communication	Multi-part assignments	Quizzes/Tests	Written assignments/ arguments/policy briefs	Data interpretation, synthesis, visualization	Technical reports/plans	Slide decks/presentations	Video production
5) Synthesize knowledge, creativity, insight and diverse approaches to inform more impactful climate action.	✓	✓				✓	✓		✓	✓			✓
4. Professional Capacity/Autonomy													
6) Participate in an interdisciplinary network of students and faculty passionate about helping to address the climate crisis			✓			✓			✓	✓		✓	
5. Level of Communications Skills													
7) Produce professional quality written reports summarizing new concepts and insights into climate change as it relates to their discipline.	✓	✓					✓		✓	✓	✓	✓	
8) Communicate and network with other course participants via web forums, networking events and other experiences.			✓			✓						✓	
6. Awareness of Limits of Knowledge													
9) Recognize the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.	✓	✓				✓	✓		✓	✓		✓	

Note: The header row "Specific GDLEs and Associated Learning Outcomes | Course | Assessment method" spans with "Course" over the first set of columns and "Assessment method" over the second set.

Appendix B – Course activation form for new course: GEMCC 605 Climate Change and Society

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Prior to form submission, review the content revision instructions. For questions about the form submission, contact Trevor Clews, Graduate Studies and Postdoctoral Affairs (GSPA).

Faculty: Environment

Effective date: Term: Fall   Year: 2024

Milestone
Note: milestone changes also require the completion/submission of the Graduate Studies Program Revision Template.

☐ New: Choose an item.

☐ Inactivate: Choose an item.

☐ Revise: from Choose an item. to Choose an item.

Course
Note: some course changes also require the completion/submission of the Graduate Studies Program Revision Template.

☒ New: Complete all course elements below

☐ Inactivate: Complete the following course elements:
                 Course subject code, Course number, Course ID, Course title

☐ Revise: Complete all course elements below to reflect the proposed change(s) and
                 identify the course elements being revised (*e.g. Course description, Course title*):

Course elements (complete as indicated above. Review the glossary of terms for details on course elements)

Course subject code: GEMCC

Course number: GEMCC 605

Course ID:

Course title (max. 100 characters including spaces): Climate Change and Society

Course short title (max. 30 characters including spaces): Climate Change and Society

34

Return to Agenda

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: The world is in a climate crisis and urgent action is needed at every level of society to implement equitable and efficient solutions. This interdisciplinary course will cover the foundational aspects of climate science, the impacts of climate change on ecosystems and society and explore society's response including adaptation and mitigation, governance and community engagement. The course will draw upon the broad range of interdisciplinary climate research and practice at the University of Waterloo and invite students to investigate the relevance of climate work to their own areas of interest as well as to explore and integrate insights and strategies from other research disciplines. In person seminars and assignments will provide opportunities for students to network and collaborate across disciplinary boundaries.

Meet type(s): Lecture   Seminar   Choose an item.   Choose an item.

Primary meet type: Seminar

Delivery mode: On-campus

Requisites:

Special topics course: Yes ☐   No ☒

Cross-listed course: Yes ☐   No ☒

Course subject code(s) and number(s) to be cross-listed with and approval status:

Sections combined/held with:

Rationale for request:

This new course is mandatory for graduate students who want to enroll in the new Type 2 interdisciplinary Graduate Diploma in Climate Change

Form completed by: Professor Dan Scott
Department/School approval date (mm/dd/yy):
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):

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Appendix C – 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: Graduate Diploma (GDip) in Climate Change (Type II)

Program contact name(s): Daniel Scott, Michele Martin, Rebecca Wickens

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: 2024

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/department-geography-and-environmental-management

   Proposed Graduate Studies Academic Calendar content:

GRADUATE DIPLOMA (GDIP) IN CLIMATE CHANGE

Program information.

Delivery mode
- **On-campus**

Program type
- **Diploma**

Study option(s)
- **Coursework**

Admission requirements

- **Minimum requirements**
  - The Graduate Diploma (GDip) in Climate Change is offered in conjunction with a University of Waterloo master's or doctoral degree program.
  - Note: the GDip in Climate Change is not available to students enrolled in the Master of Climate Change (MCC) and GDip in Climate Risk Management programs.
  - Students are encouraged to apply to the GDip as early as possible in their graduate studies. Students may apply by completing an online application form, available from the GDip in Climate Change website. The application must identify the elective course that students would like to take in fulfillment of the GDip requirements. Students will receive an admission notification from the Program Director.
  - Students must be in good standing in their home master's or doctoral program to pursue the GDip and are encouraged to discuss their intention to pursue the GDip with their supervisor/Graduate Officer.

Degree requirements

Students must have completed all GDip in Climate Change requirements, including the courses and milestones, by the time of degree completion from their regular master's or doctoral program.

- **Courses**
  - In order to obtain the GDip in Climate Change, students must successfully complete 2 graduate level courses (0.50 unit weight) in addition to the degree requirements of their home master's or doctoral program. There can be no double counting of courses for different degrees/diplomas.
  - Students must complete GEMCC 605 Climate Change and Society and 1 of the following climate change courses (or an alternate course that fits with the goals of the GDip, as approved by the Program Director):
    - ARCH 672 Energy Effective Design
    - ARCH 673 The Science of the Building Envelope
    - ECE 632 Photovoltaic Energy Conversion
    - ECE 660 Operation and Control of Future Integrated Energy Systems
    - ENBUS 652 Business and Climate Change
    - GEMCC 610 Climate Prediction, Modeling and Scenarios
    - GEMCC 620 Climate Data and Analytics
    - GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction
    - GEMCC 630 Land Use and the Carbon Cycle
    - GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation
    - GEMCC 644 Climate Resilient Canadians and Health Systems
    - GEMCC 652 Climate Change and Community Planning
    - GEMCC 660 Carbon Accounting and Management
    - GGOV 628 Governing a World in Climate Crisis
    - HIST 624 Environmental & Climate History, Premodern
    - HIST 660 Transnational and Global History: Old Problems and New Directions
    - HLTH 604 Public Health and the Environment
    - STAT 946 Topics in Probability and Statistics: A Quantitative Approach to Sustainable Finance
  - Note: GEMCC 605 should normally be completed prior to taking the climate change elective course.

- **Networking milestone**
    - Students are required to attend and participate in a minimum of four climate change events or experiences that provide opportunities for interdisciplinary interaction and networking, in order to achieve the Networking Milestone. These events could include a range of extracurricular climate change lectures, professional workshops and training on/off campus or online, participation in community or university climate related committee work or volunteer work etc., to be approved by the Program Director. To achieve credit, students will be required to submit reflections for each of these four experiences, in order to demonstrate what they learned, their insights into other disciplinary contributions toward climate solutions, and how they are integrating these experiences and learnings into their chosen discipline or research area. A list of pre-approved networking events and other opportunities would be shared with students at regular intervals, as will guidance on what counts as a networking opportunity.

Departmental approval date (mm/dd/yy):
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 02/21/24
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 & Research Council

For Approval   **Open Session**

To:	**Senate**
Sponsor:	Charmaine Dean Vice-President, Research & International
	Jeff Casello Associate Vice-President, Graduate Studies and Postdoctoral Affairs
Presenter: **Contact Information:**	Jeff Casello jcasello@uwaterloo.ca
Date of Meeting:	April 8, 2024
Agenda Item Identification:	**9(b) Report – Senate Graduate & Research Council: Major Modification - MA Recreation and Leisure Studies**

Recommendation/Motion:

To approve the proposed major modifications to the Master of Arts (MA) in Recreation and Leisure Studies, effective September 1, 2025, as presented.

Summary:

Senate Graduate & Research Council met on March 4, 2024 and agreed to forward the following items to Senate for approval as part of the regular agenda.

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:

Health Faculty Council approval date (mm/dd/yy): 01/26/24

Senate Graduate & Research Council approval date (mm/dd/yy): 03/04/24

Graduate & Research Council   **1**

Highlights/Rationale:

The proposed revisions are associated primarily with changes to the MA Coursework Study Option that were approved in principle by the Department in June 2023, and are shown in the Graduate Studies Program Revision Template (Appendix A).

Revisions include: changing the delivery mode of MA Coursework study option from on-campus to online; removing REC 662 and REC 663 as required courses for the MA Coursework study option and replacing them with the new course REC 601 and the revised course REC 611; and changing the course requirements for the MA Coursework study option from:

- Required courses
    - REC 600 Integrative Seminar in Recreation and Leisure Studies
    - REC 620 Program Evaluation in Recreation, Sport and Tourism
    - REC 662 Quantitative Inquiry
    - REC 663 Qualitative Inquiry
- Elective courses
    - 4 elective graduate courses from within or outside the Department.

to:

- Required courses
    - REC 600 Integrative Seminar in Recreation and Leisure Studies
    - **REC 601 Methods and Analysis for Evaluation**
    - **REC 611 Leading Organizations**
    - REC 601 Program Evaluation in Recreation **and** Sport ~~and Tourism~~
    - ~~REC 662 Quantitative Inquiry~~
    - ~~REC 663 Qualitative Inquiry~~
- Elective courses
    - 4 elective graduate courses from within or outside the Department.

There is a two-part rationale for these changes. First, online delivery will expand the market reach of the Coursework study option to include current working professionals across Canada and internationally, as well as recent graduates from Recreation and Leisure Studies undergraduate programs. The proposed changes are informed by the outcomes of recent curriculum reviews, a self-study, stakeholder consultations, and student feedback surveys. Second, the current Coursework study option lacks a distinct identity relevant to students and professionals seeking advanced training and learning. Changing the Coursework study option to online delivery and updating the course requirements is intended to create a more cohesive program identity focused on knowledge and skills associated with recreation leadership. The overarching intended learning objectives of the program remain the same.

Documentation Provided:

Appendix A – Graduate Studies Program Revision Template

Graduate Studies
Program Revision Template

UNIVERSITY OF WATERLOO

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

Faculty: Health

Program: Master of Arts (MA) in Recreation and Leisure Studies

Program contact name(s): Bryan Grimwood

Form completed by: Bryan Grimwood

Description of proposed changes:
Note: changes to courses and milestones also require the completion/submission of the <u>SGRC Graduate Studies Course/Milestone Form</u>.

1) *Changing the delivery mode of the MA Coursework study option from on-campus/in-person to online.*
2) *Changing two of the required courses in the MA Coursework study option.*

Is this a <u>major modification</u> to the program? Yes

Rationale for change(s):

1) *Online delivery will expand the market reach of the Coursework study option to include current working professionals across Canada and internationally, as well as recent graduates from Recreation and Leisure Studies undergraduate programs. The proposed changes are informed by the outcomes of recent curriculum reviews, a self-study, stakeholder consultations, and student feedback surveys.*
2) *The current Coursework study option lacks a distinct identity relevant to students and professionals seeking advanced training and learning. Changing the Coursework study option to online delivery and updating the course requirements is intended to create a more cohesive program identity focused on knowledge and skills associated with recreation leadership. The overarching intended learning objectives of the program remain the same.*

Proposed effective date: Term: Fall   Year: 2025

Current <u>Graduate Studies Academic Calendar (GSAC)</u> page (include the link to the web page where the changes are to be made):

https://uwaterloo.ca/graduate-studies-academic-calendar/faculty-health/department-recreation-and-leisure-studies/master-arts-ma-recreation-and-leisure-studies

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:

Program information
 	
• **Admit term(s)**
  ○ Fall
	Program information
	
	• **Admit term(s)**
	  ○ Fall

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
Delivery mode - On-campus **Length of program** - Full-time: 6 terms - Part-time: 12 terms - Students must obtain permission from their supervisor(s), the Associate Chair of Graduate Studies and the Associate Dean, Graduate Studies, to continue registration beyond the maximum time period stipulated for the program in which they first registered. **Program type** - Master's - Research **Registration option(s)** - Full-time - Part-time **Study option(s)** - Thesis - Coursework **Admission requirements** **Minimum requirements** - A four-year honours bachelor's degree (or equivalent) in Recreation and Leisure Studies or related field with at least a 75% standing. If the overall undergraduate average is below 75%, consideration may be given to the applicant's performance during the final year of academic work. - Competency in written expression, including evidence of ability to conceptualize, organize ideas and reason. **Application materials** - Résumé/Curriculum vitae - Indicating past academic and professional experience. - Supplementary information form - Transcript(s) - Writing sample - Applicants must submit at least one substantial example of their work completed during the last two years of academic study. Students with professional	**Delivery mode** - On-campus - <u>Online</u> **<u>Delivery mode information</u>** - <u>The Thesis study option is delivered on-campus. Note: one required course is delivered online.</u> - <u>The Coursework study option is delivered online.</u> **Length of program** - Full-time: 6 terms for the Thesis study option and 3 terms for the Coursework study option. - Part-time: 12 terms - Students must obtain permission from their supervisor(s), the Associate Chair of Graduate Studies and the Associate Dean, Graduate Studies, to continue registration beyond the maximum time period stipulated for the program in which they first registered. **Program type** - Master's - Research **Registration option(s)** - Full-time - Part-time **Study option(s)** - Thesis - Coursework **Admission requirements** **Minimum requirements** - A four-year honours bachelor's degree (or equivalent) in Recreation and Leisure Studies or related field with at least a 75% standing. If the overall undergraduate average is below 75%, consideration may be given to the applicant's performance during the final year of academic work. - Competency in written expression, including evidence of ability to conceptualize, organize ideas and reason. **Application materials** - Résumé/Curriculum vitae

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:

experience may submit a professional report of which they were the sole or senior author.
 	
• **References**
  o Number of references: 2
  o Type of references: academic
 	
• **English language proficiency (ELP)** (if applicable)
 	
Degree requirements
 	
Thesis option:
 	
• **Graduate Academic Integrity Module (Graduate AIM)**
 	
• **Courses**
  o Students must complete the following courses:
    ▪ REC 600 Integrative Seminar in Recreation and Leisure Studies
    ▪ REC 662 Quantitative Inquiry
    ▪ REC 663 Qualitative Inquiry
    ▪ 1 of REC 672 Quantitative Research Data Analysis and Interpretation or REC 673 Designing Advanced Qualitative Inquiry
    ▪ At least 1 other elective graduate course from within or outside the Department. Graduate courses must be selected in consultation with, and approved by, the student's supervisor or advisor.
  o All graduate courses except those designated in this Calendar as CR/NCR must be assigned a numerical grade. Any student who registers for a course in a department outside the Faculty of Health must receive a numerical grade for the course. Unless the course is designated CR/NCR in the Graduate Calendar, the student must ask the instructor to submit a numerical grade. The student must clarify this requirement with the instructor within the first two weeks of each term.
  o Students must obtain an average of at least 72% in the set of courses which they present in fulfillment of course
	▪ Indicating past academic and professional experience.
	  o Supplementary information form
	  o Transcript(s)
	  o Writing sample
	    ▪ Applicants must submit at least one substantial example of their work completed during the last two years of academic study. Students with professional experience may submit a professional report of which they were the sole or senior author.
	
	• **References**
	  o Number of references: 2
	  o Type of references: academic
	
	• **English language proficiency (ELP)** (if applicable)
	
	Degree requirements
	
	Thesis option:
	
	• **Graduate Academic Integrity Module (Graduate AIM)**
	
	• **Courses**
	  o Students must complete the following <u>5 (0.50 unit weight)</u> courses:
	    ▪ REC 600 Integrative Seminar of Recreation and Leisure
	    ▪ REC 662 Quantitative Inquiry
	    ▪ REC 663 Qualitative Inquiry
	    ▪ 1 of REC 672 Quantitative Research Data Analysis and Interpretation or REC 673 Designing Advanced Qualitative Inquiry
	    ▪ At least 1 other elective graduate course from within or outside the Department. Graduate courses must be selected in consultation with, and approved by, the student's supervisor or advisor.
	  o All graduate courses except those designated in this Calendar as CR/NCR must be assigned a numerical grade. Any student who registers for a course in a department outside the Faculty of Health must receive a numerical grade

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:

requirements for any graduate degree. Unsatisfactory academic performance in any one course will result in a review of the candidate's status by the departmental Graduate Committee. If a student with a failed course is permitted to continue, additional work may be required to clear the failure in that course, or by replacement of the failed course. Alternatively, the student may be required to repeat part or all of the program.
 	
• **Master's Thesis**
  o For the MA thesis proposal, the committee consists of at least one faculty member in addition to the supervisor appointed in the student's department, both of whom have academic appointments. The committee member may be drawn from the faculty members of any other department within the University if such an individual has a special contribution to make to the research process or may also have an adjunct appointment with the department. The thesis supervisory committee must be approved by the Associate Chair for Graduate Studies.
  o For the final MA defense, an independent reader (selected by the supervisor in consultation with the student and the Associate Chair for Graduate Studies) and an independent chair (assigned by the Associate Chair for Graduate Studies) will be added. Normally, the independent reader should have an academic appointment. At least two members of the final thesis committee must be from the student's department (i.e., full-time academic appointment or adjunct appointment in the department).
 	
### Coursework option: 	
 	
• **Graduate Academic Integrity Module (Graduate AIM)**
 	
• **Courses**
  o Required courses
    ▪ REC 600 Integrative Seminar in Recreation and Leisure Studies
	for the course. Unless the course is designated CR/NCR in the Graduate Calendar, the student must ask the instructor to submit a numerical grade. The student must clarify this requirement with the instructor within the first two weeks of each term.
	  o Students must obtain an average of at least 72% in the set of courses which they present in fulfillment of course requirements for any graduate degree. Unsatisfactory academic performance in any one course will result in a review of the candidate's status by the departmental Graduate Committee. If a student with a failed course is permitted to continue, additional work may be required to clear the failure in that course, or by replacement of the failed course. Alternatively, the student may be required to repeat part or all of the program.
	
	• **Master's Thesis**
	  o For the MA thesis proposal, the committee consists of at least one faculty member in addition to the supervisor appointed in the student's department, both of whom have academic appointments. The committee member may be drawn from the faculty members of any other department within the University if such an individual has a special contribution to make to the research process or may also have an adjunct appointment with the department. The thesis supervisory committee must be approved by the Associate Chair for Graduate Studies.
	  o For the final MA defense, an independent reader (selected by the supervisor in consultation with the student and the Associate Chair for Graduate Studies) and an independent chair (assigned by the Associate Chair for Graduate Studies) will be added. Normally, the independent reader should have an academic appointment. At least two members of the final thesis committee must be from the student's department (i.e., full-time academic appointment or adjunct appointment in the department).

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:

▪ REC 620 Program Evaluation in Recreation, Sport ~~and Tourism~~
      ▪ ~~REC 662 Quantitative Inquiry~~
      ▪ ~~REC 663 Qualitative Inquiry~~
  o Elective courses
      ▪ 4 elective graduate courses from within or outside the Department.
  o All graduate courses except those designated in this Calendar as CR/NCR must be assigned a numerical grade. Any student who registers for a course in a department outside the Faculty of Health must receive a numerical grade for the course. Unless the course is designated CR/NCR in the Graduate Calendar, the student must ask the instructor to submit a numerical grade. The student must clarify this requirement with the instructor within the first two weeks of each term.
  o Students must obtain an average of at least 72% in the set of courses which they present in fulfillment of course requirements for any graduate degree. Unsatisfactory academic performance in any one course will result in a review of the candidate's status by the departmental Graduate Committee. If a student with a failed course is permitted to continue, additional work may be required to clear the failure in that course, or by replacement of the failed course. Alternatively, the student may be required to repeat part or all of the program.
	Coursework option:
	
	• **Graduate Academic Integrity Module (Graduate AIM)**
	
	• **Courses**
	  o Required courses
	      ▪ REC 600 Integrative Seminar in Recreation and Leisure
	      ▪ <u>REC 601 Methods and Analysis for Evaluation</u>
	      ▪ <u>REC 611 Leading Organizations</u>
	      ▪ REC 620 Program Evaluation in Recreation <u>and</u> Sport
	  o Elective courses
	      ▪ 4 elective graduate courses from within or outside the Department.
	  o All graduate courses except those designated in this Calendar as CR/NCR must be assigned a numerical grade. Any student who registers for a course in a department outside the Faculty of Health must receive a numerical grade for the course. Unless the course is designated CR/NCR in the Graduate Calendar, the student must ask the instructor to submit a numerical grade. The student must clarify this requirement with the instructor within the first two weeks of each term.
	  o Students must obtain an average of at least 72% in the set of courses which they present in fulfillment of course requirements for any graduate degree. Unsatisfactory academic performance in any one course will result in a review of the candidate's status by the departmental Graduate Committee. If a student with a failed course is permitted to continue, additional work may be required to clear the failure in that course, or by replacement of the failed course. Alternatively, the student may be required to repeat part or all of the program.

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

We anticipate limited impact to students currently registered in the MA Coursework study option. Students enrolled full-time as of Fall 2023 or admitted for Fall 2024 will not be impacted as they will complete degree requirements prior to the proposed changes coming into effect. Students enrolled part-time as of Fall 2023 or

admitted for Fall 2024 will continue to have access to on-campus/in-person required and elective courses. These part-time students will also be given the option to complete course requirements with online courses. Students enrolled in the MA Thesis study option will be required to take one online course (REC 600).

Department/School approval date (mm/dd/yy): 11/03/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 10/30/23
Faculty approval date (mm/dd/yy): 01/26/24
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

UNIVERSITY OF WATERLOO | Senate

Senate Graduate & Research Council

For Approval   **Open Session**

To:	**Senate**
Sponsor:	Charmaine Dean Vice-President, Research & International
	Jeff Casello Associate Vice-President, Graduate Studies and Postdoctoral Affairs
Presenter: **Contact Information:**	Jeff Casello jcasello@uwaterloo.ca
Date of Meeting:	April 8, 2024
Agenda Item Identification:	**9(c) Report – Senate Graduate & Research Council:** **Regulation Revisions - Approved Doctoral Dissertation Supervisors (ADDS)**

Recommendation/Motion:

To approve the proposed academic regulation revisions to the Approved Doctoral Dissertation Supervisors (ADDS) section of the Graduate Studies Academic Calendar (GSAC), effective May 1, 2024, as presented.

Summary:

Senate Graduate & Research Council met on March 4, 2024 and agreed to forward the following items to Senate for approval as part of the consent agenda.

Jurisdictional Information:

This item is being submitted to Senate in accordance with Senate Bylaw 2, section 4.03(a): "Make recommendations to Senate with respect to the governance, direction and management of, or any changes in rules, regulations or policies for graduate studies and research in the university."

Governance Path:

Senate Graduate & Research Council approval date (mm/dd/yy): 03/04/24

Graduate & Research Council   **1**

Highlights/Rationale:

Graduate Studies and Postdoctoral Affairs (GSPA) continues the review of GSAC to ensure that the information presented is complete, clear and consistent with current practice.

The proposed revisions include:

- renaming ADDS status – Approved Doctoral Dissertation Supervisory status – to Sole-Supervisory Privilege Status (SSPS);
- introducing a new stand-alone section to the Graduate Studies Academic Calendar which will replace program page references to ADDS status;
- eliminating the listing of faculty with ADDS, currently linked to at the end of every PhD program page.

The included appendix contains for information to Senate web content which provides further context around SSPS.

SSPS is to be divided into two categories: SSPS1 and SSPS2. Faculty members who hold SSPS1 may sole-supervise Master's students. Faculty members who have SSPS2 may sole-supervise Master's students and PhD students. Previously, the university had no oversight on the sole-supervision of Master's students which motivates the creation of the disaggregate permission structure.

The changes to the designation will have no impact on those who currently hold ADDS status. Their permissions will remain the same.

For new faculty hires, the following holds:

- New tenure stream faculty will normally be granted SSPS1 at the time of appointment. Such status should be included in the letter of appointment.
- The processes by which tenure stream faculty can obtain SSPS2 remains the same.
- New teaching stream faculty may co-supervise PhD students with a tenure stream faculty who holds SSPS2 status, and with the arrangement approved by the Associate Dean Graduate Studies in the Faculty.
- New teaching stream faculty may co-supervise Master's students with a tenure stream faculty who holds SSPS (1 or 2) status, and with the arrangement approved by the Graduate Officer in the Department / School.
- In exceptional cases, other supervisory structures may be granted for PhD and Master's students by the AVP GSPA on the recommendation of the Associate Dean Graduate Studies in the student's home faculty.

Item 12a in the Senate Consent Agenda, "Report – Senate Graduate & Research Council: Regulation Revisions - Graduate Studies Academic Calendar", includes proposed new section of the GSAC for approval, titled "Graduate students' supervision and committees" to be found under the heading: Graduate academic roles and program requirements | Graduate students' supervisors and committees.

Column 3 in the table of this new section, indicates that a tenure stream faculty member who has not been granted SSP status (at level 1 or 2) may co-supervise, at the discretion of the Associate Dean for PhDs and the Associate Chair for Master's. This condition is necessary because if a faculty colleague has their SSPS2 revoked, and are therefore without SSPS, they may be permitted to work towards regaining SSPS2 status by co-supervising.

The decision makers, the ADG or Graduate Officer, would evaluate the circumstances surrounding the revocation of SSPS and the potential benefits to the student / co-supervisor in making the decision about whether this is permitted.

The proposed revisions were jointly created by GSPA and the Faculty Associate Deans Graduate Studies, and were presented at the Faculty Relations Committee (FRC) for review.

Documentation Provided:

Appendix A – Approved Doctoral Dissertation Supervisor (ADDS) renamed Sole-supervisory privilege status (SSPS)

Appendix B - Graduate students' supervisors and committees

APPENDIX A: Approved Doctoral Dissertation Supervisor (ADDS) renamed Sole-supervisory privilege status (SSPS)

The following is a **new stand-alone section to be added to the Graduate Studies Academic Calendar** which will replace program page references to ADDS status, and listing of faculty with ADDS, currently linked to at the end of every PhD program page.

Current content:	Proposed content:
Approved Doctoral Dissertation Supervisors (ADDS) The reputation and quality of an established Faculty depends in large measure on the quality of its PhD programs. In turn, this quality is very sensitive to the qualifications of the individuals to whom the Faculty delegates the responsibility for supervising PhD students. Identification as an Approved Doctoral Dissertation Supervisor (ADDS) is the personal accreditation of an individual faculty member and is based on their activity. The individuals so identified constitute the ADDSs in each Faculty. Other faculty members may co-supervise PhD students along with a faculty member with ADDS status, and may serve on PhD Committees. Information on recent changes in the availability of ADDS can be obtained from the Graduate Officer of the particular department. The Graduate Studies Academic Calendar lists the ADDS status faculty members below. A complete list of all University of Waterloo faculty members appears on the university departmental websites.	**Sole-supervisory privilege status (SSPS)** The University of Waterloo recognizes the integral roles that supervisors and graduate students play in advancing the research mission of the University. The University also acknowledges its responsibility in ensuring that faculty members who sole-supervise graduate students are well-prepared to be successful in that role. The granting of the privilege to sole-supervise graduate students (SSPS1 or SSPS2) is the accreditation of an individual faculty member and is based on their demonstrated ability to successfully meet the expectations articulated in the guide to graduate research and supervision. Faculty members who hold SSPS1 may sole-supervise Master's students. Faculty members who have SSPS2 may sole-supervise Master's students and PhD students. Normally, SSPS1 is granted to tenure stream faculty members at the time of appointment or subsequently, at the discretion of the Associate Dean Graduate Studies in the faculty member's home Faculty. The ways in which a tenure stream faculty member can achieve SSPS2 for PhD students, can be found in the Organization of Graduate Studies section of the GSPA website.

The following ADDS status content appears on the GSPA site and is **being shared with SGRC for information**, as it relates to the calendar content above: https://uwaterloo.ca/graduate-studies-postdoctoral-affairs/about/organization-graduate-studies#ADDS

Web information.	**Sole Supervisory Privilege Status (SSPS)**
Approved Doctoral Dissertation Supervisor (ADDS)	Preamble
Preamble	The <u>Sole Supervisory Privilege Status (SSPS1</u> or SSPS2<u>) is a regulation for which authority is</u> vested in the Senate, and any changes to this governance are to be discussed at Faculty Relations Committee, Graduate Student Relations Committee and the Faculties, and then approved by Senate Graduate and Research Council and by Senate.
The Approved Doctoral Dissertation Supervisor (ADDS) status is governed by a series of regulations governing how faculty members gain the privilege of sole-supervising PhD students. As such, they are regulations whose authority is vested in the Senate, and any changes to them are to be discussed at Faculty Relations Committee, Graduate Student Relations Committee and the Faculties, and then approved by Senate Graduate and Research Council and by Senate.	**Introduction**
Introduction	These regulations set out the qualifications necessary for faculty members to <u>sole</u> supervise PhD <u>and Master's students</u>.
These regulations set out the qualifications necessary for faculty members to supervise PhD students. Faculty members who demonstrate the qualifications set out in these regulations will receive Approved Doctoral Dissertation Supervisor (ADDS) status, and only they will be:	Faculty members who demonstrate the qualifications set out in these regulations will receive S<u>ole Supervisory Privilege Status (SSPS1</u> or SSPS2<u>)</u>. <u>A Faculty member who holds SSPS2 status will be</u>:
• permitted to independently supervise PhD students;	• permitted to independently supervise PhD students;
• eligible for membership on the Graduate Studies Committee of a Faculty;	• <u>permitted to independently supervise Master's students;</u>
• eligible for membership on the University of Waterloo Senate Graduate and Research Council;	• eligible for membership on the Graduate Studies Committee of a Faculty;
• eligible to be Graduate Officers, Faculty Associate Deans, Graduate Studies, or Associate Vice-President, Graduate Studies and Postdoctoral Affairs.	• eligible for membership on the University of Waterloo Senate Graduate and Research Council;
• eligible to chair PhD Examining Committees.	• eligible to be Graduate Officers, Faculty Associate Deans, Graduate Studies, or Associate Vice-President, Graduate Studies and Postdoctoral Affairs.
	• eligible to chair PhD Examining Committees.
	<u>Normally, a tenure stream faculty member will be granted the privilege to sole supervise Master's students, or SSPS1, at the time of the faculty member's appointment . Faculty members who do not hold SSPS1 may, at the</u>

Qualification for ADDS Status Faculty members who qualify for ADDS status must: • Be a faculty member at the professorial rank at the University of Waterloo (this includes clinical faculty); • Normally hold a PhD degree or a terminal degree in their field; • Demonstrate continuing competence and achievement in research or scholarship appropriate for the discipline; • Demonstrate appropriate familiarity with University of Waterloo policies and procedures on PhD supervision. This is preferably achieved by the faculty member attending a University-provided workshop or receiving training on supervisory procedures at the Faculty level; • Demonstrate appropriate supervisory experience: this can be achieved by the faculty member choosing one of the following: o Successfully completing a workshop series organized by the office of the Associate Vice-President, Graduate Studies and Postdoctoral Affairs, and facilitated by CTE on graduate supervision, over the course of one year; o ~~Successfully supervising to completion at least one Master's thesis;~~ o Having co-supervised or supervised a PhD thesis to completion (see Guidelines for Best Practice in Co-Supervision). The above criteria are meant to ensure that faculty members have acquired the appropriate knowledge to facilitate becoming excellent PhD supervisors at Waterloo. For new faculty, ADDS status is to be awarded on potential excellence since building a proven track record of successful graduate	<u>discretion of the Associate Dean Graduate Studies, sole-supervise Master's students.</u> Qualification for <u>SSPS2</u> Faculty members who qualify for <u>SSPS2</u> must: • Be a tenure stream faculty member at the University of Waterloo (this includes clinical faculty); • Normally hold a PhD degree or a terminal degree in their field; • Demonstrate continuing competence and achievement in research or scholarship appropriate for the discipline; • Demonstrate appropriate familiarity with University of Waterloo policies and procedures on graduate student supervision. This is preferably achieved by the faculty member attending a University-provided workshop or receiving training on supervisory procedures at the Faculty level; • Demonstrate appropriate supervisory experience: this can be achieved by the faculty member choosing one of the following: o Successfully completing a workshop series organized by the office of the Associate Vice-President, Graduate Studies and Postdoctoral Affairs, and facilitated by CTE on graduate supervision, over the course of one year; o Having <u>co-supervised or</u> supervised a PhD thesis to completion (see Guidelines for Best Practice in Co-Supervision). The above criteria are meant to ensure that faculty members have acquired the appropriate knowledge to facilitate <u>satisfactory graduate student supervision</u> at Waterloo.

supervision requires many years, numerous students and, depending on the discipline, can extend beyond the granting of tenure.

Acquiring ADDS Status

The process of acquiring ADDS status for a faculty member in the tenure-stream at the University of Waterloo is defined as follows:

- Faculty members satisfying all 5 criteria for qualification listed above can request consideration for ADDS status by their Department Chair;
- ~~The Chair must confirm all 5 criteria are met and then pass along the request and any written comments to the Faculty Associate Dean, Graduate Studies for approval;~~
- ~~If the Chair deems that any of the 5 criteria are not met, s/he will provide the faculty member in writing information as to which criteria are not met and guidance as to how to satisfy those criteria in order to become eligible. Faculty members can appeal the Chair's negative decision to the Faculty Associate Dean, Graduate Studies and (in the event of a negative decision from the Faculty Associate Dean) to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs~~
- ~~Individual Faculties may opt to constitute an appropriate advisory committee to the Associate Dean, Graduate Studies to adjudicate ADDS status requests;~~
- ~~After the application is approved by the Faculty Associate Dean, Graduate Studies the recommendation for the granting of ADDS status will be forwarded to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs for approval;~~
- ~~If either the Faculty Associate Dean, Graduate Studies or the Associate Vice-President, Graduate Studies and Postdoctoral Affairs does not approve ADDS status at the present time, s/he will provide in writing guidance as to what is needed for the faculty member to become eligible. Faculty members~~

For new tenure stream faculty, SSPS2 is to be awarded on potential excellence since building a proven track record of successful graduate supervision requires many years, numerous students and, depending on the discipline, can extend beyond the granting of tenure.

Acquiring SSPS2

The process of acquiring SSPS2 for a faculty member in the tenure stream at the University of Waterloo is defined as follows:

- Faculty members satisfying all five criteria for qualification listed above can request consideration for SSPS2 by their Department Chair;
- The Chair will evaluate the candidate's having satisfied all five criteria and, when those criteria are deemed to be met, recommend the approval with any written comments to the Faculty Associate Dean, Graduate Studies;
- The Faculty Associate Dean, or (at the discretion of the Associate Dean) an appropriate advisory committee, will evaluate the candidate's SSPS2 qualifications and, when the qualifications are deemed to be satisfied, will recommend the granting of SSPS2 by the Associate Vice President Graduate Studies and Postdoctoral Affairs;
- The Associate Vice-President, Graduate Studies and Postdoctoral Affairs will vet the request and determine if SSPS2 will be granted; If either the Faculty Associate Dean, Graduate Studies or the Associate Vice-President, Graduate Studies and Postdoctoral Affairs does not approve SSPS2 at the present time, s/he will provide in writing guidance as to what is needed for the faculty member to become eligible. Faculty members can appeal denial of SSPS2 status by the Faculty Associate Dean to the Associate Vice-

~~can appeal denial of ADDS status by the Faculty Associate Dean to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs.~~

Retired Faculty

Those faculty members who are supervising doctoral students when they retire may continue to sole-supervise these students until these students complete their degrees.

~~Adjunct Faculty and Research Professors~~

~~Co-supervision with a regular faculty member with ADDS status is normally a requirement for Adjunct Faculty and Research Professors. The Faculty Associate Deans, Graduate Studies, have the authority to waive the co-supervision requirement for a specific student, on the recommendation of the Department/School.~~

Revoking ADDS Status

When circumstances appear to warrant the revocation of ADDS status of a faculty member; the process for doing so is as follows:

- The Chair/Director of the faculty member's unit will recommend revocation of ADDS status to the Faculty Associate Dean, Graduate Studies. Justification for the recommendation should be provided in writing, along with information on efforts that have been made for remediation, and the faculty member in question should be notified in advance of the recommendation and the reasons for it;
- The Faculty Associate Dean, Graduate Studies may reject the recommendation but must provide a written explanation for doing so;
- In some cases information may come to the attention of the Faculty Associate Dean, Graduate Studies,

<u>President, Graduate Studies and Postdoctoral Affairs.</u>

Retired Faculty

Those faculty members who are sole-supervising graduate students when they retire may continue to sole-supervise these students until these students complete their degrees. <u>A retired faculty member may not begin a new sole-supervisory role.</u>

Revoking <u>SSPS</u>

When circumstances appear to warrant the revocation of SSPS1 or SSPS2 of a faculty member, the process for doing so is as follows:

- The Chair/Director of the faculty member's unit will recommend revocation of SSPS (SSPS1, SSPS2 or both) to the Faculty Associate Dean, Graduate Studies. Justification for the recommendation should be provided in writing, along with information on efforts that have been made for remediation, and the faculty member in question should be notified in advance of the recommendation and the reasons for it;
- The Faculty Associate Dean, Graduate Studies may reject the recommendation but must provide a written explanation for doing so;
- In some cases information may come to the attention of the Faculty Associate Dean, Graduate Studies, suggesting that revocation of SSPS should be considered. In such circumstances, s/he should approach the Chair/Director to investigate, and if appropriate initiate the process;
- If the Faculty Associate Dean, Graduate Studies accepts the Chair/Director's recommendation, the faculty member may appeal the decision to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs, whose decision is final; the Associate Vice-President, Graduate Studies and Postdoctoral

suggesting that revocation of ADDS status should be considered. In such circumstances, s/he should approach the Chair/Director to investigate, and if appropriate initiate the process;

- If the Faculty Associate Dean, Graduate Studies accepts the Chair/Director's recommendation, the faculty member may appeal the decision to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs , whose decision is final; the Associate Vice-President, Graduate Studies and Postdoctoral Affairs shall provide reasons for his/her decision in writing;
- If ADDS status is revoked/ the Faculty Associate Dean, Graduate Studies will notify Graduate Studies and Postdoctoral Affairs to update the University list;
- Faculty members whose ADDS status has been revoked have the opportunity to requalify for ADDS status, if they can demonstrate the appropriate competencies required.

Other

- All faculty members of a Faculty Graduate Studies Committee should hold ADDS status. (Departments/Schools not offering PhD programs would be exempt.)
- Faculty members from departments that do not have a PhD program may acquire ADDS status and supervise graduate students from other departments within their Faculty where departmental regulations permit.
- An interim supervisor, who supports a graduate student during a supervisor's absence during a planned (e.g., sabbatical) or unplanned (e.g., medical) leave, is not required to hold ADDS status.

Affairs shall provide reasons for his/her decision in writing;

- If SSPS2 is revoked, the Faculty Associate Dean, Graduate Studies will notify Graduate Studies and Postdoctoral Affairs to update the University list;
- A faculty member who has had their SSPS2 revoked will not be eligible to sole-supervise Master's or PhD students;
- Faculty members whose SSPS has been revoked have the opportunity to requalify for SSPS, if they can demonstrate the appropriate competencies required.

Other

- All faculty members of a Faculty Graduate Studies Committee should normally hold SSPS2.
- An interim supervisor, who supports a graduate student during a supervisor's absence during a planned (e.g., sabbatical) or unplanned (e.g., medical) leave, is not required to hold SSPS2.

APPENDIX B: Graduate students' supervisors and committees

This is a new calendar section found under the heading:

Graduate academic roles and program requirements
- Graduate student's supervisors and committees

Graduate students' supervisors and committees

The University of Waterloo strongly encourages regular and productive engagements between graduate students, their supervisors and committees that are purposefully constituted to promote students' attainment of their goals. The University recognizes the value of diverse areas of scholarship and lived experiences of those who support graduate students' research. This section of the calendar defines and provides the regulatory frameworks for graduate student research committees.

The University defines the following roles in support of graduate students:

A Supervisor is the primary point of contact for a graduate student. The supervisor meets or exceeds the expectations articulated in the [roles and responsibilities of supervisors typically a combination of academic, administrative, funding, and personal supports for the graduate student.](#)

A Co-supervisor, when appropriate, may share the responsibilities of the Supervisor. Co-supervisory arrangements are desirable when the co-supervisors have complementary knowledge, skills, academic training, professional networks, or other attributes that benefit the student. Co-supervisory relationships may also provide more timely administrative support for graduate students. No more than two co-supervisors are permitted.

Normally, the supervisor's or one of the co-supervisor's faculty appointment will be in the academic unit administering the student's program.

An Advisory Committee is formed to provide academic, professional and personal support to graduate students and their supervisors. Because of the broad mandate of the Advisory Committee, membership may be purposefully large, including members internal and external to the University with disparate training and experience, provided that a proposed member can contribute meaningfully to the student's academic endeavors.

The advisory committee (as a whole or select members) may also play roles in evaluating a graduate student's academic progress related to their research.

An Examining Committee evaluates a graduate student's performance on major academic milestones which, at the PhD level, may include comprehensive or qualifying exams, research proposals, and thesis defenses.

At the Master's level, an Examining Committee may be constituted, typically to evaluate a student's proposal or thesis.

In many instances, there will be common membership between a student's advisory committee and the student's examining committee, though examining committees are typically composed of those with academic credentials that are equivalent to the student's degree program.

Summary of Supervisory/Examining Committee Membership

Role	Tenure Stream faculty			Teaching Stream Faculty	External member with adjunct faculty status [4]	Research Professor	Post-doctoral Scholar
	With SSPS2 status	**With SSPS1 status**	**Without SSP status**				
PhD sole supervisor	YES	NO	NO	NO	NO	NO	NO
PhD co-supervisor	YES	YES [1]	YES [1]	YES [1] [2]	YES [1] [2]	YES [1] [2]	NO
Master's sole supervisor	YES	YES	YES [2]	NO	NO	NO	NO
Master's co-supervisor	YES	YES	YES [2]	YES [3]	YES [3]	YES [3]	YES [3]
PhD and Masters Advisory	YES	YES	YES	YES	YES – adjunct status recommended	YES	YES
[1] with co-supervisor with SSPS2 status [2] with Associate Dean (Graduate Studies) approval [3] with Graduate Officer approval [4] including retired faculty members who maintain adjunct status							

In unique circumstances, the Associate Dean Graduate Studies in the Student's home Faculty may recommend to the Associate Vice President Graduate Studies and Postdoctoral Affairs (AVP-GSPA) a supervisory or advisory relationship that differs from the regulations presented here. The AVP-GSPA shall make the decision to approve or reject the proposed relationship.

The following section provides the regulatory framework for graduate supervision at Waterloo.

PhD Supervisors

In order to sole-supervise PhD students, the proposed supervisor must be a tenure stream member of the University faculty with Sole Supervisory Privilege (SSP2) status.

When a proposed supervisor does not have SSPS2 status they may co-supervise with a colleague who satisfies the requirements for sole-supervision.

Similarly, colleagues external to the University of Waterloo who hold adjunct positions at the University may, at the discretion of the Associate Dean Graduate Studies in the student's home Faculty, co-supervise with a colleague who satisfies the requirements for sole-supervision when:

- The adjunct holds a PhD in a related discipline; and
- The adjunct remains active in research.

Research Professors and Teaching Stream faculty are permitted to serve as co-supervisors for PhD students. Postdoctoral scholars may not serve as supervisors or co-supervisors for PhD students.

A faculty member who is sole-supervising PhD students at the time of their retirement may continue to sole-supervise those students to completion. Following their retirement, faculty members may not begin sole-supervising new students.

Masters Supervisors

Any tenure stream faculty member who holds SSPS1 status at the University of Waterloo may sole-supervise research master's students. Faculty members without SSPS1 status may only sole-supervise Research Master's students with approval from the Associate Dean, Graduate Studies, in the student's home Faculty.

Teaching stream Faculty may not normally sole-supervise Master's students.

Co-supervision by other members of the university community (e.g., postdocs, research associate professors, adjunct faculty) is permitted at the discretion of the Graduate Officer in the student's home unit when:

- the co-supervision adds value to the student's learning outcomes (e.g., research or professional development) and
- for internal members of the university, the role of co-supervisor is permitted by the terms of the proposed co-supervisor's appointment.

Advisory Committee

Purpose and Functions

A student's Advisory Committee acts as a partner with the student and the supervisor(s) in guiding and advising the student on research and assisting supervisor(s) in their monitoring functions. Advisory committee members provide the student with expert guidance or advice in specific areas of the student's research work; for the supervisor(s), advisory committee members provide critical and constructive feedback on the student's research. Procedures for appointing and confirming advisory committees will vary between Faculties.

Collectively, advisory committees are intended to be sources of support to supervisors and students in promoting the resolution of issues and promoting positive academic outcomes.

Advisory committees (in full or in part) in some Faculties provide regular, formal assessments on students' academic progress, the successful attainment of which is necessary for a student to remain in Good Standing.

Advisory committees are mandatory for PhD students and are recommended for research Master's students.

Membership and Voting

Advisory committees must include the student's supervisor(s) and at least two other full-time faculty members from the University of Waterloo whose complementary fields of expertise will support the planning and execution of the student's research work.

Advisory Committees may include additional members, internal or external to the University, who possess expertise that will add value to the student's research work. Adjunct status is recommended for external members of an advisory committee but is not required.

When an Advisory committee is performing an evaluative role for the student, such as assessing academic progression through committee meetings, additional members (other than the supervisor(s) and two Waterloo faculty members) will normally not be voting members of the committee. Exceptions can be made by the Associate Dean Graduate Studies in the student's home Faculty, on the recommendation of the student and the supervisor(s).

The role(s) of advisory committees should be made clear to both the committee members and the student, including the role in supporting and evaluating academic progression.

The minimum membership of a PhD student's advisory committee shall be the supervisor(s) plus two regular members of the University faculty, at least one of whom will have their primary appointment in the student's home academic program.

The University recommends the formation of the advisory committee as soon as is practical. For PhD students, the committee shall be established not later than the month following the student's successful completion of the Comprehensive or Qualifying exam.

Jurisdiction on Membership

Normally, the composition of a PhD student's advisory committee shall be jointly decided by the student and the supervisor(s) and communicated to the Graduate Officer in the student's home unit.

In some Faculties, membership of the Advisory Committee is at the discretion of the Associate Dean Graduate Studies.

Distinction between Advisory and Examining Committees

The primary role of the advisory committee is to provide support/feedback to the student throughout their research progression.

The primary role of the examining committee is to serve as evaluators of graduate students' research work at defined points coinciding with PhD comprehensive exams, PhD thesis defenses and where appropriate, Master's defenses.

The examining committee evaluates the suitability of the student's research relative to the discipline and the stated degree level expectations of the student's level of study. In many cases, there will be overlap in membership of these committees. However, there may be members of the advisory committee who do not meet the requirements for membership on the examining committee.

A member of a student's advisory committee, who is not part of the examining committee, is not required to be a part of an examination. However, it is recognized that there may be value in the participation of all advisory committee members and thus, members are encouraged, where possible and appropriate, to play an active role in a student's examination (as a non-voting participant). This may include asking questions of the candidate during oral components of a comprehensive exam or a defense.

The membership of Examining Committees for PhD students is defined for [comprehensive exams](#) and for [defenses](#). For Master's programs, see [Master's degree with thesis.](#)

Where applicable, the membership of Examining Committees for master's students is specified by the Faculty or the Academic Unit delivering the student's academic program.

For Approval   **Open Session**

To:	**Senate**
Sponsor:	Vivek Goel, President and Vice-Chancellor
Contact Information:	president@uwaterloo.ca
Presenter:	Vivek Goel, President and Vice-Chancellor
Contact Information:	president@uwaterloo.ca
Date of Meeting:	**April 8, 2024**
Agenda Item Identification:	**10(c) Reports – Senate Executive Committee:** **Delegation of Authority for the Roster of Graduands**

Recommendation/Motion:

That Senate delegate its authority for the approval of the roster of graduands jointly to the chair and vice-chair of Senate, for convocation ceremonies scheduled in June 2024 and October 2024;

And that Senate direct that a report on the complete roster of graduands be presented for information to the Senate meeting following the relevant convocation.

Summary:

It is customary practice for Senate to delegate its authority to approve the roster of graduands, considering that timing constraints and incongruences with the Senate meeting schedule do not allow for timely approval in line with operational requirements. Further, the heavy volume of information contained in the roster of graduands makes its approval onerous upon Senators, and so it is reasonable for Senate to delegate it's approval in a prudent manner to meet operational requirements.

In previous years, this delegation had been made to the Senate Executive Committee following a report and recommendation from the vice-president, academic and provost; however in 2023, Senate commenced a practice where on an annual basis the Senate chair and vice-chair (the president and the provost, respectively) are entrusted to handle these approvals, which ensures that adequate time is given to the Registrar's Office and Community Relations and Events in planning convocation ceremonies.

The recommended delegation of authority maintains Senate's empowerments to "to confer degrees, diplomas and certificates or other awards in any and all branches of learning and in any subject taught in the University or its federated or affiliated colleges" as provided in section 22(g) of the *University of Waterloo Act*.

As a mechanism for accountability in approving the delegation of authority, Senate will require a report on the complete roster of graduands at the Senate meeting which follows the relevant convocation.

Senate   **1**

Jurisdictional Information:

Excerpt from *University of Waterloo Act*, 1972:

POWERS OF THE SENATE

22. The Senate has the power to establish the educational policies of the University and to make recommendations to the Board of Governors with respect to any matter relative to the operation of the University and without restricting the generality of the foregoing, this includes the power,

...

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

Governance Path:

Senate Executive Committee - March 25, 2024

Senate - April 8, 2024

Previous Action Taken:

Not applicable.

Highlights:

Not applicable.

Next Steps:

Not applicable.

Documentation Provided:

None

UNIVERSITY OF WATERLOO | Senate

Senate Graduate & Research Council

For Information   **Consent Agenda**   **Open Session**

To:	**Senate**
Sponsor:	Charmaine Dean Vice-President, Research & International Jeff Casello Associate Vice-President, Graduate Studies and Postdoctoral Affairs
Presenter: **Contact Information:**	Jeff Casello jcasello@uwaterloo.ca
Date of Meeting:	April 8, 2024
Agenda Item Identification:	**12) Report – Senate Graduate & Research Council**

Summary:

Senate Graduate & Research Council met on March 4, 2024 and agreed to forward the following items to Senate for information as part of the consent agenda. On behalf of Senate, the following items were approved:

1. Research Ethics

   Council approved the membership of one (1) new member and the role change of one (1) member of the Human Research Ethics Board, and the update to the terms of reference of the Human Research Ethics Board.

2. Graduate Awards:

   Council approved the following graduate awards:

   a. Keith William Hipel Engineering Graduate Scholarship [endowment]

   b. Buitrago Contingency Bursary in Engineering [trust]

   c. Paul Dirksen Memorial Graduate Scholarship in Computer Science [trust]

   d. Engineering Special Projects Award [operating]

e. Cohere Graduate Scholarship in Computer Science [trust]

f. W.K. Thomas Graduate Scholarship [trust/endowment]

g. I-MED Pharma Graduate Scholarship [trust]

h. Jerald F. Lawless Graduate Scholarship in Biostatistics [trust]

i. Brace Family Graduate Scholarship in Electrical and Computer Engineering [trust]

j. Mary E. Thompson Graduate Scholarship in Statistics [trust]

k. Efrim Bortiz Doctoral Scholarship in Emerging Technologies [endowment]

l. George and Cathy Raithby Award for Indigenous Students [endowment]

3. <u>Academic Program Reviews</u>

Following the review of the report and presentation from the programs, Council approved the following report:

a. Progress Report: Kinesiology

b. Progress Report: Peace and Conflict Studies

c. Final Assessment Report: Tri-University History

d. Final Assessment Report: Water Collaborative

There were no issues noted in the report.

4. <u>Curricular Submissions</u>

Council approved new courses, course changes, course inactivations, and minor program modifications for:

a. [Faculty of Environment:](Faculty of Environment) (Environment and Resource Studies; Social and Ecological Sustainability)

b. [Faculty of Health:](Faculty of Health) (Recreation and Leisure Studies; School of Public Health Science; School of Social Work)

c. [Faculty of Mathematics:](Faculty of Mathematics) (Applied Math; Combinatorics and Optimization; Pure Math; Statistics and Actuarial Science)

d. [Faculty of Science:](Faculty of Science) (Biology; Physics; Pharmacy)

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:

c.   Receive, consider, study and review briefs on any aspect of graduate studies and research from members of the university.

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.

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UNIVERSITY OF WATERLOO | Senate

Senate Graduate & Research Council

For Approval   **Consent Agenda**   **Open Session**

To:	**Senate**
Sponsor:	Charmaine Dean Vice-President, Research & International
	Jeff Casello Associate Vice-President, Graduate Studies and Postdoctoral Affairs
Presenter: **Contact Information:**	Jeff Casello jcasello@uwaterloo.ca
Date of Meeting:	April 8, 2024
Agenda Item Identification:	**12(a) Report – Senate Graduate & Research Council:** **Regulation Revisions - Graduate Studies Academic Calendar**

Recommendation/Motion:

To approve the proposed academic regulation revisions to the Graduate Studies Academic Calendar (GSAC), effective May 1, 2024, as presented.

Summary:

Senate Graduate & Research Council met on March 4, 2024 and agreed to forward the following items to Senate for approval as part of the consent agenda.

Jurisdictional Information:

This item is being submitted to Senate in accordance with Senate Bylaw 2, section 4.03(a): "Make recommendations to Senate with respect to the governance, direction and management of, or any changes in rules, regulations or policies for graduate studies and research in the university."

Governance Path:

Senate Graduate & Research Council approval date (mm/dd/yy): 03/04/24

Graduate & Research Council   **1**

Highlights/Rationale:

Graduate Studies and Postdoctoral Affairs (GSPA) continues the review of GSAC to ensure that the information presented is complete, clear and consistent with current practice. The following items are being brought forward for approval and information:

1. Graduate diplomas
2. Graduate certificates
3. Joint interdisciplinary programs
4. TB skin test
5. Academic integrity, research integrity and research ethics
6. Student's status and academic progress
7. Minimum requirements for Master's degree
8. Minimum requirements for PhD degree

The process of review and renewal began in the Fall 2023 term, with a number of sections coming forward. This work continues, with the intent of reviewing all sections under "General information and regulations" within the GSAC.

As described in the Fall, like many University of Waterloo governance documents, the GSAC has evolved over time. Despite the regular modifications to the GSAC, and its importance, the Calendar has not been holistically reviewed or updated for some time.

Increasingly students, and administrators are relying on the Calendar, and so the re-write is intended to present the Calendar elements in language that is accessible to both audiences.

This work has been done collaboratively and in partnership with the Faculties and other Academic Support Units that have expertise in the content (e.g., Office of Indigenous Relations, Office of Equity Inclusion and Anti-Racism, the Office of Research).

All items have been reviewed and endorse by Graduate Operations Committee, and items 1-6 have also been reviewed and endorsed by the Graduate Student Relations Committee (GSRC).

1. Graduate Diplomas

   Proposed revisions include a new stand-alone section for Graduate Diplomas, inclusion of Type 1 Graduate Diploma, and further articulation of the Type 2 and Type 3 Graduate Diplomas.

   At a time when the University is reviewing and introducing various forms of micro-credentials and professional development focused programs, the section on Graduate Diplomas has been revised to provide greater clarity and guidance on these types of credentials by explicitly stating the intent, composition, and approval process for Graduate Diplomas. The updates are also in alignment with the rules/regulations of the Ontario Quality Council.

2. Graduate certificates

Proposed revisions include the addition of a new section, under the heading section Concurrent academic offerings | Graduate certificates

The current language about a Graduate Certificate of Participation has been replaced with a more developed outline of what a Graduate Certificate entails. The version presented outlines the structure of the certificate program and approval process.

3. Joint interdisciplinary programs

The proposed revisions to this section of the calendar are to provide better guidance for establishing joint interdisciplinary programs.

Key elements include the development and confirmation of a written agreement of program outcomes, including required courses and milestones. Identifying that the custom academic program will meet, at a minimum, the requirements that satisfy the less rigorous of the two program requirements. This varies from the current text that states the most rigorous requirements will normally apply. In practice, however, the current text has not been followed, the proposed copy aligns better with current practice.

The formalization of the establishment of joint interdisciplinary programs is intended to support the development and promotion of these programs in line with the University's strategic objectives.

4. TB skin test

The proposed revision is the removal of this section. There is no over-arching requirement with public health for all students to present this test. Some programs may have specific health requirements related to placements and/or programming, which are included in the program level information. The government of Canada does require some students to provide a medical examination upon entry to Canada, and TB skin test is often included, but we (University of Waterloo) do not collect/store this information.

Consultations occurred at the start of our Calendar review project (2021):
- Medical Director - Clark Baldwin
- SSO - Amelia Burton, Manager, International Student Experience and Boon Khoo, Immigration Consulting Manager

5. Academic integrity, research integrity and research ethics

The proposed revision is to expand the current 'Academic integrity' and 'Research ethics' sections to include subsections on research integrity and research ethics. The new text introduces iThenticate and its uses for graduate student research at Waterloo. Similarly, the new text presents information on the responsible conduct of research, as well as specific guidance on research involving human participants or animals. The latter three sections have been drafted by appropriate units in the Office of Research.

The research ethics updates were drafted by the Office of Research. The academic integrity updates were drafted by the Office of Academic Integrity. There will be only one combined section, Academic integrity, research integrity and research ethics.

New section on iThenticate has also been added.

6. Student's status and academic progress

This section was formerly titled "Enrolment and time limits", and it is proposed to be renamed "Student's status and academic progress" to better reflect content. Below is an overview of the proposed revisions to the subsections:

- Enrollment – Brief introduction to section added.
- Structure of academic terms – Breakdown of important dates, with explanation of each item. Identification of requirement to be fees arranged and implications of not meeting requirement.
- Continuous enrollment status – Expanded explanation of continuous enrollment status for graduate students, including the status of inactive.
- Co-operative work terms – Explanation of how student status is recorded during co-op work terms, including use of co-op credit towards progression.
- Course add/drop date – No substantive changes, minor spelling updates.
- Enrolling in undergraduate course – Removal of language related to 'petition' to enroll in undergraduate course. Updated text to reflect current approval practice (approval through course drop/add form).
- Retaking graduate courses – No changes to this section.
- Enrollment – international students on study permits – Removal of references that GSPA will collect and retain study permit information. (change made in 2021, replaced by Workday for students engaged in TAship). Direction to students to seek advice regarding study permit status.
- Academic progression – New section. Expanding on requirement for students to remain in "good academic standing".
- Grades and grading – Reorganized section. Updated to remove references to changes made in 2001. Further explanation provided for INC, Xtra Course, and GS Continuing/etc or administrative courses. New section headings added for; graduate students enrolled in undergraduate courses, grade submission and conversion of incompletes, to provide greater clarity.
- Monitoring and supporting student progression – New section added. Direction on supporting students throughout their program.
- Good academic standing – New section added. We often refer to "good academic standing" but there hasn't been a definition of what this means. This section provides clarity on grade performance, cumulative average, milestone completion and research progresses. If students fail to meet the standards indicated, they will be deemed not to be in "Good Standing" and granted Conditional Standing.
- Conditional standing – New section. Conditional standing has been articulated in terms of student expectations while on conditional standing, and how to return to good academic standing.
- Research progress – New section. Guidance on how students in research-based programs are assessed.
- Program completion time limits – Updated guidance (clarity) on how student's term counts advance.

- <u>Requests for times extension for program completion</u> - New section. Information on how, and when, to request an extension, including deadline dates.
- <u>Resident requirements</u> - Updated language related to 'residence requirements'.
- <u>Leave of absence from study</u> - Greater guidance on requesting a leave of absence.
- <u>Student status when on a leave of absence</u> - New section. Students who are seeking a 'brief absence' (between two to six weeks) may be granted without a change of enrollment status. Leaves greater than six weeks must involve a change in enrollment status.
- <u>Permitted reasons for requesting a leave</u> – New section header.
- <u>Medical leave</u> - Additional information added around process to confirm a medical leave, and what happens at the end of the approved leave, including potential impact on funding obligations.
- <u>Birth leave</u> - Expanded direction of birth leave, and if/when a change of status will be required.
- <u>Partner leave</u> - Clarifying 'entitlement' to partner leave of two weeks and direction on communications expected.
- <u>Parental leave</u> - Minor updates to clarify that student status will be inactive during parental leave.
- <u>Personal leave</u> - New section. Personal leave covers any other personal circumstance not covered within medical, birth, partner, or parental leaves.
- <u>Voluntary withdrawal</u> - Updated text.
- <u>Required to withdraw</u> - No changes other than link and title added to Policy reference.
- <u>Convocation and apply to graduate/program completion</u> - Added statement, similar to Undergraduate calendar, that accepting conferred degree, diploma or certificate, student is ratifying their academic record.
- <u>Posthumous degrees and certificates</u> - No changes to the section.

7. <u>Minimum requirements for Master's degree</u>

The proposed revisions are designed to better reflect practice, and in some instances clarify requirements.

8. <u>Minimum requirements for PhD degree</u>

It is proposed to bring content currently outside of the Calendar, https://uwaterloo.ca/graduate-studies-postdoctoral-affairs/current-students/thesis/phd-thesis-examination-regulations, related to PhD thesis examination regulations has now been included under the proposed Calendar sections:

- PhD thesis examination
- Thesis submission
- Prior to defence
- Thesis examining committee
- Display period
- Guidelines for thesis examination and public disclosure
- Theses written in French
- Thesis Defence
- Procedural guidelines
- Format for defences

- Participation through electronic media (remote participation)
- Absent committee members
- Decision
- Academic integrity and the PhD Thesis
- Grievance

Documentation Provided:

Appendix A – 1. Graduate diplomas

Appendix B – 2. Graduate certificates

Appendix C – 3. Joint interdisciplinary programs

Appendix D – 4. TB skin test

Appendix E – 5. Academic integrity, research integrity and research ethics

Appendix F – 6. Student's status and academic progress

Appendix G – 7. Minimum requirements for Master's degree

Appendix H – 8. Minimum requirements for PhD degree

Appendix A: 1. Graduate diplomas

Current Calendar copy	Proposed Calendar copy
~~Minimum requirements for graduate diplomas~~ **Graduate Diploma ~~programs~~** **Type 2** A type 2 Graduate Diploma (GDip) is intended to demonstrate mastery of a topic area that is usually complementary to, but not embedded within, a graduate student's primary area of study. The goal of ~~the~~ GDip is to encourage breadth at the graduate level, often through interdisciplinary studies. A student who completes a degree program and a GDip should have achieved different learning outcomes than a student who has completed only the normal degree requirements. GDips at the University of Waterloo are achieved by successfully completing the academic requirements of the student's program and additional academic requirements – a combination of courses and/or academic milestones – specific to the GDip that total to the equivalent of 1.0 (academic) units. Normally, obtaining a GDip will require at least: • two 0.5 unit courses ~~in addition to the program's normal requirements; or~~ • one additional 0.5 unit course and one or more milestones the academic requirements of which are equivalent to a 0.5 unit course; ~~or~~ • a set of milestones the academic equivalent of which are two 0.5 unit courses. ~~The Department offering the GDip may also require specific courses that replace electives in the student's core program.~~	**Graduate Diplomas <u>– Definitions and Requirements</u>** <u>Graduate Diplomas are guided by the Ontario Quality Council. At the University of Waterloo, Graduate Diplomas take the following forms.</u> <u>A</u> **Type 1 Graduate Diploma** <u>(GDip1) may be awarded when a candidate admitted to a course-based Master's program leaves the program after completing the specified requirements, normally half the course requirements, where such an option has been specified through the program's approval process. A GDip1 Diploma can be later rescinded to earn a full degree in the same academic program.</u> <u>A</u> **Type 2 Graduate Diploma** (GDip<u>2</u>) is intended to demonstrate mastery of a topic area that is usually complementary to, but not embedded within, a graduate student's primary area of study. <u>As such, the GDip2 is pursued concurrent with the student's primary Masters or PhD program.</u> The goal of <u>a</u> GDip<u>2</u> is to encourage breadth at the graduate level, often through interdisciplinary studies. A student who completes a degree program and a GDip<u>2</u> should have achieved different learning outcomes than a student who has completed only the normal degree requirements. GDip<u>2</u>s at the University of Waterloo are achieved by successfully completing the academic requirements of the student's program and additional academic requirements – a combination of courses and/or academic milestones – specific to the GDip<u>2</u> that total to the equivalent of 1.0 (academic) units. Normally, obtaining a GDip<u>2</u> will require at least <u>one of the following in addition to the program's normal requirements:</u>

~~GDips:~~

- ~~require Quality Council approval;~~
- ~~should normally contain course or milestone options that promote interdisciplinarity; and~~
- ~~are recognized on the student's transcript and on the diploma.~~

~~Type 3~~

A type 3 Graduate Diploma (GDip) is ~~awarded by the University upon completion of an approved GDip program with a minimum of four graduate-level courses.~~

~~For direct entry~~ GDip programs, the minimum admission requirements are the same as for a master's program~~,~~ a four-year honours bachelor's degree or equivalent, ~~with~~ an overall 75% average in the last two years. A regular graduate studies application for admission is required.

~~A collaborative or interdisciplinary GDip program may be proposed by one or more departments for collaborative or interdisciplinary type diploma program which is offered in conjunction with a master's or doctoral program. Entry is approved by the Graduate Officer or Director of the Graduate Diploma program and the student's home Department Graduate Officer and Faculty Associate Dean.~~

All GDips programs require Department, Faculty, Senate Graduate and Research Council (SGRC) and Senate approval, followed by review and approval from the Ontario Universities Council on Quality Assurance (Quality Council). The approval process is described in the University's Institutional Quality Assurance Process. ~~A GDip program and qualification is recorded on the official student academic record, and conferred at convocation. Diploma types are defined by the~~ Ontario Universities Council on Quality Assurance.

- two 0.5 unit courses;
- one additional 0.5 unit course and one or more milestones the academic requirements of which are equivalent to a 0.5 unit course;
- a set of milestones the academic equivalent of which are two 0.5 unit courses.

A **Type 3 Graduate Diploma** (GDip3) is earned when a student completes a direct entry, stand-alone program with an articulated set of learning outcomes achieved through a minimum of four 0.5 unit graduate-level courses.

For GDip3 programs, the minimum admission requirements are the same as for a master's program:

- a four-year honours bachelor's degree or equivalent;
- an overall 75% average in the last two years.

A regular graduate studies application for admission is required.

All GDips (Types 1, 2, and 3) are recognized on the student's transcript and on the diploma.

Approval Process

All GDips (Types 1, 2, and 3) programs require Department/School, Faculty, Senate Graduate and Research Council (SGRC) and Senate approval. For Types 2 and 3, the internal approvals are followed by review and approval from the Ontario Universities Council on Quality Assurance (Quality Council). The approval process is described in the University's Institutional Quality Assurance Process.

Appendix B: 2. Graduate Certificates

Current Calendar copy, under Minimum requirements graduate diplomas	Proposed Calendar copy
Graduate Certificate ~~of Participation/Completion~~ ~~A Graduate Certificate of Participation or Completion is prepared and awarded by the Department/Faculty to acknowledge participation or completion of one or more courses, seminars or workshops. Awarding of a Graduate Certificate of Participation or Completion is not recorded on the official University record and academic transcript.~~ ~~Proposals for Graduate Certificates of Participation/Completion require Department and Faculty approval and are normally completed in conjunction with a master's or doctoral program, or non-degree graduate enrolment. All Certificates of Participation/Completion approved by a Department and Faculty must be reported to SGRC for information.~~	**Graduate Certificates** Graduate Certificates at the University of Waterloo are intended to recognize graduate students' accomplishments, typically co-curricular, that are in addition to their primary degree programs. Graduate Certificates require an articulation of the students' learning outcomes and the pathways to achieve and demonstrate the attainment of those learning outcomes. New Graduate Certificates shall be approved by Senate Graduate and Research Council (SGRC). Elements completed in pursuit of a Graduate Certificate will not generate academic credit for the student and may not be used in satisfying the requirements of a degree or diploma program. Graduate Certificates will be recognized and included on a student's academic transcript.

Appendix C: 3. Joint interdisciplinary programs

Current Calendar Copy	Proposed Calendar Copy
Joint interdisciplinary programs Students interested in Doctoral or Master's study involving more than one discipline may undertake a joint research degree program provided Waterloo offers the degree level sought in both of the units involved, ~~and their proposed program of study is approved by the units and Faculty (or Faculties). Professional programs are ineligible. Interested students should contact their department/program graduate co-orinator to obtain the Memorandum of Understanding - Joint/Interdisciplinary Graduate Degree Program form.~~ ~~If the academic units involved have different requirements for the degree, the most rigorous requirements will normally apply. For example, if one department requires an oral defence of the Master's thesis and the other does not, a defence will be required. If the academic units involved offer different degrees, the degree granted will be that of the home unit with the applicable joint designation, e.g., MSc in Kinesiology and Sociology, MASc in Management Sciences and Biology.~~	**Joint interdisciplinary programs** The University of Waterloo values interdisciplinarity and encourages research graduate students to pursue their studies through diverse disciplinary lenses. Students interested in Doctoral or research Master's study involving more than one discipline may undertake a joint research degree program provided Waterloo offers the degree level sought in both of the units involved. Prior to admission, a student contemplating a joint interdisciplinary program is strongly encouraged to contact potential supervisors in both programs to assess the student's candidacy. **Entering a Joint interdisciplinary program** A student wishing to pursue a Joint Interdisciplinary research Program will apply to one of the programs comprising the joint program. Subsequent to admission and enrollment, but prior to the completion of term four for PhD students and term two for Master's students, the student may begin the process of defining the joint program. This process will include: 1. Demonstrating that the student meets the admission requirements for the second of the joint programs; 2. Coordinating with the student's primary supervisor to identify a co-supervisor in the second of the joint programs; 3. Defining the student's home Faculty for academic (including appropriate degree designation e.g., MA in Planning and Civil Engineering or an MASc in Civil Engineering and Planning), financial, administrative, and record-keeping purposes; 4. Creating a custom academic program that at a minimum satisfies

	the less rigorous of the two program requirements in the following categories: a. The total number of courses and any required courses to be completed successfully; b. The milestones to be completed successfully; c. The construct of the student's advisory and examining committees; 5. Establishing an expected sequencing of courses and milestones, as well as the consideration of prerequisites, as appropriate. 6. Redefining the student's expected funding with identified sources that may supersede the student's original offer of admission. Items 3 through 6 shall be recorded in writing. The content shall be approved by: • The student; • The co-supervisors; • The Graduate Officers representing both of the Joint Programs; and • The applicable Associate Dean(s). Upon approval, the completed document shall be shared with the student and become part of the student's official University Record.

Appendix D: 4. TB skin test

Current Calendar content	Proposed Calendar content
TB skin test Newly admitted students who have been living and/or pursuing their education outside Canada must have documented evidence that they have had a recent TB skin test before undertaking studies at the University of Waterloo. Upon arrival or while attending the University, students must be prepared to present documentation if requested by a University official. This documentation must include the type of skin test taken, the date performed, and the number of millimeters of induration. Students who are requested to provide documentation but are unable to do so, or students who are unsure about the safety of the needles and/or injection procedures in their previous country of residence, must report to Health Services upon arrival on campus. Where applicable, Health Services will administer the TB skin test. There is a cost for this service. In addition, students who have travelled outside Canada or the United States for four weeks or longer should contact their health care provider to discuss the need for TB skin testing.	Remove this section

Appendix E: 5. Academic integrity, research integrity and research ethics

The current 'Academic integrity' and 'Research ethics' sections are being expanded to include subsections on research integrity and research ethics. The new text introduces iThenticate and its uses for graduate student research at Waterloo. Similarly, the new text presents information on the responsible conduct of research, as well as specific guidance on research involving human participants or animals. The latter three sections have been drafted by appropriate units in the Office of Research.

The research ethics updates were drafted by the Office of Research. The academic integrity updates were drafted by the Office of Academic Integrity. There will be only one combined section, Academic integrity, research integrity and research ethics.

New section on iThenticate has been added.

Current Calendar sections under **General information | Academic integrity**:
https://uwaterloo.ca/graduate-studies-academic-calendar/general-information-and-regulations/academic-integrity

 General information | Research ethics:
https://uwaterloo.ca/graduate-studies-academic-calendar/general-information-and-regulations/research-ethics

Proposed Calendar location **General information | Academic integrity, research integrity and research ethics**

Current Calendar copy	Proposed Calendar copy
Academic integrity In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. The Office of Academic Integrity's website contains detailed information on University of Waterloo policies for students and faculty. This site explains why Academic Integrity is important and how students can avoid academic misconduct. It also identifies resources available on campus for students and faculty to help achieve academic integrity in--and out--of the classroom. The University of Waterloo recognizes that its graduate students come from a variety of cultural and educational backgrounds, and that expectations about academic integrity can differ from one institution to another. To satisfy this need for consistency across graduate programs and to inform and support our graduate students, the University of	**Academic integrity, research integrity and research ethics** In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. The Office of Academic Integrity's website contains detailed information on University of Waterloo policies for students and faculty. This site explains why academic integrity is important and how students can avoid academic misconduct. It also identifies resources available on campus for students, instructors, and teaching assistants to help achieve academic integrity in--and out--of the classroom. The University of Waterloo recognizes that its graduate students come from a variety of cultural and educational backgrounds, and that expectations about academic integrity can differ from one institution to another. To satisfy this need for consistency across

Waterloo has created the [Graduate Academic Integrity Module (Graduate AIM)](). The Graduate AIM is an online course that all new graduate students are required to take through [Waterloo LEARN](). Students must read the information about academic integrity and then receive a mark of at least 75% on an online quiz. The quiz must be successfully completed within the first 8 weeks of the term.

Turnitin®

The University licenses the text matching software (Turnitin®) that may be used to screen student assignments. The following text must appear in all course outlines:

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.

It is responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

graduate programs and to inform and support our graduate students, the University of Waterloo has created the [Graduate Academic Integrity Module (Graduate AIM)](). The Graduate AIM is an online course that all new graduate students are required to take through [Waterloo LEARN]().

Students must read the information about academic integrity and then receive a mark of at least 75% on an online quiz. The quiz must be successfully completed within the first 8 weeks of the student's first term. Failure to complete will result in a service indicator that would limit a student's academic options, and potentially graduation.

Turnitin®

The University licenses the text matching software (Turnitin®) that may be used to screen student assignments. The following text must appear in all course outlines in courses where Turnitin is being used:

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.

It is responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

For more information on Turnitin®, visit the [Office of Academic Integrity Turnitin® webpage]().

iThenticate®

iThenticate® is text matching software that is designed to be used by researchers to

| | ensure the originality of their written work. iThenticate® cannot be used for coursework. Graduate students can check their original documents only, such as articles and book chapters to be submitted for publication, grant proposals, comprehensive examinations, theses and dissertations, and writing created by individuals in connection with their role at the University of Waterloo.

For more information about using iThenticate®, including how to request an account, visit the Office of Academic Integrity iThenticate® webpage.

Responsible Conduct of Research (Research Integrity)

All members of the University of Waterloo are expected to conduct research activities with integrity and ensure all aspects of the research is conducted responsibly and ethically. Some obligations are internally mandated (e.g., Waterloo policies, guidelines, or processes), where others are externally mandated (e.g., funders' requirements or legal requirements). These policies apply in all formal and informal settings in which research is being conducted, both on-and-off campus as well as in virtual environments.

Through our research integrity policies, the University of Waterloo keeps the public, fellow researchers, governments, and funding agencies assured of the rigour of our policies and procedures. Seeing "University of Waterloo" next to a researcher's name should imply good, trustworthy research. As a recipient of Tri-Agency funds, the University of Waterloo is governed by the Tri-Agency Framework on the Responsible Conduct of Research.

For graduate students, these principles are found in the Integrity in Research Administrative Guidelines, available via the University of Waterloo's Research Integrity webpage. Research misconduct includes, but is not limited to, fabrication, falsification, the destruction of research data/records, plagiarism, redundant publications, invalid authorship, inadequate acknowledgement, the mismanagement of conflict of interest, as well as several other regulations specific to grant applications. |
|---|---|

	As a member of the University of Waterloo community, students have both a right and a responsibility to report any instances of irresponsible conduct of research. Allegations can be reported (anonymously or named) in confidence to the Vice-President, Research and International or the Associate Vice-President, Research Oversight & Analysis.
	Research with human participants
	The University of Waterloo has two Research Ethics Boards (REBs): the Human Research Ethics Board (HREB) and the Clinical Research Ethics Board (CREB). HREB reviews all types of research involving human participants where CREB reviews mainly clinical research and clinical trials.
	The mandate of the REBs, on behalf of the University, is to protect the rights and welfare of human participants who take part in research. The ethics review process is intended to ensure the research meets ethical principles and complies with all applicable regulations, guidelines, and standards pertaining to human participant protection.
	At Waterloo, activities requiring ethics review include, but are not limited to, interviews, questionnaires (web-based or paper format), focus groups, oral histories, unobtrusive observations on individuals or groups where there is no expectation of privacy, physiological assessments and measurements, clinical research and clinical trials, analysis of secondary data not in the public domain and not anonymous, human tissue, remains, and bodily fluid as well as program evaluation, quality assurance and quality improvement activities being used for research purposes. These activities may be conducted on- or off-campus and may be funded or unfunded.
	For more information visit the Office of Research Ethics website.
	Research using animals
	All research and teaching activities involving the use of live, non-human vertebrate animals conducted on or off-campus must

	undergo prior review and approval through the Animal Care Committee. Animals are only used in projects deemed to have scientific merit, and in teaching when there are no alternatives. These activities must conform with the Canadian Council on Animal Care standards and guidelines, the Animals for Research Act for the province of Ontario, and the University of Waterloo statement on animal use in research and teaching. For more information visit the Office of Research Ethics website.
Research ethics ~~**Research with animals**~~ ~~In association with the University of Waterloo's Animal Care Committee, the Office of Research Ethics (ORE) oversees the ethics review of research and teaching projects involving live, non-human vertebrate animals conducted by its students, staff and faculty, on or off-campus, to ensure that the proposals conform with the Canadian Council on Animal Care Guide to the Care and Use of Experimental Animals; the Animals for Research Act; and the University of Waterloo's Guidelines for the Care and Use of Animals in Research and Teaching.~~ ~~The ORE develops and distributes procedural information and educational materials associated with the ethics review process, monitors animal housing facilities, and provides educational workshops and training courses on animal research issues. The Office also liaises with provincial and federal government agencies with respect to application of their guidelines and animal utilization in research and teaching at Waterloo.~~ ~~Additional details about the ethics review process, educational materials and workshops can be obtained from the Office of Research Ethics website.~~ ~~**Research with human participants**~~	

The University of Waterloo requires all ~~research involving human participants conducted by its students, staff and faculty, on or off-campus to undergo prior ethics review and clearance through the Office of Research Ethics (ORE). The ethics review and clearance process is intended to ensure that projects comply with the Office's Guidelines for Research with Human Participants (Guidelines), the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, and guidelines of various professional organizations, and that the safety, rights and welfare of participants are adequately protected.~~

~~All applications for ethics review of research with human participants are submitted to the Office of Research Ethics. The ethics review process is conducted by the Director, Manager, ORE, and/or the Human Research Ethics Committee and is determined in the basis of risk level associated with the projects. The Guidelines inform researchers about ethical issues that must be of concern when conducting research with humans (e.g. anonymity, confidentiality, risks and benefits, informed consent process etc.).~~

~~The Director and Manager develop and distribute educational materials, guidelines, procedural information, and sample documents related to research with human participants, and provide consultation, assistance and support to researchers at all stages of the application and review processes. The Director liaises with government agencies on matters pertaining to research with humans. The Manager coordinates University research within local elementary and secondary schools and coordinates ongoing monitoring of human research projects with ethics clearance.~~

~~Additional details about the application and review procedures, guidelines, and educational materials can be obtained from the~~ [Office of Research Ethics website](#).

~~Integrity in research~~

~~The University of Waterloo expects members of its faculty, staff, and students to conform to the highest standards in research and~~

scholarship. Misconduct is a violation of the principles of intellectual honesty, including the misappropriation of writings, research, and discoveries of others. Included in this category are: false recording, manipulation of reporting of information; plagiarism; unauthorized use of confidential research results of others. Additional information and resource materials on the topic of integrity in research can be obtained from the Office of Research Ethics website.	

Appendix F: 6. Student's status and academic progress

For review, the proposed sections will be matched with the current sections, however, the order and organization is as proposed.

	Proposed Calendar copy
Enrolment and time limits Residence requirements - graduate programs Enrolment Continuous enrolment Co-operative work terms ~~Full-time off-campus~~ [under proposed moved to new section under **Student – definitions**] Leave of Absence from study Inactive status Exceptions to inactive status process Medical leave Birth leave Partner leave Parental leave Enrolment - international students on Study Permits Voluntarily withdraw Required to withdraw Course drop/add date Retaking graduate courses Program time limits	**Enrolment** - Structure of academic terms - Continuous enrolment status - Co-operative work terms - Course add/drop date - Enrolling in undergraduate course - Retaking graduate courses - Enrolment – international students on study permits
Enrolment **~~Enrolment and residence:~~** ~~On successful completion of each four-month period (Fall, Winter, Spring) students advance as follows:~~ 　　• ~~full-time students will advance at the rate of one term (1.0);~~	**Enrolment** A student who wishes to engage in academic activities at the University of Waterloo, and who wishes to access University resources must be enrolled as a student. This section of the Calendar builds upon the student definitions – full-time, full-time off campus, part-time, or inactive – and provides guidance

• part-time students will ~~advance at the rate of one-half term (0.5);~~ • ~~inactive enrolment has a term value of 0.0.~~ **~~Term enrolment:~~** ~~Students will not be allowed to enrol after the government reporting date in a term (for relevant dates refer to the~~ Academic deadlines and events page~~). If they are not Enroled, students will not receive credit for course work completed up to that date and will have to apply for readmission to their program.~~ **~~Enrolment and time limits~~** ~~(additional Program time limits information is provided below): Students who have Enroled and paid fees, but have reached the the~~ program time limits ~~are required to submit a~~ Request for program extension form ~~to their department by the specified dates prior to the term that the extension is required (i.e., Fall: August 1, Winter: December 1; Spring: April 1; unless an academic unit specifies different deadlines). Students who do not submit their form by the specified deadline will be~~ required to withdraw ~~from their program.~~ **~~Fees:~~** ~~To avoid late fees, students must pay their fees or become~~ fees arranged ~~by specified dates (see~~ Academic deadlines and events page~~). Students who are not fees arranged and have Enroled in classes will have their classes dropped at the end of the third week of classes (end of open Enrolment; to request re-Enrolment, students must submit a~~ Graduate Studies course drop/add form ~~and make a fee payment arrangement). Students who do not arrange fees by the specified last day to arrange tuition and fees (i.e., considered to be non-payment of fees) will be withdrawn from their program. Enrolment may be re-established only if an application for readmission is approved.~~ ~~Students who are readmitted to a program must enrol for a minimum of one academic term.~~	on the structure and implications of students' enrolments in their graduate programs.
(under heading Enrollment)	**Structure of academic terms**

At the University of Waterloo the calendar year is divided into three academic terms known as Fall (September-December), Winter (January-April) and Spring (May-August). ~~Graduate students normally enrol for the first time in September at the beginning of the Fall term. In some cases, a department permits new students to enrol in January or May. To enrol, a new student must have been issued a Letter of Acceptance by Graduate Studies and Postdoctoral Affairs (GSPA) which specifies the date for which enrolment is authorized.~~	At the University of Waterloo the calendar year is divided into three academic terms known as Fall (September-December), Winter (January-April) and Spring (May-August). Courses are offered in each term with start and end dates approved by the University Senate and published annually. Graduate students who receive financial support from the University do so on a term-by-term basis. The number of academic terms a student has completed is an important metric for monitoring graduate student progression and may influence a student's eligibility for funding. In each academic term, there are Important Dates about which students should be aware. These include: • The Tuition Refund dates - the dates by which if a student unenrols they may be eligible to receive 100% and 50% refunds for their tuition. • The official count date. Each term, the University is required to report the number of students enrolled to the Province of Ontario. If a student's registration status remains uncertain at the time in which government reporting is due, the University will actively seek to resolve the enrolment status. In this case, students will not receive credit for course work completed up to that date in that term and will have to apply for readmission to their program. Students will not normally be allowed to enrol, change their enrolment status, or change their program of study after the official count date in a term. For students enrolled in courses, additional Important Dates include: • Course start and end dates. • The course enrolment period, during which a student may add or drop a course to their schedule for the current term. • The class drop with grade of Withdrawn, no credit granted (WD)

	period, during which a student may drop a course, with a grade of WD listed on the transcript for that course. A student may also add a course with the Graduate Studies course drop/add form. • Outside of these periods, students with special circumstances can seek to drop or add a class, normally through the petition process. For courses with non-traditional meeting schedules, alternative dates may be arranged. Students should contact their Graduate Officer. For courses with enrolment restrictions, students must obtain permission through their Department Graduate Coordinator. A student who is not fees arranged by the end of the class enrolment period will automatically be unenrolled from their courses.
Continuous enrolment ~~A graduate student proceeding to a degree must maintain continuous enrolment, either active or inactive, in each successive term from the time of initial admission until the end of the term during which the requirements for the degree are completed. Students are responsible for ensuring that they enrol and arrange fees by the deadline each term (formal dates are available on the~~ Finance website~~).~~ ~~Graduate students must Enrol as Active, and pay appropriate fees plus incidentals, in each term in which they are engaged in coursework, research, or thesis preparation including the term in which the completion of degree requirements is anticipated.~~ **~~Notes:~~** ~~1. Students must remain Enroled and fee arranged until their final degree requirements are completed. For programs with a thesis, completion includes submission and approval from Graduate Studies and~~	**Continuous enrolment status** Graduate students enrolled in an academic program must have an active enrolment status – part-time or full-time – and pay appropriate fees plus incidentals in each term in which they are engaged in coursework, research, or thesis preparation. This requirement includes the term in which the completion of program requirements is anticipated. For programs with a thesis, completion includes submission and approval from Graduate Studies and Postdoctoral Affairs of the thesis in UWSpace. A graduate student may also be formally enrolled in an academic program, but not be actively working towards their program requirements. In these cases, a student shall seek to be enrolled with inactive status using a change of enrolment form. When a student is inactive, the student is not required to pay tuition or fees to the University. Continuous UHIP enrolment is required for international students. Failing to maintain an active or inactive status will result in a student being withdrawn from

~~Postdoctoral Affairs of the thesis in UWSpace.~~ 2. ~~Faculties and/or departments and schools will verify degree completion.~~ 3. ~~Graduate students are notified of degree completion approval by Graduate Studies and Postdoctoral Affairs.~~ 4. ~~The completion, degree, and convocation dates will appear on student academic records/transcripts.~~ ~~If a student plans to Enrol in courses beyond the degree requirements, they must apply for non-degree admission for the term following the term of degree completion.~~	their program and require the student to reapply for admission to resume their studies. By default, a student's enrolment status when full-time or part-time automatically carries forward unchanged from the previous term. A student who wishes to change their status may do using a change of enrolment form.
Exceptions to inactive status process Students in the Mathematics for Teachers (MMT) program ~~who~~ do not enroll in a course by the end of the third week of classes will be considered to be taking an inactive term and will automatically be changed to inactive status for a maximum of two consecutive terms. Students who have not enrolled in at least one course for three or more consecutive academic terms will be discontinued from their program and must apply for readmission to continue studies in their academic program. ~~Note:~~ students who need to take a third inactive term for one of the permitted reasons (e.g. medical leave or parental leave) must complete a Change of enrolment status form prior to the third week of classes.	Moved this section to 'Inactive status'
# Co-operative work terms Students on a work term must ~~change~~ enrollment status to part-time/work term. ~~Students requesting a status change, must complete a~~ Change of enrolment status form. Enrolment in a course is allowed with permission from the student's home department. Failure to maintain continuous enrolment will cause their registration in Graduate Studies to lapse (see the Co-Operative Education page for more information).	# Co-operative work terms Students on a work term must have their enrolment status changed to part-time/co-operative work term, after they have secured a job for the term. Once a student's work term is completed, their status will automatically be reverted to their status, prior to the work term. Enrolment in a course is allowed with permission from the student's home department. Failure to maintain continuous enrolment will cause their registration in Graduate Studies to lapse (see the Graduate work-integrated learning page for more information).

	Work term requirements are specified in the section Graduate work-integrated learning. Program pages will outline specific program requirements. Each co-operative work term shall carry academic credit and be recorded as a course with a unit weight of 0.50. A final grade of Credit granted (CR) or No credit granted (NCR) shall be assigned. Only grades of CR can be counted towards successfully completing co-operative work term requirements. These co-operative work term courses are extra academic requirements to those listed above for minimum Master's or PhD degree requirements.
Course drop/add date Students can enrol in courses until the end of the third week of classes. Students who drop a course prior to the ~~completion of the third week of classes~~ will have no record of that course on their transcript. Students who drop a course in the period between the fourth and tenth week of classes will have a record of the course on their transcript and a grade of withdrawn (WD). After the tenth week of classes, students may not drop or add a course except by ~~petition~~ using the Graduate Studies course drop/add form, and only under exceptional circumstances with the signature of the instructor, supervisor, Department Graduate Officer, and the Associate Dean (Graduate Studies) of their home Faculty. Comparable dates will be used for courses with non-traditional meeting schedules. For courses with enrolment restrictions, students must obtain permission through their Department Graduate Coordinator. These are Graduate Studies and Postdoctoral Affairs (GSPA) deadlines. Individual Faculties may have earlier deadlines (please check with your Associate Dean's Office).	**Course drop/add date** Students can enrol in courses until the end of the <u>class enrolment period (normally</u> the third week of classes). Students who drop a course prior to the <u>end of the class enrolment period</u> will have no record of that course on their transcript. Students who drop a course in the period between the fourth and tenth week of classes <u>(referred to as the Class drop with grade of Withdrawn, no credit granted period)</u> will have a record of the course on their transcript and a grade of withdrawn (WD). After the tenth week of classes, students may not drop or add a course except <u>by using</u> the Graduate Studies course drop/add form, and only under exceptional circumstances with the signature of the instructor, supervisor, Department Graduate Officer, and the Associate Dean (Graduate Studies) of their home Faculty. Comparable dates will be used for courses with non-traditional meeting schedules. For courses with enrolment restrictions, students must obtain permission through their Department Graduate Coordinator. These are Graduate Studies and Postdoctoral Affairs (GSPA) deadlines. Individual Faculties may have earlier

Undergraduate courses ~~Graduate students who wish to enrol in an undergraduate course may petition using a~~ [~~Graduate Studies course drop/add form~~](#)~~, obtainable through their Department or Graduate Studies and Postdoctoral Affairs (GSPA). Signature of the instructor, supervisor, Department Graduate Officer, and the Associate Dean (Graduate Studies) of their home Faculty are required.~~	**Enrolling in undergraduate courses** In some circumstances, in consultation with their supervisor or Graduate Officer, a graduate student may benefit from enrolment in an undergraduate course. Graduate students who wish to enrol in an undergraduate course may seek approval using a [Graduate Studies course drop/add form.](#)
Enrolment - international students on Study Permits ~~Students without valid Study Permits will not be allowed to enrol at the University of Waterloo.~~ All international students admitted to graduate studies degree programs at the University of Waterloo must have a valid Study Permit issued by Immigration, Refugees and Citizenship Canada (IRCC). ~~A copy of the Study Permit must be submitted to Graduate Studies and Postdoctoral Affairs (GSPA) upon arrival at the University.~~ If a Study Permit expires prior to program completion, students must apply to IRCC for renewal ~~and submit a copy of the renewed Study Permit to Graduate Studies and Postdoctoral Affairs (GSPA)~~ (check the 'valid until' date on the Study Permit). ~~Make sure you~~ apply at least 30 days before ~~your~~ current permit expires. ~~If your Study Permit expires and you have made an application to renew it, but have not had a decision yet, you can continue studying until you receive a decision. Proof of application for renewal must be submitted to Graduate Studies and Postdoctoral Affairs (GSPA) to permit continuing enrolment.~~	**Enrolment – international students on study permits** All international students admitted to graduate studies degree programs at the University of Waterloo must have a valid Study Permit issued by [Immigration, Refugees and Citizenship Canada (IRCC)](#), or meet the conditions as determined by IRCC. Students without valid Study Permits will not be allowed to enrol in a graduate program at the University of Waterloo that requires the student's physical presence in Canada. If a Study Permit expires prior to program completion, students must apply to IRCC for renewal (check the 'valid until' date on the Study Permit). Students are advised to apply at least 30 days before their current permit expires. If a student's Study Permit has expired but they have made an application to renew it, but have not had a decision yet, they can continue studying until they receive a decision. [Immigration consultants in the Student Success Office](#) are available to provide guidance and support.
	Academic progression • Grades and grading • Monitoring and supporting student progression • Good academic standing • Conditional standing • Research progress • Program completion time limits • Requests for time extensions for program completion

No section	<u>**Academic Progression**</u> <u>Graduate students are required to remain in "good academic standing" in their graduate program and within time limits.</u>
Grades and grading **Grade ~~submission~~** ~~Instructors must submit final grades to Graduate Studies and Postdoctoral Affairs (GSPA) by the end of the term in which the course was given or by the beginning of the following term. Interim grades may not be assigned. Once a grade has been assigned, it cannot be changed.~~ **Conversion of incompletes** ~~An incomplete grade status (INC) submitted by an instructor may remain on a student's academic record for at most two terms of enrolment following the term in which the course was taken. A student may seek a one-term extension by submitting a petition to the course instructor and the Department prior to the end of the two terms. If a grade has not been submitted by the end of the second term and an extension has not been granted, the INC will automatically convert to a failure to complete (FTC). For average calculation, FTC value equals 0. An FTC status may be reverted to an INC on the academic record only if a petition from the student is approved by the Department, Faculty, and the Associate Vice-President, Graduate Studies and Postdoctoral Affairs. Such a petition is granted only in exceptional circumstances.~~ **Grading scheme** ~~The grading system of the University changed in Fall 2001. Grades for all courses taken prior to Fall 2001 appear on grade reports and transcripts either as one of 15 letter grades from A+ through F, or as numeric marks on a percentage scale depending upon the Faculty of enrolment.~~ ~~Effective Fall 2001, numeric grades on a scale from 0 - 100 are used by all Faculties.~~	**Grades and grading** **Grad<u>ing scheme</u>** <u>Numeric grades on a scale from 0 - 100 are used by all Faculties for courses; averages (overall, program, etc.) are reported on the same 0-100 scale.</u> Students must obtain an average of at least 70% in the set of courses which they present in fulfilment of course requirements for any graduate degree. Some programs may require higher program averages or course grades for graduate degrees. Any course with a numeric grade below 60% will not be counted for credit and is considered a failure. In some programs a higher than 60% grade is required for the course to count towards degree completion. <u>In some instances (e.g., grades granted by the University of Waterloo prior to 2001 or a student seeking transfer credit achieved elsewhere), a student may require a conversion from a letter grade to a numeric percentage.The following conversion scale applies to these cases.</u>

Table of grading scheme		
Letter grade	**Percentage ranges**	**Weighting factors for letter grades**
A+	90-100	95
A	85-89	89
A-	80-84	83
B+	77-79	78
B	73-76	75
B-	70-72	72
C+	67-69	68

Table of grading scheme		
Letter grade	**Percentage ranges**	**Weighting factors for letter grades**
A+	90-100	95
A	85-89	89
A-	80-84	83
B+	77-79	78
B	73-76	75
B-	70-72	72
C+	67-69	68
C	63-66	65
C-	60-62	62
F	0-59	0

Non-numeric grades/grade status

Table of non-numeric grades/grade status	
Designation	**Description**
ACC	Accepted (thesis)
AEG [1]	Aegrotat, credit granted due to illness or extenuating circumstances
AUD	Audit only, no credit granted
CR [2]	Credit granted
DNW	Did not write examination, no credit granted (value 0)
FTC	Failure to complete course requirements in a course with a grade of INC, no credit granted (value 0)

C	63-66	65
C-	60-62	62
F	0-59	0

Note, for admissions purposes, an applicant's previous average will be calculated using the values articulated by the home university on the student's transcript.

Non-numeric grades/grade status

Table of non-numeric grades/grade status	
Designation	**Description**
ACC	Accepted (thesis)
AEG [1]	Aegrotat, credit granted due to illness or extenuating circumstances
AUD	Audit only, no credit granted
CR [2]	Credit granted
DNW	Did not write examination, no credit granted (value 0)
FTC	Failure to complete course requirements in a course with a grade of INC, no credit granted (value 0)
INC [3]	Course requirements not complete, no credit granted, not in average
NAC	Not Accepted (thesis)
NCR [2]	No credit granted
NMR	No mark reported, no credit granted (value 0)
UR	Under review, no credit granted
WD	Withdrawn, no credit granted
XTRA[4]	Extra course, not counted towards program average or degree requirements

[1]AEG: The aegrotat designation signifies the granting of credit for a course when some coursework has been completed but no further assessment is possible because of illness or other extenuating circumstances. The aegrotat designation is used only in exceptional circumstances and must be

INC	~~Incomplete course work, no credit granted~~
NAC	Not Accepted (thesis)
NCR [2]	No credit granted
NMR	No mark reported, no credit granted (value 0)
UR	Under review, no credit granted
WD	Withdrawn, no credit granted

Students must obtain an average of at least 70% in the set of courses which they present in fulfilment of course requirements for any graduate degree. Some departments may require higher program averages or course grades for graduate degrees.

~~If a graduate student takes an undergraduate course for graduate credit the above grading scheme will apply. Undergraduate courses taken for graduate credit or to meet probationary or transitional requirements for a graduate program are subject to the same regulations as graduate courses, i.e., interim grades may not be assigned, once a grade has been assigned it may not be changed; incomplete grade status (INC) converts to failure to complete (FTC) after two terms following the term in which the course was taken. Students may petition for an extension of incomplete status.~~

[1]The aegrotat designation signifies the granting of credit for a course when some coursework has been completed but no further assessment is possible because of illness or other extenuating circumstances. The aegrotat designation is used only in exceptional circumstances and must be approved by the Faculty Associate Dean.

[2]Departments may offer, for graduate credit, courses that carry no grades, and satisfactory work in such courses will be indicated on the transcript by CR. CR/NCR courses are so designated in the calendar. No degree candidate can fulfil more than half of the minimum department course requirements by courses of this type.

approved by the Faculty Associate Dean, graduate studies.

[2]CR/NCR: Departments may offer, for graduate credit, courses that carry no grades, and satisfactory work in such courses will be indicated on the transcript by CR. CR/NCR courses are so designated in the calendar. CR/NCR grades are not calculated in a student average. No degree candidate can fulfil more than half of the minimum department course requirements by courses of this type.

[3]INC (Incomplete): In exceptional circumstances, an instructor may grant a student an INC interim grade – reflecting an extension for the student to complete specific outstanding course element(s). If the circumstance is related to a documented accommodation, students are encouraged to connect with AccessAbility Services. The instructor will determine completion dates for outstanding course element(s).

[4]XTRA: Students who wish to enrol in courses that are not required and are not to be used in satisfying degree requirements, may have that course designated as XTRA such that marks earned in that course will not be calculated in the student's overall or program averages. A student must seek approval for a course to be designated as XTRA.

In some cases, students may be enrolled in administrative courses (e.g., "GS – Continuing Graduate Studies" and "GS 999 Continuing Degree Requirement") to demonstrate the student's enrolment, which are not graded and do not carry any credit weight.

Graduate students enrolled in undergraduate courses

If a graduate student takes an undergraduate course for graduate credit the above grading scheme will apply. Undergraduate courses taken for graduate credit or to satisfy admissions requirements for a graduate

	program are subject to the same regulations as graduate courses. **Grade submission** Instructors must submit final grades to Graduate Studies and Postdoctoral Affairs (GSPA) by the grade submission deadline of the term in which the course was given. Interim grades other than INC may not be assigned. **Conversion of incompletes** An incomplete grade status (INC) submitted by an instructor may remain on a student's academic record for at most two terms of enrolment following the term in which the course was taken. If a grade has not been submitted by the end of the second term and an extension has not been granted, the INC will automatically convert to a failure to complete (FTC). For average calculation, FTC value equals 0. An FTC status may be reverted to an INC on the academic record only if a petition from the student is approved by the Department and Faculty.
No section	**Monitoring and supporting student progression** As graduate students progress through their programs, it is beneficial for students, their supervisors, or academic programs to monitor the students' progress and support the students' pathways towards program completion. The University provides specific requirements for the monitoring of academic progress for research graduate students and course-based graduate students. Students, supervisors, advisory committee members, program directors and graduate officers are encouraged to be familiar with these guidelines.
No section	**Good Academic Standing** A student is deemed to be in Good Academic Standing when they are satisfying their

	academic requirements which, depending on the program may include: • Minimum grade performance in courses. All graduate students are required to achieve grades in those courses satisfying their degree requirements that meet or exceed the minimum academic performance as indicated by the program. • Minimum cumulative average, at least 70%; higher averages may be indicated by the academic program. • Successful completion of milestones / examinations within articulated time limits. Specific examples include the Academic Integrity Module for all graduate students; comprehensive or qualifying examinations for PhD students; and in some programs, proposal presentations or defenses. • Satisfactory progress in research leading to the successful presentation or defense of a student's Master's Research Paper (MRP) or thesis, as determined by the student's supervisor or supervisory committee. A student will lose their status of Good Academic Standing if one or more of the following outcomes occur: • The student achieves a grade in an individual course that does not satisfy the minimum required performance. • A student fails to satisfy a mandatory milestone or examination within the time limits articulated in this Calendar or by the Program / Department. • A student is deemed to be progressing in research at an unsatisfactory rate. A student deemed not to be in Good Academic Standing may be designated in Conditional Standing. Alternatively, a student may be Required to Withdraw, at the discretion of the program. Normally, a student will not be granted Conditional Standing more than once in their graduate career.
	Conditional Standing

	A student with Conditional Standing is at risk of being required to withdraw if substantive improvements in performance are not observed.
	The student will normally be given one to two terms (at the discretion of the Program Director/Graduate Officer) to complete an articulated set of academic requirements – e.g., completing courses with grades that exceed a minimum threshold; completing satisfactorily outstanding academic milestones; or making substantive progress in the student's research.
	Students with Conditional Standing will receive written notice of the conditions under which they may continue their studies, as determined by the Graduate Program Committee and the Associate Dean, Graduate Studies. A copy of this decision will be added to the student's internal University record.
	Students with Conditional Standing will receive financial support consistent with their offer of admission for at least one term. Students who do not return to Good Academic Standing within one term, may continue to receive support at the discretion of the student's Program or Faculty.
	A student who fails to meet the articulated requirements will normally receive a Required to Withdraw decision.
	Successful completion of the articulated requirements will allow the student to return to Good Academic Standing.
	A student whose Academic Standing has changed from Good Academic Standing to Conditional Standing or Required to Withdraw may petition or grieve the decision under Policy 70 – Student Petitions and Grievances.
	Research progress
	For research-stream master's or doctoral students, research progress will be reviewed by their supervisors, normally with input from the student's supervisory committee.

| | When a student is within Program Time Limits, research progress shall be formally evaluated at minimum once a year, though higher frequency may be specified at the discretion of the supervisor, the supervisory committee or the Graduate Officer in the student's home program.

The outcomes for a student within program time limits are that a student may be deemed to be making satisfactory or unsatisfactory progress in their research, at the discretion of the supervisor with input from the supervisory committee. In the event of an unsatisfactory outcome, the results shall be communicated to the Graduate Officer in the student's home program and will normally trigger a change of standing from Good Academic Standing.

When a student is beyond Program Time Limits, research progress shall be formally evaluated through the Request for extension beyond program time limits.

For more information, see the Guidelines for evaluating and providing feedback on graduate student progress in PhD and research Master's programs. |

Program time limits

The University Senate has set the following program time limits:

Table of program time limits	
Program level	**Time limits**
Master's	6.0 terms
PhD from an Honours Bachelor's	18.0 terms
PhD from a Master's	12.0 terms
PhD from an MA (Clinical Psychology)	15.0 terms

~~If a student reaches the time limit for their program, they may request to continue their studies beyond these limits by submitting a~~ Request for program extension form ~~to their academic department. This is an important~~ process ~~that is intended to facilitate a conversation about academic progression~~

Program **completion** time limits

The University Senate has set the following program time limits for graduate programs.

Table of Program Time Limits	
Program level	**Time limits**
Master's	6.0 terms
PhD from an Honours Bachelor's	18.0 terms
PhD from a Master's	12.0 terms
PhD from an MA (Clinical Psychology)	15.0 terms

On successful completion of each four-month term (Fall, Winter, Spring), students' term counts advance as follows:
- full-time students will advance at the rate of one term (1.0);
- part-time students will advance at the rate of one-half term (0.5);

and a plan for completion of the degree. For the first 3.0 terms after program limits have been reached, the approval process takes place at the Department/School level. Further extensions must be approved by the Associate Dean (Graduate Studies) of the Faculty. If the Request is not approved, the student will be ~~required to withdraw~~ from their program. Given the importance of this process, if students fail to submit a Request by the specified dates (i.e., for a Fall term extension: August 1; for a Winter term extension: December 1; for a Spring term extension: April 1; unless an academic unit specifies different deadlines), they will be ~~required to withdraw~~ from their program. A student receiving a Required to Withdraw decision (resulting from lack of request approval or failure to submit their form) may challenge that decision through ~~Policy 70~~. ~~For the purposes of these time limits a term is counted as 1.0 per term of full-time enrollment, and 0.5 per term of part-time enrollment.~~	- inactive enrolment status has a term value of zero terms (0.0). A student whose cumulative term count is less than or equal to the articulated duration of the program is deemed to be **within program time limits**. A student whose cumulative term count is greater than their program duration is **beyond program time limits**. A student who is beyond program time limits: - is normally ineligible for University, Faculty or Program-level funding. - will be required to seek a Request for extension beyond program time limits. The program time limits listed in the Table above reflect University maximums. Some programs have expected program durations that are shorter than these program time limits. Programs may enact the process to review a student's academic progression when the student exceeds the expected program duration.
No comparable section, some text in section above (Program time limits)	**Requests for time extensions for program completion** A graduate student who is at or beyond time limits is required to complete a Request for extension beyond program time limits. The time extension request process serves as an opportunity for students, their supervisor(s), committee members, program and faculty administrators to review students' academic and research progress. For students who are progressing well, the process will normally result in an approved request accompanied by constructive feedback. It is also the intent that the process results in an agreed upon timeline for completion. For students who have experienced documented challenges with their academic progress, the request for program extension is a time to collectively (with their supervisor(s), Program Directors, Graduate Officers, or Associate Dean) assess their

	likelihood of success to complete their program.
	If a student's academic progression may have been influenced by a known or unknown disability, illness, or condition, the student is encouraged to connect with AccessAbility Services.
	Unless the student's department specifies otherwise, requests for time extensions must be submitted to the students' home academic department not later than: • August 1 for the fall term; • December 1 for the winter term; • April 1 for the spring term.
	Students are required to submit a request for extension even if they anticipate that will complete their degree requirements within the next term.
	If the necessary request for extension is not submitted by the given deadline, the student will automatically receive an academic decision of Required to Withdraw.
	If the student's term count is within three terms of the program limits, the decision is made by the student's department Graduate Officer.
	If the student's term count exceeds the program limits by more than three terms, the student's request is reviewed by the Graduate Officer and then sent to the Associate Dean, Graduate Studies of the Faculty for a decision.
	Normally, requests for time extensions will be considered on a term-by-term basis. Only in rare cases, will a request for multi-term extensions be considered. Requests for extensions longer than three terms will not be considered.
	Possible outcomes for a student who requests a time extension are: • The time extension is approved for the requested number of terms. • The time extension is approved for fewer terms than was requested by the student.

	• The time extension is not approved. A student will be notified in writing by the Graduate Officer or the Associate Dean of the outcome of their request for a time extension. If a student's request for an extension of time limits is not approved, the student will receive an academic decision of Required to Withdraw. When this decision is communicated to the student, they may: • Elect to voluntarily withdraw from their program which will result in their academic record reflecting a voluntary withdrawal. • Petition or grieve the decision under Policy 70 – Student Petitions and Grievances. A student who voluntarily withdraws or is Required to Withdraw may be eligible for a refund of tuition and fees paid (if applicable).

Residence requirements - ~~graduate programs~~

~~Residence is related to terms of enrolment and on-campus activity. It is calculated based on a student's enrolment status in their program (part-time or full-time). Additional enrolment information is provided below.~~

Table of residence requirements	
Master's	**PhD**
• ~~**Normal:** three terms of full-time enrolment (6 terms part-time) from an Honours Bachelor's degree~~ • ~~**Minimum:** two terms of full-time enrolment (4 terms part-time) from an Honours~~	• ~~**Normal:** six terms of full-time enrolment from Master's degree, nine terms from Honours Bachelor's degree~~ • ~~**Minimum:** four terms of full-time enrolment from Master's degree, six terms from~~

Residence requirements

In order for a student to receive a University of Waterloo degree, the student must satisfy a residence requirement – a cumulative student term count that exceeds minimum values. A student's time in residence at the University is calculated using the values associated with the student's enrolment status in their program (part-time or full-time). The minimum residence requirements are contained in the table below.

Table of residence requirements (term counts)	
Master's	**PhD**
• 2.0 terms in the Masters of Accounting Program • Three terms (3.0) from an Honours Bachelor's degree	• Six terms (6.0) from Master's degree • Nine terms (9.0) from Honours Bachelor's degree

~~Bachelor's degree~~	~~Honours Bachelor's degree~~	A student who, based on unique circumstances, seeks to have these residence requirements waived must seek and receive written approval from the Associate Dean, Graduate Studies in the student's home Faculty.
~~In exceptional cases, and on the recommendation of the Faculty, some or all of the residence requirements may be waived.~~		

Leave of Absence from study

~~In certain circumstances,~~ students may wish to request a Leave of Absence from their studies. ~~Types of leave are outlined below.~~

~~Leaves of absence must normally be requested and approved prior to the start of the term in which the leave will take place.~~ When a student is funded by an external agency or sponsor, the guidelines for such agencies should be consulted prior to planning a leave.

Leave of absence from study

Students may wish to request a Leave of Absence from their studies. The timing, feasibility and implications of a leave of absence should be discussed with a student's supervisor (where appropriate), Program Director or Graduate Officer. When a student is funded by an external agency or sponsor, the guidelines for such agencies should be consulted prior to planning a leave. Specific considerations are given below for international students considering a leave of absence.

A leave with Inactive status will not be approved in the first term of a student's program. Instead, prior to or during the first term of their program a student may request a deferral or a withdrawal of their offer of admission. Deferrals are managed by the academic program. Students wishing to defer their admission should contact their Graduate Program Co-ordinator.

No section

Student status while on a leave of absence

A student who is seeking a brief absence from their studies, typically between two and six weeks, may be granted this leave without a change to their enrolment status. Requests for short leaves are normally received by, vetted, and approved or denied by the Program Director or Graduate Officer, with input from the student's supervisor (when appropriate).

When a student is on leave from the University for an extended period, normally longer than six weeks, the student must request a change in their enrolment status to

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<td>inactive for that term via the change of enrolment form. Decisions to approve or deny these requests are made by the Associate Dean, Graduate Studies in the student's home Faculty typically with input from the student, the supervisor where appropriate, Program Director or Graduate Officer.

At the conclusion of a leave with inactive status, a student shall be automatically returned to their enrolment status prior to the leave.

If a student seeks a leave with inactive status in a term when they would have required a program extension (had the student stayed active), the student is encouraged to pursue the approval of the time extension prior to or concurrent with their request for a leave. The student must submit a program extension form by the extension deadline for their next active term.</td>
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<td>**Medical leave**

~~Students who require a medical leave (as a result of their physical or mental health) must follow the process outlined on the~~ [Graduate Student Medical Leave web page](). ~~The process will involve:~~
~~a) requesting a change of enrolment status to Inactive by completing the Change of enrolment status form, and~~
~~b) submitting a Graduate Student Medical Leave Verification Form.~~

~~Students should discuss any possible effects to funding, TA/RA appointments and academic progress with their supervisor(s) and/or department/school/program.~~

Eligible research-based master's and doctoral students who go inactive for medical reasons will be automatically considered for the [Graduate Student Medical Leave Award]().</td>
<td>**Permitted reasons for requesting a leave**

Medical leave
Students whose health precludes them from making adequate academic progress may seek a medical leave. Given the sensitive nature of a student's personal wellness information, the University has established a specific process for requesting medical leaves that is outlined on the [Graduate Student Medical Leave web page](). While on a medical leave, a student's academic status will be inactive.
A student may request a medical leave for one, two or three terms. The approved duration of the leave will be at the discretion of the University's AccessAbility Services in consultation with the student and their medical professionals. Multiple consecutive medical leaves are permitted but must be requested by a student prior to the end of a Leave.

When a student seeks to resume their studies after a medical leave of 24 months or longer, the student's academic progression and the University's financial commitments will be evaluated and potentially reassessed.</td>
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	Eligible research-based master's and doctoral students who go inactive for medical reasons will be automatically considered for the Graduate Student Medical Leave Award.
Birth leave Students who are expecting to give birth may ~~take up to six weeks of leave from study, research and teaching duties starting no later than their due date. In the case of illness or other complications, leaves may start earlier or be extended.~~ Students are not expected to study, conduct research or teach while on birth leave. A student planning to take birth leave should inform their supervisor (if applicable) and department as soon as possible. ~~The student's registration status remains Active during birth leave.~~ Students who are Teaching Assistants should refer to Policy 30 regarding absence from these duties.	**Birth leave** Research graduate students who are expecting to give birth may seek either: • A six-week birth leave that will begin not later than the student's due date. A student's status while on a six-week birth leave will remain unchanged*. • A one-term birth leave that will begin not later than the student's due date. If the student's due date is prior to the term's official count date, the one-term birth leave shall be from the due date to the end of the current term. If the student's due date is later than the term's official count date, the student's one-term birth leave shall be from the due date to the end of the subsequent term. Students wishing to take a one-term birth leave will need to submit a change of enrolment status form to request inactive status. *Course based graduate students will normally be expected to change their enrolment status to inactive in a term in which they are giving birth. Exceptions may be considered through a request to the student's Program Director or Graduate Officer. Students are not expected to study, conduct research or teach while on birth leave. A student planning to take birth leave should inform their supervisor (if applicable) and department as soon as possible. Students who are Teaching Assistants should refer to Policy 30 – Employment of Graduate Student Teaching Assistants regarding absence from these duties.

Partner leave The partner of a birth mother ~~may take up to~~ two weeks ~~leave from study~~, research and teaching duties at the time of their child's birth. In the case of illness or other complications, the duration of the leave may be extended. A student planning to take partner leave should inform their supervisor (if applicable) ~~and department~~ as soon as possible. The student's registration status remains ~~Active~~ during partner leave. Students who are Teaching Assistants should refer to Policy 30 regarding absence from these duties.	**Partner leave** The partner of a birth mother <u>is entitled to an informal leave of up to</u> two weeks <u>from their studies</u>, research and teaching duties at the time of their child's birth. <u>A student planning to take Partner leave should inform their supervisor (if applicable) <u>or Program Director or Graduate Officer</u> as soon as possible. <u>Partners of birth mothers who wish to have a leave longer than two weeks shall follow the process for approval described under personal leaves.</u> In the case of illness or other complications, the duration of the leave may be extended. The student's registration status remains <u>unchanged</u> during <u>the two-week</u> partner leave. Students who are Teaching Assistants should refer to <u>Policy 30 – Employment of Graduate Student Teaching Assistantships</u> regarding absence from these duties.
Parental leave Students who become parents through birth or adoption may take up to 5 terms of uninterrupted leave during the first 20 months of birth or adoption. If both parents are University of Waterloo students, the leave can be split between the two. Both University of Waterloo parents cannot be on parental leave at the same time; however, one partner can be on parental leave while the other partner is on birth leave. Parental leaves must coincide with the start and end dates of academic terms. Students planning on going on parental leave must request a change of their enrolment status to Inactive by completing the [Change of enrolment status form](#). Students on parental leave are not expected to study or conduct research while on leave, and thus should not expect access to their supervisor. Students who wish to apply for a University of Waterloo parental leave bursary should complete the Graduate Student Parental Leave Bursary application.	**Parental leave** Students who become parents through birth or adoption may take up to 5 terms of uninterrupted leave during the first 20 months of birth or adoption. <u>Parental leave may follow birth leave.</u> If both parents are University of Waterloo students, the leave can be split between the two. Both University of Waterloo parents cannot be on parental leave at the same time; however, one partner can be on parental leave while the other partner is on birth leave. Parental leaves must coincide with the start and end dates of academic terms. <u>While on parental leave, a student's status will be inactive.</u> Students planning on going on parental leave must request a change of their enrolment status to Inactive by completing the [Change of enrolment status form](#). Students on parental leave are not expected to study or conduct research while on leave, and thus should not expect access to their supervisor. Students who wish to apply for a University of Waterloo parental leave bursary should

No section	**Personal leaves** A student who is experiencing personal circumstances that warrant consideration (other than medical, birth, partner, or parental leaves) may seek a leave of absence for personal reasons. If the leave is approved, the student's status during the leave will be governed by the duration of the leave, as described in the section, student status while on a leave of absence. No more than two consecutive terms of inactive status for personal leaves will be approved.
Voluntarily withdraw ~~Students who are unable to continue in their program, or who have been inactive for more than two consecutive terms (outside of parental leave or an approved inactive period beyond the usual limit of two terms for exceptional circumstances), should voluntarily withdraw from the program by completing a change of enrolment status.~~ ~~If students wish to have the option to reapply to the program from which they are withdrawing, they should discuss with their department any conditions which must be met to be granted readmission.~~ Students who reapply to a program and are approved for readmission, will be required to be enrolled for a minimum of one full term, without tuition refund, to complete their program. Readmission is not guaranteed. Students who voluntarily withdraw will have "voluntary withdrawal" reflected on their transcripts.	**Voluntary withdraw<u>als</u>** At any point in their academic program, a student may voluntarily withdraw from their program by completing a change of enrolment status form. If a student voluntarily withdraws from their program and later wishes to resume their studies, they will need to reapply for admission. Re-admission is not guaranteed. Prior to voluntarily withdrawing, a student should discuss with their department any conditions which are likely to be imposed to be granted re-admission. Students who voluntarily withdraw, then reapply to a program and are approved for re-admission, will be required to be enrolled for a minimum of one full term, without tuition refund, to complete their program. Students who voluntarily withdraw will have "voluntary withdrawal" reflected on their transcripts.
Required to withdraw A Required to Withdraw decision is made by a Faculty and a department/school or program, when a student cannot continue at the University of Waterloo (without subsequent re-application). These reasons may include but are not limited to:	**Required to withdraw** A Required to Withdraw decision is made by a Faculty and a department/school or program, when a student cannot continue at the University of Waterloo (without subsequent re-application). These reasons may include but are not limited to: • a failed PhD thesis examination;

- a failed PhD thesis examination;
- failure to maintain minimum academic standing;
- an unsuccessful comprehensive exam;
- insufficient progress in program;
- failure to submit or a "not approved" program extension;
- the absence of a graduate research supervisor, following the discontinuation with a previous supervisor, as identified in the University responsibilities regarding supervisory relationships; and
- a penalty as outlined in Policy 71.

Prior to arriving at a Required to Withdraw decision, if a student is struggling in their program, support for that student must be provided consistent with the practices outlined in the guidelines for evaluating and providing feedback on graduate student progress:

- Guidelines for evaluating and providing feedback on graduate student progress in PhD and research Masters programs
- Guidelines for evaluating and providing feedback on graduate student progress in coursework programs

When a Required to Withdraw decision is reached, the Graduate Officer (or Faculty Associate Dean, Graduate Studies) shall communicate that decision formally to the student, in writing, specifying the sequence of events that led to the decision. This letter will be reviewed by the Faculty Associate Dean, Graduate Studies prior to distribution to ensure that decisions are consistent with the Faculty's practices. The Faculty Associate Dean, Graduate Studies and the University's Associate Vice-President, Graduate Studies and Postdoctoral Affairs must be copied on the final correspondence.

Upon receipt of the letter, the student may elect to Voluntarily Withdraw if they are not being Required to Withdraw under Policy 71. The student's transcript will reflect whether

- failure to maintain minimum academic standing;
- an unsuccessful comprehensive exam;
- insufficient progress in program;
- failure to submit or a "not approved" program extension;
- the absence of a graduate research supervisor, following the discontinuation with a previous supervisor, as identified in the University responsibilities regarding supervisory relationships; and
- a penalty as outlined in Policy 71 – Student Discipline.

Prior to arriving at a Required to Withdraw decision, if a student is struggling in their program, support for that student must be provided consistent with the practices outlined in the guidelines for evaluating and providing feedback on graduate student progress:

- Guidelines for evaluating and providing feedback on graduate student progress in PhD and research Masters programs
- Guidelines for evaluating and providing feedback on graduate student progress in coursework programs

When a Required to Withdraw decision is reached, the Graduate Officer (or Faculty Associate Dean, Graduate Studies) shall communicate that decision formally to the student, in writing, specifying the sequence of events that led to the decision. This letter will be reviewed by the Faculty Associate Dean, Graduate Studies prior to distribution to ensure that decisions are consistent with the Faculty's practices. The Faculty Associate Dean, Graduate Studies and the University's Associate Vice-President, Graduate Studies and Postdoctoral Affairs must be copied on the final correspondence.

Upon receipt of the letter, the student may elect to Voluntarily Withdraw if they are not being Required to Withdraw under Policy 71 – Student Discipline. The student's transcript

the student's withdrawal was voluntary or required. A student receiving a Required to Withdraw decision may challenge that decision through Policy 70.	will reflect whether the student's withdrawal was voluntary or required. A student receiving a Required to Withdraw decision may challenge that decision through Policy 70 – Student Petitions and Grievances.
Convocation and apply to graduate/program completion All graduate students who expect to receive degrees at either the Spring (June) or Fall (October) convocations must apply for graduation in Quest, approximately one month prior to completing their degree requirements. The name printed on the diploma will be the student's Legal/Primary name as indicated on their Names page in Quest.	**Convocation and apply to graduate/program completion** All graduate students who expect to receive degrees at either the Spring (June) or Fall (October) convocations must apply for graduation in Quest, approximately one month prior to completing their degree requirements. The name printed on the diploma will be the student's Legal/Primary name as indicated on their Names page in Quest. By accepting the degree, diploma, or certificate conferred, a student is ratifying the graduate academic record upon which it was based. Therefore, student-initiated changes to that record will not be made.

Appendix G: 7. Minimum requirements for Master's degree

Updates to this section have been made to better reflect practices, and in some instances clarify requirements.

Current calendar	Proposed calendar
Minimum requirements for the Master's degree This section of the Graduate Studies Academic Calendar includes minimum requirements for the Master's degree: ~~Master's degree with Research Paper~~ ~~Master's degree with Thesis~~ ~~Completion of Master's degree requirements~~ ~~Each candidate for the Master's degree shall have a supervisor who will submit a program of study for approval by the department in which the candidate is enrolled.~~ ~~The minimum period of enrolment for the Master's degree is two terms from an Honours Bachelor's degree or equivalent. In practice, students take longer than the minimum period to complete the degree; they should check with their home department to find out about typical completion times. For information on required full-time attendance at the University refer to the~~ ~~Definitions - students section~~~~.~~ ~~The minimum requirements for the Master's degree are satisfied when candidates have successfully completed either:~~ 1. ~~Four two-term (1.0 unit weight) or eight one-term (0.5 unit weight) courses accepted for graduate credit by their department. These must include a master's research paper requiring an in-depth study on a topic approved by the department.* Or:~~ 2. ~~Two two-term (1.0 unit weight) or four one-term (0.5 unit weight) courses accepted for graduate credit by their department, plus a thesis embodying the result of their research on a topic approved by the department.* Or:~~	**Minimum requirements for the Master's degree** This section of the Graduate Studies Academic Calendar includes minimum requirements for the Master's degree: At the University of Waterloo, graduate Master's programs may be: • A research program in which a student satisfies the degree requirements through courses, a Master's Research Paper (MRP) or thesis and, in some programs, milestones; or • A coursework program in which a student satisfies the degree requirements through the successful completion of courses, and in some programs, milestones. In principle, research Master's students achieve their programs' learning outcomes through a combination of elements that must include courses and independent research, an MRP or a thesis. To this end, the following minimum requirements are established for research programs: 1. 2.0 units of courses, normally achieved as four one-term (0.5 unit weight) courses accepted for graduate credit by their department, plus a thesis embodying the result of their research on a topic approved by the department; or 2. 3.0 units of courses, normally achieved as six one-term (0.5 unit weight) courses accepted for graduate credit by their department, plus a Master's Research Paper embodying the result of their research

3. ~~Three two-term (1.0 unit weight) or six one-term (0.5 unit weight) courses accepted for graduate credit by their department, plus a master's research paper embodying the result of their research on a topic approved by the department.* Or:~~
4. ~~Eight one-term (0.5 unit weight) courses accepted for graduate credit by the department for coursework only degrees.*~~

~~*~~Faculties and departments ~~may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department or Faculty authority.~~ It is the student's responsibility to become aware of requirements which are in addition to the stated minima.

~~Graduate students admitted to co-operative graduate degree programs are normally required to complete one two-term work term, or two one-term co-operative work terms. Effective the Spring 2002 academic term, each co-operative work term shall carry academic credit and be recorded as a course with a unit weight of 0.50. These co-operative work term courses are additional academic requirements to those listed above for minimum Master's degree requirements.~~

~~For information concerning the transfer of academic credits refer to the Transfer of academic credit page.~~

Candidates must obtain an average of at least 70% in the courses presented in fulfilment of the degree requirements. A failing grade in any course will occasion an automatic review of a candidate's status by the department and may, in some cases, ~~result in the requirement to withdraw from the program.~~

Master's degree with Research Paper

In the case of a Master's program involving a Research Paper, the research paper must be evaluated by ~~at least two faculty members, one of whom should be the student's supervisor.~~

on a topic approved by the department.

Coursework Master's students achieve their programs' learning outcomes through a combination of elements that must include courses. To this end, the following minimum requirement is established for these programs:

1. 4.0 units of courses, normally achieved as eight one-term (0.5 unit weight) courses accepted for graduate credit by the department for coursework only degrees.

Faculties and departments may exceed these requirements through additional coursework and various milestones, which may include GradWIL. Additional information can be found in the program pages within this Calendar or from the department or Faculty.

It is the student's responsibility to become aware of requirements which are in addition to the stated minima.

Candidates must obtain an average of at least 70% in the courses presented in fulfilment of the degree requirements. A failing grade in any course will occasion an automatic review of a candidate's status by the department and may, in some cases, influence the student's academic standing.

Master's degree with Research Paper

In the case of a Master's program involving a Master's Research Paper, the research paper must be evaluated by at a minimum:

- The student's supervisor or co-supervisors; and
- at least one regular faculty member who is not a supervisor or co-supervisor.

In cases where the number of evaluators of an MRP exceeds the minimum requirements, the program must make students aware of who will examine the MRP.

Master's degree with Thesis	Master's degree with Thesis
~~In the case of a Master's program involving a thesis, one copy of the thesis is required for each member of the Reading Committee or Examining Committee. The Committee shall be comprised of: at least one tenured or tenure track faculty member of the student's home department who will normally be the student's supervisor(s); an additional tenured or tenure track faculty member from the University of Waterloo; and at least one additional examiner whose expertise can support the evaluation of the Master's thesis. External adjunct appointments require the approval of the Associate Dean, Graduate from the student's home Faculty. No more than one adjunct faculty member (including Professors Emeriti) may serve on the Examining Committee. One copy of the thesis is submitted either to the department or to the Office of the Associate Dean (Graduate Studies) of the Faculty upon being given to the Reading/Examining Committee for acceptance/defence. The thesis should normally be on public display for two weeks.~~	As part of the degree requirements, a student's Master's Thesis must be examined for its satisfaction of demonstrating the student's attainment of the learning outcomes and degree level expectations associated with the research.
	In all cases, the written thesis is evaluated. The written thesis must be accepted to satisfy the thesis milestone. In some programs, the student is required to defend the thesis, through an oral presentation of the research work. In these programs the thesis milestone is considered complete when both the written and oral components are accepted.
~~In departments that do not normally require an oral defence of the Master's thesis the Associate Dean (Graduate Studies) may require such defence if circumstances warrant it or if the department or student requests it.~~	In other programs, the thesis milestone includes the written thesis and a presentation that differs from a defence in that the presentation of the research work is not evaluated by an examining committee.
	The written thesis and the defence, as appropriate, are evaluated by an examining committee. The University establishes the following minimum requirements for Master's with Thesis Examining Committees:
~~When an oral defence for a Master's thesis is a requirement and where the protection of intellectual property is sought by the filing of a patent application, the student and supervisor(s) may request a closed thesis examination and/or a restriction on the circulation of the thesis as outlined in the Graduate Thesis Regulations.~~	• the student's supervisor or co-supervisors; and • an additional tenured or tenure track faculty member from the University of Waterloo; and • at least one additional examiner whose expertise can support the evaluation of the Master's thesis.
~~When the thesis is accepted by the department and Faculty, and all other requirements for the degree have been met, the student must provide the University with an electronic copy of their approved thesis as a final University degree requirement. Theses must be prepared and submitted as outlined in the Graduate Thesis Regulations.~~	External adjunct appointments to the Examining Committee require the approval of the Associate Dean, Graduate Studies from the student's home Faculty. No more than one adjunct faculty member (including Professors Emeriti) may serve on the Examining Committee.
	Normally, the version of the thesis to be examined is provided to the members of the examining committee two weeks prior to the student's defence or presentation.
	Concurrently, the student shall provide an electronic copy, as appropriate, of the thesis

~~Completion of Master's degree requirements~~

~~The requirements for the degree must be completed within the time periods stipulated by the Senate of the University. Normally these are:~~

- ~~Master's: 6.0 terms~~

~~Students must petition the Faculty Graduate Committee to continue their enrolment beyond these limits. Progress of students who have been granted extensions will be reviewed every term. For more information on time limits see the~~ ~~Enrolment and time limits page~~~~.~~

~~Part-time students who have been in a regular Master's program for more than six terms must be reviewed every term.~~

~~Students whose work does not measure up to the standards of their program may be required to withdraw from the program. Such students may be readmitted although there will be a limit on the time-span in which readmission may occur.~~

~~In any case, candidates must remain continuously enrolled at the University, to the end of the term in which they complete the degree requirements. For additional information, see the Continuous enrolment section of the~~ ~~Enrolment and time limits page~~~~.~~

to their home department or to the Office of the Associate Dean Graduate Studies of the Faculty to be on public display, normally for two weeks, however each Faculty may specify a slightly different display period.

When an oral defence for a Master's thesis is a requirement and where the protection of intellectual property is sought , the student and supervisor(s) may request a non-publicly attended thesis examination and/or a restriction on the circulation of the thesis as outlined in the Graduate Thesis Regulations.

When the thesis is accepted by the department and Faculty, and all other requirements for the degree have been met, the student must provide the University with an electronic copy of their approved thesis as a final University degree requirement. Theses must be prepared and submitted as outlined in the Graduate Thesis Regulations.

Appendix H: 8. Minimum requirements for PhD degree

Current calendar	Proposed calendar
Minimum requirements for the PhD degree	**Minimum requirements for the PhD degree**
This section of the Graduate Studies Academic Calendar includes minimum requirements for the PhD degree:	This section of the Graduate Studies Academic Calendar includes minimum requirements for the PhD degree:
Completion of PhD degree requirements Comprehensive examination Qualifying examination ~~Language requirement~~ ~~Program of study and supervision~~ ~~Advisory Committee~~ PhD thesis examination Recommendation: awarding of the degree Thesis submission	Completion of PhD degree requirements Course requirements Accommodations and milestones Comprehensive examination Qualifying examination PhD Thesis examination Thesis submission Prior to defence Thesis examining committee Display period Guidelines for thesis examination and public disclosure Theses written in French Thesis Defence Procedural guidelines Format for defences Participation through electronic media (remote participation) Absent committee members Decision Academic integrity and the PhD Thesis Grievances Recommendation: awarding of the degree
~~The required period of enrolment for the Doctor of Philosophy (PhD) degree is six terms from the completion of a Master's degree, or nine terms from the completion of an Honours Bachelor's degree. The actual time taken to satisfy the degree requirements may be considerably longer. For information on required full-time attendance at the University refer to the~~ Definitions - students section~~. The acceptance of the transfer of credits for prior enrolment at another university will be determined in individual cases by the Associate Dean (Graduate Studies) of the Faculty at the time of admission to the program.~~	**Completion of PhD degree requirements** PhD programs are comprised of coursework requirements, academic milestones, and research activity leading to the development of new knowledge in or across disciplines. PhD degrees are granted by the University to candidates who have demonstrated both achievement in independent research in a particular field and a broad knowledge of that field.
Completion of PhD degree requirements	This section of the Calendar articulates the required elements of a PhD program and their administration. Student requirements related to enrollment in PhD programs are addressed in the Enrollment section of the Calendar.
~~The requirements for the degree must be completed within the time periods stipulated by the Senate of the University. A maximum of 18.0 terms from an Honours Bachelor's degree or its equivalent, 12.0 terms from a Master's degree or its equivalent, and 15.0 terms from a Master's degree or its equivalent for the PhD in Clinical Psychology. Students must petition the Associate Dean of Graduate Studies to continue their enrolment beyond these limits. Progress of students who have been granted extensions will be reviewed every term. For more information on time limits see the~~ Enrolment and time limits page~~.~~	**Course Requirements**

Students whose work does not measure up to the standards of their program may be required to withdraw from the program. Such students may be readmitted although there will be a limit on the time-span in which readmission may occur.

Candidates must remain continuously enrolled at the University to the end of the term in which they complete the degree requirements. For additional information, see the Continuous enrolment section of the Enrolment and time limits page.

For further information the minimum degree requirements specified by each Faculty should be consulted.

The PhD degree is granted by the University to candidates who have demonstrated both achievement in independent research in a particular field and a broad knowledge of that field.

The first requirement is satisfied when candidates have demonstrated a broad knowledge of their field to the satisfaction of the Faculty, normally by the successful completion of an assigned program of courses and the passing of a comprehensive examination, as determined by the department in which they are enrolled.

The second requirement is satisfied when candidates have presented and defended a thesis embodying the results of their own original research on an approved topic.

Comprehensive examination

PhD programs, except those noted here, require doctoral students to successfully complete a comprehensive exam as part of their academic requirements. In some cases, students may be required to successfully complete a series of exams in order to satisfy the comprehensive requirement.

The purpose of this document is to provide University-level guidance to students, supervisors and Departments / Schools (referred to as Departments in this document) on comprehensive exams. This document also presents links to Faculty level guidelines

The learning outcomes for PhD programs are achieved through a combination of courses, milestones, and research leading to a PhD thesis. Course requirements for students may vary based on the student's previous experience. Normally, students entering a PhD program directly from a Bachelor's degree, or with a Master's degree in an unrelated field, will have an increased course load compared to those students who enter the program with a Master's degree in the discipline.

For students with a related Master's degree entering a PhD program, the minimum course requirements is 1.0 units, normally achieved as two, one-term (0.5 unit weight) courses accepted for graduate credit by their department.

For students entering a PhD program from a Bachelor's program, or from an unrelated Master's program, the minimum course requirements are 2.0 units of courses, normally achieved as four one-term (0.5 unit weight) courses accepted for graduate credit by their department.

These values represent University minima. Students are directed to the individual program pages for actual course requirements in each PhD program.

Accommodations and milestones

Students may warrant an accommodation to allow for an alternative exam format other than that which is described by Department or Program. For accommodations related to health, the student shall provide supporting medical documentation to the University's AccessAbility Services. AccessAbility Services shall determine whether an accommodation is warranted. When an accommodation is determined to be appropriate, AccessAbility Services shall communicate the decision and the nature of the accommodation to the Graduate Officer in the student's home Department who will coordinate with the chair of the examining committee on the implementation of the Accommodation.

that are consistent with the principles established here. ~~Links to Departments' guidelines are available on the Faculty pages.~~

Comprehensive examination purpose

Comprehensive exams serve multiple purposes depending on the discipline. Permitted purposes for comprehensive exams at the University of Waterloo include demonstrating that:

- PhD students have the appropriate academic background – a foundation and breadth of knowledge in the field of study – to be successful in their PhD program;
- PhD students have the capacity to engage in scholarly communications – both oral and written – necessary to be successful in their PhD studies;
- PhD students have developed a novel research topic to be evaluated during their PhD studies.

The purpose(s) of the exam shall be communicated clearly to students.

Comprehensive examination timing

The comprehensive exam is an important accomplishment in the completion of students' PhD program. Normally, completing the comprehensive exam allows students to advance to the research or dissertation phase of their studies. The timing of the exam should allow sufficient time for students to achieve the foundational knowledge to be successful in their programs. The exam timing should allow for timely feedback to students on their progress and should motivate appropriate times to completion. To balance these two objectives, the University requires that:

- Students with no previous studies at the PhD level successfully complete the comprehensive exam not later than the end of their seventh term of studies;
- Students who have completed previous studies in another PhD program at the University of Waterloo

Requests for accommodation not related to health issues shall be made by students to the Graduate Officer in the students' home Department, who will coordinate the process by which the request for accommodation will be advanced.

Comprehensive examination

Most PhD programs require doctoral students to successfully complete a comprehensive exam as part of their academic requirements. In some cases, students may be required to successfully complete a series of exams in order to satisfy the comprehensive requirement.

This section provides University-level guidance to students, supervisors, and Departments / Schools on comprehensive exams. Faculty level guidelines that are consistent with the principles established here are available on the program pages.

Comprehensive examination purpose

Comprehensive exams serve multiple purposes depending on the discipline. Permitted purposes for comprehensive exams at the University of Waterloo include demonstrating that:

- PhD students have the appropriate academic background – a foundation and breadth of knowledge in the field of study – to be successful in their PhD program;
- PhD students have the capacity to engage in scholarly communications – both oral and written – necessary to be successful in their PhD studies;
- PhD students have developed a novel research topic to be evaluated during their PhD studies.

The purpose(s) of the exam shall be communicated clearly to students.

Comprehensive examination timing

The comprehensive exam is an important accomplishment in the completion of

or at another university, successfully complete the comprehensive exam not later than their fourth term of studies in their current program or their seventh term of study at the PhD level, whichever is longer.

Earlier deadlines are at the discretion of the Faculty, Department or Program ~~level.~~

A student who anticipates not meeting these requirements (up to the final evaluation of the exam) may seek an extension to the deadline to complete the comprehensive exam. The student is required to submit a petition providing evidence of extenuating circumstances to the student's Associate Dean, Graduate Studies.

Valid extenuating circumstances are normally limited to issues related to the student's (or student's immediate family's) health or documented incidents involving graduate student supervision that can be demonstrated to have delayed the student's progress. The conduct of research or other projects is not considered a valid extenuating circumstance to delay beyond the normal comprehensive examination completion deadline. Guidance on seeking accommodation due to health reasons shall be managed by the University's AccessAbility Services.

If the petition is granted, the Associate Dean, Graduate Studies shall coordinate with the student's Graduate Officer to establish a new deadline by which the comprehensive exam shall be completed. This deadline shall be communicated to the student in the notice of decision on the petition.

If no petition has been previously adjudicated, and a student fails to meet these requirements by the end of the seventh term, the student's academic status will be changed to Required to Withdraw. Students may seek to have their standing changed to allow them to continue in their programs by submitting a petition under Policy 70 to the student's Associate Dean, Graduate Studies, ~~not later than 10 business days from the change of status. The petition rules described in this section apply.~~

students' PhD program. Normally, completing the comprehensive exam allows students to advance to the research or dissertation phase of their studies. The timing of the exam should allow sufficient time for students to achieve the foundational knowledge to be successful in their programs. The exam timing should allow for timely feedback to students on their progress and should motivate appropriate times to completion. To balance these two objectives, the University requires that:

- Students with no previous studies at the PhD level successfully complete the comprehensive exam not later than the end of their seventh term of studies;
- Students who have completed previous studies in another PhD program at the University of Waterloo or at another university, successfully complete the comprehensive exam not later than their fourth term of studies in their current program or their seventh term of study at the PhD level, whichever is longer.

Earlier deadlines are at the discretion of the Faculty, Department or Program.

A student who anticipates not meeting these requirements (up to the final evaluation of the exam) may seek an extension to the deadline to complete the comprehensive exam. The student is required to submit a petition providing evidence of extenuating circumstances to the student's Associate Dean, Graduate Studies.

Valid extenuating circumstances are normally limited to issues related to the student's (or student's immediate family's) health or documented incidents involving graduate student supervision that can be demonstrated to have delayed the student's progress. Normally, the conduct of research or other projects is not considered a valid extenuating circumstance to delay beyond the normal comprehensive examination completion deadline. Guidance on seeking accommodation due to health reasons shall

Comprehensive examinations and students' academic requirements

A student is encouraged to communicate with supervisor(s) and / or instructors regarding the need to balance the student's effort toward preparing for and completing the comprehensive exam, and any other academic requirements in the term during which the comprehensive exam takes place. Additional guidance for students serving as a TA are outlined in Policy 30.

In cases where agreement cannot be reached on revised expectations, the Department's Graduate Officer shall determine and communicate the revised expectations, if any, to the student and the supervisor / instructor.

Comprehensive Examining Committee

In many cases a student's comprehensive exam written and / or oral components are evaluated by an examining committee constituted for a given student. These rules govern the composition of these examining committees.

The comprehensive examining committee shall engage those who can advance the purpose(s) of the exam. The University requires that the committee includes at least three examiners who:

- Hold a PhD or equivalent degree (as determined by the Associate Vice-President, Graduate Studies and Postdoctoral Affairs),
- Two of whom are not the student's supervisor(s),
- At least one of whom is a tenured or tenure-track member of the student's Department or School, and
- At least two of whom hold regular faculty appointments at the University of Waterloo.

Additional committee members may be required at the discretion of the Faculty, Department or Program. When examining committee members are external to the University of Waterloo, their purpose in the

be managed by the University's AccessAbility Services.

If the petition is granted, the Associate Dean, Graduate Studies shall coordinate with the student's Graduate Officer to establish a new deadline by which the comprehensive exam shall be completed. This deadline shall be communicated to the student in the notice of decision on the petition.

If no petition has been previously adjudicated, and a student fails to meet these requirements by the end of the seventh term, the student's academic status will be changed to Required to Withdraw. Students may seek to have their standing changed to allow them to continue in their programs by submitting a petition under Policy 70 – Student Petitions and Grievances to the student's Associate Dean, Graduate Studies.

Comprehensive examinations and students' academic requirements

A student is encouraged to communicate with supervisor(s) and / or instructors regarding the need to balance the student's effort toward preparing for and completing the comprehensive exam, and any other academic requirements in the term during which the comprehensive exam takes place. Additional guidance for students serving as a TA are outlined in Policy 30 – Employment of Graduate Student Teaching Assistants.

In cases where agreement cannot be reached on revised expectations, the Department's Graduate Officer shall determine and communicate the revised expectations, if any, to the student and the supervisor / instructor.

Comprehensive Examining Committee

In many cases a student's comprehensive exam written and / or oral components are evaluated by an examining committee constituted for a given student. These rules govern the composition of these examining committees.

The comprehensive examining committee shall engage those who can advance the

exam process shall be clearly communicated to the student.

Normally, the examining committee will not exceed five examiners.

The comprehensive exam shall be Chaired by a tenured or tenure-track faculty member at the University of Waterloo with ~~Approved Doctoral Dissertation Supervision (ADDS) status~~, normally from the student's home Department / School, who is not the student's supervisor or co-supervisor. The Chair's role is at a minimum to ensure that this portion of the exam is conducted in a manner that is consistent with appropriate guidelines. The Chair is a non-voting member of the comprehensive examining committee.

The composition of the comprehensive examining committee will be approved by the Associate Dean, Graduate Studies for the student's Faculty, or delegate.

The method by which the comprehensive examining committee is constituted and the timing of the examining committee formation shall be clearly articulated and communicated to students.

Comprehensive examination format and content

The format and content of the comprehensive exam shall be directly related to the stated purpose(s) of the exam. These elements shall be clearly articulated and communicated to students to ensure transparency and clarity of expectations. If a student in a program perceives a lack of clarity on these issues, these concerns should immediately be communicated to the student's Department's Graduate Officer.

~~Students may warrant an accommodation to allow for an alternative exam format other than the norm as described by a Faculty or Department. For accommodations related to health, the student shall provide supporting medical documentation to the University's AccessAbility Services where the request will be vetted. As a result of that evaluation, AccessAbility Services shall determine whether an accommodation is warranted.~~

purpose(s) of the exam. The University requires that the committee includes at least three examiners who:

- Hold a PhD or equivalent degree (as determined by the Associate Vice-President, Graduate Studies and Postdoctoral Affairs),
- Two of whom are not the student's supervisor(s),
- At least one of whom is a tenured or tenure-track member of the student's Department or School, and
- At least two of whom hold regular faculty appointments at the University of Waterloo.

Additional committee members may be required at the discretion of the Faculty, Department or Program. When examining committee members are external to the University of Waterloo, their purpose in the exam process shall be clearly communicated to the student.

Normally, the examining committee will not exceed five examiners.

The comprehensive exam shall be Chaired by a tenured or tenure-track faculty member at the University of Waterloo with <u>Sole-Supervisory Privilege Status (SSPS2)</u>, normally from the student's home Department / School, who is not the student's supervisor or co-supervisor. The Chair's role is at a minimum to ensure that this portion of the exam is conducted in a manner that is consistent with appropriate guidelines. The Chair is a non-voting member of the comprehensive examining committee.

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Outcomes of the comprehensive examination

This section defines permitted outcomes of comprehensive exams at the University of Waterloo. On a candidate's first attempt at the comprehensive exam, the outcome shall be one of:

- Passed: the candidate successfully completed all requirements of the exam;
- Passed conditionally: the candidate will be considered to have completed the exam successfully upon having satisfied conditions established by the examining committee. The conditions shall:
  - Be communicated to the student in writing;
  - Contain the date by which the conditions must be satisfied;
  - Identify the member(s) of the examining committee responsible for determining that the conditions have been met. Normally, this determination will be made by at least one member of the committee other than the student's supervisor or cosupervisors. Failure to satisfy the conditions within the designated time limit shall result in an outcome of Re-examination.
- Re-examination: the candidate will be required to repeat the exam. In this case, the student shall be provided written communication that identifies the deficiencies in the exam that led

Comprehensive examination format and content

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- Re-examination: the candidate will be required to repeat the exam. In this case, the student shall be provided written communication that identifies the deficiencies in the exam that led

to this outcome and the deadline by which the re-examination must take place. In the case of re-examination it is anticipated that the committee membership will be the same as the initial committee. Any change in membership must adhere to committee guidelines and be approved by the student's Associate Dean Graduate Studies or delegate.

When a candidate is re-examined, the outcomes are limited to:

- Passed;
- Exam Unsuccessful: the candidate will be deemed to have failed to satisfy the program's comprehensive exam requirement. In this case, the student shall receive written communication identifying the deficiencies in the exam that led to this outcome.

A student who is deemed to have failed to satisfy the comprehensive exam requirement (Exam Unsuccessful) may not continue in the current PhD program. The student's status will change to Required to Withdraw in the term immediately following the term in which the examination took place. The student may seek admission to another PhD program or to any Master's degree program at the University of Waterloo.

The outcome of the exam is determined by the majority vote of the examining committee. The following rules govern the voting process:

- In the case where the student is co-supervised, the co-supervisors' votes shall count collectively as one vote. In the case where co-supervisors vote for different outcomes, these votes shall count as 0.5 votes for each outcome.
- In the case where only two outcomes receive votes and the number of votes is equal for both outcomes, the decision shall be for the less positive outcome, provided that outcome is not exam unsuccessful.

to this outcome and the deadline by which the re-examination must take place. In the case of re-examination it is anticipated that the committee membership will be the same as the initial committee. Any change in membership must adhere to committee guidelines and be approved by the student's Associate Dean Graduate Studies or delegate.
- Failed: In cases where academic integrity violations are committed by a student in a comprehensive examination, an Associate Dean may determine as guided by Policy 71 – Student Discipline that the student has Failed the examination, the examination outcome will be recorded as No credit granted (NCR) and the student may be expelled or Required to Withdraw.

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- Passed;
- Exam Unsuccessful: the candidate will be deemed to have failed to satisfy the program's comprehensive exam requirement. In this case, the student shall receive written communication identifying the deficiencies in the exam that led to this outcome. The exam outcome will be recorded as NCR.
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- If the previous case results in an exam unsuccessful outcome, or if no majority is obtained, the case shall be referred to the Associate Dean, Graduate Studies, who shall make the final determination of the outcome of the exam.

Those members of the examining committee who are voting members shall be clearly communicated to the candidate.

In programs where the comprehensive exam involves multiple components, a student may obtain different outcomes on each component of the exam. The comprehensive exam will be considered satisfied when the candidate has passed all components of the exam. The comprehensive exam will be considered failed if the candidate receives an exam unsuccessful outcome on any component. No component may be repeated more than once.

A student may seek reassessment of the exam evaluation only when the outcome is re-examination or exam unsuccessful based on the written element of the comprehensive exam. A student may not seek a reassessment of the oral component. A request for reassessment shall follow the process described in Policy 70 (reassessment challenge).

Academic integrity and the comprehensive examination

The University considers academic integrity to be an integral part of all scholarship. Violations of academic integrity are handled under University Policy 71.

When the comprehensive exam involves a written submission of original work by the candidate completed in a non-invigilated setting, the student shall employ the University's plagiarism detection software leading up to the submission of the written document to the examining committee. The student is encouraged to discuss the reports generated from the software with their supervisor(s) to avoid academic integrity violations. The report generated related to the document submitted to the examining

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committee shall be included with the student's written element and shall be made available to the committee.

In cases where comprehensive exams involve the submission of a written document followed by an oral exam component, the following process shall be followed regarding suspected violations of academic integrity on the written element: the person identifying the possible violation shall communicate the concern in writing only to the Associate Dean, Graduate Studies in the student's home Faculty. The Associate Dean shall then assess the allegations. If the vetting cannot be completed prior to the scheduled date of the oral component of the exam, the oral exam shall be postponed, pending the outcome of the investigation. If the vetting is completed prior to the oral exam, and no violation is identified, then the exam can be held as scheduled.

When a change in comprehensive exam date is necessary, the Associate Dean Graduate Studies shall inform the candidate, the supervisor or co-supervisors and the Graduate Officer not later than one week prior to the date of the scheduled exam. If a violation is determined to have happened, the Associate Dean shall proceed under Policy 71.

If no violation is deemed to have occurred, the exam shall be rescheduled to the satisfaction of the student, the supervisors, and the examining committee. This rescheduling of the exam shall be considered a valid extenuating circumstance to extend the exam deadline.

If an academic integrity violation is believed to have occurred during the oral component of the comprehensive exam, the person suspecting the violation shall ask the Chair to pause the exam. The concerns identified shall be communicated to the Chair (only) who will then determine the course of action. If the Chair believes that uncertainty exists regarding the concerns identified, the Chair may determine that the exam shall continue and the potential academic integrity violation will be vetted after the completion of the exam. If the Chair believes that the suspected violation is likely to be valid or that

Petitions and Grievances (reassessment challenge).

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the alleged occurrence precludes a fair evaluation of the candidate, the Chair shall then suspend the exam until a determination can be made as to whether an academic integrity violation has occurred.

In both cases, the suspected academic integrity violation shall be reported to and investigated by the Associate Dean, Graduate Studies in the student's home Faculty under Policy 71.

When the comprehensive exam includes the completion of a written exam in a controlled environment, suspected violations of academic integrity in these cases should be reported to the Associate Dean, Graduate Studies in the student's home Faculty.

Qualifying examination

Some PhD programs at the University of Waterloo require doctoral students to successfully complete a qualifying exam(s) instead of, or in addition to, a comprehensive exam as part of their academic requirements. The differentiating features between a qualifying exam and a comprehensive exam are:

- A qualifying exam is developed and administered for a cohort of students (e.g. all PhDstudents in a program) whereas the comprehensive exam is developed and administered foran individual student;
- A qualifying exam is developed, administered and evaluated by a committee formed for a cohort of students, whereas a comprehensive exam committee is constituted for an individual student.

The purpose of this document is to provide University-level guidance to students, supervisors and Departments / Schools (referred to as Departments in this document) on qualifying exams.

Qualifying examination purpose

A qualifying exam is a cohort-based exam where all students being examined answer the same set of questions or problem(s) with

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a common time allotment. The purposes of qualifying exams at the University of Waterloo may include demonstrating that:

- PhD students have the appropriate academic background and foundation in the discipline within which their own research is going to be situated. This may include knowledge of established theories, concepts, methods or models and the necessary skill sets required before students can move to the research component of the program;
- PhD students have the capacity to engage in the scholarly communication necessary to be successful in their PhD studies.

The purpose(s) of the exam shall be communicated clearly to students.

Qualifying examination timing

The timing requirements of the qualifying exam – the latest date by which students must successfully complete the exam and the process for managing exceptions to this requirement – are equivalent to those specified for the comprehensive examination. Earlier deadlines are at the discretion of the Faculty, Department, or Program level. Please see the comprehensive examination regulations.

Qualifying examinations and students' academic requirements

The guidelines on supporting students' effort toward preparing for and completing the qualifying exam are equivalent to those for a comprehensive exam. Additional guidance for students serving as a TA are outlined in Policy 30.

Qualifying examining committee

A student's qualifying exam written and/or oral components are evaluated by an examining committee constituted for a given cohort. These rules govern the composition of such an examining committee.

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- Who hold a PhD or an equivalent degree as approved by the Associate Vice-President, Graduate Studies and Postdoctoral Affairs;
- At least one of whom is a tenured or tenure-track member of the offering Department or Program, and
- At least two of whom hold regular faculty appointments at the University of Waterloo.

Additional committee members may be required at the discretion of the Department or Program. When examining committee members are external to the University of Waterloo, their purpose in the exam process shall be clearly communicated to the student(s) taking the exam.

Normally, the committee will not exceed five members.

The qualifying exam committee shall be Chaired by a tenured or tenure-track faculty member at the University of Waterloo with ~~Approved Doctoral Dissertation Supervision (ADDS)~~ status, normally from the offering Department or Program. The Chair's role is at a minimum to ensure that the exam is conducted and evaluated fairly and equitably, consistent with academic best practices. The Chair is a non-voting member of the qualifying examining committee.

Members of the committee who are supervising student(s) completing the qualifying exam shall make this relationship known to the Chair and other members of the committee prior to evaluation of the student's (or students') exam(s).

The composition of the qualifying examination committee will be approved by the Associate Dean, Graduate Studies, or a delegate.

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The method by which the qualifying examining committee is constituted and the timing of the examining committee formation shall be clearly articulated and communicated to students.

Qualifying examination format and content

The exam format is designed to test an entire cohort of students who attempt this milestone simultaneously, based on a common examination in a given time. The content of the qualifying exam shall be directly related to the stated purpose(s) of the exam. These elements shall be clearly articulated and communicated to students to ensure transparency and clarity of expectations. If a student in a program perceives a lack of clarity on these issues, these concerns should immediately be communicated to the student's Department's Graduate Officer.

~~**Accommodations**~~

~~Students may warrant an accommodation to allow for an alternative exam format other than that which is described by Department or Program. For accommodations related to health, the student shall provide supporting medical documentation to the University's~~ [AccessAbility Services](#). ~~AccessAbility Services shall determine whether an accommodation is warranted. When an accommodation is determined to be appropriate, AccessAbility Services shall communicate the decision and the nature of the accommodation to the Graduate Officer in the student's home Department who will coordinate with the chair of the examining committee on the implementation of the Accommodation.~~

~~Requests for accommodation not related to health issues shall be made by students to the Graduate Officer in the students' home Department, who will coordinate the process by which the request for accommodation will be advanced.~~

Normally, the committee will not exceed five members.

The qualifying exam committee shall be Chaired by a tenured or tenure-track faculty member at the University of Waterloo with Sole-Supervisory Privilege Status (SSPS2), normally from the offering Department or Program. The Chair's role is at a minimum to ensure that the exam is conducted and evaluated fairly and equitably, consistent with academic best practices. The Chair is a non-voting member of the qualifying examining committee.

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Evaluation and outcomes of the qualifying examination

All voting members of the committee shall complete their assessment of students'

Evaluation and outcomes of the qualifying examination

All voting members of the committee shall complete their assessment of students' submissions individually. Each student's submission shall be assessed by at least two members of the qualifying examination committee. All student submissions made available to the committee for review shall be anonymous. Normally, the committee will meet to deliberate the outcomes.

The permitted outcomes and re-examination process for a qualifying examination are equivalent to that of a comprehensive examination.

Academic integrity and the qualifying examination

The University considers academic integrity to be an integral part of all scholarship. Perceived violations of academic integrity are handled under University Policy 71. The guidelines surrounding process and academic integrity with respect to qualifying examinations are equivalent to that of comprehensive examinations.

~~**Language requirement**~~

~~When a department considers that a candidate must have some level of competence in a particular foreign language or languages, the successful demonstration of this competence becomes a requirement for the degree.~~

~~**Program of study and supervision**~~

~~Candidates shall have their program of study and research approved by the department (or delegated committee) in which they are enrolled. In certain Faculties, a candidate will be responsible, upon entry to the program, to a supervisor who will be approved by the Associate Dean (Graduate Studies) of the Faculty. In other Faculties, the candidate will be responsible to a provisional supervisor to be approved by the departmental Graduate Studies Committee.~~

~~**Advisory Committee**~~

submissions individually. Each student's submission shall be assessed by at least two members of the qualifying examination committee. All student submissions made available to the committee for review shall be anonymous. Normally, the committee will meet to deliberate the outcomes.

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The University considers academic integrity to be an integral part of all scholarship. Perceived violations of academic integrity are handled under [University Policy 71 – Student Discipline](). The guidelines surrounding process and academic integrity with respect to qualifying examinations are equivalent to that of comprehensive examinations.

PhD thesis examination

The PhD thesis examination is the culmination of the candidate's research program. <u>The examination is intended to allow the candidate to demonstrate their mastery and expertise in the chosen area of study through a presentation of their research. The examination also presents an opportunity for the candidate's work to be subject to scholarly criticism by members of the academic community. Through the process of defending the thesis, the candidate further demonstrates their capacity to engage meaningfully in scholarly discourse in their chosen area.</u>

<u>Based on an evaluation of the written thesis and the candidate's performance in the thesis examination, the examining committee will render a decision as to whether the candidate's work has satisfied the requirements for a PhD.</u>

Thesis submission

When the thesis is accepted by the department and Faculty, and all other requirements for the degree have been met,

When a department wishes to appoint a supervisor (at the latest a month after the comprehensive), the departmental Graduate Officer shall consult with the candidate about an Advisory Committee and shall recommend to the Associate Dean (Graduate Studies) of the Faculty the composition of that three to five person Committee. In certain Faculties the Advisory Committee is appointed upon the passing of the comprehensive examination. This Committee must consist of the supervisor(s) and at least one other faculty member from the department. The supervisor must be a regular member of the University faculty with Approved Doctoral Dissertation Supervisor (ADDS) status; or, when a supervisor has adjunct status, another on-campus professor must serve as co-supervisor. The Associate Dean (Graduate Studies) of the Faculty has the authority to waive the co-supervision requirement on the recommendation of the department / school. Two other faculty members, one of whom may be external to the department or Faculty, may also participate in this Committee. In any event, the Advisory Committee must have a minimum of the supervisor and two other faculty members or a maximum of two supervisors and three other faculty members.

PhD thesis examination

The PhD thesis examination is the culmination of the candidate's research program. It exposes the candidate's work to scholarly criticism by members of the University and gives them the opportunity to defend it.

All PhD candidates must successfully present and defend their thesis according to the procedures outlined in the Graduate Thesis Regulations.

Recommendation: awarding of the degree

On the basis of the PhD Thesis Examining Committee's report and its own records of candidates' progress in their assigned program of study, the Associate Dean (Graduate Studies) of the Faculty, or a committee specifically appointed by a faculty

the student must provide the University with an electronic copy, as appropriate, of their approved thesis as a final University degree requirement. Theses must be prepared and submitted as outlined on the Graduate Studies and Postdoctoral Affairs thesis submission page.

Prior to defence

Prior to submitting the thesis, it is recommended that the candidate meet with their supervisor and the advisory committee. The candidate should seek endorsement that the research is of sufficient quality to proceed to defence and that the candidate is able to meet the requirements of the oral defence. Although a negative assessment does not prohibit the candidate from proceeding to defence, this should occur only in rare cases and is not recommended.

The responsibility for identifying possible external examiners lies with the supervisor or the co-supervisors. In no cases should a student be asked to lead that effort.

The Graduate Officer of the department in which the candidate is enrolled will recommend to the Faculty Associate Dean, Graduate Studies a PhD Thesis Examining Committee for approval. Sufficient information should be supplied in order to facilitate the Associate Dean's decision, including notes on adjunct appointments and declarations of any conflicts of interest.

A date and location for the examination will be set according to availability of Examining Committee members. The candidate should be prepared to defend the thesis within 4 - 6 weeks of depositing it in the Faculty Graduate Studies Office (see Display Period below).

PhD thesis examining committee

The PhD Thesis Examining Committee evaluates the quality of the student's written and oral communications related to the thesis relative to the standards of the discipline, the state of the practice in the field, and the degree expectations at the University of

for this purpose, decides whether candidates have fulfilled the requirements for the PhD degree. If the decision is that they have, supporting documentation is forwarded to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs with the request that they recommend to Senate that the degree be awarded. The Associate Vice-President, Graduate Studies and Postdoctoral Affairs examines this request in light of the report from the Chair of the thesis examination. If the Associate Vice-President, Graduate Studies and Postdoctoral Affairs has any reason to feel that the acceptance of the thesis is open to dispute, the Associate Vice-President will take the matter before the Associate Deans (Graduate Studies) for advice or, if necessary, to the Senate Graduate and Research Council, which is specifically given authority to decide in such cases.

Thesis submission

When the thesis is accepted by the department and Faculty, and all other requirements for the degree have been met, the student must provide the University with an electronic copy of their approved thesis as a final University degree requirement. Theses must be prepared and submitted as outlined on the Graduate Studies and Postdoctoral Affairs thesis submission page.

Waterloo. The committee consists of a minimum of five voting members:

- External Examiner
- Supervisor or Co-supervisors
- Internal Member (from the home department)
- Internal-external Member (external to the home department)
- Other Member(s)

The PhD Thesis Examination is chaired by an impartial faculty member with SSPS2 status from outside the candidate's department. The Chair is appointed by Graduate Studies and Postdoctoral Affairs (GSPA). The Chair is responsible for proper conduct of the examination and does not vote.

External Examiner

The external examiner must hold a doctorate and be knowledgeable in the field of the candidate's research. In addition, to ensure fairness and impartiality, the external examiner must be at arm's length from the candidate's thesis, candidate and supervisor(s), and must not be in a potential conflict of interest with regards to the outcome of the thesis examination. An external examiner should be selected such that there are no perceptions of potential bias or conflicts of interest between the external examiner, the student being evaluated and the supervisor(s). There is a conflict of interest when:

- A proposed external examiner is, or was in the last six years, from the same university, organization or department, or belongs or belonged, in the last six years, to the same research unit as the supervisor(s) or candidate; or
- There is an administrative or family link between the proposed external examiner and the supervisor(s) or candidate (e.g., head of the department, Dean of the Faculty, etc.); or
- A proposed external examiner is an industrial or government representative or professional who is or was in the last six years directly

	involved in collaborative activities with the supervisor(s) or candidate; or • A proposed external examiner is a former research supervisor or graduate student of the supervisor(s) or candidate; or • A proposed external examiner has collaborated or published with the supervisor(s) or candidate within the past six years; or • A proposed external examiner is a planned future research supervisor or employer of the candidate or plans to collaborate or publish with the candidate in the foreseeable future; or • The proposed external examiner is uncomfortable with reviewing the proposal due to previous conflicts or any other reason (e.g., past student or supervisor, even if more than six years ago, or personal conflict); or • The Faculty Associate Dean, Graduate Studies, has reason to believe that a specific proposed external examiner should not be involved in the review. In cases where the candidate's thesis research has involved collaborations with other local members of the examining committee beyond the supervisor(s) within the past six years, the external examiner must be free of potential conflict of interest under the guidelines above with those members as well. Recommendation of an individual to serve as external examiner is made by the supervisor(s) or Graduate Officer/Associate Chair, Graduate Studies, as appropriate, to the Faculty, Associate Dean, Graduate Studies for approval. The Graduate Officer/Associate Chair is responsible for determining that the requirements for arm's length have been met, and the recommendation must be accompanied by a curriculum vitae covering the past six years and a conflict of interest statement, as well as full disclosure of any past affiliations involving the candidate and supervisor(s) to assist in confirming an arm's-length relationship. The Associate Dean is the contact for the external examiner regarding the thesis and its defence. At no point should the candidate be

	in communication with the external examiner prior to the defence. The Department may communicate with the external only for the purposes of other arrangements not related to the defence (e.g. arrangements for a research talk).
	The external examiner must provide the Faculty Associate Dean, Graduate Studies with a written assessment of the thesis at least one week before the scheduled defence. Whether the assessment is positive or negative, the Associate Dean will copy the report of the external examiner only to the supervisor, who will inform the candidate of any major criticisms of the thesis, so that the student can respond to these, but the evaluation must not be shown to the candidate. The candidate may be shown the evaluation after the defence, with the permission of the external examiner. Should the assessment be negative, the Associate Dean may wish to advise that the candidate withdraw the dissertation and defend with the same external examiner at a later date. A candidate may withdraw the thesis only once. Despite a negative assessment, a candidate has the right to proceed to a defence.
	Supervisor or Co-supervisors
	The student's supervisor serves on the Examining Committee.
	In the case that there is more than one supervisor, all co-supervisors are expected to attend the defence and the supervisor vote is divided fractionally among the co-supervisors such that each may vote independently but the total supervisor vote (one) remains unchanged.
	Only with the approval of the Faculty Associate Dean, Graduate Studies may a co-supervisor be absent from the exam. In that case, the other co-supervisor, who must have SSPS1 or SSPS2 status, will represent them.
	Internal Member
	The internal member is from the student's home department and normally drawn from the student's Advisory Committee.

	Internal-External Member
	The internal-external should have suitable knowledge of the subject matter of the dissertation and is normally external to the student's home department. The internal-external member ensures that the thesis meets University standards of quality and helps to assess the performance of the candidate at the defence.
	In rare cases, identifying an internal-external who is able to make a meaningful contribution to the examination is problematic. In such circumstances, the requirement that the Internal-External be external to the department may be waived by the Faculty Associate Dean, Graduate Studies based on a rationale provided by the Graduate Officer. Holding an adjunct or cross appointment in the student's home department does not preclude serving as an internal-external.
	Member
	Normally, this committee member is drawn from the student's Advisory Committee. The member normally holds a tenured or tenure track position at the University of Waterloo or has another type of ongoing faculty appointment.
	Adjunct faculty on Examining Committees
	In some cases it may be beneficial for a student to have access to the expertise of a particular adjunct faculty member. The Faculty Associate Dean, Graduate Studies may give permission for an adjunct faculty member to serve on the Examining Committee as the Internal-External or Member, provided that the Adjunct faculty members holds a PhD. No more than one adjunct faculty member (including Professors Emeriti) may serve on the Examining Committee, with the exception of cotutelle student defences, which may involve the participation of more than one adjunct faculty member.
	Display period

| | When a candidate is ready to proceed to defence, they must submit an electronic copy, as appropriate, of the thesis to the Faculty Graduate Office.

The thesis is distributed to members of the PhD Thesis Examining Committee and a copy is available in the Faculty Graduate Office for at least four weeks, where it may be requested by any member of the University for examination. The submission of the thesis, as well as the date and location of its defence, are announced publicly.

In cases where a student's research contains content that may warrant restrictions on its dissemination (e.g., for intellectual property or personal safety reasons), the student may request to have the display of the thesis restricted and the defence closed to the public. Guidelines on these situations are below.

Members of the PhD Thesis Examining Committee who have major criticisms of the thesis are encouraged to submit written comments to the Faculty Associate Dean, Graduate Studies no later than one week before the thesis defence. The Faculty Associate Dean will share these concerns with the supervisor and candidate. If written comments are not submitted in advance, criticisms can be discussed at the defence but should not be discussed with other members of the Examining Committee prior to the defence.

Guidelines for thesis examination without public disclosure

Central to the University of Waterloo's mission is the creation and dissemination of knowledge. As new scholars, graduate students are expected to disclose and publicly defend their research results to ensure review from their peers and acceptance and inclusion of their findings in open scholarly discourse.

At times, graduate students may wish to protect their research results, particularly when they contain material of commercial or marketable value, or when restricted by a publication agreement. It is expected that in |
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| | the vast majority of these cases that protection of the intellectual property will be obtained in a timely manner, well before the preparation and examination of the student's thesis (for example in the form of filing a patent application). Similarly, students may engage in sensitive research areas which may present personal risks.

In these rare cases, it may be necessary to restrict the disclosure of thesis results from the public arena. In cases where private companies or other supporting organizations are involved in the research through a research contract or agreement, this request may be required by the terms of that agreement.

In these cases, the student with supervisor's endorsement shall at the time of thesis submission request that the thesis be shared only with the examining committee. Similarly, the student and the supervisor shall request a defence that is not open to the public.   The student and supervisor shall articulate the motivations for the restriction of the thesis and attendance at the defence.

These requests will be received and adjudicated by the Associate Dean Graduate Studies in the student's home Faculty.

If granted, the student's thesis will not be available publicly prior to the defence. The members of the examining committee, including the external examiner, may be asked to sign a non-disclosure agreement prior to evaluating the completed thesis or attending the defence.

When the thesis is accepted by the examining committee, the student may seek to have their thesis embargoed.

Thesis written in French

L'université de Waterloo offre aux étudiants la possibilité de rédiger les thèses de doctorat et de maîtrise en français. Ceci n'est pas un droit de l'étudiant ou de l'étudiante. Mise à part la condition évidente de la compétence linguistique du candidat ou de la candidate |
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	par rapport au domaine étudié, il est nécessaire de satisfaire à d'autres exigences.
	Lorsqu'un candidat ou une candidate demande à son département de rédiger sa thèse en français dans le cadre de ce règlement, il ou elle doit soumettre une déclaration d'appui de la part de son directeur ou sa directrice de thèse, des membres éventuels du comité de supervision et d'évaluation, ainsi que leur accord d'appartenir à ce comité.
	Tous les membres du comité doivent posséder un niveau de compétence linguistique tel qu'il leur permettra d'évaluer avec pertinence, à la fois le contenu et la présentation du matériel examiné.
	The University of Waterloo offers students the opportunity to write doctoral and master's theses in French. This is not a right of the student. Apart from the obvious condition of the candidate's linguistic competence in relation to the field studied, there are other requirements that must be met.
	When a candidate asks their department to write their thesis in French within the framework of this regulation, they must submit a declaration of support from their supervisor, any members of their advisory and examining committee, and their agreement to serve on this committee.
	All committee members must possess a level of linguistic proficiency that will enable them to appropriately evaluate both the content and presentation of the material examined.
	Thesis defence
	Procedural guidelines
	The thesis defence is an oral examination of the student by the student's PhD Thesis Examining Committee, chaired by an impartial faculty member with SSPS2 from outside the candidate's department and preferably from outside of the Faculty.
	The candidate, the supervisor(s), members of the examining committee, and the Chair are

| | essential participants that must attend the defence (physically or remotely).

Any member of the University may attend a defence, unless the defence is restricted to the examining committee.

The Chair is responsible for the proper conduct of the examination. Candidates first present their thesis orally with whatever aids are required to make an effective presentation. This presentation should be limited to no more than thirty minutes with the focus being on the main contributions and conclusions of the work.

The presentation is followed by questioning. Normally, the round of questioning begins with the external examiner, followed by other members, then the internal external member, the internal member, and ends with the supervisor(s).

The Chair is encouraged to administer the exam in such a way that a period is set aside at the end of the examination for questions from non-Committee members. If the exam duration has exceeded normal limits, the Chair may at their discretion preclude questions from non-committee members.

If the Chair of the PhD Thesis Examining Committee is unsure of the appropriateness or relevance of a question, they should ask the members of the Committee whether any of them wishes to have the candidate answer the question, thus in effect making the question posed one which would be authorized by a member of the Committee.

The Chair, with agreement of the Examining Committee, will decide when to conclude the questioning. The candidate and audience will be asked to leave the room (either physically or remotely) and the Examining Committee will deliberate in a closed session.

The Graduate Officer, Departmental Chair, Faculty Associate Dean, Graduate Studies and Associate Vice-President, Graduate Studies and Postdoctoral Affairs may attend the closed session. Once a decision is made, the candidate is invited back into the room and informed by the Chair of the Committee's |
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decision. The Chair will provide a report to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs on the conduct of the examination, any issues or problems that arose, and the decision of the Examining Committee.

Format for defences

The University provides the option for students to complete their thesis defence in person, in a fully remote, or hybrid format. The decision on the format of the defence will be upon agreement between the supervisor and student.

Chairs should be prepared to support either an in-person or remote defence. It is the responsibility of the Chair to ensure the structure of the defence supports the integrity of the process and all can participate appropriately and equally either in-person or virtually.

Chairs will receive, regardless of format of delivery, a standard Chair package in electronic format from the Faculty Administrative Assistant that is coordinating the examination, one week prior to the defence. The Chair package will include the following:

1. Report of the Chair,
2. PhD Thesis Committee Composition,
3. PhD Thesis Examination Report,
4. External Examiner's Report,
5. Committee Members' Reports,
6. A guide to chairing a PhD thesis examination,
7. Instructions for the defence, including location of in person defence or process for remote defences.

Chairs will document the conduct of the examination on the "Report of the Chair" form. This form will be made available in Word format and/or in fillable .pdf so that defence Chairs can complete it electronically.

Chairs will document the decision of the examination on the "PhD Thesis Examination Report" and "Report of the Chair" forms. These forms will be made available in Word format and/or in fillable .pdf so that

	defence Chairs can complete them electronically.
	Outcomes of the defence, regardless of format of delivery, will be communicated orally to the student by the Chair on behalf of the committee at the conclusion of the in-camera deliberations.
	Participation through electronic media (remote participation)
	In situations where a student and their supervisor collaboratively decide to hold the defence in a remote format, Faculties will internally provide logistical guidelines on setting up remote defences. Please contact the Faculty Administrative Assistant to obtain Faculty-specific procedures.
	As there are limitations to supporting hybrid defences, the expectation is that only one participant may participate remotely, with the balance of the committee in-person, unless there has been specific approval from the Faculty Associate Dean, Graduate Studies. The Chair, student and supervisor must all be present in person for any hybrid defence arrangement. If any one of these individuals are not able to be physically present, the defence should be held in a remote format with everyone participating remotely.
	Any member of the PhD Thesis Examining Committee, including the external examiner, participating by remote connection must make allowances for the possibility of a failed connection.
	In the event that remote connection is lost, the Chair will determine whether or not the duration of the disruption has had a material impact on the committee member's ability to assess the candidate's defence. If there has not been a material impact, and the connection has been reestablished, then the examiner may cast their vote as if the loss of communication had not occurred. If there has been a material impact, and there was a report submitted in advance, the report will be read by the Chair and the vote indicated in the report will be counted. When there is no such report, the vote may be nullified. The Chair's report must note the lost connection,

including the timing and whether or not the vote was included in the decision. Normally the defence can proceed as long as the supervisor, external examiner and two other committee members are present and subject to the agreement of the candidate and supervisor. The decision as to when to postpone the defence, if the technology fails, will be up to the Chair of the defence.

Absent committee members

It is expected that all members of the PhD Examining Committee attend the defence (physically or remotely). If a committee member is unable to attend a defence being held in person, that member may be given the option to participate remotely. The alternative option may be to move the entire defence to a remote format.

In cases where a committee member is unable to attend either remotely or in person, and sufficient time allows, it is preferably to secure a new committee member to replace the unavailable committee member.

In the case of an unanticipated, last-minute emergency absence of a committee member, the defence can proceed subject to the agreement of the candidate and the supervisor(s) as long as the following committee members are available (in person or virtually) to present their votes:

- Supervisor
- External Examiner
- Two other members of the committee

Any exceptions to this regulation must be approved by the Faculty Associate Dean, Graduate Studies.

Decision

The decision of the PhD Thesis Examining Committee is based both on the thesis and on the candidate's ability to defend it.

The decision of the Examining Committee is made by majority vote. Should the external examiner's vote differ from that of the majority, or if there is a tie vote, the decision shall be deferred and referred to the

	Associate Vice-President, Graduate Studies and Postdoctoral Affairs. The Associate Vice-President will consult with the Faculty Associate Deans, Graduate Studies and will make the final determination.
	The following decisions are open to the PhD Thesis Examining Committee:
	A. Accepted
	The thesis and the oral defence have been completed to the satisfaction of the examining committee. The thesis may require typographical and/or minor editorial corrections to be made to the satisfaction of the supervisor and submitted and approved in UWSpace within one month of the date of the defence. If more time is required to make these corrections, the Committee should consider whether a Category B decision is merited.
	If the thesis is not submitted within this timeline, the student will be withdrawn from the program. Any extension to the time limits must be requested in writing and approved by the Graduate Officer and Faculty Associate Dean, Graduate Studies.
	B. Accepted Conditionally
	The oral defence has been completed to the satisfaction of the examining committee. The thesis is acceptable but requires content changes which are minor enough that reexamination is not required. The PhD Thesis Examining Committee's report must include a brief outline of the nature of the changes required and must indicate the time by which the changes are to be completed. Changes must be completed to the satisfaction of the full Committee or a subset of the committee that will include at least one member who is not the student's supervisor(s).
	The revised thesis must be submitted and approved in UWSpace within four months of the date of the defence or the student will be withdrawn from the program. Any extension to the time limits must be requested in writing and approved by the Graduate Officer and Faculty Associate Dean, Graduate Studies.

	C. Reexamination
	Reexamination is required in either of the following situations:
	• The oral defence is not to the satisfaction of the Examining Committee. The PhD thesis examination requires that the candidate demonstrates their mastery and expertise and engages meaningfully in scholarly discourse in their chosen area. If the candidate fails to satisfy these requirements, the Examining Committee may require reexamination. The PhD Thesis Examining Committee's report must contain a recommended set of activities that aims to improve the candidate's abilities to present their research and respond to inquiries related to their studies.
	• The written thesis requires modifications of a substantial nature, the need for which makes the acceptability of the thesis questionable. The PhD Thesis Examining Committee's report must contain an outline of the modifications expected and indicate the time by which the changes are to be completed. In this case, the revised thesis must be resubmitted to the Faculty Graduate Office for reexamination.
	Reexamination must occur within one year of the date of the first defence. Normally, reexamination will follow the same procedures as for the initial submission except that the display period may be reduced or eliminated at the discretion of the Associate Dean. Normally, the same PhD Thesis Examining Committee will serve, with the exception that in some circumstances, a new External Examiner can be found. A decision to reexamine is open only once for each candidate.
	D. Failed
	If after reexamination the candidate does not achieve Category A or B, then the student will be withdrawn from the program. The PhD Thesis Examining Committee shall report the reasons for rejection to the Faculty Associate Dean, Graduate Studies, who will confirm the

	decision in writing to the student within one week of the date of the examination, as well as the requirement to withdraw. *Deferral of Decision* If the PhD Thesis Examining Committee is not prepared to reach a decision concerning the thesis at the time of the thesis defence, it is the responsibility of the Chair to determine what additional information is required by the Committee to reach a decision, to arrange to obtain this information for the Committee, and to call another meeting of the Committee as soon as the required information is available. It is also the responsibility of the Chair to inform the candidate that the decision is pending. Candidates are not normally present at this second meeting of the Committee. **Academic integrity and the PhD Thesis** The University considers academic integrity to be an integral part of all scholarship. Anyone who believes that a thesis contains content that constitutes an academic integrity violation shall make the Associate Dean, Graduate Studies in the student's home Faculty aware of the perceived academic integrity violation as soon as the concern is discovered. The Associate Dean shall: 1. Acknowledge receipt of the concern; 2. Communicate to the supervisor and the student that a concern has been brought forward, and seek their input in the process of resolving the concern; 3. Investigate to the extent possible the validity of the concern; 4. If warranted, postpone the defence pending the resolution of the alleged academic integrity violation; 5. Engage the Research Integrity group in the Office of Research if the nature of the academic integrity violation may include the improper treatment of intellectual property – core contributions to the research presented in the thesis. 6. Pursue disciplinary actions, as appropriate, as described in

Grievance

A request for reexamination of a graduate thesis is a type of academic grievance, as per Policy 70 – Student Petitions and Grievances. A student who wishes to request a reexamination of their thesis should contact the Associate Vice-President, Graduate Studies and Postdoctoral Affairs, who will form a committee of Associate Deans, Graduate. This committee will determine the appropriate course of action, which may involve a reexamination of the thesis or the denial of the student's request.

Recommendation: awarding of the degree

On the basis of the PhD Thesis Examining Committee's report and its own records of candidates' progress in their assigned program of study, the Associate Dean (Graduate Studies) of the Faculty, or a committee specifically appointed by a faculty for this purpose, decides whether candidates have fulfilled the requirements for the PhD degree. If the decision is that they have, supporting documentation is forwarded to the Associate Vice-President, Graduate Studies and Postdoctoral Affairs with the request that they recommend to Senate that the degree be awarded. The Associate Vice-President, Graduate Studies and Postdoctoral Affairs examines this request in light of the report from the Chair of the thesis examination. If the Associate Vice-President, Graduate Studies and Postdoctoral Affairs has any reason to feel that the acceptance of the thesis is open to dispute, the Associate Vice-President will take the matter before the Associate Deans (Graduate Studies) for advice or, if necessary, to the Senate Graduate and Research Council, which is specifically given authority to decide in such cases. |

Senate Undergraduate Council

For Information	Consent Agenda	Open Session

To: **Senate**

Sponsor: David DeVidi
Associate Vice-President, Academic

Presenter: David DeVidi
Contact Information: david.devidi@uwaterloo.ca

Date of Meeting: April 8, 2024

Agenda Item Identification: **13) Report – Senate Undergraduate Council**

Summary:

Senate Undergraduate Council met on March 5, 2024 and agreed to forward the following items to Senate for information as part of the consent agenda. On behalf of Senate, the following items were approved:

1. Academic Program Reviews

   Following the review of the report and presentation from the programs, Council approved the following report:

   a. Progress Report: Spanish, Latin American Literatures and Cultures, and Spanish/English Translation

   There were no issues noted in the report.

2. Curricular Submissions

   Council approved new courses, course changes, course inactivations, and minor program modifications for:

   a. Faculty of Science: (Biochemistry Minor; Bioinformatics Option; Biology Minor; Chemistry; Earth Sciences; Honours BSc Mathematical Physics; Honours Environmental Sciences, Water Science Specialization; Honours Physics; Pharmacy; Physics; Science)

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.

e. Consider, study and review briefs on any aspect of undergraduate studies from members of the university.

For Approval   **Consent Agenda**   **Open Session**

To:	**Senate**
Sponsor:	David DeVidi Associate Vice-President, Academic
Presenter: **Contact Information:**	David DeVidi david.devidi@uwaterloo.ca
Date of Meeting:	April 8, 2024
Agenda Item Identification:	**13(a) Report – Senate Undergraduate Council:** **Regulation Revisions - Doctor of Optometry Academic Regulations,** **Course Grades and Credits, and Online Course**

Recommendation/Motion:

To approve the proposed academic regulation revisions to Doctor of Optometry Academic Regulations, Course Grades and Credits, and Online Course, for the Faculty of Science, effective September 1, 2024, as presented.

Summary:

Senate Undergraduate Council met on March 5, 2024 and agreed to forward the following items to Senate for approval as part of the consent agenda.

Jurisdictional Information:

This item is being submitted to Senate in accordance with Senate Bylaw 2, section 5.03(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:

Science Faculty Council approval date (mm/dd/yy): 07/26/23

Senate Undergraduate Council approval date (mm/dd/yy): 03/05/24

Highlights/Rationale:

These regulation revisions are to 1. remove reference to course components in the Doctor of Optometry Academic Regulations when addressing methods by which a single failed Optometry (OPTOM) course can be cleared, 2. remove reference to content in the Faculty of Science's Course Grade and Credit section of the Undergraduate Studies Academic Calendar (USAC) which states that in some circumstances, non-numeric grades are assigned to a numerically graded courses, and 3. completely remove the Faculty of Science's Online Course section of the USAC which outlines that online courses can substitute for on campus courses.

1. Doctor of Optometry Academic Regulations

   The new curriculum management software (Kuali) will not display the components associated with each course. Since components will not be visible in the Undergraduate Calendar, reference to components, when addressing methods by which a student qualifies to clear a single failed OPTOM course, must be removed. All OPTOM courses qualify for a supplementary exam except for clinical experiences courses, which are scheduled as CLN, and 400-level courses. The first qualification point for supplemental exams was modified to indicate this. This motion was approved in Optometry April 25, 2023.

2. Course Grades and Credits

   Assignment of non-numeric grades is not unique to the Faculty of Science. Non-numeric grades, their description, and often additional notes about their use, exists centrally on the Grades page under the University Policies, Guidelines, and Academic Regulations page.

3. Online Courses

   The current page suggests that a substitution of online courses for an on- campus course is permitted if the on-campus version is unavailable or there is a time conflict. Since the mode of delivery has no bearing on the way in which a student gains credit to any course, and now that courses are delivered on-campus, online, and even in blended versions which use both delivery modes, this page is obsolete.

Proposed Revisions:

1. Doctor of Optometry Academic Regulations

Current calendar text: https://ugradcalendar.uwaterloo.ca/page/SCI-Doctor-of-Optometry-Academic-Regulations2

Proposed calendar text: (underlined and bolded = new, strikethrough = deletion)

Doctor of Optometry Academic Regulations

...

Clearing a Single Failed Course

Students who have failed one course can choose to retake that course when it is next offered to clear that failure. Under certain conditions outlined below, students can also choose to clear the failed course by ~~Students can choose to clear a single failed course by one of two methods: 1) retaking a course when it is next offered, or 2)~~ passing a supplemental **examination,** ~~exam~~ **where a grade of CR or 60% or greater is required. A supplemental exam is a comprehensive assessment of the material covered in the course**.

Students qualify to write a supplemental **examination to clear a failed course** ~~exam~~ when ~~they~~:

- **The course is not scheduled as a clinical experience or a 400-level course** ~~obtained the failure in an OPTOM course that is not scheduled as a clinical experience or a 400- level course, 100 to 300 'LEC' or 'LAB,LEC' course,~~
- **The student** had a satisfactory or better standing in the term preceding the course failure,
- **The student has failed the course for the first time** ~~have not previously failed the course~~, and
- **The student has paid** ~~pay~~ the supplemental examination administrative fee.

Students who do not qualify to write a supplemental exam must retake the failed course when it is next offered.

…

2. <u>Course Grades and Credits</u>

Current calendar text: https://ugradcalendar.uwaterloo.ca/page/SCI-Course-Grades-and-Credits

Proposed calendar text: (underlined and bolded = new, strikethrough = deletion)

Course Grades and Credits

1. The Faculty of Science constitutes the examining body for all courses. After the results have been considered they will be posted on Quest. Course attributes, definitions, and grades currently used can be found under Grades.

2. A ~~non-numeric grade~~ will be assigned to a numerically graded course in some circumstance~~s~~.

3. To obtain credit for a course, students must normally obtain a minimum grade of 50. The minimum grade is higher than 50 in certain courses (e.g., OPTOM and PHARM courses). Some courses have a passing grade of 50 but a higher grade is required to meet the requisites for a subsequent course.

4. Students who do not complete a portion of a course for health or other documented circumstances should consult their course outline, review Faculty information and instructions regarding accommodations, and refer to Assignments, Tests, and Final Exams.

3. <u>Online Courses</u>

Current calendar text: https://ugradcalendar.uwaterloo.ca/page/SCI-Online-Courses2

Proposed calendar text: (underlined and bolded = new, strikethrough = deletion)

~~Online Course~~

~~Students may substitute~~ **online courses** ~~if the on-campus version is not available or scheduling problems make it impossible to enrol in the on-campus version.~~

For Information   **Open Session**

To:	**Senate**
Sponsor:	James W.E. Rush, Vice-President, Academic and Provost
Contact Information:	provost@uwaterloo.ca
Presenter:	James W.E. Rush, Vice-President, Academic and Provost
Contact Information:	provost@uwaterloo.ca
Date of Meeting:	**April 8, 2024**
Agenda Item Identification:	**14) Report from Senate Long Range Planning Committee**

Summary:

Senate Long Range Planning Committee met on February 28, 2024. A summary of the item discussed is provided for the information of Senate.

1.   Global Futures Networks

The committee noted the recently launched Global Futures 2024 report and considered a draft proposal for the Global Futures Networks (GFN). The GFN is envisioned to provide a platform to foster collisions, creativity, and collaboration within the University of Waterloo community and beyond towards finding solutions to emerging issues within and across the Global Futures.

In considering the draft proposal, the committee offered observations and practical suggestions towards strengthening the framework and fostering success and collaboration through the networks once those are in place. The proposal and draft continue in the consultation process, and it is anticipated that the final proposal will be brought forward in Spring 2024.

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UNIVERSITY OF WATERLOO

Office of the Vice President, Research and International

For Discussion   **Open Session**

To:	**Senate**
Sponsor: **Contact Information:**	Charmaine B. Dean, Vice President Research and International vpri@uwaterloo.ca
Presenter: **Contact Information:**	Charmaine B. Dean, Vice President Research and International vpri@uwaterloo.ca
Date of Meeting:	**April 8, 2024**
Agenda Item Identification:	**15) Awards, Distinctions, Grants, Waterloo International Engagements**

Summary:

Presenting the Vice-President, Research and International Report to Senate for April 2024. This report to Senate highlights successful research, international and entrepreneurial outputs and outcomes for the period February 2024 by the thematic areas as outlined in Waterloo's Strategic Plan 2020-25.

Documentation Provided:

- Vice-President, Research and International April 2024 Report to Senate

Senate   **1**

Vice-President, Research & International
Report to Senate
April 2024

Introduction
This report to Senate highlights successful research and international outputs and outcomes for the period February 2024.

Community Partner Highlight:

KidsAbility Centre for Child Development https://www.kidsability.ca/
KidsAbility Centre for Child Development is a Waterloo-based community assessment and treatment centre that supports over 11,000 children, youth and families to reach their communication, social, physical and behavioural goals each year.

A Memorandum of Understanding (MOU) between the University of Waterloo and KidsAbility has been formalized which will stimulate and enhance training, research and innovation activities between both organizations. This will further enhance the joint projects between Waterloo and KidsAbility which has included faculty-led projects in social robotics for children with autism, tools to improve visuomotor coordination in children and AI to improve care documentation and coordination. Student-led projects have focussed on sleep, vision support, and developmental toys and aids. These collaborations have spanned multiple Faculties from Engineering, Math, and Arts.

Velocity and WatCo. Highlights:

Upstart Program

Ten out of sixty-five applying teams of students and researchers commercializing their novel technologies have been successful in Velocity's Up Start competition. Each team received $15,000 from Waterloo Ventures via , Waterloo Commercialization Office (WatCo) and Velocity's Up Start program. The teams will access business advisory support to facilitate commercialization of their products, which range from advancements in cancer screening and time saving software for emergency room nurses to increased efficiencies in construction and electric vehicles (see full story here).

Michael Pope (Associate Professor, Chemical Engineering) and Evelyn Allen (CEO and Velocity Co-Founder) - Evercloak
Evercloak is an advanced material company with a breakthrough approach in producing 2D nanofilms to significantly reduce the energy use and associated greenhouse gas related to building cooling by commercializing a manufacturing platform for producing continuous, large area nanofilms. The research was created by Michael Pope and commercialized by Evelyn Allen. Recently, Evercloak raised $2 million in seed funding through an investment round led by Bioindustrial Innovation Canada and the Sustainable Chemistry Alliance fund. The investment also includes Greensoil Ventures, and Groundbreak Ventures, both specialists in sustainable clean technology, Ontario Centres of Innovation, and angel investors (see YouTube video of Evercloak's Technology).

Funded Research Awards:

Canadian Institutes of Health Research – Fall 2023 Strategic Project Grant Competition Overview
The Project Grant program is designed to capture ideas with the greatest potential to advance health-related fundamental or applied knowledge, health research, health care, health systems, and/or health outcomes. It supports research projects by individual researchers or groups of researchers at any career stage, in all areas of health.

Fall 2023 Competition Results
University of Waterloo's competition success rate (project grant + priority announcements): 3 of 16 = 18.8%
National success rate (project grants + priority announcements): 24.4%

Bizheva Kostadinka (Physics and Astronomy) and Chris Hudson (Optometry and Vision Science)
CIHR Project Grant - $715,275
"Non-contact, high-resolution optical approach to assessing retinal neurovascular coupling in the healthy and glaucomatous retina."

Ferro Mark (School of Public Health Sciences)
CIHR Priority Announcement Grant - $100,000
"Multi-morbidity in Children and Youth Across the Life-course (MY LIFE): A Long-term Follow-up."

Butt Zahid (School of Public Health Sciences)
CIHR Priority Announcement Grant - $100,000
"Long COVID in Bangladesh: Developing Strategies for Identifying and Managing Post COVID Syndrome in Low- and Middle-Income Countries (LMICs) and Low Resources Health Systems."

Awards and Distinctions:

Adrian Blackwell (School of Architecture)
[Housing Design Education award, Association of Collegiate Schools of Architecture](#)
The Housing Design Education award, given to Adrian Blackwell, recognises the importance of good education in housing design.

Ramona Bobocel (Psychology) Fellow, Society for Industrial and Organizational Psychology
[Fellow, Society for Industrial and Organizational Psychology](#)
This prestigious honor is in recognition of outstanding accomplishments in the profession of I/O Psychology and is awarded to only a few members who have made significant contributions to the field.

David Fortin (School of Architecture)
[Emerging Voices Competition, Architectural League of New York](#)
Each year the Architectural League runs the Emerging Voices competition to find individuals and firms with distinct design voices and significant bodies of realized work.

Elizabeth Prince (Chemical Engineering)
[John C. Polanyi Prize](#)
The award is presented to an individual or team whose research has led to outstanding advances in the field of natural sciences or engineering. By creating degradable and recyclable plastics, Dr. Prince's disruptive research in advanced materials has the potential to have a huge impact on sustainability and environmental remediation and supports Canada's ambitious goal of achieving zero plastic waste by 2030.

Lola Sheppared (School of Architecture)
[Faculty Design, Association of Collegiate Schools of Architecture](#)
The Faculty Design award aims to provide a venue for work that advances the reflective nature of practice and teaching. Sheppard, along with colleagues from the Universities of Toronto and Virginia, were awarded for Contested Circumpolar: Domestic Territories.

Rod Smith (Chemistry)
[STREM Chemistry Award](#)
The Strem Award for Pure or Applied Inorganic Chemistry is presented to a Canadian citizen or landed immigrant who has made an outstanding contribution to inorganic chemistry, demonstrating exceptional promise, while working in Canada.

Science Meets Parliament (SMP) program delegates
The Canadian Science Policy Centre (CSPC) in partnership with Canada's Chief Science Advisor, Dr. Mona Nemer, recently announced the delegates for the 2024 Science Meets Parliament (SMP) program. This program is intended to help strengthen the connection between the science and policy communities and is an excellent opportunity for researchers to learn about the inclusion of scientific evidence in policy making in Parliament. Fifty emerging leaders of the scientific community from across Canada have been selected to attend the two-day event this spring, including four Waterloo, and one Waterloo-affiliated researcher ([see full story here](#)).

- **Laura Hug (Biology)**
  CSPC Science Meets Parliament program delegate
- **Katherine Mack (Physics Adjunct Faculty)**
  CSPC Science Meets Parliament program delegate
- **Michelle Rutty (Geography and Environmental Management)**
  CSPC Science Meets Parliament program delegate
- **Derek Shipper (Chemistry)**
  CSPC Science Meets Parliament program delegate
- **Lai-Tze (Sociology and Legal Studies)**
  CSPC Science Meets Parliament program delegate

International Agreements:

Student Exchange – One new and four renewal exchange agreements were signed with the following institutions:

- *Ecole Polytechnique (France)* - This is a new agreement that enables the exchange of students and provides internship opportunities to Waterloo students. It involves the Faculties of Engineering, Environment, Mathematics and Science.

- *Royal Melbourne Institute of Technology (Australia) | Tampere University (Finland) | University of Technology of Compiegne (France) | Middle East Technical University (Turkey)* – These are all renewed agreements,

Memorandums of Understanding (MOUs) – Two new MOUs were established that will enable the institutions to explore collaboration across a range of areas including joint research projects, staff and graduate student exchange, seminars and conferences:

- *National Institute of Informatics (Japan)* -This new MOU involves the Faculties of Engineering and Mathematics.
- *Georgia Institute of Technology (USA)* - This new MOU involves the Faculty of Mathematics.

- *Hong Kong University of Science and Technology* - This MOU is a renewal of a partnership that was first signed in 2017 to enable the institutions to explore collaboration across a range of areas including academic programs, joint research activities, mobility, exchange of non-confidential information and the development of shared courses or programs.

International delegations hosted at the University of Waterloo:

- **Indonesia and Flood Impacts, Carbon Pricing, and Ecosystem Sustainability Project (FINCAPES) -** Waterloo International and the FINCAPES team from the Faculties of Environment and Mathematics hosted a delegation from the University of Prasetiya Mulya (Indonesia).
- **India, Birla Institute of Technology and Science -** Waterloo International collaborated with Co-operative and Experiential Education (CEE), the Waterloo Institute of Nanotechnology (WIN), Graduate Studies and Postdoctoral Affairs (GSPA), the Registrar's Office (RO), and the Faculties of Engineering and Science to host a delegation from Birla Institute of Technology and Science, Pilani (BITS Pilani), India.
- **Trade Commissioner from Saudi Arabia -** Waterloo International collaborated with GSPA, the RO, WatSPEED and Renison College to host the Trade Commissioner from Saudi Arabia.
- **Tohoku, Japan Delegation** - Waterloo International, the Student Success Office (SSO) and Renison College hosted a delegation from Tohoku, Japan.

4

Velocity Spotlight Stories:

Drew Davison (Graduate Student, Chemical Engineering and Velocity Founder)
Inspired by his mother who has been a firefighter in the Cambridge Fire Department for 32 years, Drew Davison, Graduate student in Chemical Engineering and Velocity Founder, is working to develop novel material to create firefighting gear that will not degrade and cause occupational cancer. Recent studies have suggested that firefighters are three times more likely to die of cancer than the general population. This is partly attributed to their gear, which contains polyfluorinated substances (PFAS), a large group of chemicals that are used in many applications, and often elevates the risk to cancer. Drew's work recently inspired a visit from Ontario's Solicitor General, the Honourable Michael Kerzner, who is responsible for policing and public safety (see full story here).

Ruslan Nikolaev (BCS '20/Velocity Co-founder) and Griffin Keglevich (BCS '19/Velocity Co-founder) - Float
Float was founded by students during their tenure at Waterloo with assistance from Velocity. The company specializes in a full suite of corporate expense management software and cards, simplifying finance teams' management of expense accounting. Float serves businesses of up to 500 people. Corporate clients include Neo Financial, Knix, Clutch and Nerva Energy. Float recently secured $50 million in funding that will help them scale their existing charge card program and introduce new customers to the business (see full story here).

Office of the Vice-President, Academic and Provost

For Information   **Open Session**

To: **Senate**

Sponsor: James W.E. Rush, Vice-President, Academic and Provost
Contact Information: provost@uwaterloo.ca

Presenter: James W.E. Rush, Vice-President, Academic and Provost
Contact Information: provost@uwaterloo.ca

Date of Meeting: **April 8, 2024**

Agenda Item Identification: **16 (a). Report of the Provost – Faculty Appointments, Leaves**

Summary:

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].

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[1] https://uwaterloo.ca/secretariat/sites/default/files/uploads/documents/all-faculties-april-2024_0.pdf

Senate   **1**

Return to Agenda

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UNIVERSITY OF WATERLOO

Office of the Vice-President, Academic and Provost

For Information   **Open Session**

To:	**Senate**
Sponsor: **Contact Information:**	James W.E. Rush, Vice-President, Academic and Provost Office of the Provost
Presenter: **Contact Information:**	James W.E. Rush, Vice-President, Academic and Provost Office of the Provost
Date of Meeting:	**April 8, 2024**
Agenda Item Identification:	**16(b)** **Report of the Vice-President, Academic and Provost on University Professor Designation**

Summary:

The 2024 University Professor designations are **Raouf Boutaba** (Computer Science), **Philippe Van Cappellen** (Earth & Environmental Sciences), and **En-Hui Yang** (Electrical and Computer Engineering).

Jurisdictional Information:

University Professor designations are reported to Senate and the Board of Governors in April.

Governance Path:

1. Annually, nominations will be sought from Faculty deans, directors of schools and department chairs, as well as from the university community generally. A nominee shall have demonstrated exceptional scholarly achievement and international pre-eminence in a particular field or fields of knowledge. The individual who nominates a colleague is responsible for gathering the documentation and submitting it to the vice-president academic & provost before the December break. The University Tenure & Promotion Committee will act as the selection committee; its decisions are final.
2. A nomination must be supported by at least six signatures from at least two UW departments/schools and must be accompanied by a curriculum vitae and a short, non-technical description of the nominee's contributions.
3. A nomination must also be accompanied by letters from the nominee's Dean, and from at least two and no more than five scholars of international standing in the nominee's field from outside the University. The scholars are to be chosen by the nominee's Chair/Director in consultation with the Dean and the nominator. The letter of nomination should explain why these particular scholars were chosen.
4. Letters soliciting comments from scholars shall be sent by the Chair/Director. Scholars shall be asked to comment on the impact and specific nature of the nominee's most influential contributions, addressing their responses directly to the Vice-President, Academic & Provost.
5. The dossiers of unsuccessful nominees remain in the pool for two additional years. The appropriate Dean should provide updated information each year.

Senate   **1**

Highlights:

The University of Waterloo owes much of its international reputation and stature to the quality of its eminent professors. UW recognizes exceptional scholarly achievement and international pre-eminence through the designation "University Professor". Once appointed, a faculty member retains the designation until retirement.

Not counting retirees, it is anticipated there will be one University Professor for approximately every 60 full-time regular faculty members, with at most two appointments each year.

The 2024 University Professor designations are Raouf Boutaba (Computer Science), Philippe Van Cappellen (Earth & Environmental Sciences), and En-hui Yang (Electrical and Computer Engineering).

Next Steps:

The 2024 University Professor designations will be reported to the Borad of Governors on April 16, 2024.